

# 2022 Energy Statistics Yearbook



## Department of Economic and Social Affairs

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Statistics compiled as of December 2024

# INTRODUCTION

The *Energy Statistics Yearbook 2022* is a comprehensive collection of international energy statistics prepared by the United Nations Statistics Division. It is the sixty-sixth in a series of annual compilations which commenced under the title *World Energy Supplies in Selected Years, 1929-1950*.<sup>1</sup> It updates the statistical series shown in the previous issue.

The principal objective of the *Yearbook* is to provide a global framework of comparable data on long-term trends in the supply of both primary and secondary forms of energy. Data for each energy product and aggregated data for the total energy supply are shown for individual countries and territories, and are summarized into regional and world totals. The data are compiled primarily from the annual energy questionnaire distributed by the United Nations Statistics Division and supplemented by official national statistical publications, as well as publications from international and regional organizations. Where official data are not available or are inconsistent, estimates are made by the Statistics Division based on governmental, professional or commercial materials. Estimates include, but are not limited to, extrapolated data based on partial year information, use of annual trends, trade data based on partner country reports, breakdowns of aggregated data and analysis of current energy events.<sup>2</sup>

This issue of the *Yearbook* contains data in original and common energy units (tons of coal equivalent and joules) for the years 2019-2022.

This publication presents energy statistics consistent with the International Recommendations for Energy Statistics (IRES), which were endorsed by the United Nations Statistical Commission in 2011. IRES contains the Standard International Energy Product Classification (SIEC), the first definitive standard classification for energy products. It has been built on a set of internationally harmonized definitions of energy products developed by the Intersecretariat Working Group on Energy Statistics (InterEnerStat) as mandated by the United Nations Statistical Commission. The adoption of SIEC as an international standard classification for energy products represents a

significant step forward for energy statistics at the international level. SIEC not only provides a unified set of product definitions, but also uses a standard coding scheme, a common hierarchy of categories, and provides links to other internationally agreed product classifications, such as the Central Product Classification (CPC) and the Harmonized Commodity Description and Coding System (HS). SIEC is also harmonized with the Intergovernmental Panel on Climate Change (IPCC) methodology to compile inventories of greenhouse gas emissions.

Within this methodological framework:

- a) Table 1 shows a more historical perspective of total energy supply, with data for selected years going back to 1990.
- b) Table 2 provides more detail on the components of total energy supply, namely primary production (broken down by type), trade, international bunkers and stock changes. Total energy supply is also shown on a per capita basis.
- c) Table 3 provides more detail on total final consumption of energy products, broken down by consuming sector (including non-energy use), and also shows total final consumption per capita.
- d) Table 4, debuting in the 2021 edition of this *Yearbook*, displays calculations of CO<sub>2</sub> emissions from fossil fuel combustion according to the 2006 IPCC guidelines<sup>3</sup> (reference approach, plus the category Industrial Processes and Product Use – IPPU).

By referring to previous volumes of the publication, time series can be established from 1950 to the present for the shown products. In addition to the basic tables showing production, trade, stock changes, international bunkers, supply and consumption, information is included on various other topics such as:

- (a) The principal importers and exporters of hard coal, crude oil and natural gas for the years 2021 and 2022;
- (b) The capacity of oil refineries and electricity generating plants by type;

<sup>1</sup>Statistical Papers, Series J, No. 1 (United Nations publication, Sales No. 1952.XVII.3).

<sup>2</sup>For details, see [unstats.un.org/unsd/energystats/pubs/yearbook/](http://unstats.un.org/unsd/energystats/pubs/yearbook/)

<sup>3</sup><https://www.ipcc-nggip.iges.or.jp/public/2006gl/>

(c) The ratio of crude oil and natural gas liquids reserves to crude oil and natural gas liquids production (R/P ratio);

(d) The electricity generated from different sources (including both electricity-only and combined heat and power (CHP) plants) such as from combustible fuels, nuclear, hydro, wind, and solar;

(e) The heat produced (from both heat-only and CHP plants) from combustible fuels, geothermal, solar thermal, nuclear, chemical heat, heat pumps and electric boilers, and direct use of solar thermal and geothermal.

The information contained in the *Yearbook* is also available in electronic format<sup>4</sup>. Requests for information should be directed to United Nations Publications at: [order@un.org](mailto:order@un.org).

Acknowledgement is due to the following specialized and intergovernmental agencies whose publications have been utilized in supplementing our statistics: African Energy Commission (AFREC), Asia-Pacific Economic Cooperation (APEC), Food and Agriculture Organization of the United Nations (FAO),

International Atomic Energy Agency (IAEA), International Energy Agency of the Organisation for Economic Co-operation and Development (IEA/OECD), International Renewable Energy Agency (IRENA), Organization of Arab Petroleum Exporting Countries (OAPEC), Organization of the Petroleum Exporting Countries (OPEC), Organización Latinoamericana de Energía (OLADE), Statistical Office of the European Union (Eurostat), Union Economique et Monétaire Ouest Africaine (UEMOA), World Bank, and the World Energy Council (WEC). Acknowledgement is also made to governmental, energy and statistical authorities of the Member States which have been cooperative in providing data.

The annual energy data are being collected and processed by the Energy Statistics Section of UNSD, headed by Mr. Leonardo Souza. The processing of the energy data and preparation for publication was carried out by Ms. Agnieszka Koscielniak, Mr. Man Soni, Ms. Costanza Giovannelli, Ms. Peng Guo, and Mr. Graham Osborn.

Enquiries, comments and suggestions for improving this publication are welcome and should be addressed to: [energy\\_stat@un.org](mailto:energy_stat@un.org).

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<sup>4</sup> For details, see [unstats.un.org/unsd/energystats/pubs/yearbook/](http://unstats.un.org/unsd/energystats/pubs/yearbook/)

## ABBREVIATIONS AND SYMBOLS

The following symbols and abbreviations have been used:

cSt	centistoke
m <sup>3</sup>	cubic metre
°C	degree Celsius
GJ	gigajoule (10 <sup>9</sup> joules)
GWh	gigawatt-hour (10 <sup>6</sup> kWh)
IPCC	Intergovernmental Panel on Climate Change
IRES	International Recommendations for Energy Statistics
kcal	kilocalorie
kg	kilogramme
kg/cm <sup>2</sup>	kilogramme per square centimetre
kJ	kilojoule (10 <sup>3</sup> joules)
kWh	kilowatt-hour
LPG	liquefied petroleum gas
mg/g	milligramme per gramme
MJ	megajoule (10 <sup>6</sup> joules)
MW	megawatt
NGL	natural gas liquids
PJ	petajoule (10 <sup>15</sup> joules)
S.I.	International System of Units (Système International d'Unités)
t	metric ton
TCE	ton of coal equivalent
TJ	terajoule (10 <sup>12</sup> joules)
*	estimate by the United Nations Statistics Division
..	data not applicable or not available

# ENERGY PRODUCT DEFINITIONS

This section provides definitions of energy products utilized in the publication. These definitions correspond to SIEC. Some tables may include names or concepts not included in these product definitions. See the specific table's notes for how its product definitions relate to SIEC definitions.

## SOLID FOSSIL FUELS

**Hard coal** – Coals with a gross calorific value (moist, ash-free basis) which is not less than 24 MJ/kg or which is less than 24 MJ/kg provided that the coal has a vitrinite mean random reflectance greater than or equal to 0.6 per cent. Hard coal comprises anthracite and bituminous coals.

**Brown coal** – Coals with a gross calorific value (moist, ash-free basis) less than 24 MJ/kg and a vitrinite mean random reflectance less than 0.6 per cent. Brown coal comprises sub-bituminous coal and lignite.

**Peat** – A solid fuel formed from the partial decomposition of dead vegetation under conditions of high humidity and limited air access (initial stage of coalification). It is available in two forms for use as a fuel, sod peat and milled peat. Only peat used as fuel is included.

**Patent fuel** – A composition fuel made by moulding hard coal fines into briquette shapes with the addition of a binding agent such as pitch.

**Brown coal briquettes** – A composition fuel made of brown coal produced by briquetting under high pressure with or without the addition of a binding agent. Either sub-bituminous coal or lignite may be used, including dried lignite fines and dust.

**Peat products** – This includes products such as peat briquettes derived directly or indirectly from sod peat and milled peat.

**Coal coke** – This group includes the solid, cellular, infusible material remaining after the carbonisation of certain coals. Various cokes are defined according to the type of coal carbonised and their conditions of carbonisation or use: coke oven coke, gas coke, coke breeze and semi cokes. For collection purposes coke breeze and

semi cokes are included with coke oven coke.

**Coal tar** – The liquid by-product of the carbonization of coal in coke ovens. Coal tar may be separated by distillation into several liquid products which may be used for pharmaceutical or wood preservative purposes.

**Other coal products** – coal products not elsewhere specified (if any).

**Oil shale** – A sedimentary rock which contains organic matter in the form of kerogen. Kerogen is a waxy hydrocarbon-rich material regarded as a precursor of petroleum. Oil shale may be burned directly or processed by heating to extract shale oil. Note that this product was formerly included under Lignite by the IEA.

## LIQUID FOSSIL FUELS

**Conventional crude oil** – A mineral oil of fossil origin extracted by conventional means from underground reservoirs, and comprises liquid or near-liquid hydrocarbons and associated impurities such as sulphur and metals. Conventional crude oil exists in the liquid phase under normal surface temperature and pressure, and usually flows to the surface under the pressure of the reservoir. This is termed "conventional" extraction. Crude oil includes condensate from condensate fields, and "field" or "lease" condensate extracted with the crude oil.

The various crude oils may be classified according to their sulphur content ("sweet" or "sour") and API gravity ("heavy" or "light"). There are no rigorous specifications for the classifications, but a heavy crude oil may be assumed to have an API gravity of less than 20° and a sweet crude oil may be assumed to have less than 0.5% sulphur content. For simplicity, this publication often refers to conventional crude oil as simply crude oil.

**Natural gas liquids (NGL)** – Natural gas liquids are a mixture of ethane, propane, butane (normal and iso), (iso) pentane and a few higher alkanes collectively referred to as pentanes plus.

NGL are produced in association with oil or natural gas. They are removed in field facilities or

gas separation plants before sale of the gas. All of the components of NGL except ethane are either liquid at the surface or are liquefied for disposal.

The definition given above is the most commonly used. However, there is some use of terms based on the vapour pressure of the components which are liquid at the surface or can be easily liquefied. The three resulting groups are in order of increasing vapour pressure: condensates, natural gasoline and liquefied petroleum gas.

NGL may be distilled with crude oil in refineries, blended with refined oil products or used directly. NGL differs from LNG (liquefied natural gas) which is obtained by liquefying natural gas from which the NGL has been removed.

**Additives and oxygenates** – Compounds added to or blended with oil products to modify their properties (octane, cetane, cold properties, etc.). Examples are: (a) oxygenates such as alcohols (methanol, ethanol) and ethers [MTBE (methyl tertiary butyl ether), ETBE (ethyl tertiary butyl ether), TAME (tertiary amyl methyl ether)]; (b) esters (e.g., rapeseed or dimethylester, etc.); and (c) chemical compounds (such as TML, TEL and detergents). Some additives/oxygenates may be derived from biomass while others may be of fossil hydrocarbon origin.

**Other hydrocarbons** – This includes non-conventional oils and hydrogen. Non-conventional oils refer to oils obtained by non-conventional production techniques, that is oils which are extracted from reservoirs containing extra heavy oils or oil sands which need heating or treatment (e.g., emulsification) in situ before they can be brought to the surface for refining/processing. They also include the oils extracted from oil sands, extra heavy oils, coal and oil shale which are at, or can be brought to, the surface without treatment and require processing after mining (ex situ processing). Non-conventional oils may also be produced from natural gas.

The oils may be divided into two groups: (i) oils for transformation (e.g., synthetic crudes extracted from extra heavy oils, oil sands, coal and oil shale); and (ii) oils for direct use (e.g., emulsified oils such as orimulsion and GTL liquids).

**Oil products** – Products obtained from crude oil, non-conventional oils or gases from oil and gas fields. They may be produced through the refining of conventional crude and non-conventional oils or during the separation of natural gas from gases extracted from oil or gas fields. This category includes Aviation gasoline, Motor gasoline, Gasoline-type jet fuel, Kerosene-type jet fuel, Other kerosene, Gas/diesel oil, Fuel oil, LPG, Feedstocks, Naphtha, White spirit and SBP, Lubricants, Bitumen, Paraffin waxes, Petroleum coke, Refinery gas, Ethane, and Other oil products.

**Aviation gasoline** – Gasoline prepared especially for aviation piston engines with additives which assure performance under flight conditions. Aviation gasolines are predominantly alkylates (obtained by combining C4 and C5 isoparaffins with C3, C4 and C5 olefins) with the possible addition of more aromatic components including toluene. The distillation range is 25°C to 170°C.

**Motor gasoline** – A mixture of some aromatics (e.g., benzene and toluene) and aliphatic hydrocarbons in the C5 to C12 range. The distillation range is 25°C to 220°C.

Additives are blended to improve octane rating, improve combustion performance, reduce oxidation during storage, maintain cleanliness of the engine and improve capture of pollutants by catalytic converters in the exhaust system. Motor gasoline may also contain biogasoline products when blended.

**Gasoline-type jet fuel** – Light hydrocarbons for use in aviation turbine power units, distilling between 100°C and 250°C. They are obtained by blending kerosene and gasoline or naphtha in such a way that the aromatic content does not exceed 25 per cent in volume, and the vapour pressure is between 13.7 kPa and 20.6 kPa. Gasoline-type jet fuel is also known as “aviation turbine fuel”.

**Kerosene** – Mixtures of hydrocarbons in the range C9 to C16 and distilling over the temperature interval 145°C to 300°C, but not usually above 250°C and with a flash point above 38°C.

The chemical compositions of kerosenes

depend on the nature of the crude oils from which they are derived and the refinery processes that they have undergone. Kerosenes obtained from crude oil by atmospheric distillation are known as straight-run kerosenes. Such streams may be treated by a variety of processes to produce kerosenes that are acceptable for blending as jet fuels.

Kerosenes are primarily used as jet fuels. They are also used as domestic heating and cooking fuels, and as solvents. Kerosenes may include components or additives derived from biomass when blended.

**Kerosene-type jet fuel** – A blend of kerosenes suited to flight conditions with particular specifications, such as freezing point.

The specifications are set down by a small number of national standards committees, most notably ASTM (U.S.), MOD (UK), GOST (Russia).

**Other kerosene** – Kerosene which is used for heating, cooking, lighting, solvents and internal combustion engines. Other names for this product are burning oil, vaporizing oil, power kerosene and illuminating oil.

**Gas oil/diesel oil** – Gas oils are middle distillates, predominantly of carbon number range C11 to C25 and with a distillation range of 160°C to 420°C. The principal marketed products are fuels for diesel engines (diesel oil), heating oils and marine fuel. Gas oils are also used as middle distillate feedstock for the petrochemical industry and as solvents. Also included here is heavy gasoil, which is a mixture of predominantly gas oil and fuel oil which distills in the range of approximately 380°C to 540°C.

**Fuel oil** – Comprises residual fuel oil and heavy fuel oil. Residual fuel oils have a distillation range of 350°C to 650°C and a kinematic viscosity in the range 6 to 55 cSt at 100°C. Their flash point is always above 60°C and their specific gravity is above 0.95. Heavy fuel oil is a general term describing a blended product based on the residues from various refinery processes. Other names commonly used to describe fuel oil include: bunker fuel, bunker C, fuel oil No. 6, industrial fuel oil, marine fuel oil and black oil.

Residual and heavy fuel oil are used in medium to large industrial plants, marine

applications and power stations in combustion equipment such as boilers, furnaces and diesel engines. Residual fuel oil is also used as fuel within the refinery.

**Liquefied petroleum gases (LPG)** – LPG refers to liquefied propane (C<sub>3</sub>H<sub>8</sub>) and butane (C<sub>4</sub>H<sub>10</sub>) or mixtures of both. Commercial grades are usually mixtures of the gases with small amounts of propylene, butylene, isobutene and isobutylene stored under pressure in containers.

The mixture of propane and butane used varies according to purpose and season of the year. The gases may be extracted from natural gas at gas separation plants or at plants re-gasifying imported liquefied natural gas. They are also obtained during the refining of crude oil. LPG may be used for heating and as a vehicle fuel.

See also the definition for natural gas liquids. Certain oil field practices also use the term LPG to describe the high vapour pressure components of natural gas liquids.

**Ethane** – A naturally straight-chain hydrocarbon (C<sub>2</sub>H<sub>6</sub>). Ethane is obtained at gas separation plants or from the refining of crude oil. It is a valuable feedstock for petrochemical manufacture.

**Refinery gas** – Includes a mixture of non-condensable gases mainly consisting of hydrogen, methane, ethane and olefins obtained during distillation of crude oil or treatment of oil products (e.g., cracking) in refineries or from nearby petrochemical plants. It is used mainly as a fuel within the refinery.

**Feedstocks** – This includes refinery feedstocks, i.e. oils or gases from crude oil refining or the processing of hydrocarbons in the petrochemical industry which are destined for further processing in the refinery excluding blending. Typical feedstocks include naphthas, middle distillates, pyrolysis gasoline and heavy oils from vacuum distillation and petrochemical plants.

**Naphtha** – Light or medium oils distilling between 30°C and 210°C which do not meet the specification for motor gasoline. Different naphthas are distinguished by their density and the content of paraffins, isoparaffins, olefins, naphthenes and aromatics. The main uses for naphthas are as feedstock for high octane

gasolines and the manufacture of olefins in the petrochemical industry.

**White spirit and SBP industrial spirits –**

White spirit and special boiling point industrial spirits (SBP) are refined distillate intermediates with a distillation in the naphtha/kerosene range. They are mainly used for non-fuel purposes and sub-divided as: (a) white spirit - an industrial spirit with a flash point above 30°C and a distillation range of 135°C to 200°C; and (b) industrial spirit (SBP) - light oils distilling between 30°C and 200°C.

There are 7 or 8 grades of industrial spirits, depending on the position of the cut in the distillation range. The grades are defined according to the temperature difference between the 5 per cent and 90 per cent volume distillation points (which is not more than 60°C). White spirit and Industrial spirits are mostly used as thinners and solvents.

**Lubricants –** Oils, produced from crude oil, for which the principal use is to reduce friction between sliding surfaces and during metal cutting operations.

Lubricant base stocks are obtained from vacuum distillates which result from further distillation of the residue from atmospheric distillation of crude oil. The lubricant base stocks are then further processed to produce lubricants with the desired properties.

**Bitumen –** A solid, semi-solid or viscous hydrocarbon with a colloidal structure, being brown to black in color. It is obtained as a residue in the distillation of crude oil and by vacuum distillation of oil residues from atmospheric distillation. It should not be confused with the non-conventional primary extra heavy oils which may also be referred to as bitumen.

In addition to its major use for road pavements, bitumen is also used as an adhesive, a waterproofing agent for roof coverings and as a binder in the manufacture of patent fuel. It may also be used for electricity generation in specially designed power plants.

Bitumen is also known in some countries as asphalt but in others asphalt describes the mixture of bitumen and stone aggregate used for road pavements.

**Paraffin waxes –** Residues extracted when dewaxing lubricant oils. The waxes have a crystalline structure which varies in fineness according to the grade, and are colourless, odourless and translucent, with a melting point above 45°C.

Paraffin waxes are also known as “petroleum waxes”.

**Petroleum coke –** Petroleum coke is a black solid obtained mainly by cracking and carbonizing heavy hydrocarbon oils, tars and pitches. It consists mainly of carbon (90 to 95 per cent) and has a low ash content.

The two most important categories are "green coke" and "calcined coke".

Green coke (raw coke) is the primary solid carbonization product from high boiling hydrocarbon fractions obtained at temperatures below 630°C. It contains 4-15 per cent by weight of matter that can be released as volatiles during subsequent heat treatment at temperatures up to approximately 1330°C.

Calcined coke is a petroleum coke or coal-derived pitch coke obtained by heat treatment of green coke to about 1330°C. It will normally have a hydrogen content of less than 0.1 per cent by weight.

In many catalytic operations (e.g., catalytic cracking) carbon or catalytic coke is deposited on the catalyst, thus deactivating it. The catalyst is reactivated by burning off the coke which is used as a fuel in the refining process. The coke is not recoverable in a concentrated form.

**Other oil products –** Products (including partly refined products) from the refining of crude oil and feedstocks which are not specified above. These products will include basic chemicals and organic chemicals destined for use within the refinery or for sale to or processing in the chemical industry such as propylene, benzene, toluene and xylene.

## **GASEOUS FOSSIL FUELS**

**Natural gas –** A mixture of gaseous hydrocarbons, primarily methane, but generally also including ethane, propane and higher



hydrocarbons in much smaller amounts and some non-combustible gases such as nitrogen and carbon dioxide.

The majority of natural gas is separated from both "non-associated" gas originating from fields producing hydrocarbons only in gaseous form, and "associated" gas produced in association with crude oil.

The separation process produces natural gas by removing or reducing the hydrocarbons other than methane to levels which are acceptable in the marketable gas. The natural gas liquids (NGL) removed in the process are distributed separately.

Natural gas also includes methane recovered from coal mines (colliery gas) or from coal seams (coal seam gas) and shale gas. When distributed it may also contain methane from anaerobic fermentation or the methanation of biomass.

Natural gas may be liquefied (LNG) by reducing its temperature in order to simplify storage and transportation when production sites are remote from centres of consumption and pipeline transportation is not economically practicable.

**Gas works gas (and other manufactured gases for distribution)** – This includes gases obtained from the carbonisation or gasification of carbonaceous material of fossil or biomass origins in Gas Works. The gases comprise: (a) gases obtained from carbonisation or gasification of coals, cokes, biomass or waste; and (b) substitute natural gas (a methane-rich gas) made from synthesis gas.

Synthesis gas is a mixture of mainly hydrogen and carbon monoxide obtained by cracking hydrocarbons with high temperature steam.

**Coke oven gas** – A gas produced from coke ovens during the manufacture of coke oven coke.

**Blast furnace gas** – The by-product gas of blast furnace operation consisting mainly of nitrogen, carbon dioxide and carbon monoxide. The gas is recovered as it leaves the furnace. Its calorific value arises mainly from the carbon monoxide produced by the partial combustion of coke and other carbon bearing products in the blast furnace. It is used to heat blast air and as a

fuel in the iron and steel industry. It may also be used by other nearby industrial plants. Note that where carbonised biomass (e.g, charcoal or animal meal) is used in blast furnaces, part of the carbon supply may be considered renewable.

**Other recovered gases** - Combustible gases of solid carbonaceous origin recovered from manufacturing and chemical processes not elsewhere defined. Examples of fuel gas production from metals and chemicals processing are in the production of zinc, tin, lead, ferroalloys, phosphorus and silicon carbide.

## BIOFUELS AND WASTE

**Fuelwood, wood residues and by-products** – Fuelwood or firewood (in log, brushwood, pellet or chip form) obtained from natural or managed forests or isolated trees. Also included are wood residues used as fuel and in which the original composition of wood is retained. Charcoal and black liquor are excluded.

**Bagasse** – The fuel obtained from the fibre which remains after juice extraction in sugar cane processing. It is often used as a fuel within the sugar milling industry.

**Charcoal** – The solid residue from the carbonisation of wood or other vegetal matter through slow pyrolysis.

**Animal waste** – Excreta of animals, meat and fish residues which, when dry, are used directly as a fuel.

This excludes waste used in anaerobic fermentation plants. Fuel gases from these plants are included under biogases.

**Vegetal waste** – Refers to SIEC's 'Other vegetal materials and residues', which are solid primary biofuels not specified elsewhere, including straw, vegetable husks, ground nut shells, pruning brushwood, olive pomace and other wastes arising from the maintenance, cropping and processing of plants.

**Municipal waste** – Household waste and waste from companies and public services that resembles household waste and which is collected at installations specifically designed for the disposal of mixed wastes with recovery of combustible liquids, gases or heat.

Municipal wastes can be divided into renewable and non-renewable fractions.

**Industrial waste** – Non-renewable waste which is combusted with heat recovery in plants other than those used for the incineration of municipal waste.

Examples are used tires, specific residues from the chemical industry and hazardous wastes from health care. Combustion includes co-firing with other fuels.

The renewable portions of industrial waste combusted with heat recovery are classified according to the biofuels which best describe them.

**Black liquor** – The alkaline-spent liquor obtained from the digesters during the production of sulphate or soda pulp required for paper manufacture. The lignin contained in the liquor burns to release heat when the concentrated liquor is sprayed into a recovery furnace and heated with hot gases at 900°C. Black liquor is used as a fuel in the pulping process.

**Biogasoline** – Liquid fuels derived from biomass and used in spark-ignition internal combustion engines.

Common examples are: bioethanol (including both hydrous and anhydrous ethanol); biomethanol; biobutanol; bio ETBE (ethyl-tertio-butyl-ether); and bio MTBE (methyl-tertio-butyl-ether). Biogasoline may be blended with petroleum gasoline or used directly in engines. The blending may take place in refineries or at or near the point of sale.

**Biodiesels** – Liquid biofuels derived from biomass and used in diesel engines.

Biodiesels obtained by chemical modification are a linear alkyl ester made by transesterification of vegetable oils or animal fats with methanol. The transesterification distinguishes biodiesel from straight vegetable and waste oils. Biodiesel has a flash point of around 150°C and a density of about 0.88 kg/litre. Biological sources of biodiesel include, but are not limited to, vegetable oils made from canola (rapeseed), soybeans, corn, oil palm, peanut or sunflower. Some liquid biofuels (straight vegetable oils) may be used without chemical modification and their use usually

requires modification of the engine.

A further category of diesel fuels can be produced by a range of thermal processes (including for example gasification followed by Fischer Tropsch synthesis, pyrolysis followed by hydrogenation, or conversion of sugar to hydrocarbons using microorganisms (e.g. yeast)). A wide range of biomass feedstocks, including cellulosic materials and algal biomass could be used in such processes.

Biodiesels may be blended with petroleum diesel or used directly in diesel engines.

**Bio jet kerosene** – Liquid biofuels derived from biomass and blended with or replacing jet kerosene. Bio jet kerosene can be produced by a range of thermal processes (including for example gasification followed by Fischer-Tropsch synthesis, pyrolysis followed by hydrogenation, or conversion of sugar to hydrocarbons using microorganisms (e.g. yeast)). A wide range of biomass feedstocks, including cellulosic materials and algal biomass could be used in such processes.

**Other liquid biofuels** – Includes liquid biofuels not elsewhere specified.

**Biogases** – Gases arising from the anaerobic fermentation of biomass and the gasification of solid biomass (including biomass in wastes).

The biogases from anaerobic fermentation are composed principally of methane and carbon dioxide and comprise landfill gas, sewage sludge gas and other biogases from anaerobic fermentation.

Biogases can also be produced from thermal processes (by gasification or pyrolysis) of biomass and are mixtures containing hydrogen and carbon monoxide (usually known as syngas) along with other components. These gases may be further processed to modify their composition and can be further processed to produce substitute natural gas.

The gases are divided into two groups according to their production: biogases from anaerobic fermentation and biogases from thermal processes.

Biogases are used mainly as a fuel but can

be used as a chemical feedstock.

## ELECTRICITY AND HEAT

**Electricity** –The transfer of energy through the physical phenomena involving electric charges and their effects when at rest and in motion.

Electricity can be generated through different processes such as: the conversion of energy contained in falling or streaming water, wind or waves; the direct conversion of solar radiation through photovoltaic processes in semiconductor devices (solar cells); or by the combustion of fuels.

Electricity production in this Yearbook refers to gross production, which is the sum of the electrical energy production by all the generating units/installations concerned (including pumped storage) measured at the output terminals of the main generators.

*Editorial note:* as of the 2012 edition of the Yearbook, Table 1 changed in scope as described in the introduction. The total energy supply figure is now consistent with energy balances as defined within IRES and published in the *Energy Balances and Electricity Profiles*<sup>5</sup> that are complementary to this publication. As such, see the changes in presentation for electricity from non-combustible fuels described below under General Notes.

**Primary electricity** refers to electrical energy from hydro, solar photovoltaics, wind, tide, wave and ocean sources.

**Secondary electricity** is defined as electricity derived from a product already accounted for within energy statistics. This includes electricity generated from combustible fuels, in addition to electricity coming from solar heat, nuclear heat, geothermal heat and heat from chemical sources.

**Main activity producers** – These are

enterprises which produce electricity or heat as their principal activity. Formerly known as public utilities, these enterprises may be privately or publicly owned companies.

**Autoproducers (electricity)** – These are enterprises which produce electricity but for whom the production is not their principal activity.

**Autoproducers (heat)** – These are enterprises which produce heat for sale but for whom the production is not their principal activity. Deliveries of fuels for heat generated by an establishment for its own purposes are classified within the part of final consumption where they are consumed, and not as transformation inputs.

**Heat** – The energy obtained from the translational, rotational and vibrational motion of the constituents of matter, as well as changes in its physical state.

Heat can be produced by different production processes, both primary and secondary. It is usually sold in the form of steam or hot water, and for the purposes of energy statistics it is important to note that heat only represents quantities of energy for sale (or generated and consumed directly by direct use of solar thermal or geothermal). This means that any quantities “generated” at an end-use site (for example through the combustion of coal to power a boiler, or an electric filament heating a kettle) are not considered within the scope of heat production.

In Tables 1 and 2, which follow energy balance methodology, the heat column includes primary heat from sources such as nuclear, solar thermal and geothermal which are used to generate electricity. These quantities are not taken into account in Table 34.

**Uranium production** – Comprises the U content of uranium ores and concentrates intended for treatment for uranium recovery.

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<sup>5</sup> Statistical Papers, Series W (United Nations publication).

# ENERGY FLOW DEFINITIONS

**Production** is defined as the capture, extraction or manufacture of fuels or energy in forms which are ready for general use. In energy statistics, two types of production are distinguished, primary and secondary.

Primary production is the capture or extraction of fuels or energy from natural energy flows, the biosphere and natural reserves of fossil fuels within the national territory in a form suitable for use. Inert matter removed from the extracted fuels and quantities reinjected, flared or vented are not included. The resulting products are referred to as “primary” products.

Secondary production is the manufacture of energy products through the process of transformation of primary fuels or energy. The quantities of secondary fuels reported as production include quantities lost through venting and flaring during and after production. In this manner, the mass, energy and carbon within the primary source(s) from which the fuels are manufactured may be balanced against the secondary fuels produced. Fuels, electricity and heat produced are usually sold but may be partly or entirely consumed by the producer (but see the definition of autoproducer heat plants for an important exception.)

When considering complete energy balances (such as in Table 1, where total energy supply is displayed), or indeed adding together a mix of primary and secondary fuels (like Table 4), the distinction between primary and secondary production is crucial. Within a complete energy balance (or a coal table showing both primary and secondary energy), only primary energy is shown to avoid double counting of quantities transformed into secondary products. For the product-specific tables however, this distinction is not necessary as double counting does not apply, and so primary and/or secondary production is included under production to give a complete idea of the “supply” of that product. See individual table notes for details.

**Imports** of energy products comprise all fuel and other energy products entering the national territory. Goods simply being transported through a country (goods in transit) and goods temporarily admitted are excluded but re-imports, which are domestic goods exported but subsequently

readmitted, are included. The bunkering of fuel outside the reference territory by national merchant ships and civil aircraft engaged in international travel is excluded from imports. Fuels delivered to national merchant ships and civil aircraft which are outside of the national territory and are engaged in international travel should be classified as “International Marine” or “Aviation Bunkers”, respectively, in the country where such bunkering is carried out. Note that the “country of origin” of energy products should be recorded as a country from which goods were imported.

**Exports** of energy products comprise all fuel and other energy products leaving the national territory with the exception that exports exclude quantities of fuels delivered for use by merchant (including passenger) ships and civil aircraft, of all nationalities, during international transport of goods and passengers. Goods simply being transported through a country (goods in transit) and goods temporarily withdrawn are excluded but re-exports, foreign goods exported in the same state as previously imported, are included. Fuels delivered to foreign merchant ships and civil aircraft engaged in international travel are classified as “International Marine” or “Aviation Bunkers”, respectively. Note that “country of destination” of energy products (that is country of the last known destination as it is known at the time of exportation) should be recorded as a country to which these products are exported to.

For electricity, trade data include “goods in transit”, i.e. electricity transmitted through the country from one neighbour to another, as there is no practical way of discerning which quantities are re-exported and which are consumed by the transit country.

**International Marine Bunkers** are quantities of fuels delivered to merchant (including passenger) ships, of any nationality, for consumption during international voyages transporting goods or passengers. International voyages take place when the ports of departure and arrival are in different national territories. Fuels delivered for consumption by ships during domestic transportation, fishing or military uses are not included here. For the purposes of energy statistics International Marine Bunkers are not included in exports.

**International Aviation Bunkers** are quantities of fuels delivered to civil aircraft, of any nationality, for consumption during international flights transporting goods or passengers. International flights take place when the ports of departure and arrival are in different national territories. Fuels delivered for consumption by aircraft undertaking domestic or military flights are not included here. For the purposes of energy statistics International Aviation Bunkers are not included in exports.

**Stocks** – For the purposes of energy statistics, stocks are quantities of energy products that are held on the national territory and can be used to: (a) maintain service under conditions where supply and demand are variable in their timing or amount due to normal market fluctuations, or (b) supplement supply in the case of a supply disruption. Stocks used to manage a supply disruption may be called "strategic" or "emergency" stocks and are often held separately from stocks designed to meet normal market fluctuations. **Stock changes** are defined as the increase (stock build) or decrease (stock draw) in the quantity of stock over the reporting period and are thus calculated as the difference between the

closing and opening stocks.

**Energy supply** – is defined as energy production plus imports minus exports minus international marine bunkers minus international aviation bunkers minus stock changes. Depending on the table in this Yearbook, production can refer to either primary, secondary, or both primary and secondary production (see the note under production above).

**Energy industries own use** refers to consumption of fuels and energy for the direct support of the production, and preparation for use of fuels and energy. Quantities of fuels which are transformed into other fuels or energy are not included here but within the transformation use. Neither are quantities which are used within parts of the energy industry not directly involved in the activities listed in the definition. These quantities are reported within final consumption.

**Final Consumption** refers to all fuel and energy that is delivered to users for both their energy and non-energy uses which do not involve a transformation process.

# CAPACITIES AND OTHER DEFINITIONS

## CAPACITIES

**Refinery capacity** is the theoretical maximum capacity of crude oil refineries available for operation at the end of the reference year.

**Net maximum electrical capacity** is the maximum active power that can be supplied continuously, with all plants running, at the point of outlet (i.e., after taking the power supplies for the station auxiliaries and allowing for the losses in those transformers considered integral to the station). This assumes no restriction of interconnection to the network. Does not include overload capacity that can only be sustained for a short period of time (e.g., internal combustion engines momentarily running above their rated capacity). The net maximum electricity-generating capacity represents the sum of all individual plants' maximum capacities available to run continuously throughout a prolonged period of operation in a day. For annual data, the net maximum electrical capacity is considered as measured at the end of the reference year.

## ENERGY RESOURCES AND RESERVES<sup>6</sup>

### Hard Coal, Brown coal and Peat

**Proved amount in place** is the resource remaining in known deposits that has been carefully measured and assessed as exploitable under present and expected local economic conditions with existing available technology.

**Proved recoverable reserves** are the tonnage within the proved amount in place that can be recovered in the future under present and expected local economic conditions with existing available technology.

**Estimated additional amount in place** is the indicated and inferred tonnage additional to the proved amount in place that is of foreseeable economic interest. It includes estimates of amounts which could exist in unexplored extensions of known deposits or in undiscovered deposits in known coal-bearing areas, as well as

amounts inferred through knowledge of favourable geological conditions. Speculative amounts are not included.

### Crude Oil and Natural Gas Liquids

**Proved recoverable reserves** are the quantity within the proved amount in place that can be recovered in the future under present and expected local economic conditions with existing available technology. Proved amount in place is the resource remaining in known natural reservoirs that has been carefully measured and assessed as exploitable under present and expected local economic conditions with existing available technology.

The **ratio of crude oil reserves to production (R/P ratio)** is used to show the length of time those reserves would last in years if production continued at the then-current level and there were no further increases in the proved recoverable reserves. The ratio is calculated by dividing the proved recoverable crude oil and NGL reserves by the production. These R/P ratios should be viewed with caution. The definition used for proved recoverable reserves is very restrictive and confined to those known reserves which can be recovered with reasonable certainty under existing economic conditions. The R/P ratios, therefore, can frequently give a very pessimistic impression of the expected life of a country's reserves. In addition, for some of those countries whose R/P ratios appear very large, it can reasonably be assumed that the figures for proved recoverable reserves include some unproved reserves.

### Oil Shale and Bituminous Sands

**Proved recoverable reserves** are the amount, expressed as tonnage of recoverable synthetic oil that has been both carefully measured and has also been assessed as exploitable under present and expected local economic conditions with existing available technology.

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<sup>6</sup>World Energy Resources 2016.

World Energy Council (WEC) ; BP, Statistical Review of World Energy 2022

## Natural Gas

**Proved recoverable reserves** are the volume within the proved amount in place that can be recovered in the future under present and expected local economic conditions with existing available technology.

## Uranium

**Reasonably assured resources** refer to recoverable uranium that occurs in known mineral deposits of delineated size, grade and configuration such that the quantities which could be recovered within the given production cost ranges with currently proven mining and processing technology can be specified. Estimates of tonnage and grade are based on specific sample data and measurements of the deposits and on knowledge of deposit characteristics.

**Inferred Resources** refer to recoverable uranium (in addition to reasonably assured resources) that is inferred to occur, based on direct geological evidence, in extensions of well-explored deposits and in deposits in which geological continuity has been established, but where specific data and measurements of the deposits and knowledge of their characteristics are considered to be inadequate to classify the resource as reasonably assured resources.

## Hydropower

**Gross theoretical capability** is the annual energy potentially available in the country if all natural flows were turbinized down to sea level or to the water level of the border of the country (if the water course extends into another country) with 100% efficiency from the machinery and driving water-works. Unless otherwise stated, the figures have been estimated on the basis of atmospheric precipitation and water runoff.

# GENERAL NOTES

## Calculation of primary energy equivalent for electricity and heat

As mentioned previously, the publication now treats electricity and heat consistently with IRES energy balances. Notably, this leads to the following notional efficiencies applying to electricity and heat generation (to back calculate the primary energy):

- 100% for electricity from hydro, wind, tide, wave, ocean and solar PV;
- 33% for electricity from nuclear heat or solar thermal;
- 100% for solar thermal heat;
- 50% for heat produced from geothermal heat;
- 10% for electricity from geothermal heat.

## Consumption

Consumption throughout the *Yearbook* is defined consistently with the definition of final consumption in IRES, namely the sum of flows reflecting energy consumption by energy consumers, as well as non-energy use of energy products. As such, the publication should no longer have the same issues with negative consumption figures that previous versions did, when consumption was calculated based on supply flows and as such negative figures could appear for countries that exported secondary products.

## Negative Supply (and negative emissions)

Negative supply can represent a residual or statistical difference between production and exports when a particular product is mainly exported, or when a transferred product is subsequently exported. Likewise, carbon dioxide emissions in Table 4, which are calculated based on the supply of fossil fuels, may appear negative for a group of fuels as a result, without meaning that carbon dioxide was absorbed.

## Time Period

The period to which the data refer is the calendar year, with the exception of the data of the following countries which refer to the fiscal

year:

Afghanistan and Iran (Islamic Rep. of) - beginning 21 March of the year stated;

Australia, Bangladesh, Bhutan, Egypt (for the latter two, electricity only), Nepal - ending June of the year stated;

Eswatini – ending March of the year stated

Pakistan - starting July of the year stated

India, Japan and Myanmar - beginning April of the year stated.

## Trade data

Figures displayed for international trade by partner country in Tables 6, 15 and 28 are based on data from the International Energy Agency and from the United Nations Statistics Division COMTRADE (Commodity Trade Statistics). The total of all exports will likely differ from the figures given in other tables because not all of the importers are included, and also possibly because of definitional differences between data sources.

## Per Capita Data

Data on a *per capita* basis use population data from the United Nations Population Division as a denominator. These indicators may sometimes show differences for certain years compared to previous versions of this publication, due to revisions made by the Population Division rather than changes to the underlying energy data.

## Coverage

As Table 1 contains data back to 1990, data are included for former countries such as the Union of Soviet Socialist Republics, and older versions of countries such as Ethiopia which have since had territories split from them.



# GEOGRAPHICAL NOTES

**Australia** – Data exclude the overseas territories.

**Bonaire, Sint Eustatius, Saba** – Data prior to 2012 are included in Netherlands Antilles (former).

**China** – Data exclude Hong Kong and Macao Special Administrative Regions (Hong Kong SAR and Macao SAR) and Taiwan Province.

**Curaçao** – Data prior to 2012 are included in Netherlands Antilles (former).

**Czechoslovakia** – prior to 1993, refers to the former Czechoslovakia composed of Czechia and Slovakia.

**Denmark** – Data exclude Greenland and the Danish Faroes.

**France** – Data up to 2010 include Monaco and exclude the following overseas departments and territories: Guadeloupe, French Guiana, Martinique, Mayotte, New Caledonia, French Polynesia, Réunion, Saint Barthélemy, Saint Martin, St. Pierre and Miquelon, and Wallis and Futuna. From 2011 onwards, data include Monaco and the overseas departments (Guadeloupe, French Guiana, Martinique, Mayotte and Réunion), excluding the overseas collectivities: New Caledonia, French Polynesia, Saint Barthélemy, Saint Martin, St. Pierre and Miquelon, and Wallis and Futuna.

**French Guiana** – Data after 2010 are included in France.

**Germany** – Through the accession of the **German Democratic Republic** to the **Federal Republic of Germany** with effect from 3 October 1990, the two German States united to form one sovereign state. Data for 1990 are shown separately for the former states.

**Guadeloupe** – Data after 2010 are included in France.

**Indonesia** – Data include Timor-Leste until 2001.

**Italy** – Data include San Marino and the Holy See.

**Japan** – Data include Okinawa.

**Kuwait** – The data for crude oil production include 50 per cent of the output of the Neutral Zone.

**Martinique** – Data after 2010 are included in France.

**Mayotte** – Data after 2010 are included in France.

**Netherlands** – Data exclude Suriname and the Netherlands Antilles (former).

**Netherlands Antilles (former)** – The country, comprising Bonaire, Curaçao, Saba, Sint Eustatius and Sint Marteen (Dutch part), was dissolved on 10 October 2010. For the purposes of this yearbook, data up to 2011 refer to the former territory of the Netherlands Antilles as it was known prior to 10 October 2010.

**Pacific Islands** – Until 1991, Trust Territory comprising Federated States of Micronesia, Marshall Islands, Northern Mariana Islands and Palau.

**Portugal** – Data include the Azores and Madeira.

**Republic of Moldova** – Data exclude Transnistria and the municipality of Bender.

**Réunion** – Data after 2010 are included in France.

**Saint Barthélemy** - Data prior to 2011 are included in Guadeloupe.

**Saint Martin (French Part)** – Data prior to 2011 are included in Guadeloupe.

**Saudi Arabia** – Data for crude oil production include 50 per cent of the output of the Neutral Zone.

**Serbia** – Data exclude Kosovo, which is shown separately.

**Serbia and Montenegro** – Data exclude Kosovo from 2000 onwards. As a former country/area, it appears in this edition only in Table 1.

**Sint Maarten (Dutch part)** – Data prior to 2012 are included in Netherlands Antilles (former).

**South Sudan** – Data prior to 2012 are included in Sudan (former).

**Spain** – Data include the Canary Islands.

**Sudan** – Data prior to 2012 are included in Sudan (former).

**Sudan (former)** – South Sudan became an independent state on 9 July 2011. This country represents the whole territory of Sudan as it was on 1 January 2011 for data up to and including 2011.

**Switzerland** – Data include Liechtenstein for oil statistics.

**Union of Soviet Socialist Republics** – Referred to as USSR, comprised up to 1990 Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania,

Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

**United Kingdom** – Shipments of coal and oil to Jersey, Guernsey and the Isle of Man from the United Kingdom are not classed as exports. Supplies of coal and oil to these islands are, therefore, included as part of UK supply. Exports of natural gas to the Isle of Man are included with the exports to Ireland.

**United States** – Includes the 50 states and the District of Columbia. Oil statistics as well as coal trade statistics also include Puerto Rico, Guam and the U.S. Virgin Islands.

**Yemen** – On 22 May 1990 **Democratic Yemen** and **Yemen Arab Republic** merged to form a single State. Since that date they have been represented as one Member with the name 'Yemen'. Data for 1990 are shown separately for the former states.

**Yugoslavia** – Data until 1991 refer to the former Socialist Federal Republic of Yugoslavia, namely Bosnia and Herzegovina, Croatia, North Macedonia, Montenegro, Slovenia and Serbia (including Kosovo).

## COUNTRY-SPECIFIC INFORMATION

**Armenia** – Other vegetal material and residues data are available from 2012 onwards, animal waste production and consumption are available from 2014 onward. The methodology for collecting animal waste information was improved starting with 2015 data and it might lead to breaks in time series between 2014 and 2015.

**Australia** – Due to confidentiality issues, some data for oil products from 2019 onwards have been suppressed or aggregated with other products or flows.

**Belarus** – Prior to 2013, kerosene-type jet fuel is reported under other oil products.

**Bulgaria** – Production of crude oil is confidential from 2019 data onwards.

**China** – Data for other kerosene include kerosene-type jet fuel until 2013.

**China, Hong Kong SAR** – Data on kerosene-type jet fuel include aviation gasoline and other kerosene.

**China, Macao SAR** – For confidentiality reasons, some data on coal and coal products, petroleum products and biomass are not available.

**France** – For confidentiality reasons, the category blast furnace gas also includes coke oven gas and other recovered gases from 2018 onwards.

**Germany** – Trade data of natural gas up to 2015 include transit volumes.

**Greenland** – Data for kerosene-type jet fuel include other kerosene.

**Ireland** – Due to confidentiality issues patent fuel quantities are aggregated with anthracite figures.

**Israel** – For confidentiality reasons, data on electricity generation from hydro, wind and autoproducers biogases are aggregated under autoproducers wind from 2016 onwards.

**Kazakhstan** – The Committee of Statistics of

Kazakhstan constantly works on improving data quality and aligning their data collection and dissemination system with the *International Recommendations for Energy Statistics*.

Natural gas production may include unmarketable gas up to 2017 data, historical revisions are pending.

**Lesotho** – In 2017, the Bureau of Statistics conducted the “Household Energy Consumption Survey 2017” in order to establish a baseline for energy consumption in households. The data on supply and consumption of animal waste and fuelwood for 2017 are based on the results of this new survey. Supply and consumption data of animal waste and fuelwood from 2010 to 2016 were estimated by UNSD to avoid breaks in the time series. Revisions are pending.

**Madagascar** – Data for bitumen include petroleum coke.

**Russian Federation** – The main source of Russian trade statistics is the Federal Customs Service of the Russian Federation. As a result, some of the figures may not include the mutual trade with the Member States of the Eurasian Economic Union. Some of the crucial trade datapoints were estimated by UNSD in order to avoid undercounting on the world level and for international comparison purposes.

Kerosene-type jet fuel statistics are confidential, and as such were estimated by UNSD.

Ethane figures are under investigation and should be treated with caution.

**Senegal** – The sources of trade data for 2017 are the Bureaux de change au Sénégal and this may lead to breaks in time series between 2016 and 2017.

Manantali dam and Félou hydro electricity plants are situated in Mali, but are owned by Mali, Senegal and Mauritania, supplying electricity to these three countries. Following the *International Recommendations for Energy Statistics*, electricity obtained by Senegal from these plants are counted as imports, and not as Senegalese hydro electricity production.

**Tajikistan** – The Agency on Statistics under President of the Republic of Tajikistan is constantly working on increasing transparency and improving the quality of energy data.

Starting with 2016, more granular data on coal consumption are available. This leads to breaks in time series between 2015 and 2016 data.

New information on quantities of fuelwood consumed for energy purposes in Tajikistan are available for 2016 as a result of a survey conducted by the Agency on Statistics, the revised historical time series were estimated by UNSD.

**Ukraine** – For confidentiality reasons, data on the following products (mainly on production) may not be available or may be included with other products: anthracite (included with other bituminous coal), sub-bituminous coal (included with other bituminous coal), lignite (included with peat), patent fuel (included with peat briquettes), aviation gasoline, kerosene-type jet fuel, other kerosene, petroleum coke, paraffin waxes and white spirit (the latter three included with other oil products), gasworks gas (included with other recovered gases).

The Government of Ukraine has informed the United Nations that it is not in a position to provide statistical data post-March 2014 concerning the Autonomous Republic of Crimea and the city of Sevastopol.

Starting with 2018, data for motor gasoline and gas oil/diesel oil production are estimated by UNSD. Oil products data for 2022 have been mostly estimated due to the Statistics Service of Ukraine's inability to provide updated information.

**United Kingdom** – Shipments of coal and oil to the Channel Islands and the Isle of Man from the United Kingdom are not classed as exports. Supplies of coal and oil to these islands are, therefore, included as part of UK supply. Exports of natural gas to the Isle of Man are included with the exports to Ireland.

**Uzbekistan** – In 2019, the State Committee of the Republic of Uzbekistan on Statistics released more granular energy supply information, starting with 2013 data and with 2018 data. As a result, there are breaks in time series for many products and flows between 2012 and 2012, and between 2018 and 2019. For historical data, revisions are pending.

## UNITS OF MEASUREMENT AND CONVERSION

Metric units of measurement are used throughout the *Yearbook*. The comparison between different fuels is presented in metric tons of coal equivalent (TCE, Table 5), and terajoules (Tables 1, 2, 3 and 13) on the basis of the heat energy which may be obtained from each of them.

To convert figures from the original unit to terajoules (TJ), country-specific net calorific values (NCVs) are used where applicable and available, and default NCVs are used where applicable but country-specific data are unavailable. Table I provides the default NCVs for converting energy data from mass or volume to terajoules, whereas the country-specific factors are available on the United Nations Statistics Division Website<sup>7</sup>. Unless otherwise stated in the Table Notes, in the case of solid fuels, liquid fuels and gases, the conversions are based on the net calorific value.

One TCE, in turn, is defined as 0.0293076 TJ, or 29307.6 MJ. This is derived from the

standard coal equivalency of 7000 calories per gram (which corresponds to a high grade of coal and should not be confused with the average or default coal quality).

The procedure to convert from original units to the common unit terajoule is as follows:

- Data in original (mass – or volume in the case of fuelwood) units multiplied by the country-specific factors or the default factors from Table I will give data in terajoules.

Further, to convert electricity data to terajoules, the following energy equivalence is applied: 1 GWh = 3.6 TJ.

Data on natural gas are collected in terajoules on a gross calorific value basis by convention. When comparing natural gas with other energy sources, it is more appropriate to compare useful energy, and thus the data have been converted to be on a net calorific basis by multiplying them by 0.9.

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<sup>7</sup> [unstats.un.org/unsd/energystats/pubs/yearbook/](http://unstats.un.org/unsd/energystats/pubs/yearbook/)

**Table I**  
**STANDARD NET CALORIFIC VALUES OF ENERGY PRODUCTS**  
**GJ/ton**

<b>Product Name</b>	<b>Factor to TJE</b>	<b>Product Name</b>	<b>Factor to TJE</b>
Hard coal	25.8000	Naphtha	44.5000
Brown coal	14.0000	Bitumen	40.2000
Peat	9.7600	Petroleum coke	32.5000
Oil shale	8.9000	Refinery gas	49.5000
Coke-oven coke	28.2000	Ethane	46.4000
Gas coke	28.2000	Other petroleum products	40.2000
Hard coal briquettes	20.7000	Fuelwood (GJ/m <sup>3</sup> )	9.1350
Lignite briquettes	20.7000	Charcoal	29.5000
Peat briquettes	9.7600	Bagasse	7.7221
Coal Tar	28.0000	Biogasoline	26.8000
Other coal products	20.0000	Biodiesel	36.8000
Crude petroleum	42.3000	Bio jet-kerosene	40.0000
Natural gas liquids	44.2000	Other liquid biofuels	27.4000
Other hydrocarbons	36.0000	Additives and Oxygenates	30.0000
Motor gasoline	44.3000	Aviation Gasoline	44.3000
Kerosene-type jet-fuel	44.1000	Gasoline-type jet fuel	44.3000
Other kerosene	43.8000	Refinery Feedstocks	43.0000
Gas-diesel oil	43.0000	White spirit and SBP	40.2000
Residual fuel oil	40.4000	Lubricants	40.2000
Liquefied petroleum gas	47.3000	Paraffin waxes	40.2000

**Table II**  
**SELECTED CONVERSION FACTORS FOR CRUDE OIL**  
**AND OIL PRODUCTS**

(To convert from metric tons into the following units, multiply by the factor in the appropriate column)

<b>Commodity</b>	<b>Litre</b>	<b>U.S. Gallon</b>	<b>Imperial Gallon</b>	<b>Barrel</b>	<b>Barrels / day</b>	<b>Cubic Metre</b>
Conventional crude oil (average specific gravity)	1164	308	256	7.32	0.02005	1.164
Natural gas liquids (NGL)	1653	437	364	10.40	0.02849	1.653
Additives and oxygenates	1033	315	262	7.50	0.02055	1.033
Other hydrocarbons	1177	311	259	7.40	0.02027	1.177
Aviation gasoline	1370	362	301	8.62	0.02362	1.370
Motor gasoline	1351	357	297	8.50	0.02329	1.351
Gasoline-type jet fuel	1317	348	290	8.28	0.02270	1.317
Kerosene-type jet fuel	1235	326	272	7.77	0.02129	1.235
Other kerosene	1235	326	272	7.77	0.02129	1.235
Gas oil/diesel oil	1149	304	253	7.23	0.01981	1.149
Fuel oil	1053	278	232	6.62	0.01814	1.053
Liquefied petroleum gases (LPG)	1852	489	407	11.65	0.03192	1.852
Ethane	2679	708	589	16.85	0.04616	2.679
Refinery gas	1272	336	280	8.00	0.02192	1.272
Feedstocks	1177	311	259	7.40	0.02027	1.177
Naphtha	1389	367	306	8.74	0.02395	1.389
White spirit and SBP industrial spirits	1235	326	272	7.77	0.02129	1.235
Lubricants	1111	294	244	6.99	0.01915	1.111
Bitumen	962	254	212	6.05	0.01658	0.962
Paraffin waxes	1250	330	275	7.86	0.02153	1.250
Petroleum coke	877	232	193	5.52	0.01512	0.877
Other oil products	1099	290	241	6.91	0.01893	1.099





# **TABLES**

**Table 1****Total energy supply**

Petajoules

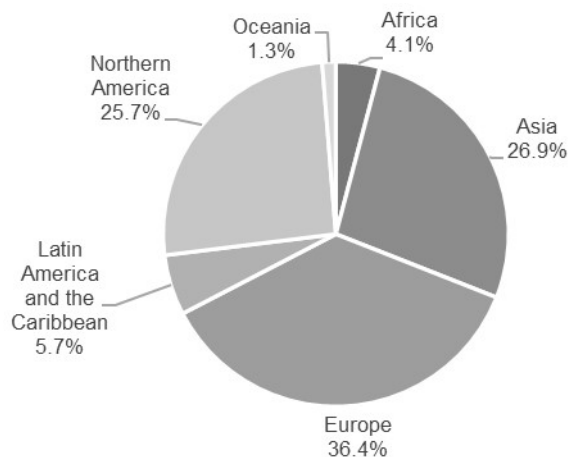
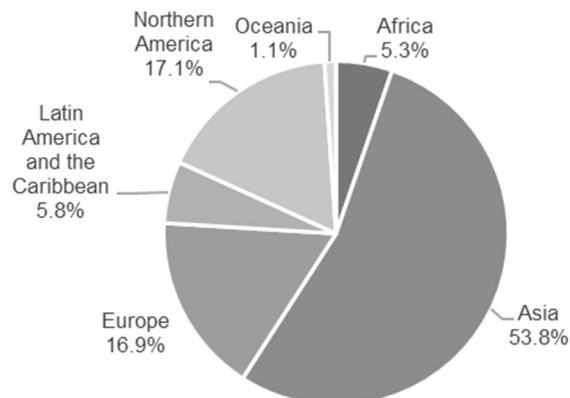
**Table Notes****For tables 1 to 3**

Data on individual energy commodities are aggregated and presented in these tables. As discussed in the introduction, these tables follow the principles of energy balances as recommended in IRES.

Although both Table 1 and Table 2 display figures for total energy supply, there may be rounding differences for certain countries or regions in the same year. This is due to the different ways they are added up.

Instead of breaking energy supply down by flow, Table 1 gives a longer historical perspective back to 1990. As such, historical countries that existed in 1990 are included here. Due to the break-up of the Former Union of Soviet Socialist Republics, there is a reallocation between Europe and Asia between 1991 and 1992.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 1: Total energy supply by region, 1990****Figure 2: Total energy supply by region, 2022**

**Figure 3: Total energy supply by region, 1990-2022**

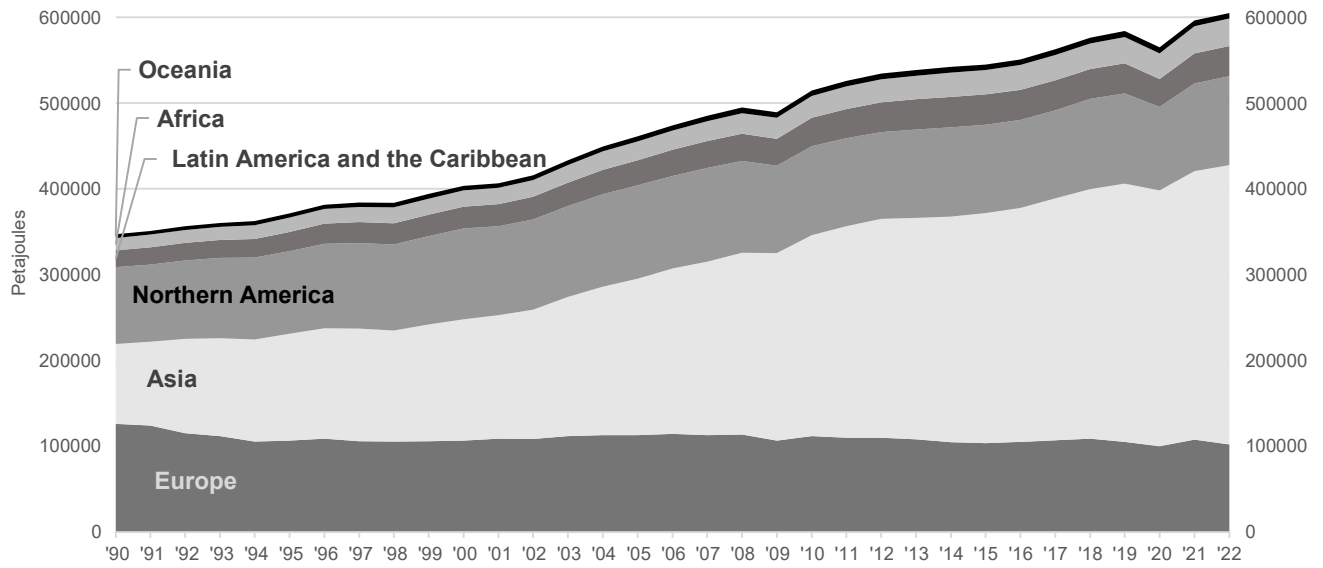


Table 1

## Total Energy Supply

Petajoules

Country or area	1990	2000	2005	2010	2015	2020	2022
<b>World</b>	<b>347,032</b>	<b>403,528</b>	<b>461,143</b>	<b>514,599</b>	<b>544,797</b>	<b>564,720</b>	<b>604,913</b>
<b>Africa</b>	<b>14,294</b>	<b>18,840</b>	<b>22,010</b>	<b>25,304</b>	<b>28,169</b>	<b>30,015</b>	<b>31,873</b>
Algeria	1,075	1,103	1,583	1,641	2,224	2,363	2,733
Angola	238	288	319	469	536	507	582
Benin	73	83	104	149	180	200	215
Botswana	39	57	65	74	80	93	105
Burkina Faso	*63	81	113	143	203	*251	*268
Burundi	*52	55	*56	*59	62	67	69
Cabo Verde	*3	*6	8	9	*9	*9	*10
Cameroon	203	266	306	293	384	424	444
Central African Rep.	31	28	31	36	38	45	*49
Chad	48	62	71	82	96	103	108
Comoros	*3	*4	5	*6	*7	*10	*12
Congo	36	40	57	83	117	141	158
Côte d'Ivoire	204	278	418	347	412	452	602
Dem. Rep. of the Congo	495	584	698	832	1,210	1,371	1,479
Djibouti	*6	8	*9	11	11	11	*11
Egypt	1,222	2,231	2,683	3,181	3,381	3,927	3,895
Equatorial Guinea	5	11	65	77	109	105	132
Eritrea	..	30	29	31	35	39	*41
Eswatini	*28	35	36	37	41	46	44
Ethiopia	..	1,031	1,204	1,400	1,655	1,896	1,985
Ethiopia, incl. Eritrea	543	..	..	..	..	..	..
Gabon	49	60	67	80	93	93	97
Gambia	7	9	10	12	15	*17	*18
Ghana	187	265	241	287	387	490	518
Guinea	*83	*100	*115	*135	*149	184	185
Guinea-Bissau	*13	*17	17	*17	20	18	20
Kenya	439	*627	*686	*793	1,022	1,192	1,216
Lesotho	*36	*48	47	52	*47	*44	50
Liberia	38	49	62	74	85	99	106
Libya	468	695	753	842	878	495	763
Madagascar	122	197	229	279	304	*381	*400
Malawi	*81	*96	109	129	147	172	170
Mali	*61	*85	119	*176	*193	*232	243
Mauritania	*23	29	36	46	*61	91	98
Mauritius	33	49	57	63	67	57	64
Mayotte	*1	*2	*3	4	..	..	..
Morocco	345	478	606	762	799	894	953
Mozambique	249	293	365	309	441	442	490
Namibia	..	42	58	64	71	73	77
Niger	60	81	*90	*103	*122	*141	*146
Nigeria	1,193	1,494	1,872	2,368	2,670	2,633	2,808
Réunion	24	42	49	58	..	..	..
Rwanda	35	54	71	84	*98	*105	*116
Sao Tome and Principe	*1	*2	*2	3	3	*3	*3
Senegal	*78	97	114	160	178	195	233
Seychelles	2	4	5	6	7	*8	*9
Sierra Leone	50	53	56	60	69	73	*78
Somalia	69	90	108	128	142	167	*175
South Africa	4,104	4,892	5,169	5,792	5,671	5,416	5,443
South Sudan	..	..	..	..	35	33	32
Sudan	..	..	..	..	409	527	505
Sudan (former)	451	556	654	711	..	..	..
Togo	55	89	99	130	130	168	*162
Tunisia	204	296	342	432	463	449	485
Uganda	*324	403	525	654	815	1,081	1,112
United Rep. of Tanzania	409	564	699	796	919	1,041	1,103

Table 1

## Total Energy Supply

Petajoules

Country or area	1990	2000	2005	2010	2015	2020	2022
Zambia	222	263	301	340	413	488	*535
Zimbabwe	404	438	414	397	459	456	518
<b>Asia</b>	<b>93,233</b>	<b>141,098</b>	<b>182,336</b>	<b>233,880</b>	<b>268,015</b>	<b>297,977</b>	<b>325,744</b>
Afghanistan	*39	31	46	*141	167	195	*181
Armenia	..	85	106	*106	135	156	170
Azerbaijan	..	485	573	486	605	644	725
Bahrain	202	337	436	513	577	665	673
Bangladesh	769	999	1,192	1,496	1,853	2,160	2,261
Bhutan	37	44	50	63	71	71	83
Brunei Darussalam	87	102	93	136	114	164	180
Cambodia	*50	72	82	131	186	299	304
China	30,455	43,013	68,833	101,618	120,744	141,216	155,622
China, Hong Kong SAR	316	570	579	544	576	514	469
China, Macao SAR	13	22	27	32	43	36	37
Cyprus	58	90	94	103	85	89	94
Georgia	..	120	135	140	197	207	239
India	12,063	18,522	21,293	27,422	35,155	37,364	44,076
Indonesia	4,154	5,881	7,037	8,073	8,709	10,182	12,519
Iran (Islamic Rep. of)	2,819	5,386	7,216	8,579	10,024	11,963	12,256
Iraq	586	995	1,485	1,424	1,629	2,112	2,582
Israel	482	767	773	972	915	948	999
Japan	18,355	21,682	21,867	21,015	18,142	16,142	16,453
Jordan	140	207	291	308	369	338	358
Kazakhstan	..	1,554	2,356	3,363	3,180	2,764	2,901
Korea, Dem.Ppl's.Rep.	1,391	826	896	791	405	800	706
Korea, Republic of	3,866	7,877	8,820	10,454	11,463	11,536	11,734
Kuwait	566	824	1,133	1,337	1,410	1,505	1,771
Kyrgyzstan	..	101	114	115	167	150	189
Lao People's Dem. Rep.	*43	58	69	100	169	226	257
Lebanon	*113	207	206	262	337	332	218
Malaysia	757	1,959	2,745	2,965	3,429	3,752	4,159
Maldives	2	6	9	13	18	24	31
Mongolia	114	86	103	164	273	488	468
Myanmar	367	467	535	564	768	879	922
Nepal	239	338	381	433	494	630	*677
Oman	153	319	445	825	1,100	1,182	1,315
Other Asia	2,119	3,705	4,476	4,898	4,947	4,744	4,883
Pakistan	1,834	2,437	2,917	3,031	3,038	3,929	3,921
Philippines	1,113	1,598	1,523	1,701	2,136	2,373	2,578
Qatar	194	576	728	1,165	1,571	1,731	1,844
Saudi Arabia	2,694	4,623	6,220	8,277	9,767	10,274	10,265
Singapore	658	761	926	883	1,217	1,475	1,605
Sri Lanka	187	296	324	339	409	416	400
State of Palestine	*20	38	59	55	75	83	106
Syrian Arab Republic	476	729	741	911	458	451	429
Tajikistan	..	141	148	143	167	206	221
Thailand	1,778	3,055	4,049	4,932	5,685	5,731	5,634
Timor-Leste	..	..	4	5	7	9	9
Türkiye	2,211	3,182	3,529	4,442	5,390	6,131	6,530
Turkmenistan	..	625	754	951	972	991	1,706
United Arab Emirates	791	1,719	1,842	2,977	3,546	3,453	3,580
Uzbekistan	..	2,124	2,046	1,821	1,735	1,792	2,015
Viet Nam	791	1,262	1,756	2,334	3,207	4,327	4,262
Yemen	..	197	274	326	180	125	124
Yemen Arab Rep. (former)	*47	..	..	..	..	..	..
Yemen, Dem. (former)	*84	..	..	..	..	..	..
<b>Europe</b>	<b>126,281</b>	<b>106,729</b>	<b>113,095</b>	<b>111,963</b>	<b>103,589</b>	<b>100,140</b>	<b>101,958</b>
Albania	92	65	91	91	92	89	91

Table 1

## Total Energy Supply

Petajoules

Country or area	1990	2000	2005	2010	2015	2020	2022
Andorra	*7	9	10	10	9	7	8
Austria	1,041	1,198	1,413	1,428	1,372	1,326	1,315
Belarus	..	1,029	1,122	1,152	1,067	1,052	1,109
Belgium	1,999	2,418	2,423	2,506	2,186	2,098	2,108
Bosnia and Herzegovina	..	179	206	269	250	298	305
Bulgaria	1,181	773	826	741	775	727	799
Croatia	..	350	407	390	350	346	350
Czechia	..	1,746	1,898	1,892	1,758	1,683	1,740
Czechoslovakia (former)	2,950	..	..	..	..	..	..
Denmark	726	780	791	812	677	642	648
Estonia	..	188	222	247	204	188	201
Faeroe Islands	10	*10	*10	*9	*9	*11	*11
Finland	1,186	1,353	1,440	1,528	1,351	1,322	1,313
France	9,345	10,500	11,374	10,969	10,531	9,097	8,812
German Dem. R. (former)	*3,688	..	..	..	..	..	..
Germany	..	14,081	14,156	13,791	12,932	11,653	11,326
Germany, Fed. R. (former)	11,425	..	..	..	..	..	..
Gibraltar	2	5	6	7	9	10	10
Greece	895	1,134	1,268	1,158	967	816	848
Guernsey	..	0	1	1	1	1	1
Hungary	1,200	1,046	1,174	1,109	1,053	1,098	1,075
Iceland	88	143	163	287	328	363	368
Ireland	417	580	618	611	557	557	569
Isle of Man	..	..	1	4	4	5	4
Italy	6,138	7,183	7,797	7,277	6,374	5,744	5,946
Jersey	*1	1	3	3	3	3	3
Kosovo	..	65	82	105	106	112	112
Latvia	..	161	190	189	179	180	178
Liechtenstein	1	2	3	3	3	3	3
Lithuania	..	295	364	292	292	310	286
Luxembourg	143	142	185	178	158	145	135
Malta	29	29	37	35	27	29	32
Montenegro	..	..	42	48	42	44	45
Netherlands (Kingd. of the)	2,771	3,106	3,316	3,443	2,792	2,886	2,624
North Macedonia	..	113	121	121	110	113	114
Norway	879	1,092	1,215	1,314	1,063	1,148	1,048
Poland	4,393	3,784	3,891	4,256	4,004	4,285	4,345
Portugal	703	1,031	1,109	977	918	848	850
Republic of Moldova	..	66	89	91	108	113	111
Romania	2,621	1,532	1,626	1,474	1,341	1,355	1,332
Russian Federation	..	25,994	27,338	28,932	28,943	30,495	33,523
Serbia	..	..	669	648	612	657	674
Serbia and Montenegro	..	556	..	..	..	..	..
Slovakia	..	740	777	766	699	683	692
Slovenia	..	274	315	307	276	271	270
Spain	3,762	5,073	5,914	5,334	4,909	4,528	4,797
Sweden	1,965	1,968	2,123	2,099	1,834	1,808	1,849
Switzerland	1,018	1,042	1,080	1,086	1,014	971	951
Ukraine	..	5,574	5,872	5,491	3,753	3,547	2,633
United Kingdom	8,612	9,317	9,318	8,485	7,548	6,473	6,396
USSR (former)	55,194	..	..	..	..	..	..
Yugoslavia, SFR (former)	1,797	..	..	..	..	..	..
<b>Latin America &amp; Carib.</b>	<b>19,657</b>	<b>25,525</b>	<b>29,376</b>	<b>33,114</b>	<b>35,419</b>	<b>32,376</b>	<b>35,128</b>
Anguilla	*1	*1	*2	*2	2	2	2
Antigua and Barbuda	*4	*5	*7	*8	*8	*9	*9
Argentina	1,929	2,573	2,923	3,296	3,426	3,048	3,352
Aruba	*7	*54	58	*56	*13	*12	*13
Bahamas	*28	*28	*28	*32	32	29	42
Barbados	15	18	19	22	18	17	18

Table 1

## Total Energy Supply

Petajoules

Country or area	1990	2000	2005	2010	2015	2020	2022
Belize	8	11	10	13	16	16	18
Bolivia (Plur. State of)	108	152	220	265	343	324	402
Bonaire, St Eustatius, Saba	..	..	..	..	*2	*2	*2
Brazil	5,972	7,998	9,212	10,946	12,393	11,705	12,337
British Virgin Islands	*1	*2	*2	*3	*3	*3	*3
Cayman Islands	4	*7	7	8	8	9	9
Chile	593	1,082	1,187	1,286	1,511	1,573	1,737
Colombia	982	1,100	1,179	1,392	1,626	1,719	1,683
Costa Rica	68	137	177	203	207	207	221
Cuba	604	452	404	488	454	342	364
Curaçao	..	..	..	..	108	33	36
Dominica	*1	2	2	3	*3	*2	*2
Dominican Republic	140	275	259	308	335	384	444
Ecuador	255	328	470	521	603	521	648
El Salvador	91	146	160	175	172	170	201
Falkland Is. (Malvinas)	1	0	1	1	1	1	*1
French Guiana	9	8	10	*12	..	..	..
Grenada	2	3	3	4	4	4	5
Guadeloupe	18	26	33	*32	..	..	..
Guatemala	195	307	385	394	480	650	717
Guyana	32	34	32	35	35	40	60
Haiti	101	128	138	159	176	187	182
Honduras	100	127	164	199	243	229	254
Jamaica	113	148	147	113	117	110	121
Martinique	21	*23	30	29	..	..	..
Mexico	5,179	6,314	7,559	7,557	7,830	7,246	7,650
Montserrat	0	0	1	1	1	0	0
Neth. Antilles (former)	82	83	84	69	..	..	..
Nicaragua	87	106	118	128	161	161	172
Panama	60	105	122	144	171	126	198
Paraguay	*114	188	180	204	258	292	294
Peru	421	514	565	808	904	946	1,183
Puerto Rico	*1	13	24	27	56	51	52
Saint Barthélemy	..	..	..	..	*1	*2	*2
Saint Martin (French Part)	..	..	..	..	*6	*6	*6
Sint Maarten (Dutch part)	..	..	..	..	*12	*10	*11
St. Kitts-Nevis	*2	*3	*3	3	*3	*3	*4
St. Lucia	*4	6	7	8	8	*8	*8
St. Vincent-Grenadines	*1	2	*3	3	4	4	*4
Suriname	29	36	26	40	43	45	44
Trinidad and Tobago	251	420	676	833	797	616	658
Turks and Caicos Islands	*1	*2	*3	*4	*5	*5	*5
Uruguay	96	119	126	173	213	219	233
Venezuela (Bolivar. Rep.)	1,928	2,439	2,609	3,105	2,608	1,287	1,724
<b>Northern America</b>	<b>89,144</b>	<b>105,824</b>	<b>108,553</b>	<b>103,816</b>	<b>103,004</b>	<b>97,299</b>	<b>103,609</b>
Bermuda	*7	*8	*9	*9	8	7	*8
Canada	8,849	10,551	11,264	10,883	11,466	11,899	12,456
Greenland	6	7	9	11	9	9	10
St. Pierre-Miquelon	1	*1	*1	*1	*1	*1	*1
United States	80,280	95,258	97,271	92,913	91,520	85,384	91,134
<b>Oceania</b>	<b>4,423</b>	<b>5,513</b>	<b>5,773</b>	<b>6,522</b>	<b>6,602</b>	<b>6,913</b>	<b>6,601</b>
American Samoa	*7	*6	*7	*7	*6	*6	*6
Australia	3,694	4,567	4,790	5,427	5,334	5,652	5,371
Cook Islands	*1	*1	1	*1	*1	*1	*1
Fiji	23	21	24	20	28	26	27
French Polynesia	*8	10	12	14	13	13	14
Kiribati	*1	1	1	1	1	*2	*2
Marshall Islands	..	*2	*2	*2	*2	*2	*2

**Table 1****Total Energy Supply**

Petajoules

Country or area	1990	2000	2005	2010	2015	2020	2022
Micronesia (Fed. States of)	..	*3	2	2	2	*2	*2
Nauru	*2	*1	*1	*1	*1	*1	*1
New Caledonia	21	30	37	46	61	63	64
New Zealand	564	746	743	837	963	935	895
Northern Mariana Islands	..	*7	*7	*5	*5	*4	*4
Pacific Islands (former)	*3	..	..	..	..	..	..
Palau	..	*3	*3	3	*3	*3	*3
Papua New Guinea	88	99	126	139	164	186	*192
Samoa	*3	4	4	4	5	5	5
Solomon Islands	*5	*6	*7	*8	8	*8	*7
Tonga	1	1	*2	2	2	2	2
Vanuatu	1	*2	2	3	3	4	4





**Table 2**

**Components of total energy supply**

Petajoules and Gigajoules per capita

**Table Notes**

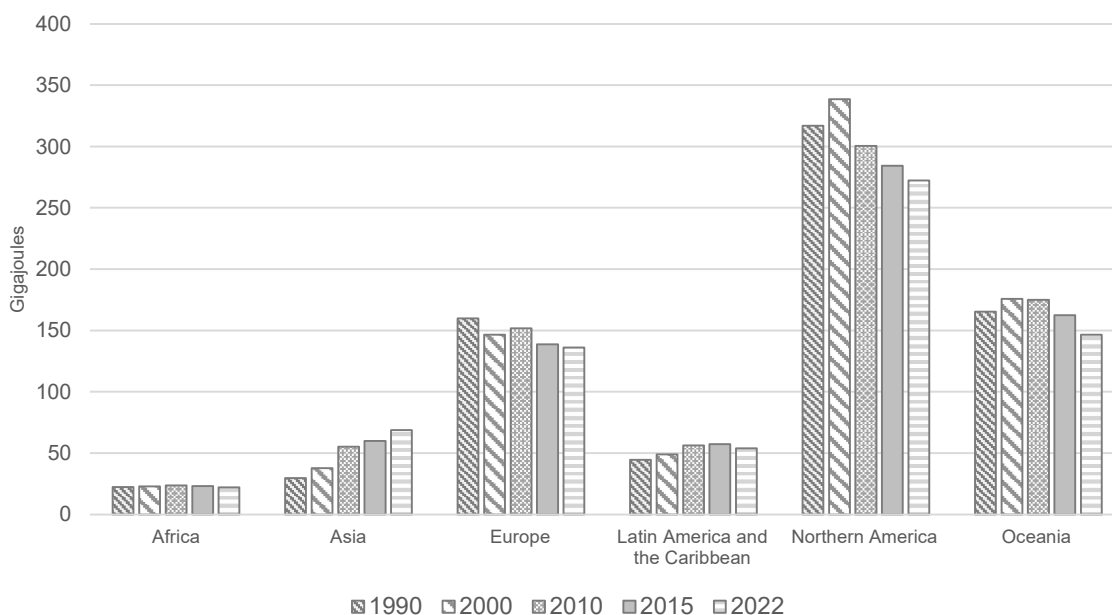
Included in the **Primary energy production** for **Solids** are hard coal, lignite, peat, oil shale, primary solid biofuels and wastes; **Liquids** are comprised of crude oil, natural gas liquids, other hydrocarbons, additives and oxygenates, and liquid biofuels; **Gas** comprises natural gas and biogas; **Electricity** is comprised of primary electricity generation from hydro, wind, tide, wave and solar sources; and **Heat** comprises primary heat from nuclear, geothermal, chemical and solar sources.

**Stock changes, trade and International bunkers** refer to all primary and secondary forms of energy.

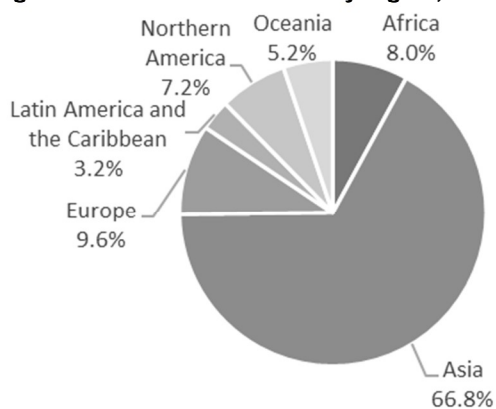
**Supply** is calculated as primary energy production plus import minus exports minus International bunkers minus stock changes.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

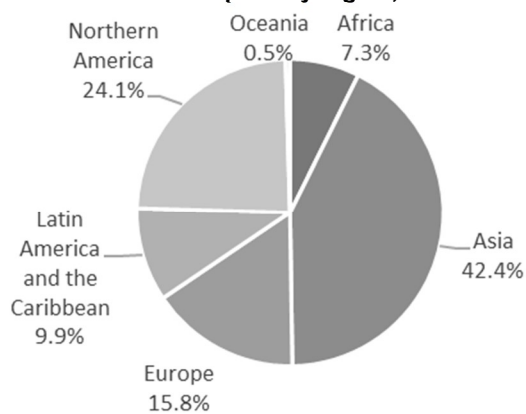
**Figure 4: Total per capita energy supply by region, selected years**



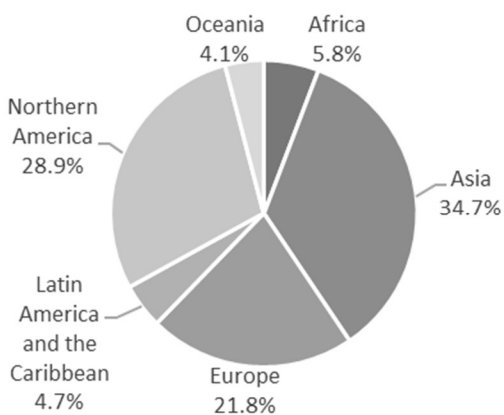
**Figure 5: Production of solids by region, 2022**



**Figure 6: Production of liquids by region, 2022**



**Figure 7: Production of gases by region, 2022**



**Figure 8: Primary electricity production by region, 2022**

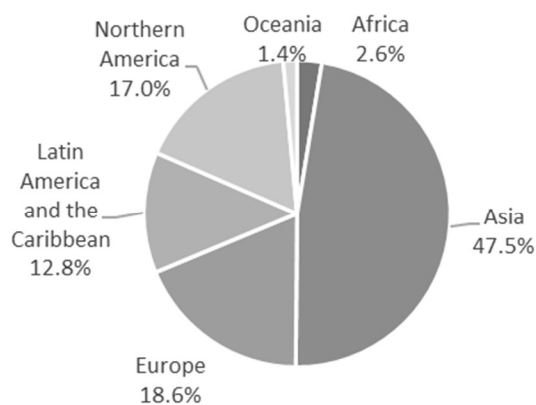


Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
World	2019	609,552	212,648	194,652	145,058	22,990	34,204
	2020	584,731	204,684	180,396	142,174	24,411	33,065
	2021	605,865	212,142	183,764	149,461	25,859	34,639
	2022	627,243	224,911	191,773	149,296	27,919	33,344
Africa	2019	44,514	17,477	17,319	8,751	593	374
	2020	40,413	17,525	13,790	8,123	640	335
	2021	42,347	17,533	14,704	9,062	682	367
	2022	41,689	17,895	14,061	8,659	728	347
Algeria	2019	5,967	0	2,777	3,187	3	..
	2020	5,458	0	2,483	2,971	3	..
	2021	6,214	0	2,516	3,695	2	..
	2022	6,293	1	2,678	3,612	2	..
Angola	2019	3,513	284	2,958	233	39	..
	2020	3,328	288	2,737	*258	45	..
	2021	2,950	291	2,410	*208	40	..
	2022	3,016	295	2,490	185	47	..
Benin	2019	121	121	..	..	0	..
	2020	124	124	..	..	0	..
	2021	124	124	..	..	0	..
	2022	128	128	..	..	0	..
Botswana	2019	56	56	..	..	0	0
	2020	51	51	..	..	0	0
	2021	57	56	..	..	0	0
	2022	65	64	..	..	0	0
Burkina Faso	2019	180	179	..	0	1	..
	2020	*181	*181	..	0	1	..
	2021	*186	*185	..	0	1	..
	2022	*188	*187	..	0	1	..
Burundi	2019	56	55	..	..	1	..
	2020	56	55	..	..	1	..
	2021	56	55	..	..	0	..
	2022	56	55	..	..	1	..
Cabo Verde	2019	*2	*1	..	..	0	..
	2020	*2	*1	..	..	0	..
	2021	*2	*1	..	..	0	..
	2022	*2	*1	..	..	0	..
Cameroon	2019	546	293	154	81	19	..
	2020	557	301	157	81	18	..
	2021	563	309	152	80	23	..
	2022	572	317	148	82	25	..
Central African Rep.	2019	39	38	..	..	1	..
	2020	40	39	..	..	1	..
	2021	44	43	..	..	1	..
	2022	*44	*43	..	..	1	..
Chad	2019	360	75	285	..	0	..
	2020	*369	76	*293	..	0	..
	2021	*359	77	*282	..	0	..
	2022	*373	78	*295	..	0	..
Comoros	2019	*4	*4	..	..	..	..
	2020	*4	*4	..	..	..	..
	2021	*4	*4	..	..	0	..
	2022	*4	*4	..	..	0	..
Congo	2019	836	69	729	34	3	..
	2020	777	70	667	36	3	..
	2021	705	71	593	37	4	..
	2022	706	72	582	47	4	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
241,801	244,567	8,719	8,730	5,661	583,676	75
223,951	229,523	4,187	7,988	2,263	564,720	72
232,103	232,107	4,666	8,238	-3,102	596,059	75
237,314	239,593	6,443	7,854	5,753	604,913	75
7,749	20,814	371	246	95	30,737	23
7,459	17,381	186	227	64	30,015	22
7,860	18,284	231	218	-199	31,672	22
8,009	17,262	287	208	68	31,873	22
105	3,524	*16	1	2	2,530	58
57	3,130	*10	9	4	2,363	54
22	3,662	*10	9	-6	2,560	57
34	3,571	16	8	1	2,733	60
170	3,031	13	11	*60	568	18
83	2,881	3	7	12	507	15
126	2,506	3	8	11	547	16
135	2,547	*3	13	6	582	16
73	0	1	0	0	193	15
76	0	1	0	0	200	15
89	0	1	0	2	211	16
88	1	1	0	-2	215	16
57	7	1	..	..	105	45
55	12	0	..	..	93	39
56	14	0	..	..	98	41
51	10	0	..	..	105	43
69	..	1	..	0	248	12
*70	..	1	..	0	*251	*12
*80	..	1	..	*1	*264	*12
*81	..	*1	..	0	*268	*12
*10	..	0	..	0	66	5
11	..	0	..	..	67	5
11	..	0	..	..	67	5
*13	..	0	..	..	69	5
*14	..	*2	*3	..	*11	*21
*11	..	*1	*2	..	*9	*17
*12	..	*1	*2	..	*10	*19
*12	..	*1	*3	..	*10	*19
71	203	1	..	..	413	16
74	206	0	..	..	424	16
76	205	1	..	..	434	16
79	206	1	..	..	444	16
5	..	0	..	0	43	9
5	..	0	..	0	45	9
6	..	0	..	0	49	10
*6	..	0	..	0	*49	*10
0	258	1	..	..	101	6
0	265	*1	..	..	103	6
0	251	*1	..	..	107	6
0	264	*1	..	..	108	6
*5	..	0	0	0	*9	*11
*5	..	0	0	0	*10	*12
*8	..	0	0	0	*11	*14
*8	..	0	0	0	*12	*14
9	699	1	..	8	136	24
8	638	1	..	5	141	24
8	568	1	..	0	145	25
8	551	1	..	3	158	26

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Côte d'Ivoire	2019	421	254	77	78	13	..
	2020	423	269	62	80	12	..
	2021	474	328	54	83	10	..
	2022	526	369	56	91	10	..
Dem. Rep. of the Congo	2019	1,312	1,224	47	..	41	..
	2020	1,370	1,274	51	..	45	..
	2021	1,413	1,316	50	..	47	..
	2022	1,453	1,362	43	..	47	..
Djibouti	2019	4	4	..	..	0	..
	2020	4	4	..	..	0	..
	2021	4	4	..	..	0	..
	2022	4	4	..	..	0	..
Egypt	2019	4,069	167	1,458	2,379	66	..
	2020	3,794	176	1,396	2,133	84	5
	2021	4,019	171	1,323	2,432	88	5
	2022	3,661	177	1,309	2,083	90	3
Equatorial Guinea	2019	573	4	347	219	*2	..
	2020	559	4	341	212	*2	..
	2021	542	4	288	247	*2	..
	2022	558	4	267	285	*2	..
Eritrea	2019	30	30	..	..	0	..
	2020	31	31	..	..	0	..
	2021	31	31	..	..	0	..
	2022	*32	*32	..	..	0	..
Eswatini	2019	31	30	..	..	1	..
	2020	32	32	..	..	1	..
	2021	32	31	..	..	1	..
	2022	34	33	0	..	1	..
Ethiopia	2019	1,686	1,631	0	..	54	..
	2020	1,734	1,677	0	..	57	..
	2021	1,736	1,680	0	..	56	..
	2022	1,812	1,749	0	..	62	..
Gabon	2019	526	*45	460	16	5	..
	2020	507	*45	439	17	5	..
	2021	490	*45	424	15	5	..
	2022	600	*45	529	21	5	..
Gambia	2019	7	7	..	..	0	..
	2020	7	7	..	..	0	..
	2021	7	7	..	..	0	..
	2022	7	7	..	..	0	..
Ghana	2019	686	173	435	53	26	..
	2020	704	179	408	90	26	..
	2021	642	175	337	102	28	..
	2022	637	183	312	112	30	..
Guinea	2019	118	114	..	..	5	..
	2020	119	114	..	..	5	..
	2021	124	115	..	..	9	..
	2022	126	115	..	..	11	..
Guinea-Bissau	2019	13	13	..	..	0	..
	2020	14	14	..	..	0	..
	2021	15	15	..	..	0	..
	2022	15	15	..	..	0	..
Kenya	2019	927	721	..	0	17	188
	2020	937	734	..	0	20	182
	2021	948	746	..	0	21	181
	2022	977	758	..	0	20	199

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
172	152	8	4	..	429	15
162	128	3	4	-1	452	16
204	122	5	4	-1	549	19
209	122	6	4	..	602	20
54	48	6	..	..	1,313	14
56	51	4	..	..	1,371	14
55	50	5	..	..	1,413	14
73	44	4	..	..	1,479	14
13	0	*4	*1	..	12	11
11	0	*3	*1	..	11	10
*13	0	*4	*1	..	*12	*11
*12	0	*4	*1	..	*11	*10
656	971	28	17	..	3,709	34
977	815	13	16	..	3,927	36
1,041	862	12	16	..	4,170	38
939	679	11	15	..	3,895	35
*13	490	2	..	0	93	56
*11	473	1	..	-9	105	61
*11	434	1	..	*-6	123	70
*11	*434	2	..	*1	132	73
9	..	0	1	..	39	12
9	..	0	1	..	39	12
9	..	0	1	..	40	12
10	..	1	0	..	*41	*12
*19	3	0	..	..	47	40
17	4	0	..	..	46	39
17	5	0	..	..	44	37
17	7	0	..	..	44	36
227	4	36	..	0	1,872	16
184	6	17	..	0	1,896	16
218	6	36	..	-2	1,913	16
219	6	42	..	-2	1,985	16
18	446	2	7	-2	92	41
12	437	1	6	-19	93	40
11	406	1	6	-7	95	40
13	500	1	7	8	97	40
*11	0	*1	..	..	*17	*7
*10	0	*1	..	..	*17	*7
*11	0	*1	..	..	*17	*7
*12	0	*1	..	..	*18	*7
213	447	9	0	0	444	14
227	422	5	0	13	490	15
205	345	8	0	-10	502	15
200	313	8	0	-2	518	16
63	0	*2	..	*1	178	14
64	0	*1	..	-2	184	14
64	0	*2	..	2	184	13
63	0	*2	..	*2	185	13
4	0	0	..	..	17	9
*5	0	0	..	..	18	9
*5	0	0	..	..	20	10
*5	0	0	..	..	20	10
268	1	31	*1	..	1,162	23
273	1	17	0	..	1,192	23
272	0	21	2	..	1,197	22
263	0	24	0	..	1,216	22

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Lesotho	2019	*18	*16	..	..	1	..
	2020	*18	*16	..	..	2	..
	2021	*18	*16	..	..	2	..
	2022	17	15	..	..	2	..
Liberia	2019	87	86	..	..	0	..
	2020	90	89	..	..	0	..
	2021	93	92	..	..	1	..
	2022	96	95	..	..	1	..
Libya	2019	3,242	25	2,684	533	0	..
	2020	1,204	25	872	306	0	..
	2021	3,007	26	2,629	353	0	..
	2022	2,668	26	2,277	365	0	..
Madagascar	2019	318	315	..	..	3	..
	2020	*331	*328	..	..	3	..
	2021	*344	*341	..	..	3	..
	2022	*344	*341	..	..	3	..
Malawi	2019	148	141	0	..	7	..
	2020	151	144	0	..	7	..
	2021	154	146	0	..	8	..
	2022	150	143	0	..	7	..
Mali	2019	*150	*145	..	..	5	..
	2020	*150	*145	..	..	6	..
	2021	150	145	..	..	*6	..
	2022	157	150	..	..	7	..
Mauritania	2019	21	20	..	..	*1	..
	2020	22	21	..	..	1	..
	2021	22	21	..	..	*1	..
	2022	*22	*21	..	..	1	..
Mauritius	2019	10	9	..	0	1	..
	2020	8	7	..	0	1	..
	2021	8	7	..	0	1	..
	2022	7	6	..	0	1	..
Morocco	2019	105	65	0	3	23	13
	2020	102	65	0	3	21	12
	2021	108	64	0	3	23	17
	2022	101	64	0	2	23	12
Mozambique	2019	821	596	0	171	54	..
	2020	733	509	0	167	57	..
	2021	834	609	0	169	56	..
	2022	1,014	694	19	242	58	..
Namibia	2019	25	20	..	..	5	0
	2020	29	22	..	..	7	0
	2021	28	23	..	..	5	0
	2022	*33	*28	..	..	4	0
Niger	2019	*139	*99	38	1	0	..
	2020	*139	*101	36	1	0	..
	2021	*139	*100	36	2	0	..
	2022	*142	*104	*36	*2	0	..
Nigeria	2019	6,887	1,017	4,260	1,579	31	..
	2020	5,942	1,042	3,283	1,589	28	..
	2021	5,669	1,081	3,083	1,476	29	..
	2022	5,025	1,094	2,536	1,361	33	..
Rwanda	2019	*89	*85	..	*2	1	..
	2020	*89	*85	..	*2	2	..
	2021	*89	*86	..	*2	2	..
	2022	*96	*92	..	*2	2	..



Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply		
		Aviation	Marine		Total	Per capita	
*29	0	0	0	..	0	*46	*21
*26	0	0	0	..	..	*44	*19
*38	0	0	0	..	0	*56	*25
33	0	0	0	..	0	50	22
13	0	0	0	0	1	99	20
9	0	0	0	0	0	99	19
4	0	0	0	0	-5	102	19
9	0	0	0	0	*-2	106	20
282	2,524	2	12	..	..	986	142
263	968	1	4	..	..	495	70
255	2,545	2	12	..	..	702	98
273	2,165	3	10	..	..	763	106
59	0	2	0	0	1	374	13
51	0	1	0	0	0	*381	*13
56	..	1	0	0	*-2	*400	*13
57	..	1	0	0	0	*400	*13
20	0	0	..	..	-1	168	9
23	0	0	..	..	1	172	9
20	0	0	..	..	0	174	9
21	0	0	..	..	0	170	8
78	2	3	..	0	0	*223	*11
86	2	2	..	0	0	*232	*11
100	2	4	..	0	0	245	11
93	3	3	..	..	..	243	11
76	..	1	..	..	*7	89	20
75	..	1	..	..	*5	91	20
*70	..	1	..	..	*5	*87	*18
82	..	1	..	..	*6	98	20
110	3	6	27	14	14	69	54
84	..	2	26	6	6	57	45
79	..	1	25	2	2	59	46
81	..	5	20	0	0	64	50
867	5	34	6	-19	-19	945	26
803	2	12	6	-9	-9	894	24
875	3	17	6	-8	-8	965	26
888	2	28	6	1	1	953	26
99	471	1	0	-2	-2	450	15
87	369	1	0	9	9	442	14
106	456	1	0	16	16	468	15
118	640	1	0	1	1	490	15
63	8	4	..	0	0	77	29
58	10	4	..	..	..	73	27
61	10	4	..	..	..	75	27
59	10	4	..	..	..	77	27
6	4	*2	..	6	6	*133	*6
10	6	*2	..	0	0	*141	*6
10	9	*2	..	*1	*1	*137	*6
11	3	*3	..	0	0	*146	*6
947	5,132	29	14	0	0	2,659	13
933	4,156	13	11	61	61	2,633	12
966	3,651	20	9	-27	-27	2,983	14
999	3,054	25	8	129	129	2,808	13
25	0	*1	..	*7	*7	*105	*8
17	0	*1	..	..	..	*105	*8
20	0	*1	..	..	..	*109	*8
*21	0	*1	..	..	..	*116	*8

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Sao Tome and Principe	2019	1	1	..	..	0	..
	2020	1	1	..	..	0	..
	2021	1	1	..	..	0	..
	2022	1	1	..	..	0	..
Senegal	2019	75	73	..	1	1	1
	2020	86	83	..	0	2	0
	2021	86	82	..	0	3	0
	2022	84	80	..	0	4	0
Seychelles	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Sierra Leone	2019	56	55	..	..	1	..
	2020	56	55	..	..	1	..
	2021	57	56	..	..	1	..
	2022	*57	*56	..	..	1	..
Somalia	2019	147	147	..	..	0	..
	2020	151	151	..	..	0	..
	2021	155	155	..	..	0	..
	2022	*157	*157	..	..	0	..
South Africa	2019	6,471	6,224	3	40	38	165
	2020	6,219	6,005	3	39	44	129
	2021	5,893	5,678	2	1	55	156
	2022	5,789	5,597	1	0	63	127
South Sudan	2019	372	8	364	..	0	..
	2020	359	9	350	..	0	..
	2021	332	9	324	..	0	..
	2022	307	8	298	..	0	..
St. Helena and Depend.	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Sudan	2019	*407	*207	*164	..	37	..
	2020	*376	*199	137	..	40	..
	2021	*342	*195	111	..	*36	..
	2022	*349	*199	107	..	43	..
Togo	2019	130	129	..	..	1	..
	2020	138	137	..	..	1	..
	2021	129	129	..	..	0	..
	2022	*131	*130	..	..	1	..
Tunisia	2019	212	46	78	79	2	7
	2020	207	46	72	81	2	6
	2021	236	46	88	93	2	6
	2022	218	46	75	88	2	6
Uganda	2019	770	756	..	..	15	..
	2020	874	858	..	..	15	..
	2021	899	883	..	..	16	..
	2022	926	908	..	..	18	..
United Rep. of Tanzania	2019	906	835	..	62	9	..
	2020	912	845	..	55	11	..
	2021	929	855	..	63	11	..
	2022	968	881	..	77	10	..
Zambia	2019	405	360	..	..	45	..
	2020	424	377	..	..	47	..
	2021	*434	*375	..	..	58	..
	2022	*471	*409	..	..	62	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
2	..	0	..	..	3	15
*2	..	0	..	..	*3	*14
*2	..	0	..	..	*3	*14
*2	..	0	..	..	*3	*13
179	*29	8	8	-1	210	13
124	2	6	10	-3	195	12
144	3	7	8	0	212	12
162	1	7	7	-1	233	13
15	0	*2	*5	0	8	70
*13	0	2	*3	0	*8	*69
*15	0	*2	*3	*2	*9	*70
*16	0	*2	*4	*2	*9	*70
17	..	0	..	*1	72	9
19	..	0	..	*2	73	9
21	..	0	..	..	78	10
21	..	0	..	0	*78	*9
*20	..	*4	*1	..	162	10
*20	..	*4	*1	..	167	10
*21	..	*4	*1	..	171	10
*23	..	*4	*1	..	*175	*10
1,418	1,854	64	125	10	5,835	98
1,271	1,943	27	117	-15	5,416	89
1,291	1,699	21	101	-158	5,521	90
1,405	1,687	31	98	-64	5,443	87
25	360	3	..	..	33	3
23	347	2	..	..	33	3
23	319	3	..	..	33	3
21	293	3	..	..	32	3
0	..	..	..	..	0	38
0	..	..	..	..	0	31
0	..	..	..	..	0	26
0	..	..	..	..	0	30
220	47	*7	*1	..	*572	*13
164	8	*4	0	..	527	11
182	2	*6	1	..	517	11
164	2	*6	1	..	505	10
26	0	2	0	-1	154	18
32	..	2	0	-1	168	19
33	..	3	1	0	159	18
35	..	4	0	0	*162	*18
348	73	13	0	1	473	40
327	77	4	0	3	449	37
354	94	6	0	4	486	40
340	81	9	0	-18	485	40
*207	1	5	..	..	971	23
211	1	2	..	0	1,081	24
193	1	4	..	..	1,086	24
*193	*1	5	..	..	1,112	24
137	3	7	1	..	1,033	17
137	4	3	1	..	1,041	17
154	9	4	1	..	1,069	17
163	22	5	1	..	1,103	17
71	4	1	..	0	470	25
63	6	1	..	*-7	488	26
75	10	1	..	*-1	*499	*25
79	14	1	..	..	*535	*27

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					Heat
		Total	Solids	Liquids	Gases	Electricity	
Zimbabwe	2019	419	402	2	..	15	..
	2020	424	408	2	..	14	..
	2021	*450	*427	2	..	21	..
	2022	471	448	2	..	21	..
<b>Asia</b>	<b>2019</b>	<b>282,184</b>	<b>133,081</b>	<b>81,055</b>	<b>49,155</b>	<b>10,349</b>	<b>8,545</b>
	<b>2020</b>	<b>275,985</b>	<b>131,849</b>	<b>74,891</b>	<b>49,636</b>	<b>10,947</b>	<b>8,663</b>
	<b>2021</b>	<b>287,254</b>	<b>137,415</b>	<b>76,298</b>	<b>51,810</b>	<b>12,051</b>	<b>9,680</b>
	<b>2022</b>	<b>306,923</b>	<b>150,343</b>	<b>81,372</b>	<b>51,877</b>	<b>13,270</b>	<b>10,062</b>
Afghanistan	2019	82	73	..	5	5	..
	2020	*78	*71	..	3	4	..
	2021	*91	*84	..	*3	*5	..
	2022	*85	*78	..	*3	*5	..
Armenia	2019	41	8	..	..	9	24
	2020	45	8	..	..	7	30
	2021	39	7	..	..	9	22
	2022	48	8	..	..	9	31
Azerbaijan	2019	2,474	5	1,601	862	6	..
	2020	2,412	5	1,472	931	4	..
	2021	2,624	4	1,469	1,145	5	..
	2022	2,626	4	1,387	1,229	6	..
Bahrain	2019	1,047	0	438	609	0	..
	2020	1,045	0	439	606	0	..
	2021	1,024	0	430	594	0	..
	2022	1,022	0	424	598	0	..
Bangladesh	2019	1,592	601	17	970	4	..
	2020	1,498	601	16	876	5	..
	2021	1,560	654	18	885	3	..
	2022	1,487	628	18	837	4	..
Bhutan	2019	85	53	..	..	32	..
	2020	91	50	..	..	41	..
	2021	93	52	..	..	41	..
	2022	93	53	..	..	39	..
Brunei Darussalam	2019	637	0	253	384	0	..
	2020	604	0	231	373	0	..
	2021	564	0	223	340	0	..
	2022	505	0	192	313	0	..
Cambodia	2019	81	66	..	..	15	..
	2020	82	66	0	..	16	..
	2021	88	65	2	..	21	..
	2022	88	63	..	..	25	..
China	2019	110,416	84,418	8,407	6,978	6,851	3,762
	2020	112,748	85,211	8,548	7,652	7,382	3,956
	2021	118,080	88,391	8,729	8,319	8,240	4,401
	2022	127,765	96,307	8,976	8,938	9,033	4,512
China, Hong Kong SAR	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
China, Macao SAR	2019	4	4	..	..	0	..
	2020	3	3	..	..	0	..
	2021	4	4	..	..	0	..
	2022	3	3	..	..	0	..
Cyprus	2019	7	1	..	1	2	3
	2020	7	1	..	1	2	3
	2021	8	2	..	1	3	3
	2022	9	2	..	1	3	3

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
64	8	2	..	2	471	31
54	11	1	..	10	456	29
64	35	2	..	-12	*489	*31
78	29	3	..	0	518	32
<b>124,904</b>	<b>95,525</b>	<b>3,539</b>	<b>4,518</b>	<b>2,902</b>	<b>300,605</b>	<b>65</b>
<b>120,662</b>	<b>89,263</b>	<b>1,559</b>	<b>4,536</b>	<b>3,312</b>	<b>297,977</b>	<b>64</b>
<b>123,146</b>	<b>89,255</b>	<b>1,642</b>	<b>4,675</b>	<b>1,713</b>	<b>313,115</b>	<b>66</b>
<b>125,005</b>	<b>95,069</b>	<b>2,207</b>	<b>4,209</b>	<b>4,701</b>	<b>325,744</b>	<b>69</b>
133	22	0	..	*8	186	5
132	15	*1	..	*-1	195	5
*125	38	*1	..	*-1	*179	*4
*121	*26	0	..	*-1	*181	*4
112	5	3	..	1	144	50
118	5	2	..	1	156	54
128	4	*2	..	1	160	56
135	6	4	..	2	170	59
13	1,800	14	1	7	664	66
12	1,753	15	1	10	644	63
13	1,942	18	1	-4	679	66
115	1,977	19	0	20	725	70
494	864	22	..	-16	671	452
396	788	13	..	-24	665	448
403	790	14	..	-27	650	433
472	815	23	..	-16	673	439
581	2	18	6	..	2,148	13
683	0	14	6	..	2,160	13
706	1	10	7	..	2,249	13
789	0	8	7	..	2,261	13
14	23	0	..	..	76	100
13	34	0	..	..	71	92
16	29	0	..	..	79	102
17	26	0	..	..	83	106
98	553	5	..	*23	155	349
347	776	2	0	10	164	367
343	731	1	..	7	168	372
344	658	2	..	9	180	396
196	..	7	..	..	269	16
219	0	2	..	..	299	18
212	2	1	..	..	297	18
217	..	2	..	..	304	18
34,047	3,623	467	426	2,652	137,295	96
35,874	3,294	210	450	3,453	141,216	99
36,133	3,345	193	501	1,557	148,617	104
35,102	3,116	19	16	4,095	155,622	109
1,291	12	273	404	17	585	78
999	6	149	297	32	514	69
946	3	135	264	31	514	69
846	3	117	237	19	469	63
38	..	..	2	0	40	60
33	..	..	0	0	36	53
34	..	..	0	0	38	54
34	..	..	0	0	37	52
113	..	13	12	0	95	74
100	..	4	12	2	89	69
101	1	7	11	-2	92	70
111	1	11	12	2	94	71

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Georgia	2019	44	9	2	0	32	1
	2020	42	10	1	0	30	1
	2021	51	11	2	1	37	1
	2022	52	10	2	1	39	1
India	2019	24,078	19,899	*1,619	*1,062	996	502
	2020	23,642	19,641	*1,519	*975	*1,043	*465
	2021	25,213	20,903	*1,504	*1,163	*1,135	*509
	2022	27,491	23,091	1,471	*1,182	*1,253	495
Indonesia	2019	21,146	16,505	1,974	2,137	74	456
	2020	20,293	15,444	2,069	2,217	78	486
	2021	21,363	16,525	1,986	2,208	71	572
	2022	23,287	18,662	1,783	2,150	91	600
Iran (Islamic Rep. of)	2019	14,693	*126	5,918	8,460	117	73
	2020	14,433	*128	5,058	9,104	84	60
	2021	15,495	*133	6,021	9,244	49	47
	2022	16,122	*136	6,419	9,429	51	87
Iraq	2019	10,296	2	9,881	395	18	..
	2020	8,794	2	8,524	252	15	..
	2021	8,812	2	8,470	328	12	..
	2022	9,684	2	9,335	337	10	..
Israel	2019	343	6	4	304	10	21
	2020	577	6	6	529	13	23
	2021	716	5	7	661	17	25
	2022	810	5	8	751	20	25
Japan	2019	2,086	610	18	88	565	804
	2020	1,815	577	18	81	601	539
	2021	2,238	629	16	80	627	885
	2022	2,068	610	14	75	645	724
Jordan	2019	26	3	0	3	11	9
	2020	33	3	0	5	15	9
	2021	39	4	1	6	18	9
	2022	39	4	1	6	20	9
Kazakhstan	2019	6,984	1,883	3,853	1,206	42	..
	2020	6,650	1,857	3,647	1,102	44	..
	2021	6,650	1,921	3,723	961	45	..
	2022	6,753	2,062	3,673	971	48	..
Korea, Dem.Ppl's.Rep.	2019	791	751	..	..	40	..
	2020	755	709	..	..	46	..
	2021	645	587	..	..	58	..
	2022	671	612	..	..	60	..
Korea, Republic of	2019	1,989	244	70	18	68	1,589
	2020	2,169	243	75	15	92	1,744
	2021	2,155	236	80	10	108	1,721
	2022	2,381	240	85	10	131	1,916
Kuwait	2019	6,766	0	6,097	669	0	1
	2020	6,353	0	5,616	735	0	2
	2021	6,218	0	5,490	726	0	2
	2022	6,910	0	6,336	572	0	1
Kyrgyzstan	2019	100	40	10	1	50	..
	2020	103	41	10	1	50	..
	2021	106	47	12	1	47	..
	2022	114	58	12	1	43	..
Lao People's Dem. Rep.	2019	276	207	..	..	68	..
	2020	297	202	..	..	*95	..
	2021	316	204	..	..	*112	..
	2022	375	235	..	..	140	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
176	2	4	0	0	214	56
170	2	2	0	1	207	54
181	7	4	0	0	221	58
209	17	6	0	-2	239	63
*19,425	3,010	*175	*70	388	39,861	29
*16,930	2,620	*56	*60	473	37,364	27
*17,316	2,901	77	*66	-646	40,130	28
19,283	2,713	*136	*72	-223	44,076	31
2,160	12,153	40	9	44	11,060	41
1,737	11,517	19	*15	298	10,182	37
2,134	11,951	8	12	1,288	10,237	37
2,444	12,906	9	13	284	12,519	45
116	3,301	29	47	-204	11,636	134
117	2,779	13	39	-244	11,963	136
139	3,436	21	62	-255	12,370	140
141	4,138	31	62	-223	12,256	137
529	8,465	9	12	-16	2,354	57
689	7,351	3	10	6	2,112	50
692	7,094	5	10	-8	2,403	56
569	7,638	6	11	16	2,582	59
936	290	49	14	12	914	106
797	386	18	16	6	948	108
783	507	23	17	-5	955	107
837	577	39	23	9	999	110
16,663	840	303	179	-33	17,460	138
14,944	493	119	194	-189	16,142	128
15,461	610	166	193	-33	16,762	133
15,525	729	203	189	19	16,453	132
381	11	*4	1	1	390	37
331	11	*2	2	*11	338	31
317	11	*2	2	0	340	31
343	11	*2	2	*9	358	32
653	4,609	20	0	-3	3,010	157
545	4,403	9	0	20	2,764	142
162	*3,997	21	0	-93	2,887	146
113	*3,832	19	0	113	2,901	145
47	0	..	..	..	837	32
45	0	..	..	..	800	31
37	1	..	..	..	680	26
37	2	..	..	..	706	27
13,395	2,905	234	334	59	11,853	229
12,400	2,589	125	401	-82	11,536	222
12,894	2,465	110	424	-162	12,212	236
12,813	2,764	138	466	92	11,734	227
188	5,292	41	41	-72	1,652	372
224	5,016	19	39	-1	1,505	342
337	5,006	19	39	2	1,488	341
363	5,300	39	41	122	1,771	386
82	26	0	..	-3	159	24
80	25	0	..	8	150	22
97	27	0	..	4	172	25
101	37	..	..	-11	189	27
45	*81	*2	..	*6	232	32
43	*113	0	..	0	226	31
43	*133	0	..	*-8	*234	*31
42	*159	0	..	1	257	34

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Lebanon	2019	10	5	..	0	4	1
	2020	10	5	..	0	4	*1
	2021	9	5	..	..	3	*1
	2022	13	*5	..	..	7	*1
Malaysia	2019	4,167	126	1,364	2,577	100	..
	2020	3,760	110	1,215	2,328	106	..
	2021	3,904	114	1,130	2,540	120	..
	2022	4,042	118	1,100	2,704	120	..
Maldives	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Mongolia	2019	1,409	1,373	34	..	*2	..
	2020	1,172	1,147	24	..	2	..
	2021	885	855	27	..	3	..
	2022	947	930	15	..	2	..
Myanmar	2019	1,142	424	19	665	34	1
	2020	1,069	423	20	595	30	1
	2021	1,109	*408	9	657	35	1
	2022	1,173	494	13	631	33	2
Nepal	2019	440	404	..	10	22	4
	2020	453	416	..	10	22	5
	2021	476	426	..	10	35	5
	2022	*475	*421	..	11	38	5
Oman	2019	3,407	0	2,019	1,387	0	..
	2020	3,651	0	2,020	1,629	0	..
	2021	3,820	0	2,057	1,763	0	..
	2022	4,083	0	2,254	1,828	0	..
Other Asia	2019	483	70	13	6	40	353
	2020	473	69	15	5	40	344
	2021	446	70	20	5	48	304
	2022	426	71	19	4	71	261
Pakistan	2019	2,154	*816	171	908	153	106
	2020	2,126	*867	169	816	154	120
	2021	2,368	*874	172	990	147	184
	2022	2,268	*877	164	824	146	258
Philippines	2019	1,274	655	42	155	37	385
	2020	1,229	633	34	140	35	387
	2021	1,221	661	35	120	43	361
	2022	1,247	677	36	112	47	375
Qatar	2019	9,124	0	2,878	6,245	..	..
	2020	9,142	0	2,929	6,213	..	..
	2021	9,174	0	2,905	6,269	..	..
	2022	9,277	0	2,958	6,319	..	..
Saudi Arabia	2019	28,424	..	24,154	4,267	*1	2
	2020	26,111	..	21,808	4,299	*3	2
	2021	26,836	..	22,405	4,425	*4	*2
	2022	28,267	..	24,635	3,621	9	*2
Singapore	2019	27	25	..	..	1	..
	2020	25	24	..	..	2	..
	2021	25	22	..	..	3	..
	2022	30	26	..	..	4	..
Sri Lanka	2019	150	130	..	..	20	..
	2020	153	133	..	..	20	..
	2021	165	135	..	..	30	..
	2022	*165	*135	..	..	30	..



Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
347	..	12	*1	..	344	59
330	..	4	*1	*3	332	58
271	..	6	*1	..	273	48
217	..	10	*1	..	218	38
2,288	2,201	107	17	51	4,079	122
2,102	2,105	40	22	-58	3,752	111
2,262	2,285	32	27	-163	3,985	116
2,753	2,768	36	29	-196	4,159	120
31	..	*1	*2	..	28	58
27	..	0	*2	0	24	48
31	..	*1	*2	..	29	55
35	..	*1	*3	..	31	60
80	945	2	..	*3	540	167
77	820	1	..	*-60	488	148
76	475	1	..	*67	418	125
84	913	*3	..	*-353	468	138
287	532	3	0	..	894	17
255	444	1	..	0	879	17
200	498	0	..	-5	816	15
225	474	1	..	2	922	17
149	0	4	..	15	570	20
179	0	2	..	0	630	22
173	2	4	..	2	642	22
213	5	4	..	2	*677	*23
94	2,454	27	*4	0	1,015	221
88	2,542	7	*8	..	1,182	261
90	2,659	6	*2	..	1,242	276
106	2,853	13	*8	..	1,315	278
5,478	901	147	58	17	4,838	204
5,083	596	91	54	71	4,744	200
5,502	659	89	67	29	5,105	217
5,390	768	89	63	14	4,883	209
1,511	27	*9	1	..	3,628	16
1,828	18	7	1	..	3,929	17
1,975	28	11	0	..	4,305	18
1,690	26	*11	0	..	3,921	16
1,564	286	72	2	-36	2,513	23
1,405	242	25	4	-11	2,373	21
1,505	247	24	3	-4	2,455	22
1,650	189	54	5	71	2,578	23
3	7,294	99	..	3	1,732	619
32	7,335	65	..	43	1,731	617
30	7,309	78	..	33	1,784	634
42	7,365	98	..	13	1,844	638
*886	17,700	*149	*136	*132	11,194	367
*895	16,823	*48	*111	*-249	10,274	332
*895	16,244	*47	*120	*263	11,057	353
870	17,997	118	142	*615	10,265	319
7,265	3,535	372	1,928	-11	1,469	259
6,814	3,224	86	2,025	*28	1,475	263
6,716	3,193	88	2,030	-68	1,498	270
*6,751	2,905	297	1,945	30	*1,605	*284
326	2	21	26	1	427	19
288	8	8	15	-5	416	18
284	6	10	22	-25	436	19
262	0	15	16	-6	400	18

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
State of Palestine	2019	11	5	..	..	0	6
	2020	11	4	..	..	1	6
	2021	11	4	..	..	1	6
	2022	13	5	..	..	1	6
Syrian Arab Republic	2019	186	0	64	120	3	..
	2020	191	0	83	105	3	..
	2021	198	0	83	112	3	..
	2022	178	0	83	92	3	..
Tajikistan	2019	157	88	1	0	69	..
	2020	156	89	1	0	65	..
	2021	159	89	1	0	68	..
	2022	168	95	1	0	72	..
Thailand	2019	3,415	1,050	946	1,363	55	0
	2020	3,024	891	854	1,236	43	0
	2021	2,885	832	793	1,214	45	0
	2022	2,733	1,030	637	1,015	52	0
Timor-Leste	2019	206	1	40	165	0	..
	2020	197	1	26	170	0	..
	2021	206	1	26	179	0	..
	2022	94	1	17	76	0	..
Türkiye	2019	1,891	841	139	41	431	439
	2020	1,826	754	142	43	410	478
	2021	1,938	863	152	51	365	506
	2022	2,113	953	159	55	427	518
Turkmenistan	2019	3,399	0	442	2,956	0	..
	2020	3,251	0	431	2,820	0	..
	2021	3,277	0	420	2,857	0	..
	2022	3,580	0	412	3,168	0	..
United Arab Emirates	2019	9,723	0	7,772	1,935	13	2
	2020	9,155	0	7,200	1,934	19	3
	2021	9,201	0	7,223	1,847	20	112
	2022	10,309	1	8,104	1,952	27	226
Uzbekistan	2019	2,079	61	137	1,858	23	..
	2020	1,730	63	126	1,523	18	..
	2021	2,042	76	*118	1,829	18	..
	2022	1,983	80	99	1,779	25	..
Viet Nam	2019	2,643	1,484	488	346	325	..
	2020	2,337	1,332	393	310	302	0
	2021	2,561	1,503	399	264	395	0
	2022	2,724	1,545	414	284	480	0
Yemen	2019	176	5	168	1	2	..
	2020	160	6	152	1	2	..
	2021	148	6	140	1	2	..
	2022	125	6	117	1	2	..
<b>Europe</b>	<b>2019</b>	<b>105,776</b>	<b>22,387</b>	<b>31,350</b>	<b>34,160</b>	<b>4,704</b>	<b>13,176</b>
	<b>2020</b>	<b>100,150</b>	<b>20,722</b>	<b>29,845</b>	<b>32,226</b>	<b>5,189</b>	<b>12,168</b>
	<b>2021</b>	<b>105,503</b>	<b>22,189</b>	<b>30,085</b>	<b>35,145</b>	<b>5,249</b>	<b>12,836</b>
	<b>2022</b>	<b>100,865</b>	<b>21,556</b>	<b>30,292</b>	<b>32,500</b>	<b>5,190</b>	<b>11,328</b>
Albania	2019	73	9	43	2	19	1
	2020	63	9	32	2	19	1
	2021	77	12	30	2	32	1
	2022	66	11	28	2	25	1
Andorra	2019	1	0	..	..	0	..
	2020	1	0	..	..	0	..
	2021	1	0	..	..	0	..
	2022	1	0	..	..	0	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
71	0	..	..	..	82	17
72	0	..	..	..	83	16
77	0	..	..	..	89	17
93	0	..	..	..	106	20
326	27	0	11	..	473	23
299	29	0	11	..	451	21
289	28	0	11	..	447	21
290	27	0	11	..	429	19
51	12	2	..	..	195	20
59	8	1	..	..	206	21
60	13	1	..	..	205	21
69	13	3	..	..	221	22
3,284	506	*198	47	-97	6,043	84
3,247	518	*66	42	-85	5,731	80
3,402	528	*45	48	-54	5,721	80
3,486	407	*81	63	34	5,634	79
9	205	0	..	..	10	8
9	196	0	..	..	9	7
9	205	0	..	..	9	7
9	94	0	..	..	9	7
4,840	403	189	37	-15	6,118	72
4,757	361	81	22	-12	6,131	71
5,181	359	115	24	-32	6,653	77
5,227	455	170	27	157	6,530	75
0	2,397	13	..	..	990	146
0	2,258	3	..	..	991	143
0	1,750	1	..	..	1,526	215
0	1,871	3	..	..	1,706	236
2,000	7,442	316	677	*-2	3,289	351
2,334	7,228	196	666	-54	3,453	365
2,334	7,161	220	699	-27	3,482	356
2,353	8,036	327	717	*2	3,580	350
83	384	*6	..	-44	1,817	55
141	109	*5	..	-36	1,792	53
212	200	4	..	-33	2,083	61
236	172	7	..	25	2,015	58
1,940	289	56	7	15	4,215	43
2,295	327	25	6	-53	4,327	44
1,752	281	20	5	86	3,920	40
1,762	213	31	25	-45	4,262	43
67	97	0	4	..	142	4
66	97	0	4	..	125	3
68	90	0	4	..	121	3
72	70	0	4	..	124	3
<b>67,549</b>	<b>61,155</b>	<b>2,666</b>	<b>2,542</b>	<b>1,728</b>	<b>105,235</b>	<b>140</b>
<b>59,465</b>	<b>56,891</b>	<b>1,231</b>	<b>2,181</b>	<b>-828</b>	<b>100,140</b>	<b>133</b>
<b>62,124</b>	<b>58,205</b>	<b>1,426</b>	<b>2,222</b>	<b>-1,779</b>	<b>107,552</b>	<b>143</b>
<b>65,215</b>	<b>57,124</b>	<b>2,186</b>	<b>2,326</b>	<b>2,486</b>	<b>101,958</b>	<b>136</b>
68	37	1	1	4	98	34
67	34	1	1	5	89	31
61	38	1	1	2	95	33
64	33	2	1	3	91	32
9	0	0	..	..	9	121
7	0	0	..	..	7	96
7	0	0	..	..	8	102
8	0	0	..	..	8	103

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Austria	2019	504	230	44	41	180	9
	2020	502	237	38	35	183	9
	2021	505	*252	39	31	174	9
	2022	487	244	39	30	165	9
Belarus	2019	184	99	77	6	3	..
	2020	187	96	77	7	3	4
	2021	253	102	78	8	3	62
	2022	259	101	74	7	3	74
Belgium	2019	657	96	18	10	52	481
	2020	572	95	17	10	66	383
	2021	747	101	16	10	65	554
	2022	678	96	15	11	70	485
Bosnia and Herzegovina	2019	226	203	..	0	23	..
	2020	219	202	..	0	18	..
	2021	219	193	..	0	26	..
	2022	222	204	..	0	19	..
Bulgaria	2019	486	271	7	3	20	184
	2020	449	233	5	4	21	185
	2021	502	279	8	4	28	184
	2022	543	319	11	3	27	184
Croatia	2019	164	63	31	39	27	4
	2020	157	65	27	33	27	4
	2021	166	72	26	30	34	4
	2022	155	69	25	30	28	3
Czechia	2019	1,119	722	18	32	18	329
	2020	987	594	16	32	18	327
	2021	1,024	624	15	32	19	334
	2022	1,056	652	14	33	19	337
Denmark	2019	511	98	216	132	62	3
	2020	385	96	151	71	63	3
	2021	383	99	139	79	63	3
	2022	397	99	137	81	76	3
Estonia	2019	213	210	..	1	3	..
	2020	184	179	..	1	4	..
	2021	185	180	..	1	4	..
	2022	196	191	..	1	5	..
Faeroe Islands	2019	1	..	..	..	1	..
	2020	1	..	..	..	1	..
	2021	1	..	..	..	1	..
	2022	1	..	..	..	1	..
Finland	2019	784	432	14	8	67	262
	2020	747	383	14	7	88	256
	2021	799	417	26	8	89	259
	2022	799	396	25	7	93	278
France	2019	5,465	569	142	41	375	4,337
	2020	4,973	528	130	46	419	3,850
	2021	5,281	576	115	58	405	4,126
	2022	4,318	554	111	69	373	3,211
Germany	2019	4,355	2,032	283	501	684	855
	2020	4,036	1,815	263	494	721	743
	2021	4,274	2,046	266	505	663	794
	2022	3,999	2,092	259	491	730	427
Gibraltar	2019	0	..	..	..	0	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
1,282	239	41	1	107	1,399	157
1,027	233	14	1	-44	1,326	149
974	229	17	1	-160	1,392	155
1,191	175	26	1	161	1,315	145
1,558	632	8	..	15	1,087	115
1,379	497	5	..	12	1,052	112
1,383	488	5	..	0	1,142	123
1,279	424	5	..	0	1,109	121
3,687	1,601	73	347	36	2,286	199
3,198	1,326	50	267	29	2,098	182
3,379	1,488	63	317	-56	2,314	200
3,418	1,579	73	320	15	2,108	181
132	49	0	..	6	303	91
122	46	0	..	-3	298	90
137	53	1	..	-6	308	95
134	53	1	..	-3	305	95
525	225	10	3	9	764	110
440	157	6	4	-5	727	105
423	131	7	4	-8	792	115
539	236	9	3	35	799	117
338	130	8	1	2	361	91
321	133	2	1	-6	346	88
339	139	4	1	0	361	92
371	155	8	1	13	350	89
1,004	269	18	..	52	1,785	169
886	229	5	..	-45	1,683	160
996	279	7	..	-49	1,784	169
1,004	268	11	..	41	1,740	163
755	462	44	31	59	669	115
762	451	14	23	17	642	110
709	473	18	20	-94	675	115
734	425	31	22	5	648	110
117	105	3	8	9	204	154
140	117	1	13	5	188	142
134	130	2	13	-18	192	144
115	100	2	13	-6	201	149
*12	..	0	2	..	*11	*207
*13	..	0	2	..	*11	*210
*13	..	0	2	..	*11	*214
*12	..	0	2	..	*11	*199
1,051	429	36	14	-30	1,386	251
990	404	12	13	-14	1,322	239
850	310	12	12	-66	1,382	249
932	369	23	14	12	1,313	236
6,440	1,383	267	73	60	10,122	149
5,305	1,113	114	42	-87	9,097	133
5,525	1,018	116	46	-199	9,825	144
6,123	1,305	206	49	70	8,812	129
10,063	1,364	420	57	161	12,416	149
8,994	1,360	194	56	-234	11,653	139
9,425	1,517	260	59	-205	12,068	144
9,777	1,628	386	62	375	11,326	135
187	..	0	174	1	11	316
187	..	0	177	0	10	288
184	..	0	173	0	10	283
202	..	0	193	-1	10	275

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Greece	2019	252	163	14	6	57	12
	2020	191	100	11	6	62	13
	2021	199	94	9	5	78	13
	2022	208	103	7	6	79	14
Guernsey	2019	0	..	..	..	0	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..
Hungary	2019	458	135	68	59	9	186
	2020	449	133	62	59	12	183
	2021	452	133	66	53	17	183
	2022	449	128	66	53	20	182
Iceland	2019	344	..	..	0	48	296
	2020	337	..	..	0	47	289
	2021	334	..	..	0	50	284
	2022	338	..	..	0	51	286
Ireland	2019	172	38	2	92	39	1
	2020	146	27	2	71	45	1
	2021	124	27	3	55	38	1
	2022	127	28	4	51	43	1
Isle of Man	2019	*1	*1	..	..	0	..
	2020	*1	*1	..	..	0	..
	2021	*1	*1	..	..	0	..
	2022	*1	*1	..	..	0	..
Italy	2019	1,437	390	238	249	325	235
	2020	1,462	383	294	222	329	234
	2021	1,429	402	272	196	329	230
	2022	1,336	388	249	193	277	228
Jersey	2019	*1	*1	..	..	..	..
	2020	*1	*1	..	..	..	..
	2021	*1	*1	..	..	..	..
	2022	*1	*1	..	..	..	..
Kosovo	2019	77	76	..	..	1	0
	2020	80	78	..	..	1	0
	2021	81	79	..	..	2	0
	2022	75	73	..	..	2	0
Latvia	2019	118	104	3	3	8	0
	2020	113	97	3	3	10	0
	2021	113	98	3	3	10	0
	2022	122	106	3	2	11	0
Liechtenstein	2019	1	1	..	0	0	0
	2020	1	1	..	0	0	0
	2021	1	1	..	0	0	0
	2022	1	1	..	0	0	0
Lithuania	2019	83	55	8	2	7	11
	2020	82	57	8	2	7	8
	2021	90	65	8	2	7	9
	2022	82	60	8	2	8	4
Luxembourg	2019	10	7	..	1	2	0
	2020	13	10	..	1	2	0
	2021	13	10	..	1	2	0
	2022	13	10	..	1	2	0
Malta	2019	1	..	..	0	1	0
	2020	1	..	..	0	1	0
	2021	1	..	..	0	1	0
	2022	1	..	..	0	1	0

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
1,593	791	49	106	-16	915	85
1,558	814	15	69	35	816	76
1,624	912	30	77	-37	842	80
1,581	792	50	83	18	848	81
1	..	..	..	..	1	12
1	..	..	..	..	1	20
1	..	..	..	..	1	20
1	..	..	..	..	1	19
979	198	12	..	113	1,114	114
801	179	4	..	-31	1,098	113
800	177	5	..	-80	1,149	118
854	159	11	..	58	1,075	111
43	..	13	3	-2	374	1,036
30	..	4	1	-1	363	991
38	..	6	2	1	363	975
47	..	12	4	0	368	969
505	69	46	6	-20	575	117
486	71	16	6	-19	557	112
538	71	18	7	-12	578	115
558	67	42	5	2	569	111
5	1	..	..	..	5	58
5	1	..	..	..	5	57
4	0	..	..	..	4	47
5	1	..	..	..	4	53
6,362	1,241	170	112	55	6,221	103
5,486	1,068	64	103	-31	5,744	96
6,031	1,237	70	106	-196	6,243	104
6,371	1,394	122	104	140	5,946	100
2	..	..	..	..	3	29
2	..	..	..	..	3	29
2	..	..	..	..	3	30
2	..	..	..	..	3	28
39	4	0	..	0	112	64
39	5	0	..	1	112	64
52	12	0	..	0	122	70
50	13	0	..	0	112	65
181	*89	7	12	*3	188	98
166	*78	2	9	*10	180	95
164	*86	3	9	*-9	188	100
162	*88	6	5	*8	178	95
2	0	..	..	..	3	79
2	0	..	..	..	3	77
3	0	..	..	..	3	81
2	0	..	..	..	3	75
613	365	5	8	3	315	113
534	293	2	8	3	310	111
536	291	3	8	3	321	115
593	377	4	7	2	286	101
188	4	26	..	0	168	270
161	5	23	..	0	145	230
171	5	27	..	0	153	239
156	7	28	..	0	135	207
146	16	7	96	-2	30	60
129	8	3	92	-1	29	56
117	5	3	82	-2	30	56
128	2	5	90	1	32	61

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					Heat
		Total	Solids	Liquids	Gases	Electricity	
Montenegro	2019	32	25	..	..	7	..
	2020	31	25	..	..	6	..
	2021	32	23	..	..	8	..
	2022	32	25	..	..	6	..
Netherlands (Kingd. of the)	2019	1,375	124	118	1,014	61	58
	2020	1,139	132	116	741	86	64
	2021	1,106	152	120	667	106	61
	2022	995	136	99	557	139	64
North Macedonia	2019	49	43	..	1	5	0
	2020	46	40	0	1	5	0
	2021	37	30	..	1	6	0
	2022	44	37	..	1	6	0
Norway	2019	8,148	61	3,386	4,226	471	4
	2020	8,732	62	4,013	4,107	546	3
	2021	8,953	71	4,094	4,223	561	4
	2022	9,044	71	3,878	4,574	516	5
Poland	2019	2,601	2,294	83	156	64	5
	2020	2,422	2,109	81	156	72	5
	2021	2,506	2,185	81	153	81	6
	2022	2,470	2,121	83	152	108	6
Portugal	2019	245	130	14	3	86	12
	2020	254	132	12	3	94	12
	2021	259	134	12	4	98	11
	2022	246	136	11	4	84	12
Republic of Moldova	2019	*28	*27	0	0	0	..
	2020	*29	*28	0	0	0	..
	2021	32	31	0	0	1	..
	2022	22	21	0	0	1	..
Romania	2019	1,031	315	161	344	87	123
	2020	941	263	159	307	87	125
	2021	966	291	150	309	92	123
	2022	934	276	142	313	83	121
Russian Federation	2019	62,735	11,011	23,795	24,936	707	2,287
	2020	58,759	10,157	21,905	23,561	777	2,359
	2021	63,665	11,218	22,454	26,758	792	2,442
	2022	60,648	10,661	23,097	23,707	740	2,443
Serbia	2019	426	335	38	16	37	0
	2020	458	369	37	15	36	0
	2021	425	330	36	14	45	0
	2022	401	318	35	13	35	0
Slovakia	2019	287	83	8	10	18	168
	2020	280	76	8	8	19	169
	2021	291	85	8	8	18	173
	2022	282	77	8	6	16	175
Slovenia	2019	145	62	0	1	17	64
	2020	151	61	0	1	19	70
	2021	140	58	0	1	19	63
	2022	128	52	0	1	14	62
Spain	2019	1,375	243	86	17	323	705
	2020	1,406	244	81	15	370	697
	2021	1,437	255	77	15	409	681
	2022	1,444	255	76	15	402	696
Sweden	2019	1,513	463	19	8	309	715
	2020	1,394	472	19	8	363	532
	2021	1,471	496	26	8	370	572
	2022	1,458	487	22	8	378	561



Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
22	7	1	..	-1	47	76
35	23	0	..	-1	44	72
37	22	1	..	0	46	76
36	23	1	..	0	45	72
7,734	5,393	169	472	100	2,976	170
6,952	4,579	94	493	39	2,886	164
7,332	5,259	103	473	-364	2,966	167
7,838	5,227	135	480	367	2,624	147
95	25	1	..	-1	118	62
90	20	1	..	1	113	60
101	24	1	..	1	112	60
99	26	1	..	1	114	62
501	7,488	24	14	-35	1,158	217
460	7,987	7	13	37	1,148	213
456	8,236	7	13	-36	1,190	220
484	8,428	19	14	18	1,048	192
2,657	616	46	12	172	4,412	115
2,453	596	20	13	-37	4,285	112
2,507	628	24	15	-204	4,551	120
2,698	651	42	11	119	4,345	113
1,009	240	63	40	2	910	88
866	263	22	29	-42	848	82
867	245	29	28	-18	843	81
911	215	60	30	2	850	82
92	0	2	..	0	117	38
89	1	1	..	3	113	37
97	0	2	..	2	124	41
100	8	2	..	1	111	37
677	249	6	1	55	1,397	72
599	213	2	2	-32	1,355	70
681	221	3	1	-19	1,440	75
706	271	3	1	33	1,332	69
980	31,808	251	457	461	30,738	210
993	29,168	206	288	-404	30,495	208
930	29,205	245	256	662	34,227	235
846	26,743	216	280	733	33,523	230
280	56	6	1	11	633	91
257	61	3	1	-8	657	95
299	67	5	1	-17	668	98
356	53	6	0	24	674	99
691	195	2	..	75	705	129
594	207	1	..	-18	683	125
639	248	1	..	-63	743	137
684	201	1	..	71	692	126
285	133	1	8	2	286	137
240	115	0	5	0	271	129
236	100	0	4	-4	277	131
276	131	1	..	2	270	128
5,420	1,208	205	301	51	5,030	106
4,544	1,187	66	267	-98	4,528	95
4,858	1,227	77	307	-110	4,794	100
5,294	1,303	153	361	123	4,797	100
1,288	638	38	85	32	2,008	195
1,345	714	15	106	96	1,808	175
1,298	860	15	106	-147	1,935	186
1,344	809	27	88	29	1,849	176

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Switzerland	2019	544	103	1	6	145	289
	2020	520	104	0	6	146	264
	2021	475	111	0	6	144	213
	2022	497	104	0	6	122	265
Ukraine	2019	2,503	739	108	685	41	930
	2020	2,374	716	105	668	55	831
	2021	2,264	542	104	613	66	939
	2022	1,969	550	95	593	55	676
United Kingdom	2019	5,042	322	2,307	1,509	296	608
	2020	4,876	312	2,156	1,521	341	545
	2021	4,193	316	1,803	1,281	296	497
	2022	4,319	301	1,670	1,474	357	517
Latin America & Carib.	2019	37,990	7,870	19,165	7,104	3,098	753
	2020	35,746	7,090	18,199	6,574	3,111	773
	2021	36,268	7,340	18,128	6,829	3,174	797
	2022	37,653	7,239	19,021	7,044	3,574	775
Anguilla	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Antigua and Barbuda	2019	0	..	..	..	0	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..
Argentina	2019	3,272	99	1,383	1,553	152	86
	2020	3,050	92	1,298	1,420	125	116
	2021	3,138	99	1,373	1,425	125	117
	2022	3,372	99	1,524	1,519	144	86
Aruba	2019	*1	0	..	..	*1	..
	2020	*1	0	..	..	*1	..
	2021	*1	0	..	..	*1	..
	2022	*1	0	..	..	*1	..
Bahamas	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Barbados	2019	3	0	1	1	0	..
	2020	2	0	1	0	0	..
	2021	2	0	1	0	0	..
	2022	2	0	1	0	0	..
Belize	2019	7	5	2	0	0	..
	2020	7	5	1	0	1	..
	2021	8	6	1	..	1	..
	2022	7	6	1	..	1	..
Bolivia (Plur. State of)	2019	745	44	120	568	13	..
	2020	716	44	112	548	12	..
	2021	738	*45	116	564	13	..
	2022	679	*45	108	512	13	..
Bonaire, St Eustatius, Saba	2019	0	..	..	..	0	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..
Brazil	2019	12,770	2,842	7,218	877	1,658	174
	2020	13,170	3,019	7,541	788	1,671	152
	2021	13,237	3,101	7,373	936	1,627	200
	2022	13,504	2,979	7,508	875	1,940	203

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
715	148	80	0	8	1,023	119
625	136	29	0	8	971	112
620	121	33	0	-14	954	110
624	132	59	0	-22	951	108
1,460	66	..	..	161	3,736	83
1,291	52	..	..	67	3,547	79
1,356	61	..	..	-108	3,667	83
768	51	..	..	53	2,633	64
5,756	3,182	505	96	8	7,007	104
4,792	2,943	210	79	-36	6,473	96
5,188	2,591	202	81	-148	6,655	98
5,737	3,199	394	82	-15	6,396	94
<b>12,368</b>	<b>14,724</b>	<b>599</b>	<b>397</b>	<b>-78</b>	<b>34,716</b>	<b>54</b>
<b>10,582</b>	<b>14,295</b>	<b>274</b>	<b>332</b>	<b>-951</b>	<b>32,376</b>	<b>50</b>
<b>12,108</b>	<b>13,005</b>	<b>370</b>	<b>353</b>	<b>-425</b>	<b>35,073</b>	<b>54</b>
<b>12,276</b>	<b>14,016</b>	<b>551</b>	<b>378</b>	<b>-145</b>	<b>35,128</b>	<b>54</b>
2	..	0	0	0	2	140
2	..	0	0	0	2	133
2	..	0	0	0	2	140
3	..	0	0	0	2	144
*14	0	2	*3	..	*9	*98
*14	0	*2	*3	..	*9	*95
*14	0	*2	*3	..	*9	*97
*14	0	2	*3	..	*9	*97
400	325	39	19	-21	3,311	74
352	329	17	14	-6	3,048	67
564	323	17	6	-22	3,379	75
553	515	32	21	5	3,352	74
*15	..	*4	0	..	*12	*112
*15	..	*3	0	..	*12	*110
*16	..	*4	0	..	*12	*116
16	..	*4	*1	..	13	118
56	0	*12	6	*1	36	92
45	0	*11	6	*-2	29	74
70	0	*17	9	*6	39	98
54	0	*12	6	*-6	42	106
22	1	6	..	-1	19	66
19	1	3	..	0	17	61
18	1	2	..	1	16	56
21	1	5	..	0	18	62
13	1	*1	..	0	18	47
10	0	*1	..	0	16	40
11	0	*1	..	0	18	45
12	0	1	..	0	18	45
76	429	3	..	1	387	33
44	434	1	..	0	324	27
76	437	1	..	-2	378	32
99	371	2	..	1	402	33
*3	..	0	*1	0	*2	*83
*2	..	0	0	0	*2	*76
*2	..	0	0	0	*2	*77
*2	..	0	*1	0	*2	*76
2,589	3,047	102	140	88	11,981	58
2,273	3,574	43	156	-35	11,705	56
2,808	3,235	46	123	-2	12,643	60
2,676	3,534	75	134	99	12,337	59

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
British Virgin Islands	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Cayman Islands	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Chile	2019	572	360	22	58	122	10
	2020	*525	*325	17	45	128	11
	2021	543	330	16	45	135	16
	2022	609	328	45	51	162	23
Colombia	2019	5,357	2,710	2,012	438	197	..
	2020	4,210	1,818	1,785	426	181	..
	2021	4,308	1,993	1,693	397	226	..
	2022	4,396	2,043	1,734	392	226	..
Costa Rica	2019	109	19	1	0	35	54
	2020	116	19	1	0	35	61
	2021	116	18	1	0	39	58
	2022	116	18	1	0	39	58
Cuba	2019	183	48	101	33	*1	..
	2020	170	39	99	32	*1	..
	2021	172	35	103	32	*1	..
	2022	136	26	77	32	1	..
Curaçao	2019	1	..	..	..	1	..
	2020	1	..	..	..	1	..
	2021	1	..	..	..	1	..
	2022	1	..	..	..	1	..
Dominica	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Dominican Republic	2019	41	32	..	0	9	0
	2020	45	34	..	0	11	0
	2021	49	35	..	0	13	0
	2022	*44	*33	..	0	11	0
Ecuador	2019	1,284	23	1,148	23	89	0
	2020	1,169	22	1,039	20	88	0
	2021	1,158	21	1,024	21	92	0
	2022	1,166	18	1,039	19	89	0
El Salvador	2019	78	21	..	1	7	49
	2020	84	21	..	0	11	52
	2021	84	20	..	0	11	52
	2022	89	19	..	0	13	57
Falkland Is. (Malvinas)	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Grenada	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Guatemala	2019	445	392	23	0	18	11
	2020	457	403	19	0	23	12
	2021	495	447	15	0	22	10
	2022	492	446	9	0	27	10

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
*3	0	..	..	..	*3	*71
*3	0	..	..	..	*3	*68
*3	0	..	..	..	*3	*69
*3	0	..	..	..	*3	*69
11	..	1	..	..	10	147
10	..	1	..	..	9	134
9	..	0	..	..	9	130
10	..	1	..	..	9	130
1,220	23	32	4	5	1,728	90
1,080	29	17	1	-16	1,573	81
1,177	39	19	3	4	1,655	85
1,206	49	29	3	-3	1,737	89
242	3,619	58	6	61	1,855	37
189	3,498	26	5	-850	1,719	34
259	2,974	37	6	-322	1,872	37
328	3,042	71	..	-71	1,683	33
122	2	10	..	4	215	43
96	3	4	..	-2	207	41
116	4	8	..	3	217	43
116	3	11	..	-3	221	43
222	*22	4	*17	..	363	32
210	*17	5	*15	..	342	31
211	*3	4	*16	..	359	32
248	*5	1	*14	..	364	33
123	0	4	81	..	39	206
99	..	2	66	..	33	178
105	..	2	69	..	35	188
112	..	4	73	..	36	194
*2	0	0	0	0	*3	*38
*2	0	0	0	0	*2	*35
*2	0	0	0	0	*2	*36
*2	0	0	0	0	*2	*37
404	2	22	..	-1	422	39
350	2	9	..	0	384	35
401	2	16	..	-2	434	39
423	2	22	..	0	444	39
294	933	11	23	-19	629	36
248	867	6	6	17	521	30
286	817	8	36	-22	604	34
307	787	10	40	-13	648	36
117	1	8	..	..	187	30
96	7	3	..	..	170	27
115	9	6	..	..	184	29
129	11	7	..	..	201	32
1	..	..	..	..	1	162
1	..	..	..	..	1	163
1	..	..	..	..	1	159
*1	..	..	..	..	*1	*161
5	..	0	..	0	5	44
4	..	0	..	0	4	38
5	..	0	..	0	5	41
5	..	0	..	0	5	44
303	32	4	18	33	660	39
239	23	2	17	3	650	37
307	25	4	20	26	727	41
285	22	5	20	13	717	40

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Guyana	2019	6	4	3	..	0	..
	2020	*164	4	*160	..	0	..
	2021	196	4	192	..	0	..
	2022	587	3	584	..	0	..
Haiti	2019	147	146	0	..	1	..
	2020	142	141	0	..	1	..
	2021	144	144	0	..	0	..
	2022	142	141	0	..	1	..
Honduras	2019	107	81	..	..	16	11
	2020	101	74	..	..	16	11
	2021	104	71	..	..	20	13
	2022	103	71	..	..	20	12
Jamaica	2019	*13	*11	..	..	2	..
	2020	*12	*10	..	..	2	..
	2021	12	10	..	..	2	..
	2022	11	9	..	..	2	..
Mexico	2019	6,328	569	4,109	1,151	172	327
	2020	6,489	548	4,099	1,312	200	329
	2021	6,504	486	4,139	1,329	246	303
	2022	6,610	484	4,157	1,393	277	299
Montserrat	2019	0	..	..	..	0	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..
Nicaragua	2019	96	64	..	0	4	28
	2020	94	63	..	0	4	28
	2021	95	64	..	0	5	26
	2022	*99	*69	..	0	4	25
Panama	2019	34	12	..	..	22	..
	2020	42	12	..	..	30	..
	2021	47	12	..	..	35	..
	2022	45	11	..	..	34	..
Paraguay	2019	309	122	8	..	178	..
	2020	293	119	7	..	167	..
	2021	273	120	8	..	146	..
	2022	283	117	8	..	158	..
Peru	2019	1,009	137	259	489	122	1
	2020	932	143	228	439	119	2
	2021	943	155	*201	461	124	2
	2022	1,041	149	*217	555	117	2
Puerto Rico	2019	2	..	..	0	2	..
	2020	2	..	..	0	2	..
	2021	2	..	..	0	2	..
	2022	2	..	..	0	2	..
Saint Barthélemy	2019	0	..	..	..	0	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..
Saint Martin (French Part)	2019	0	..	..	..	0	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..
Sint Maarten (Dutch part)	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
38	0	1	..	3	40	50
39	158	0	..	5	40	50
43	*189	0	..	7	42	52
59	*585	0	..	0	60	73
44	..	1	..	..	190	17
45	..	0	..	..	187	17
49	..	0	..	..	193	17
40	..	1	..	..	182	16
160	21	..	..	-1	248	25
148	19	..	..	1	229	23
163	17	..	..	2	248	24
172	21	..	..	1	254	24
154	13	10	3	-2	143	51
130	26	3	3	0	110	39
133	20	5	3	1	116	41
135	15	8	3	-1	121	43
4,253	2,844	175	33	-176	7,706	61
3,702	2,919	78	7	-58	7,246	57
3,900	2,747	124	18	-11	7,525	59
3,874	2,638	178	24	-5	7,650	59
0	..	0	0	..	0	77
0	..	0	0	..	0	77
0	..	0	0	..	0	*77
0	..	0	0	..	0	79
77	2	1	..	2	168	26
69	3	0	..	-1	161	25
75	4	0	..	-3	168	25
85	4	1	..	7	172	26
191	2	26	..	-4	201	48
112	2	9	..	16	126	29
143	2	15	..	-7	180	41
178	2	28	..	-4	198	45
116	117	3	..	0	304	47
105	104	1	..	2	292	44
111	83	1	..	-4	304	45
105	91	2	..	0	294	44
469	384	31	17	-43	1,089	34
330	320	11	9	-26	946	29
442	302	14	16	-71	1,124	34
488	328	20	10	-12	1,183	35
67	..	..	..	..	69	21
49	..	..	..	..	51	16
70	..	..	..	..	72	22
50	..	..	..	..	52	16
*2	..	0	0	..	*2	*147
*2	..	0	0	..	*2	*145
*2	..	0	0	..	*2	*144
*2	..	0	0	..	*2	*154
*9	..	0	*3	..	*6	*171
*9	..	0	*3	..	*6	*184
*9	..	0	*3	..	*6	*196
*9	..	0	*3	..	*6	*202
*20	..	*1	*8	..	*11	*269
*18	..	0	*7	..	*10	*253
*19	..	*1	*8	..	*11	*259
*20	..	*2	*8	..	*11	*260

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
St. Kitts-Nevis	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
St. Lucia	2019	*1	*1	..	..	0	..
	2020	*1	*1	..	..	0	..
	2021	*1	*1	..	..	0	..
	2022	*1	*1	..	..	0	..
St. Vincent-Grenadines	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Suriname	2019	44	2	39	0	3	..
	2020	43	1	39	0	2	..
	2021	44	1	39	0	3	..
	2022	40	1	35	0	3	..
Trinidad and Tobago	2019	1,444	0	164	1,280	0	..
	2020	1,226	0	153	1,073	0	..
	2021	1,079	0	156	923	0	..
	2022	1,136	0	160	976	0	..
Turks and Caicos Islands	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
United States Virgin Is.	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Uruguay	2019	142	90	3	..	48	..
	2020	132	93	3	..	36	..
	2021	137	95	3	..	39	..
	2022	*136	*94	2	..	39	..
Venezuela (Bolivar. Rep.)	2019	3,440	34	2,549	631	226	..
	2020	2,350	40	1,597	470	242	..
	2021	2,639	27	1,674	694	244	..
	2022	2,803	27	1,811	718	247	..
<b>Northern America</b>	<b>2019</b>	<b>119,098</b>	<b>18,858</b>	<b>44,949</b>	<b>40,299</b>	<b>3,963</b>	<b>11,029</b>
	<b>2020</b>	<b>112,130</b>	<b>14,804</b>	<b>42,683</b>	<b>39,629</b>	<b>4,218</b>	<b>10,796</b>
	<b>2021</b>	<b>115,328</b>	<b>15,836</b>	<b>43,666</b>	<b>40,846</b>	<b>4,355</b>	<b>10,624</b>
	<b>2022</b>	<b>120,605</b>	<b>16,114</b>	<b>46,124</b>	<b>43,119</b>	<b>4,753</b>	<b>10,494</b>
Bermuda	2019	*1	*1	..	..	0	..
	2020	*1	*1	..	..	0	..
	2021	*1	*1	..	..	0	..
	2022	*1	*1	..	..	0	..
Canada	2019	22,565	1,652	11,651	6,662	1,506	1,095
	2020	21,713	1,474	11,140	6,502	1,535	1,062
	2021	22,527	1,523	11,761	6,711	1,530	1,002
	2022	23,454	1,548	12,163	7,215	1,585	944
Greenland	2019	2	0	..	..	1	..
	2020	2	0	..	..	2	..
	2021	2	0	..	..	2	..
	2022	2	0	..	..	2	..
St. Pierre-Miquelon	2019	0	0	..	..	..	..
	2020	0	0	..	..	..	..
	2021	0	0	..	..	..	..
	2022	0	0	..	..	..	..



Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
*4	..	0	..	..	*4	*79
*4	..	0	..	..	*3	*74
*4	..	0	..	..	*3	*73
*4	..	0	..	..	*4	*77
9	..	*1	0	..	8	44
*8	..	*1	0	..	*8	*43
*9	..	*1	0	..	*8	*44
*9	..	*1	0	..	*8	*45
3	0	0	..	0	3	32
3	0	0	..	0	4	35
*3	0	0	..	0	*4	*34
*4	0	0	..	0	*4	*36
13	*11	*2	*2	0	43	71
13	*8	*1	*1	0	45	74
12	*10	2	*2	0	42	68
13	5	*2	*2	..	44	71
90	807	7	3	-1	718	484
82	686	4	3	0	616	416
82	510	3	4	0	643	432
79	*548	*3	*5	1	658	440
*6	..	*1	..	..	*5	*122
*6	..	*1	..	..	*5	*117
*6	..	*1	..	..	*5	*117
*6	..	*1	..	..	*5	*115
..	..	..	..	..	0	*2
..	..	..	..	..	0	*2
..	..	..	..	..	0	*2
..	..	..	..	..	0	2
95	11	4	7	-6	220	65
100	4	2	4	3	219	64
107	11	2	4	-7	234	69
110	5	3	4	0	233	69
289	2,075	9	4	..	1,641	57
203	1,260	3	3	..	1,287	45
146	1,239	6	3	..	1,537	54
206	1,432	7	3	-157	1,724	61
<b>26,377</b>	<b>36,847</b>	<b>1,269</b>	<b>978</b>	<b>966</b>	<b>105,414</b>	<b>281</b>
<b>23,123</b>	<b>35,950</b>	<b>747</b>	<b>672</b>	<b>585</b>	<b>97,299</b>	<b>258</b>
<b>24,353</b>	<b>38,424</b>	<b>925</b>	<b>744</b>	<b>-2,306</b>	<b>101,893</b>	<b>269</b>
<b>24,214</b>	<b>40,906</b>	<b>1,106</b>	<b>696</b>	<b>-1,498</b>	<b>103,609</b>	<b>272</b>
9	..	*1	0	0	9	137
7	..	*1	0	..	7	102
8	..	*1	0	0	8	118
*8	..	*1	0	0	*8	*120
3,809	13,514	208	12	-127	12,767	338
3,276	12,792	90	12	196	11,899	312
3,099	13,514	91	9	-144	12,156	316
3,104	13,993	157	8	-56	12,456	321
9	..	..	1	0	10	170
8	..	..	1	0	9	166
8	..	..	1	0	9	168
9	..	..	1	*-1	10	186
*1	..	..	0	..	*1	*158
*1	..	..	0	..	*1	*150
*1	..	..	0	..	*1	*136
*1	..	..	0	..	*1	*131

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
United States	2019	96,530	17,206	33,298	33,637	2,455	9,934
	2020	90,415	13,330	31,543	33,127	2,681	9,734
	2021	92,799	14,313	31,905	34,135	2,824	9,623
	2022	97,148	14,566	33,962	35,904	3,167	9,550
<b>Oceania</b>	<b>2019</b>	<b>19,989</b>	<b>12,975</b>	<b>814</b>	<b>5,590</b>	<b>283</b>	<b>327</b>
	<b>2020</b>	<b>20,307</b>	<b>12,695</b>	<b>989</b>	<b>5,987</b>	<b>307</b>	<b>329</b>
	<b>2021</b>	<b>19,166</b>	<b>11,829</b>	<b>884</b>	<b>5,769</b>	<b>348</b>	<b>335</b>
	<b>2022</b>	<b>19,507</b>	<b>11,764</b>	<b>903</b>	<b>6,097</b>	<b>404</b>	<b>339</b>
American Samoa	2019	0	..	..	..	0	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..
Australia	2019	18,656	12,782	727	4,956	173	18
	2020	18,958	12,512	879	5,346	202	19
	2021	17,855	11,647	789	5,158	241	20
	2022	18,186	11,594	811	5,472	288	21
Cook Islands	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Fiji	2019	7	5	..	..	2	..
	2020	6	4	..	..	2	..
	2021	*6	*4	..	..	2	..
	2022	*7	*5	..	..	2	..
French Polynesia	2019	1	0	..	..	1	0
	2020	1	0	..	..	1	0
	2021	1	0	..	..	1	0
	2022	1	0	..	..	1	0
Guam	2019	0	..	..	..	0	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..
Kiribati	2019	*1	*1	..	..	0	..
	2020	*1	*1	..	..	0	..
	2021	*1	*1	..	..	0	..
	2022	*1	*1	..	..	0	..
Marshall Islands	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Micronesia (Fed. States of)	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Nauru	2019	0	..	..	..	0	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..
New Caledonia	2019	2	0	0	..	2	0
	2020	2	0	0	..	2	0
	2021	3	0	0	..	2	0
	2022	3	0	0	..	3	0
New Zealand	2019	753	118	58	170	101	306
	2020	728	109	49	166	96	307
	2021	706	108	43	146	97	312
	2022	687	94	39	134	106	314

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
22,549	23,332	1,060	965	1,093	92,628	274
19,832	23,158	656	659	390	85,384	252
21,237	24,911	834	734	-2,161	89,719	264
21,093	26,913	949	686	-1,441	91,134	267
<b>2,854</b>	<b>15,502</b>	<b>276</b>	<b>49</b>	<b>48</b>	<b>6,969</b>	<b>160</b>
<b>2,660</b>	<b>15,743</b>	<b>190</b>	<b>40</b>	<b>81</b>	<b>6,913</b>	<b>157</b>
<b>2,511</b>	<b>14,934</b>	<b>72</b>	<b>26</b>	<b>-107</b>	<b>6,753</b>	<b>152</b>
<b>2,594</b>	<b>15,217</b>	<b>106</b>	<b>37</b>	<b>141</b>	<b>6,601</b>	<b>147</b>
*7	..	*1	0	..	*6	*112
*6	..	*1	0	..	*6	*111
*6	..	*1	0	..	*6	*112
*7	..	*1	0	..	*6	*116
2,217	14,909	209	31	67	5,657	222
2,090	15,144	161	27	64	5,652	220
1,969	14,357	52	16	-95	5,494	212
2,035	14,609	73	24	145	5,371	205
*2	..	0	0	..	*1	*75
*1	..	0	0	..	*1	*66
*1	..	0	0	..	*1	*73
*1	..	0	0	..	*1	*79
34	5	5	3	0	28	31
27	3	2	3	..	26	28
22	4	1	2	..	22	24
29	2	4	4	..	27	29
13	..	..	..	0	13	48
12	..	..	..	0	13	45
13	..	..	..	0	13	47
13	..	..	..	0	14	49
0	..	..	..	..	0	2
0	..	..	..	..	0	2
0	..	..	..	..	0	*2
0	..	..	..	..	0	*2
*1	..	0	..	..	*2	*13
*1	..	0	..	..	*2	*13
*1	..	0	..	..	*2	*12
*1	..	0	..	..	*2	*12
*2	..	0	..	..	*2	*52
*2	..	0	..	..	*2	*53
*2	..	0	..	..	*2	*54
*2	..	0	..	..	*2	*57
*3	..	0	0	..	*2	*20
*3	..	0	0	..	*2	*19
*3	..	0	0	..	*2	*19
*3	..	0	0	..	*2	*19
*1	..	0	0	..	*1	*64
*1	..	0	0	..	*1	*64
*1	..	0	0	..	*1	*68
*1	..	0	0	..	*1	*70
68	..	1	0	-1	69	243
64	..	1	0	3	63	220
51	..	0	1	-4	57	199
63	..	1	1	1	64	222
372	92	54	13	-16	982	197
326	72	22	7	18	935	184
314	69	13	5	-9	941	184
308	77	23	6	-5	895	174

Table 2

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Country or area	Year	Primary energy production					
		Total	Solids	Liquids	Gases	Electricity	Heat
Niue	2019	0	0	..	..	0	0
	2020	0	0	..	..	0	0
	2021	0	0	..	..	0	0
	2022	0	0	..	..	0	0
Northern Mariana Islands	2019	..	..	..	..	..	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..
Palau	2019	0	..	..	..	0	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..
Papua New Guinea	2019	563	64	29	464	4	3
	2020	605	64	60	474	4	3
	2021	589	65	52	465	4	3
	2022	*616	65	*53	*492	*3	3
Samoa	2019	2	1	..	0	0	0
	2020	2	1	..	0	0	0
	2021	1	1	..	0	0	0
	2022	1	1	..	0	0	0
Solomon Islands	2019	*3	*3	..	..	0	..
	2020	*3	*3	..	..	0	..
	2021	*3	*3	..	..	0	..
	2022	*3	*3	..	..	0	..
Tonga	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..
Tuvalu	2019	0	..	..	..	0	..
	2020	0	..	..	..	0	..
	2021	0	..	..	..	0	..
	2022	0	..	..	..	0	..
Vanuatu	2019	1	1	0	..	0	..
	2020	1	1	0	..	0	..
	2021	1	1	0	..	0	..
	2022	*1	*1	0	..	0	..
Wallis and Futuna Is.	2019	0	0	..	..	0	..
	2020	0	0	..	..	0	..
	2021	0	0	..	..	0	..
	2022	0	0	..	..	0	..

## Components of Total Energy Supply

Petajoules and gigajoules per capita

Imports	Exports	International bunkers		Stock changes	Supply	
		Aviation	Marine		Total	Per capita
0	..	0	..	..	0	*51
0	..	0	..	..	0	*51
0	..	0	..	..	0	*51
0	..	0	..	..	0	*52
*6	0	0	1	..	*5	*110
*4	0	0	0	..	*4	*79
*5	0	0	1	..	*4	*91
*5	0	0	1	..	*4	*92
*3	..	0	..	..	*3	*169
*3	..	0	..	..	*3	*165
*3	..	0	..	..	*3	*166
*3	..	0	..	..	*3	*170
111	495	*2	0	*-2	178	19
105	525	*3	0	-4	186	19
104	504	*3	0	0	186	19
*108	*529	*3	0	..	*192	*19
5	0	*1	..	0	5	26
4	0	0	..	0	5	24
4	0	0	..	0	5	25
4	0	0	..	0	5	22
*5	0	0	0	..	*8	*10
*5	0	0	0	..	*8	*10
*5	0	0	0	..	*8	*10
*4	0	0	0	..	*7	*9
2	..	0	..	..	2	22
2	..	0	..	..	2	19
2	..	0	..	..	2	20
2	..	0	..	..	2	20
0	..	0	..	..	0	*14
0	..	0	..	..	0	*13
0	..	0	..	..	0	*14
0	..	0	..	..	0	*14
3	0	0	0	..	3	11
4	..	0	0	..	4	13
4	..	0	0	..	4	13
3	..	0	0	..	4	11
0	..	0	..	..	0	32
0	..	0	..	..	0	*34
0	..	0	..	..	0	*35
0	..	0	..	..	0	*38



## Total final consumption and its components

Petajoules and Gigajoules per capita

### Table Notes

**Total final consumption** refers to all fuel and energy that is delivered to users for both their energy and non-energy uses which do not involve a transformation process.

**Non-energy use** consists of the use of energy products as raw materials for the manufacture of products outside the scope of energy statistics, as well as for direct uses that do not involve using the products as a source of energy, nor as a transformation input. Examples are lubrication, sealing, preservation, road surfacing, and use as a solvent.

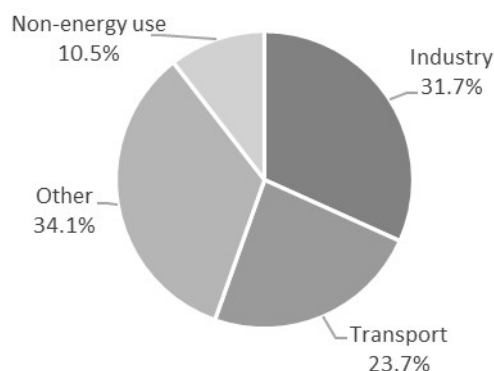
**Industry** refers to the use of energy products for energy purposes by economic units belonging to manufacturing, construction and non-fuel mining industries, namely the following: Iron and steel, Chemical and petrochemical, Non-ferrous metals, Non-metallic minerals; Transport equipment; Machinery; Mining and quarrying; Food and Tobacco; Paper, pulp and print; Wood and wood products (other than pulp and paper); Textile and leather; Construction; and Industries not elsewhere specified. It excludes the use of energy products for transport.

**Transport** refers to the consumption of fuels and electricity by any economic entity to transport goods or persons between points of departure and destination within the national territory. As such, it excludes international aviation and shipping, which are included under international marine and aviation bunkers respectively.

**Other** refers to energy consumed by consumers not classified under Industry. It includes Households, Commerce and public services, Agriculture, Forestry, Fishing, and Not elsewhere specified.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 9: World total final consumption by component, 2022**



**Figure 10: Total final consumption by region, 1990-2022**

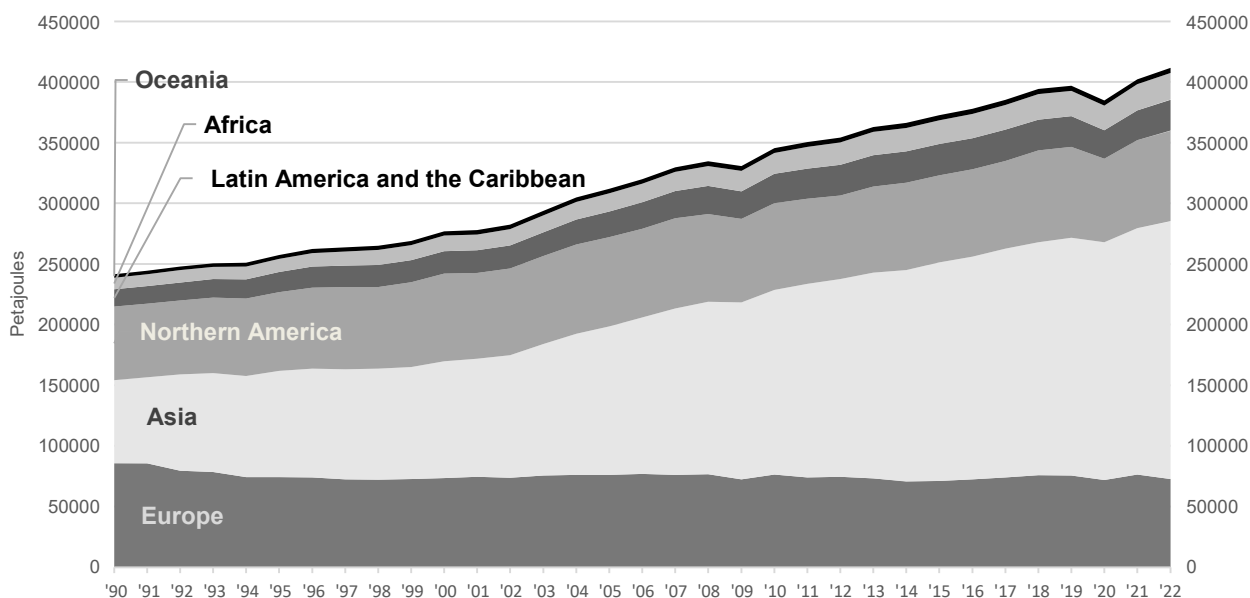


Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
<b>World</b>	<b>2019</b>	<b>396,995</b>	<b>40,685</b>	<b>121,502</b>	<b>98,675</b>	<b>136,133</b>	<b>51</b>
	<b>2020</b>	<b>384,664</b>	<b>41,834</b>	<b>120,242</b>	<b>87,545</b>	<b>135,044</b>	<b>49</b>
	<b>2021</b>	<b>402,218</b>	<b>43,077</b>	<b>124,714</b>	<b>94,624</b>	<b>139,803</b>	<b>51</b>
	<b>2022</b>	<b>411,711</b>	<b>43,277</b>	<b>130,696</b>	<b>97,493</b>	<b>140,245</b>	<b>51</b>
<b>Africa</b>	<b>2019</b>	<b>20,793</b>	<b>844</b>	<b>3,614</b>	<b>5,109</b>	<b>11,226</b>	<b>15</b>
	<b>2020</b>	<b>20,387</b>	<b>786</b>	<b>3,487</b>	<b>4,495</b>	<b>11,619</b>	<b>15</b>
	<b>2021</b>	<b>21,498</b>	<b>860</b>	<b>3,733</b>	<b>4,997</b>	<b>11,908</b>	<b>15</b>
	<b>2022</b>	<b>22,127</b>	<b>897</b>	<b>3,961</b>	<b>5,123</b>	<b>12,145</b>	<b>15</b>
Algeria	2019	1,805	169	307	638	690	42
	2020	1,659	148	306	568	638	38
	2021	1,754	146	342	609	656	39
	2022	1,885	175	354	637	719	41
Angola	2019	*438	*5	*43	*105	*285	*14
	2020	*413	3	*55	*65	*290	*12
	2021	*444	4	*51	*100	*289	*13
	2022	*470	*5	*48	*115	*302	*13
Benin	2019	154	0	7	57	90	12
	2020	158	0	8	58	92	12
	2021	169	8	7	59	94	13
	2022	172	5	8	62	96	12
Botswana	2019	69	1	11	40	17	30
	2020	64	1	10	36	17	27
	2021	66	1	11	38	17	28
	2022	66	1	14	34	17	27
Burkina Faso	2019	216	0	14	*39	163	10
	2020	*219	0	*14	38	*167	*10
	2021	*230	0	*15	44	*172	*10
	2022	*234	0	*15	*46	*173	*10
Burundi	2019	*58	0	*1	8	*49	*5
	2020	*60	*1	*1	9	*49	*5
	2021	*56	0	*1	9	*46	*4
	2022	*58	*1	*1	*10	*46	*4
Cabo Verde	2019	*8	0	0	*4	*4	*16
	2020	*7	0	0	*3	*3	*13
	2021	*7	0	0	*3	*4	*14
	2022	*7	0	0	*4	*3	*14
Cameroon	2019	*337	3	18	47	*268	*13
	2020	*344	3	18	47	*276	*13
	2021	*356	3	20	49	*284	*13
	2022	*367	3	21	51	*292	*13
Central African Rep.	2019	42	0	1	4	38	9
	2020	44	0	1	4	39	9
	2021	48	0	1	4	43	9
	2022	*48	0	*1	*5	*43	*9
Chad	2019	*86	0	*2	20	*64	*5
	2020	*88	0	*1	22	*65	*5
	2021	*91	0	*2	24	*65	*5
	2022	*92	0	*2	24	*66	*5
Comoros	2019	*7	..	*1	*2	*4	*10
	2020	*8	..	*1	*3	*4	*10
	2021	*10	..	*1	*5	*5	*12
	2022	*10	..	*1	*5	*5	*12



Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Congo	2019	83	1	3	18	60	15
	2020	82	1	3	17	61	14
	2021	83	1	3	17	62	14
	2022	86	1	3	17	64	14
Côte d'Ivoire	2019	302	2	28	58	214	11
	2020	316	2	29	57	228	11
	2021	381	2	24	85	270	13
	2022	412	2	39	102	269	14
Dem. Rep. of the Congo	2019	*968	0	*38	*45	*885	*10
	2020	*1,013	0	*42	*47	*924	*11
	2021	*1,041	0	*43	*45	*953	*10
	2022	*1,097	0	*46	*65	*986	*11
Djibouti	2019	*9	0	*1	*2	*6	*9
	2020	*8	0	*1	*2	*5	*8
	2021	*9	0	*1	*2	*6	*8
	2022	*9	0	*1	*2	*6	*8
Egypt	2019	2,456	305	689	704	757	23
	2020	2,421	306	610	516	988	22
	2021	2,623	333	728	566	996	24
	2022	2,728	298	886	546	997	24
Equatorial Guinea	2019	*78	0	*61	9	*9	*47
	2020	*89	0	*72	7	*9	*52
	2021	*110	0	*94	7	*8	*62
	2022	*120	0	*104	7	*8	*67
Eritrea	2019	26	0	0	3	22	8
	2020	26	0	0	3	23	8
	2021	27	0	1	3	23	8
	2022	*28	0	1	3	*24	*8
Eswatini	2019	42	0	17	9	16	36
	2020	42	0	16	11	15	35
	2021	41	0	15	10	15	34
	2022	41	0	15	12	14	33
Ethiopia	2019	1,536	4	74	103	1,356	13
	2020	1,551	4	70	95	1,382	13
	2021	*1,576	4	81	103	*1,387	*13
	2022	*1,610	4	81	100	*1,424	*13
Gabon	2019	*56	0	16	3	*37	*25
	2020	53	1	15	2	35	23
	2021	53	1	15	3	35	22
	2022	55	1	16	3	36	23
Gambia	2019	*11	..	*2	*1	*8	*5
	2020	*11	..	*2	*1	*8	*4
	2021	*11	..	*2	*1	*8	*4
	2022	*11	..	*2	*1	*8	*4
Ghana	2019	331	*4	48	127	152	11
	2020	352	*3	51	139	159	11
	2021	390	*3	62	151	174	12
	2022	378	*3	70	139	167	11
Guinea	2019	*161	*2	*22	*31	*106	*12
	2020	*165	*3	*24	*32	*107	*12
	2021	*168	*3	*25	*34	*108	*12
	2022	*169	*3	*25	*34	*108	*12

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Guinea-Bissau	2019	*14	0	0	*1	*12	*7
	2020	*15	0	0	*1	*13	*7
	2021	*16	0	0	*1	*15	*8
	2022	*17	0	0	*1	*15	*8
Kenya	2019	*668	3	47	147	*471	*13
	2020	*669	4	47	142	*476	*13
	2021	*690	7	59	149	*476	*13
	2022	*696	7	64	147	*478	*13
Lesotho	2019	*46	0	*19	7	*20	*21
	2020	*43	0	*17	6	*20	*19
	2021	*56	0	*29	6	*20	*25
	2022	50	0	20	7	22	22
Liberia	2019	*88	0	0	8	*80	*17
	2020	*88	0	0	5	*82	*17
	2021	*90	0	0	5	*85	*17
	2022	*95	0	0	*6	*88	*18
Libya	2019	412	13	37	240	122	59
	2020	375	6	24	235	110	53
	2021	413	15	38	238	123	58
	2022	430	17	42	248	124	60
Madagascar	2019	266	*3	32	*21	210	9
	2020	*271	2	*32	*18	*219	*9
	2021	*288	*2	*33	*21	*232	*10
	2022	*289	*2	*32	*23	*232	*9
Malawi	2019	153	0	14	*18	121	8
	2020	154	0	14	16	124	8
	2021	155	0	13	16	127	8
	2022	159	0	13	16	130	8
Mali	2019	*171	..	*5	47	*119	*8
	2020	*179	..	*5	55	*119	*8
	2021	188	..	*4	64	119	8
	2022	182	..	*6	54	122	8
Mauritania	2019	*74	*3	15	*23	*33	*17
	2020	*76	*2	18	*24	*33	*17
	2021	*73	*1	16	*27	*28	*15
	2022	*83	*1	18	*28	*36	*17
Mauritius	2019	44	1	9	23	11	34
	2020	35	0	8	17	10	27
	2021	34	0	8	16	10	27
	2022	41	*1	8	21	11	32
Morocco	2019	712	23	139	258	293	20
	2020	667	22	126	225	293	18
	2021	719	23	141	253	303	19
	2022	695	18	131	238	308	19
Mozambique	2019	*334	8	60	49	*218	*11
	2020	*328	7	56	45	*220	*11
	2021	*348	8	57	57	*226	*11
	2022	*361	8	61	59	*233	*11
Namibia	2019	68	1	7	28	*33	26
	2020	64	1	6	25	*32	23
	2021	*66	1	6	26	*33	*23
	2022	65	1	9	25	29	22

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Niger	2019	*116	..	*3	*15	*98	*5
	2020	*117	..	3	14	*100	*5
	2021	*119	..	5	13	*102	*5
	2022	*130	..	*5	21	*104	*5
Nigeria	2019	2,042	58	324	827	833	10
	2020	1,966	58	327	711	869	9
	2021	2,133	70	364	805	894	10
	2022	2,184	67	362	856	899	10
Rwanda	2019	*86	0	*7	*10	*69	*7
	2020	*87	0	*7	*9	*70	*7
	2021	*90	0	*7	*11	*71	*7
	2022	*94	0	*8	*11	*75	*7
Sao Tome and Principe	2019	*2	0	0	1	*1	*9
	2020	*2	0	0	*1	*1	*9
	2021	*2	0	0	*1	*1	*9
	2022	*2	0	0	*1	*1	*9
Senegal	2019	129	..	*34	41	55	8
	2020	124	..	26	39	60	7
	2021	146	0	25	57	64	9
	2022	163	0	27	66	70	9
Seychelles	2019	*5	0	0	*2	2	*42
	2020	*5	0	*1	*2	2	*42
	2021	*5	0	*1	*3	2	*43
	2022	*6	0	*1	*3	*2	*44
Sierra Leone	2019	*58	0	*1	9	*48	*8
	2020	*59	0	*1	10	*48	*7
	2021	*62	0	*2	11	*49	*8
	2022	*62	0	*2	11	*49	*8
Somalia	2019	*123	..	*1	*6	*116	*8
	2020	*127	..	*2	*7	*118	*8
	2021	*130	..	*2	*7	*121	*8
	2022	*134	..	*2	*7	*124	*8
South Africa	2019	2,521	165	981	727	649	42
	2020	2,342	176	938	618	609	39
	2021	2,401	185	911	679	627	39
	2022	2,414	236	891	674	612	39
South Sudan	2019	25	..	1	13	10	2
	2020	24	..	1	12	10	2
	2021	25	..	1	13	11	2
	2022	24	..	1	12	11	2
St. Helena and Depend.	2019	0	..	..	0	0	27
	2020	0	..	..	0	0	*21
	2021	0	..	..	0	0	*18
	2022	0	..	..	0	0	*21
Sudan	2019	*466	*51	*40	*175	*199	*10
	2020	419	*16	*47	*143	213	9
	2021	*432	*21	*45	*165	*200	*9
	2022	*430	*22	*46	*162	*201	*9
Togo	2019	89	0	5	11	73	11
	2020	96	0	4	16	77	11
	2021	*97	0	4	18	*76	*11
	2022	*99	0	5	17	*77	*11

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Tunisia	2019	346	9	88	103	146	29
	2020	326	7	79	100	141	27
	2021	355	8	87	113	147	29
	2022	363	7	89	116	152	30
Uganda	2019	790	*1	116	50	624	18
	2020	864	1	125	48	690	19
	2021	869	*1	92	52	723	19
	2022	*880	*1	82	51	*746	*19
United Rep. of Tanzania	2019	*900	3	*104	110	*684	*15
	2020	*906	3	*100	111	*692	*15
	2021	*934	3	*105	131	*696	*15
	2022	*954	3	*110	137	*704	*15
Zambia	2019	346	3	83	29	231	19
	2020	358	3	88	35	232	19
	2021	*382	3	98	*43	*239	*20
	2022	*404	2	104	*45	*253	*20
Zimbabwe	2019	416	1	37	32	345	27
	2020	410	1	33	23	353	26
	2021	435	*1	39	24	371	28
	2022	472	1	72	34	365	29
<b>Asia</b>	<b>2019</b>	<b>196,143</b>	<b>23,092</b>	<b>77,780</b>	<b>32,634</b>	<b>62,637</b>	<b>42</b>
	<b>2020</b>	<b>196,093</b>	<b>25,017</b>	<b>77,669</b>	<b>30,448</b>	<b>62,959</b>	<b>42</b>
	<b>2021</b>	<b>203,281</b>	<b>25,478</b>	<b>80,097</b>	<b>32,284</b>	<b>65,422</b>	<b>43</b>
	<b>2022</b>	<b>212,463</b>	<b>26,251</b>	<b>86,716</b>	<b>33,205</b>	<b>66,291</b>	<b>45</b>
Afghanistan	2019	*177	*5	*45	62	*64	*5
	2020	*186	*5	*47	70	*64	*5
	2021	*170	*4	*40	*65	*61	*4
	2022	*172	*3	*45	*62	*61	*4
Armenia	2019	108	*2	13	34	59	37
	2020	115	3	14	36	63	40
	2021	122	3	16	38	66	42
	2022	126	3	18	37	68	44
Azerbaijan	2019	457	73	60	121	203	45
	2020	451	74	60	98	220	44
	2021	484	82	62	110	229	47
	2022	533	92	71	130	240	52
Bahrain	2019	281	76	97	53	55	189
	2020	277	74	102	48	54	187
	2021	297	80	109	51	58	198
	2022	307	84	109	55	59	200
Bangladesh	2019	1,576	66	392	170	948	10
	2020	*1,512	62	378	150	*922	*9
	2021	1,697	86	439	166	1,006	10
	2022	1,688	69	439	183	996	10
Bhutan	2019	74	1	12	7	54	97
	2020	70	1	10	5	54	91
	2021	75	0	14	5	55	97
	2022	77	1	15	6	56	99
Brunei Darussalam	2019	66	25	8	18	14	149
	2020	66	22	12	17	14	147
	2021	61	18	13	16	14	134
	2022	60	17	13	17	13	132

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Cambodia	2019	203	1	38	*89	76	12
	2020	225	4	48	92	81	13
	2021	237	8	53	92	83	14
	2022	247	8	57	95	87	14
China	2019	83,951	9,279	40,096	10,888	23,687	59
	2020	87,128	11,071	41,274	*10,519	24,264	61
	2021	91,583	11,634	42,784	*11,297	25,868	64
	2022	97,072	13,215	46,394	10,993	26,470	68
China, Hong Kong SAR	2019	340	1	*32	*96	211	45
	2020	330	1	*31	*93	205	44
	2021	320	*2	*28	*82	208	43
	2022	278	*2	23	58	195	37
China, Macao SAR	2019	33	2	2	6	23	50
	2020	31	*2	2	5	22	45
	2021	33	*2	2	5	23	47
	2022	31	*2	2	5	22	44
Cyprus	2019	68	2	10	29	27	53
	2020	64	2	10	26	26	49
	2021	67	2	10	28	26	51
	2022	67	2	11	28	27	50
Georgia	2019	192	14	35	59	84	51
	2020	188	13	33	56	85	49
	2021	205	12	35	63	96	54
	2022	217	12	37	67	100	57
India	2019	28,512	*1,567	13,195	2,226	11,523	21
	2020	27,339	*2,082	12,243	1,990	11,024	19
	2021	28,239	1,883	12,784	2,089	*11,484	20
	2022	30,028	*1,617	13,630	2,300	12,481	21
Indonesia	2019	6,949	370	2,943	1,093	2,543	26
	2020	6,416	273	2,617	1,024	2,502	23
	2021	6,210	266	2,348	1,177	2,419	22
	2022	8,169	350	4,098	1,363	2,357	29
Iran (Islamic Rep. of)	2019	8,899	1,122	2,232	2,087	3,458	102
	2020	9,129	1,191	2,424	1,880	3,633	104
	2021	9,244	839	2,633	2,068	3,704	105
	2022	9,312	836	2,677	2,080	3,719	104
Iraq	2019	989	29	208	478	274	24
	2020	903	31	191	398	283	21
	2021	1,064	36	219	495	314	25
	2022	1,157	21	243	570	323	26
Israel	2019	664	73	127	252	213	77
	2020	630	76	114	226	213	72
	2021	634	71	108	241	214	71
	2022	664	65	101	259	239	73
Japan	2019	11,740	1,414	3,376	2,903	4,048	93
	2020	11,056	1,250	3,179	2,616	4,010	88
	2021	11,155	1,286	3,275	2,651	3,942	89
	2022	10,881	1,139	3,171	2,697	3,874	87
Jordan	2019	271	8	26	*132	105	25
	2020	236	6	24	100	106	22
	2021	245	0	26	114	105	22
	2022	260	*3	30	117	110	23

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Kazakhstan	2019	1,573	*54	540	249	730	82
	2020	1,735	*66	514	317	837	89
	2021	1,817	33	553	339	892	92
	2022	1,818	46	515	364	893	91
Korea, Dem.Ppl's.Rep.	2019	674	8	416	62	189	26
	2020	653	8	401	60	183	25
	2021	552	6	334	52	160	21
	2022	574	7	348	53	165	22
Korea, Republic of	2019	7,789	2,266	2,098	1,534	1,890	150
	2020	7,532	2,157	2,048	1,432	1,894	145
	2021	7,876	2,311	2,167	1,493	1,906	152
	2022	7,656	2,218	2,014	1,534	1,890	148
Kuwait	2019	794	167	232	224	171	179
	2020	774	186	238	181	169	176
	2021	875	195	273	224	184	201
	2022	966	275	258	241	193	211
Kyrgyzstan	2019	144	*2	17	38	88	22
	2020	135	*2	11	37	86	20
	2021	147	2	14	41	90	22
	2022	151	6	14	39	92	22
Lao People's Dem. Rep.	2019	121	0	22	*35	63	17
	2020	*124	0	*25	*35	*64	*17
	2021	*131	0	*33	*35	*62	*18
	2022	142	0	43	36	*63	19
Lebanon	2019	219	2	*25	92	100	38
	2020	218	1	*22	91	104	38
	2021	198	1	*16	104	78	35
	2022	172	1	*12	109	*51	30
Malaysia	2019	2,722	583	771	956	413	81
	2020	2,370	523	714	755	379	70
	2021	2,386	458	783	738	406	70
	2022	2,522	471	807	807	437	73
Maldives	2019	*22	0	*1	*17	*4	*45
	2020	*18	0	*1	*14	*3	*36
	2021	*21	0	*1	*15	*5	*40
	2022	*23	0	*1	*17	*5	*44
Mongolia	2019	446	0	32	26	387	138
	2020	416	0	32	28	356	126
	2021	325	0	35	27	263	97
	2022	385	0	37	*32	316	114
Myanmar	2019	774	21	248	90	416	15
	2020	730	3	196	188	343	14
	2021	662	..	169	*149	344	12
	2022	*773	..	117	200	*456	*14
Nepal	2019	567	8	92	32	435	20
	2020	624	6	118	51	448	22
	2021	637	4	113	57	463	22
	2022	*651	5	125	62	*458	*22
Oman	2019	1,000	151	258	168	423	218
	2020	924	151	237	141	395	204
	2021	999	188	248	134	429	222
	2022	1,066	205	243	156	461	225

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Other Asia	2019	3,073	946	1,034	570	523	130
	2020	3,105	957	1,038	574	535	131
	2021	3,267	1,054	1,130	544	538	139
	2022	3,029	855	1,074	557	542	129
Pakistan	2019	2,938	203	805	700	1,230	13
	2020	3,101	202	921	754	1,225	13
	2021	3,225	199	1,000	791	1,236	13
	2022	3,104	170	971	*776	1,188	13
Philippines	2019	1,540	48	302	556	634	14
	2020	1,382	56	263	431	632	12
	2021	1,492	70	283	480	659	13
	2022	1,526	55	296	540	635	13
Qatar	2019	949	292	367	170	*120	339
	2020	898	285	331	158	124	320
	2021	921	284	339	168	130	327
	2022	988	296	394	160	138	342
Saudi Arabia	2019	7,734	2,276	*1,688	1,949	*1,822	254
	2020	7,285	2,243	*1,632	1,629	*1,781	235
	2021	7,591	2,306	*1,560	1,795	*1,929	242
	2022	6,904	2,217	1,712	1,907	1,069	215
Singapore	2019	770	286	282	94	108	136
	2020	742	261	279	95	107	132
	2021	784	280	296	95	113	141
	2022	841	*318	312	93	117	149
Sri Lanka	2019	361	1	94	138	129	16
	2020	347	0	97	120	130	15
	2021	371	0	102	139	130	16
	2022	*336	1	*96	119	*120	*15
State of Palestine	2019	72	1	4	30	36	15
	2020	73	1	3	31	38	14
	2021	78	1	3	35	38	15
	2022	96	0	4	49	42	18
Syrian Arab Republic	2019	249	26	58	79	87	12
	2020	230	25	53	72	80	11
	2021	223	25	52	67	79	10
	2022	218	23	50	69	77	10
Tajikistan	2019	173	1	29	19	125	18
	2020	185	1	28	24	133	19
	2021	181	1	34	26	121	18
	2022	191	1	32	31	128	19
Thailand	2019	4,314	1,045	1,159	1,318	793	60
	2020	4,076	984	1,033	1,290	769	57
	2021	3,993	1,091	971	1,193	737	56
	2022	4,138	895	1,198	1,283	762	58
Timor-Leste	2019	7	1	..	4	2	5
	2020	7	0	..	4	2	5
	2021	6	0	..	4	2	4
	2022	6	0	..	4	*2	5
Türkiye	2019	4,301	223	1,234	1,190	1,654	50
	2020	4,413	273	1,313	1,119	1,709	51
	2021	4,705	237	1,461	1,267	1,740	54
	2022	4,623	208	1,318	1,279	1,818	53

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Turkmenistan	2019	738	..	35	170	533	108
	2020	823	..	40	168	615	118
	2021	1,115	..	295	170	650	157
	2022	1,147	..	302	173	672	159
United Arab Emirates	2019	2,363	259	1,197	502	405	252
	2020	2,381	264	1,321	430	366	252
	2021	2,421	255	1,279	485	402	247
	2022	2,421	228	1,282	498	413	236
Uzbekistan	2019	1,201	*18	280	234	670	36
	2020	1,363	41	266	243	813	41
	2021	1,454	*37	*301	268	848	42
	2022	1,407	32	348	294	733	40
Viet Nam	2019	2,852	76	1,497	540	739	29
	2020	2,979	80	1,665	489	745	30
	2021	2,586	124	1,239	459	764	26
	2022	3,143	177	1,597	561	808	32
Yemen	2019	111	1	16	43	51	3
	2020	101	0	14	38	48	3
	2021	100	0	14	38	48	3
	2022	102	0	14	38	50	3
<b>Europe</b>	<b>2019</b>	<b>75,476</b>	<b>7,881</b>	<b>18,500</b>	<b>19,749</b>	<b>29,346</b>	<b>100</b>
	<b>2020</b>	<b>71,906</b>	<b>8,093</b>	<b>17,975</b>	<b>17,276</b>	<b>28,562</b>	<b>96</b>
	<b>2021</b>	<b>76,294</b>	<b>8,321</b>	<b>18,947</b>	<b>18,724</b>	<b>30,302</b>	<b>102</b>
	<b>2022</b>	<b>72,736</b>	<b>7,447</b>	<b>17,891</b>	<b>19,067</b>	<b>28,331</b>	<b>97</b>
Albania	2019	89	2	15	36	36	31
	2020	84	1	16	31	36	29
	2021	87	2	19	29	37	30
	2022	84	2	18	29	36	30
Andorra	2019	9	0	0	5	4	116
	2020	7	0	0	3	4	91
	2021	8	0	0	4	4	97
	2022	8	0	0	4	4	99
Austria	2019	1,182	86	318	381	398	133
	2020	1,120	84	304	333	399	126
	2021	1,183	87	316	344	436	132
	2022	1,102	72	318	325	388	122
Belarus	2019	799	112	177	173	336	85
	2020	781	118	173	156	333	83
	2021	812	119	183	153	357	88
	2022	777	111	172	147	348	85
Belgium	2019	1,678	305	436	377	560	146
	2020	1,591	295	422	327	548	138
	2021	1,700	313	444	362	581	147
	2022	1,539	271	400	368	500	132
Bosnia and Herzegovina	2019	180	5	31	56	89	54
	2020	173	4	25	50	93	53
	2021	185	4	30	58	93	57
	2022	184	4	28	56	97	58
Bulgaria	2019	426	19	112	147	147	61
	2020	416	20	111	138	148	60
	2021	445	22	118	148	158	65
	2022	427	17	113	149	148	63



Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Croatia	2019	307	25	49	94	138	77
	2020	293	23	49	83	137	74
	2021	307	18	50	91	148	78
	2022	291	9	47	94	140	74
Czechia	2019	1,129	121	276	288	444	107
	2020	1,084	98	274	271	441	103
	2021	1,165	116	293	286	470	111
	2022	1,110	112	275	293	430	104
Denmark	2019	568	8	93	181	286	98
	2020	548	9	94	169	275	94
	2021	578	9	101	173	294	99
	2022	542	9	96	171	266	92
Estonia	2019	124	5	20	36	63	94
	2020	122	7	18	34	63	92
	2021	124	7	17	36	65	93
	2022	120	6	16	36	63	89
Faeroe Islands	2019	9	0	1	2	7	183
	2020	10	0	1	2	7	185
	2021	10	0	1	2	7	188
	2022	10	0	1	2	7	177
Finland	2019	1,083	59	465	178	380	196
	2020	1,021	63	434	166	358	185
	2021	1,075	57	456	172	390	194
	2022	1,004	59	413	165	368	180
France	2019	6,341	570	1,131	1,934	2,706	93
	2020	5,813	535	1,040	1,632	2,606	85
	2021	6,353	563	1,197	1,833	2,760	93
	2022	5,970	441	1,132	1,916	2,481	87
Germany	2019	9,356	924	2,330	2,425	3,677	112
	2020	9,064	911	2,296	2,204	3,653	108
	2021	9,289	996	2,364	2,148	3,779	111
	2022	8,834	852	2,247	2,176	3,560	105
Gibraltar	2019	10	1	..	8	1	278
	2020	9	1	..	7	1	255
	2021	9	1	..	7	1	250
	2022	9	1	..	7	1	244
Greece	2019	674	39	109	257	269	63
	2020	630	35	106	220	270	59
	2021	643	31	108	237	268	61
	2022	661	19	108	260	274	63
Guernsey	2019	1	..	..	..	1	20
	2020	1	..	..	..	1	19
	2021	*1	..	..	..	*1	*21
	2022	*1	..	..	..	*1	*20
Hungary	2019	848	92	188	215	352	87
	2020	838	97	186	191	364	86
	2021	897	105	200	209	382	92
	2022	835	81	181	226	347	86
Iceland	2019	133	6	55	15	57	368
	2020	127	6	54	13	54	346
	2021	131	6	56	14	56	352
	2022	133	6	56	15	56	350

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Ireland	2019	479	11	93	173	203	97
	2020	460	10	95	147	208	92
	2021	475	17	93	156	209	94
	2022	468	10	89	168	201	92
Isle of Man	2019	2	..	1	..	2	28
	2020	2	..	0	..	2	27
	2021	2	..	0	..	2	26
	2022	2	..	0	..	2	25
Italy	2019	4,959	296	1,049	1,524	2,089	82
	2020	4,525	287	1,004	1,233	2,002	75
	2021	4,972	248	1,122	1,480	2,123	83
	2022	4,800	241	1,041	1,560	1,959	80
Jersey	2019	6	..	*1	2	3	58
	2020	5	..	*1	2	3	52
	2021	6	..	*1	2	3	55
	2022	5	..	*1	2	2	53
Kosovo	2019	66	2	13	18	33	38
	2020	67	2	13	18	34	38
	2021	73	3	14	20	37	42
	2022	64	1	13	18	32	37
Latvia	2019	169	4	36	47	83	88
	2020	164	4	36	45	79	86
	2021	173	5	37	46	84	92
	2022	165	4	38	44	80	88
Liechtenstein	2019	3	..	..	..	3	79
	2020	3	..	..	..	3	77
	2021	3	..	..	..	3	80
	2022	3	..	..	..	3	75
Lithuania	2019	279	50	47	91	91	100
	2020	269	48	43	90	88	96
	2021	278	43	46	91	98	100
	2022	250	27	40	90	94	89
Luxembourg	2019	163	2	26	93	42	262
	2020	140	1	24	72	43	222
	2021	147	1	25	76	44	230
	2022	130	1	23	67	39	199
Malta	2019	23	1	3	10	10	46
	2020	21	0	3	9	9	40
	2021	22	1	3	9	9	42
	2022	25	0	3	11	10	47
Montenegro	2019	34	2	6	11	15	55
	2020	30	1	6	10	14	50
	2021	34	1	5	12	15	56
	2022	32	1	3	13	15	52
Netherlands (Kingd. of the)	2019	2,371	508	570	454	839	135
	2020	2,308	545	565	389	808	131
	2021	2,367	542	565	397	864	134
	2022	2,089	438	525	395	731	117
North Macedonia	2019	83	2	17	32	32	44
	2020	78	2	18	27	31	42
	2021	84	2	19	31	32	45
	2022	78	2	15	31	30	42

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Norway	2019	904	107	259	219	320	169
	2020	885	102	263	205	315	165
	2021	921	98	276	213	333	170
	2022	886	91	267	220	308	162
Poland	2019	3,260	239	695	973	1,353	85
	2020	3,192	248	675	930	1,339	84
	2021	3,332	225	687	1,005	1,415	88
	2022	3,211	237	634	1,022	1,318	84
Portugal	2019	709	49	193	253	213	68
	2020	658	50	186	212	209	63
	2021	685	53	190	231	211	66
	2022	686	41	188	245	211	66
Republic of Moldova	2019	110	2	10	30	68	35
	2020	107	3	9	28	66	35
	2021	116	3	10	31	72	38
	2022	104	2	9	31	61	34
Romania	2019	1,034	51	262	283	438	53
	2020	1,032	58	253	278	442	53
	2021	1,100	54	267	297	483	57
	2022	1,025	31	224	321	449	53
Russian Federation	2019	21,656	3,351	6,047	4,291	7,968	148
	2020	21,027	3,570	5,938	3,914	7,605	144
	2021	22,635	3,774	6,309	4,266	8,286	155
	2022	22,326	3,603	6,350	4,334	8,038	153
Serbia	2019	378	29	91	97	161	54
	2020	393	30	83	92	187	57
	2021	418	30	89	105	194	61
	2022	425	26	95	112	192	63
Slovakia	2019	477	42	149	120	166	88
	2020	460	51	136	108	165	84
	2021	498	54	146	112	186	91
	2022	467	47	137	115	168	85
Slovenia	2019	210	7	55	82	66	101
	2020	192	6	52	68	65	91
	2021	205	7	54	77	68	97
	2022	203	5	49	84	65	96
Spain	2019	3,619	224	863	1,391	1,142	76
	2020	3,249	243	789	1,105	1,113	68
	2021	3,490	226	842	1,281	1,142	73
	2022	3,438	211	747	1,369	1,110	72
Sweden	2019	1,368	96	464	303	504	133
	2020	1,323	72	475	282	494	128
	2021	1,386	88	474	291	533	133
	2022	1,319	62	474	282	501	126
Switzerland	2019	764	18	144	243	359	89
	2020	725	18	139	224	344	84
	2021	764	17	147	226	374	88
	2022	708	17	140	224	327	81
Ukraine	2019	2,111	115	682	433	880	47
	2020	2,012	154	675	338	845	45
	2021	2,075	154	666	402	853	47
	2022	1,380	75	292	*231	782	34

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
United Kingdom	2019	5,293	294	918	1,768	2,313	79
	2020	4,843	276	887	1,421	2,259	72
	2021	5,032	221	907	1,561	2,343	74
	2022	4,807	201	872	1,641	2,093	71
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>25,378</b>	<b>1,474</b>	<b>7,234</b>	<b>9,760</b>	<b>6,911</b>	<b>40</b>
	<b>2020</b>	<b>23,358</b>	<b>1,266</b>	<b>7,063</b>	<b>8,180</b>	<b>6,849</b>	<b>36</b>
	<b>2021</b>	<b>24,628</b>	<b>1,312</b>	<b>7,230</b>	<b>8,918</b>	<b>7,168</b>	<b>38</b>
	<b>2022</b>	<b>25,510</b>	<b>1,390</b>	<b>7,243</b>	<b>9,620</b>	<b>7,257</b>	<b>39</b>
Anguilla	2019	*1	..	..	*1	*1	*94
	2020	*1	..	..	*1	*1	*88
	2021	*1	..	..	*1	*1	*93
	2022	*1	..	..	*1	*1	*95
Antigua and Barbuda	2019	*6	0	0	*3	*3	*66
	2020	*6	0	0	*3	*3	*64
	2021	*6	0	0	*3	*3	*66
	2022	*6	0	0	*3	*3	*67
Argentina	2019	2,327	132	539	794	862	52
	2020	2,184	122	516	712	835	48
	2021	2,305	122	510	714	959	51
	2022	2,280	111	486	749	935	50
Aruba	2019	7	0	..	*3	3	61
	2020	6	0	..	*3	3	56
	2021	6	0	..	*3	3	60
	2022	7	0	..	*3	3	62
Bahamas	2019	*27	0	*5	*11	*11	*69
	2020	*21	0	*4	*8	*9	*52
	2021	*29	0	*6	*12	*10	*73
	2022	*31	0	*6	*13	*11	*77
Barbados	2019	15	..	*5	6	4	53
	2020	14	..	*5	5	4	48
	2021	13	..	*4	5	4	45
	2022	13	..	*4	5	4	48
Belize	2019	15	0	3	7	5	39
	2020	13	0	2	6	4	33
	2021	14	0	*3	6	5	36
	2022	14	0	*3	7	5	36
Bolivia (Plur. State of)	2019	307	12	71	157	66	26
	2020	258	2	65	127	64	22
	2021	303	6	64	162	70	25
	2022	336	13	70	179	74	28
Bonaire, St Eustatius, Saba	2019	*1	0	0	*1	0	*57
	2020	*1	0	0	*1	0	*48
	2021	*1	0	0	*1	0	*49
	2022	*1	0	0	*1	0	*48
Brazil	2019	9,823	564	3,202	3,808	2,250	47
	2020	9,599	485	3,298	3,564	2,252	46
	2021	10,287	526	3,595	3,894	2,271	49
	2022	10,328	611	3,374	4,015	2,327	49
British Virgin Islands	2019	*2	..	0	*1	1	*42
	2020	*1	..	0	*1	*1	*39
	2021	*1	..	0	*1	*1	*39
	2022	*2	..	0	*1	*1	*39

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Cayman Islands	2019	6	0	1	3	2	89
	2020	5	0	1	3	2	80
	2021	5	0	1	3	2	78
	2022	6	0	1	3	2	79
Chile	2019	1,180	36	441	400	304	61
	2020	1,125	42	430	354	299	58
	2021	1,146	38	413	387	308	59
	2022	1,247	44	449	435	319	64
Colombia	2019	1,232	81	265	491	394	25
	2020	1,116	42	250	423	402	22
	2021	1,249	16	244	536	453	24
	2022	1,244	*33	202	560	448	24
Costa Rica	2019	161	5	34	83	39	32
	2020	146	4	34	69	39	29
	2021	159	3	36	79	41	31
	2022	160	2	36	79	43	32
Cuba	2019	241	4	132	23	82	21
	2020	191	4	94	*18	75	17
	2021	169	3	77	*19	70	15
	2022	165	4	77	*17	66	15
Curaçao	2019	34	5	7	17	4	178
	2020	29	4	6	15	4	156
	2021	30	4	6	15	4	160
	2022	31	4	7	16	4	167
Dominica	2019	*2	0	0	*1	*1	*26
	2020	*1	0	0	*1	*1	*22
	2021	*2	0	0	*1	*1	*23
	2022	*2	0	0	*1	*1	*24
Dominican Republic	2019	290	17	77	109	87	27
	2020	271	8	82	98	84	25
	2021	309	14	89	114	92	28
	2022	326	17	93	124	92	29
Ecuador	2019	500	..	87	255	158	29
	2020	441	..	84	208	149	25
	2021	491	..	89	252	150	28
	2022	522	..	97	269	156	29
El Salvador	2019	118	1	27	54	35	19
	2020	102	1	23	47	31	16
	2021	117	1	26	57	32	19
	2022	129	2	33	60	33	20
Falkland Is. (Malvinas)	2019	0	..	0	0	0	138
	2020	0	..	0	0	0	137
	2021	0	..	0	0	0	134
	2022	0	..	0	0	0	*136
Grenada	2019	4	..	0	2	2	31
	2020	3	..	0	1	2	27
	2021	3	..	0	1	2	28
	2022	3	..	0	1	2	30
Guatemala	2019	*560	4	48	132	*376	*33
	2020	*554	2	44	121	*387	*32
	2021	603	2	52	144	404	34
	2022	616	3	58	141	415	35

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Guyana	2019	31	0	5	13	13	38
	2020	31	0	5	12	13	38
	2021	32	1	5	12	14	39
	2022	33	1	4	16	12	40
Haiti	2019	145	1	13	20	111	13
	2020	140	0	12	20	107	12
	2021	140	1	12	19	108	12
	2022	139	0	12	19	107	12
Honduras	2019	179	1	31	68	80	18
	2020	165	0	29	56	80	16
	2021	189	1	31	74	83	18
	2022	190	0	35	74	80	18
Jamaica	2019	104	*1	36	49	18	37
	2020	77	*1	23	35	18	27
	2021	80	0	20	42	18	28
	2022	90	1	23	44	22	32
Mexico	2019	4,870	171	1,407	2,125	1,167	39
	2020	4,260	177	1,409	1,523	1,152	34
	2021	4,119	164	1,284	1,500	1,170	32
	2022	4,533	149	1,336	1,849	1,199	35
Montserrat	2019	0	0	0	0	0	*49
	2020	0	0	0	0	0	*47
	2021	0	0	0	0	0	*46
	2022	0	0	0	0	0	*55
Nicaragua	2019	109	2	14	30	63	17
	2020	108	1	13	30	64	16
	2021	114	1	14	34	65	17
	2022	115	1	14	34	66	17
Panama	2019	149	..	33	61	54	35
	2020	125	..	27	44	54	29
	2021	152	..	33	62	58	35
	2022	151	..	36	55	60	34
Paraguay	2019	280	2	68	118	91	43
	2020	267	2	67	106	92	40
	2021	278	3	69	118	88	42
	2022	267	2	67	108	90	40
Peru	2019	860	12	247	374	227	27
	2020	742	5	205	299	233	23
	2021	883	5	245	371	261	27
	2022	948	8	279	414	247	28
Puerto Rico	2019	58	..	7	..	51	18
	2020	58	..	7	..	51	18
	2021	59	..	7	..	52	18
	2022	56	..	6	..	50	17
Saint Barthélemy	2019	*1	0	0	0	0	*84
	2020	*1	0	0	0	0	*81
	2021	*1	0	0	0	0	*86
	2022	*1	0	0	0	0	*88
Saint Martin (French Part)	2019	*5	0	0	*4	*1	*143
	2020	*5	0	0	*4	*1	*154
	2021	*5	0	0	*4	*1	*163
	2022	*5	0	0	*4	*1	*168

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Sint Maarten (Dutch part)	2019	*9	*1	*2	*5	*1	*227
	2020	*9	*1	*2	*5	*1	*217
	2021	*9	*1	*2	*5	*1	*222
	2022	*9	*1	*2	*5	*1	*221
St. Kitts-Nevis	2019	*2	0	0	*1	*1	*44
	2020	*2	0	0	*1	*1	*41
	2021	*2	0	0	*1	*1	*40
	2022	*2	0	0	*1	*1	*44
St. Lucia	2019	6	0	0	3	2	31
	2020	*5	0	0	*3	2	*30
	2021	*6	0	0	*3	2	*32
	2022	*6	0	0	*3	2	*32
St. Vincent-Grenadines	2019	*3	0	0	*2	1	*24
	2020	*3	0	0	*2	1	*27
	2021	*3	0	0	*2	1	*26
	2022	*3	0	0	*2	*1	*28
Suriname	2019	*29	0	3	9	*16	*47
	2020	*28	0	3	8	*17	*46
	2021	*28	0	3	8	*16	*45
	2022	33	0	6	13	13	53
Trinidad and Tobago	2019	516	407	53	39	18	348
	2020	449	350	47	32	19	303
	2021	489	388	51	31	19	329
	2022	474	370	49	35	19	317
Turks and Caicos Islands	2019	*3	0	..	*2	*1	*76
	2020	*3	0	..	*2	*1	*72
	2021	*3	0	..	*2	*1	*73
	2022	*3	0	..	*2	*1	*72
United States Virgin Is.	2019	*2	..	*1	..	*1	*24
	2020	*2	..	*1	..	*1	*25
	2021	*2	..	*1	..	*1	*27
	2022	*2	..	*1	..	*1	*26
Uruguay	2019	204	5	86	56	57	60
	2020	200	4	86	53	58	59
	2021	209	4	89	58	58	62
	2022	210	5	86	60	60	62
Venezuela (Bolivar. Rep.)	2019	957	9	*283	420	244	33
	2020	586	5	186	159	236	21
	2021	576	4	146	163	*263	20
	2022	771	4	290	199	278	27
<b>Northern America</b>	<b>2019</b>	<b>74,957</b>	<b>7,112</b>	<b>13,191</b>	<b>29,751</b>	<b>24,903</b>	<b>200</b>
	<b>2020</b>	<b>68,822</b>	<b>6,388</b>	<b>12,894</b>	<b>25,592</b>	<b>23,948</b>	<b>182</b>
	<b>2021</b>	<b>72,425</b>	<b>6,835</b>	<b>13,540</b>	<b>28,181</b>	<b>23,870</b>	<b>191</b>
	<b>2022</b>	<b>74,771</b>	<b>7,042</b>	<b>13,715</b>	<b>28,933</b>	<b>25,081</b>	<b>197</b>
Bermuda	2019	5	0	0	*1	4	83
	2020	4	0	0	*1	3	62
	2021	4	0	0	*2	3	63
	2022	*4	0	0	*2	*3	*64
Canada	2019	8,526	965	1,962	2,685	2,915	226
	2020	7,804	917	1,808	2,266	2,813	204
	2021	8,019	975	1,891	2,394	2,759	209
	2022	8,298	992	1,945	2,522	2,839	214

Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Greenland	2019	9	0	1	2	6	156
	2020	8	0	*1	1	6	151
	2021	9	0	*1	2	6	153
	2022	9	0	*1	2	7	168
St. Pierre-Miquelon	2019	*1	..	0	0	0	*103
	2020	*1	..	0	0	0	*97
	2021	0	..	0	0	0	*82
	2022	0	..	0	0	0	*84
United States	2019	66,416	6,147	11,229	27,062	21,978	197
	2020	61,005	5,471	11,085	23,323	21,126	180
	2021	64,393	5,860	11,648	25,783	21,102	189
	2022	66,459	6,050	11,769	26,407	22,233	195
<b>Oceania</b>	<b>2019</b>	<b>4,248</b>	<b>284</b>	<b>1,182</b>	<b>1,672</b>	<b>1,109</b>	<b>98</b>
	<b>2020</b>	<b>4,099</b>	<b>284</b>	<b>1,155</b>	<b>1,554</b>	<b>1,106</b>	<b>93</b>
	<b>2021</b>	<b>4,092</b>	<b>272</b>	<b>1,166</b>	<b>1,520</b>	<b>1,134</b>	<b>92</b>
	<b>2022</b>	<b>4,104</b>	<b>251</b>	<b>1,169</b>	<b>1,545</b>	<b>1,140</b>	<b>91</b>
American Samoa	2019	*4	0	*1	*2	*1	*88
	2020	*4	0	*1	*2	*1	*87
	2021	*4	0	*1	*2	*1	*87
	2022	*4	0	*1	*2	*1	*91
Australia	2019	3,391	215	931	1,390	855	133
	2020	3,292	220	923	1,296	853	128
	2021	3,299	219	946	1,254	880	127
	2022	3,305	199	944	1,275	887	126
Cook Islands	2019	*1	..	..	*1	0	*62
	2020	*1	..	..	*1	0	*54
	2021	*1	..	..	*1	0	*61
	2022	*1	..	..	*1	0	*65
Fiji	2019	*24	0	*9	*11	4	*27
	2020	*22	0	*8	*10	4	*24
	2021	*19	0	*7	*8	4	*20
	2022	*23	0	*8	*10	4	*25
French Polynesia	2019	11	0	..	7	3	38
	2020	10	0	..	6	3	35
	2021	10	0	..	7	3	37
	2022	11	0	..	8	3	40
Guam	2019	6	..	..	..	6	35
	2020	6	..	..	..	6	34
	2021	6	..	..	..	6	34
	2022	*6	..	..	..	*6	*34
Kiribati	2019	*1	0	0	0	*1	*11
	2020	*1	0	0	0	*1	*11
	2021	*1	0	0	0	*1	*11
	2022	*1	0	0	0	*1	*11
Marshall Islands	2019	*2	..	0	*1	0	*39
	2020	*2	..	0	*1	0	*40
	2021	*2	..	0	*1	0	*40
	2022	*2	..	0	*1	0	*43
Micronesia (Fed. States of)	2019	*2	0	0	*1	0	*14
	2020	*2	0	0	*1	0	*14
	2021	*2	0	0	*1	0	*14
	2022	*2	0	0	*1	0	*14



Table 3

## Total final consumption and its components

Petajoules and gigajoules per capita

Country or area	Year	Total final consumption	Non-energy use	Energy use			TFC per capita
				Industry	Transport	Other	
Nauru	2019	*1	0	0	0	0	*44
	2020	*1	0	0	0	0	*43
	2021	*1	0	0	0	0	*46
	2022	*1	0	0	0	0	*47
New Caledonia	2019	42	7	23	9	3	150
	2020	39	6	21	8	3	138
	2021	36	6	19	8	3	127
	2022	40	7	21	8	3	138
New Zealand	2019	609	61	178	215	154	122
	2020	568	58	163	195	153	112
	2021	559	47	155	204	153	109
	2022	555	44	155	205	150	108
Niue	2019	0	..	0	0	0	*35
	2020	0	..	0	0	0	*35
	2021	0	..	0	0	0	*35
	2022	0	..	0	0	0	*37
Northern Mariana Islands	2019	*2	..	..	*1	*1	*51
	2020	*2	..	..	*1	*1	*35
	2021	*2	..	..	*1	*1	*45
	2022	*2	..	..	*1	*1	*45
Palau	2019	*2	0	0	*2	0	*132
	2020	*2	0	0	*2	0	*128
	2021	*2	0	0	*2	0	*128
	2022	*2	0	0	*2	0	*131
Papua New Guinea	2019	*132	..	39	23	*71	*14
	2020	*131	..	38	22	*72	*13
	2021	*132	..	37	22	*73	*13
	2022	*134	..	*38	*22	*73	*13
Samoa	2019	*5	0	0	*2	*2	*23
	2020	*5	0	0	*2	*2	*22
	2021	*5	0	0	*2	*2	*22
	2022	4	0	0	2	2	20
Solomon Islands	2019	*7	0	0	*3	*4	*9
	2020	*7	0	0	*3	*4	*9
	2021	*7	0	0	*3	*4	*9
	2022	*7	0	0	*2	*4	*8
Tonga	2019	*2	0	..	*2	0	*19
	2020	*2	0	..	*1	0	*16
	2021	*2	0	..	*1	0	*16
	2022	*2	0	..	*1	0	*16
Tuvalu	2019	0	..	..	0	0	*8
	2020	0	..	..	0	0	8
	2021	0	..	..	0	0	*7
	2022	0	..	..	0	0	*8
Vanuatu	2019	*3	0	0	*2	*1	*10
	2020	*3	0	0	*2	*1	*11
	2021	*4	0	0	*2	*1	*12
	2022	*3	0	0	*2	*1	*10
Wallis and Futuna Is.	2019	0	..	..	0	0	*21
	2020	0	..	..	0	0	*22
	2021	0	..	..	0	0	*22
	2022	0	..	..	0	0	*23

**Table 4****CO<sub>2</sub> emissions from fossil fuels**

Thousand metric tons and kilograms per capita

**Table Notes**

This table displays estimates of carbon dioxide (CO<sub>2</sub>) emissions from the combustion of fossil fuels based on information from the UN Energy Statistics Database, including country-specific net calorific values (NCVs), where applicable. No estimates for other greenhouse gases are provided, not even in CO<sub>2</sub>-equivalent terms. One thousand metric tons are equivalent to one Gigagram, the S.I. unit employed by the IPCC.

To arrive at estimates of carbon dioxide emissions, default IPCC emission factors (kg of CO<sub>2</sub> per TJ of fuel combusted) are applied. To obtain figures in TJ per fuel, like in other tables of this Yearbook, country-specific NCVs are used where applicable and available, and default NCVs are used where applicable but country-specific data are unavailable.

**Total** is approximately equivalent to the IPCC Reference approach for the energy sector plus the IPCC source/sink category “Industrial Processes and Product Use” (IPPU)<sup>1</sup>. In other words, it is based on the total energy supply of fossil fuels as in an energy balance, minus the non-energy use of fuels.

**Total** is broken down in **Coal**, **Oil** and **Gas** depending on the emission source, whether from solid, liquid, or gaseous fossil fuels, respectively. **Per capita** figures are calculated by dividing **Total** by population.

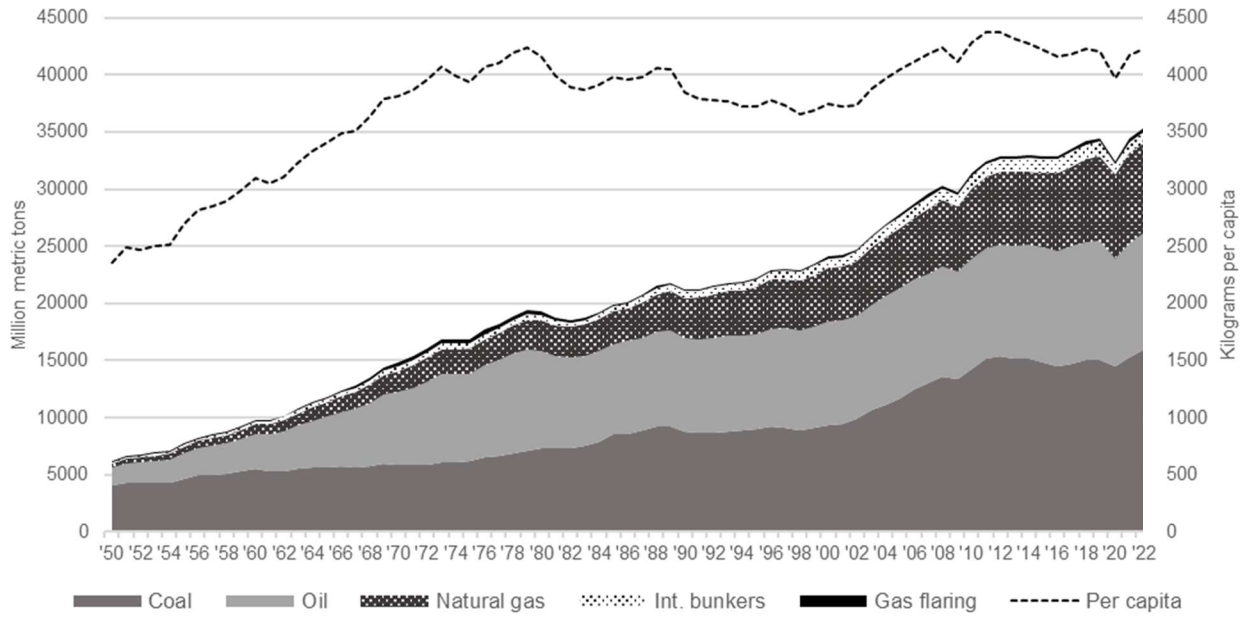
The emission estimates in this table exclude those from the combustion of non-renewable waste, which is a deviation from the IPCC guidelines (including the reference approach). On the other hand, such emissions are minor compared with those from fossil fuels and may be added in future versions of this table.

The table also provides estimates for emissions coming from **International bunkers** (marine and aviation combined) and natural **Gas flaring**. In the IPCC methodology, emissions from **International bunkers** are excluded from national emission inventories and therefore are not included in **Total**. For the world inventories, **International bunkers** should be added to **Total**. Emissions from natural **Gas flaring**, although part of the energy sector, are not accounted for as combustion<sup>2</sup>, but rather as fugitive emissions, likewise being excluded from **Total**. In this table, only flaring occurred in the extraction (production) of natural gas is accounted for as flaring, and data may be missing for some countries and/or years.

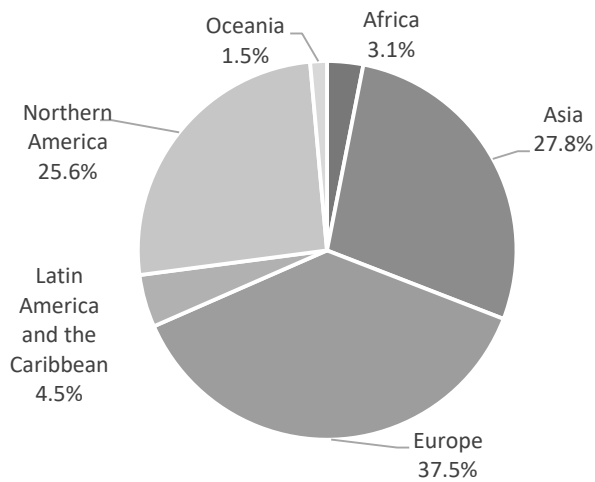
<sup>1</sup> Please refer to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories available from <https://www.ipcc.ch/report/2006-ipcc-guidelines-for-national-greenhouse-gas-inventories/>

<sup>2</sup> For inventory purposes, the IPCC defines fuel combustion as the intentional oxidation of materials within an apparatus that is designed to provide heat or mechanical work to a process, or for use away from the apparatus. Information about fossil fuel combustion tends to be much more accurate than information about fugitive emissions (which are not directly observable), and the separation between these categories preserves the accuracy of the emission estimates from combustion.

**Figure 11: CO<sub>2</sub> emissions from fossil fuel combustion, 1990-2022**



**Figure 12: CO<sub>2</sub> emissions from fossil fuel combustion by region, 1990**



**Figure 13: CO<sub>2</sub> emissions from fossil fuel combustion by region, 2022**

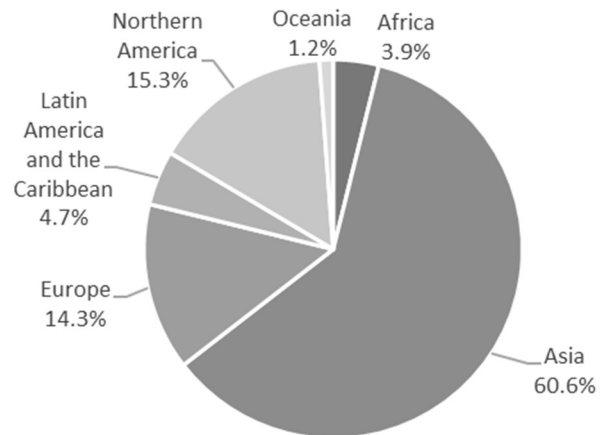


Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
World	2019	15,055,040	10,363,796	7,451,730	32,870,566	4,208	1,291,560	273,267
	2020	14,441,417	9,400,473	7,432,409	31,274,298	3,966	910,218	249,343
	2021	15,267,954	9,995,504	7,900,811	33,164,269	4,170	964,643	270,493
	2022	15,946,515	10,235,972	7,762,545	33,945,032	4,232	1,061,036	264,197
Africa	2019	485,920	531,558	298,665	1,316,143	978	45,172	46,198
	2020	446,914	507,014	283,003	1,236,931	897	30,468	41,174
	2021	449,159	575,579	304,660	1,329,398	941	33,044	48,489
	2022	442,494	578,482	296,720	1,317,696	912	36,241	45,199
Algeria	2019	1,501	56,452	86,100	144,053	3,327	*1,201	5,398
	2020	679	50,961	82,233	133,873	3,040	*1,406	6,285
	2021	1,384	54,346	90,744	146,475	3,272	*1,416	5,477
	2022	895	58,160	96,134	155,190	3,412	1,720	5,083
Angola	2019	..	14,027	2,494	16,521	510	1,773	5,516
	2020	..	9,218	*2,552	11,770	352	808	4,531
	2021	..	12,140	*2,533	14,673	425	821	4,137
	2022	..	14,671	1,978	16,649	467	1,219	3,940
Benin	2019	248	4,581	111	4,940	388	68	..
	2020	269	4,603	326	5,198	398	51	..
	2021	307	4,760	362	5,429	405	55	..
	2022	364	5,006	313	5,684	413	112	..
Botswana	2019	4,033	3,689	..	7,722	3,311	49	..
	2020	3,060	3,318	..	6,378	2,696	12	..
	2021	3,438	3,450	..	6,888	2,868	17	..
	2022	4,548	3,088	..	7,636	3,130	31	..
Burkina Faso	2019	..	4,626	..	4,626	221	96	..
	2020	..	*4,603	..	*4,603	*214	57	..
	2021	..	*5,239	..	*5,239	*238	92	..
	2022	..	*5,383	..	*5,383	*239	*92	..
Burundi	2019	49	*653	..	*702	*57	16	..
	2020	26	*725	..	*751	*60	7	..
	2021	47	*737	..	*784	*60	8	..
	2022	46	*843	..	*889	*67	17	..
Cabo Verde	2019	..	*645	..	*645	*1,255	*372	..
	2020	..	*531	..	*531	*1,031	*249	..
	2021	..	*604	..	*604	*1,168	*249	..
	2022	..	*608	..	*608	*1,169	*262	..
Cameroon	2019	..	5,322	1,362	6,684	262	52	2,058
	2020	..	5,084	1,746	6,829	261	23	1,774
	2021	..	5,234	1,420	6,654	247	36	1,538
	2022	..	5,423	1,247	6,670	241	46	1,470
Central African Rep.	2019	..	320	..	320	65	23	..
	2020	..	343	..	343	68	12	..
	2021	..	376	..	376	74	13	..
	2022	..	*386	..	*386	*76	*13	..
Chad	2019	..	1,842	..	1,842	110	84	..
	2020	..	*1,945	..	*1,945	*113	*86	..
	2021	..	*2,155	..	*2,155	*121	*86	..
	2022	..	*2,159	..	*2,159	*117	*80	..
Comoros	2019	..	*320	..	*320	*407	*21	..
	2020	..	*380	..	*380	*474	*18	..
	2021	..	*511	..	*511	*624	*21	..
	2022	..	*542	..	*542	*650	*25	..

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Congo	2019	..	1,986	1,935	3,922	698	100	3,300
	2020	..	2,126	2,021	4,147	721	88	3,524
	2021	..	2,220	2,088	4,308	731	91	2,999
	2022	..	2,348	2,650	4,997	828	97	3,585
Côte d'Ivoire	2019	..	6,164	4,370	10,534	374	816	2
	2020	..	6,568	4,482	11,050	382	467	2
	2021	..	9,078	4,675	13,753	464	620	1
	2022	..	9,452	5,113	14,564	479	758	1
Dem. Rep. of the Congo	2019	..	3,242	..	3,242	35	420	..
	2020	..	3,430	..	3,430	36	311	..
	2021	..	3,287	..	3,287	33	380	..
	2022	..	4,738	..	4,738	46	252	..
Djibouti	2019	..	*452	..	*452	*415	*315	..
	2020	..	378	..	378	342	*293	..
	2021	..	*418	..	*418	*373	*353	..
	2022	..	*369	..	*369	*324	*325	..
Egypt	2019	10,523	75,843	111,167	197,533	1,837	3,288	4,573
	2020	5,817	98,077	107,228	211,122	1,931	2,160	4,649
	2021	9,286	104,772	113,026	227,085	2,047	2,094	4,103
	2022	8,202	109,459	96,806	214,468	1,904	1,945	3,880
Equatorial Guinea	2019	..	1,146	3,985	5,131	3,072	145	1,182
	2020	..	1,016	4,726	5,742	3,345	96	1,300
	2021	..	1,013	5,781	6,794	3,863	87	946
	2022	..	*993	6,292	7,285	4,039	109	965
Eritrea	2019	..	588	..	588	181	98	..
	2020	..	596	..	596	181	63	..
	2021	..	629	..	629	188	55	..
	2022	..	666	..	666	195	78	..
Eswatini	2019	185	*942	..	*1,127	*955	5	..
	2020	148	866	..	1,014	850	2	..
	2021	167	846	..	1,013	840	1	..
	2022	187	862	..	1,049	861	3	..
Ethiopia	2019	1,562	12,715	..	14,277	123	2,586	..
	2020	1,775	11,590	..	13,364	112	1,195	..
	2021	2,412	12,288	..	14,700	120	2,601	..
	2022	2,566	11,914	..	14,480	115	2,978	..
Gabon	2019	..	1,810	883	2,693	1,188	641	2,871
	2020	..	1,749	956	2,704	1,164	573	2,892
	2021	..	1,986	864	2,850	1,199	534	2,637
	2022	..	1,756	1,198	2,953	1,215	632	2,763
Gambia	2019	..	*730	..	*730	*297	*63	..
	2020	..	*718	..	*718	*285	*55	..
	2021	..	*745	..	*745	*289	*60	..
	2022	..	*825	..	*825	*313	*63	..
Ghana	2019	..	12,147	4,213	16,359	523	692	0
	2020	..	12,395	6,371	18,766	589	396	1
	2021	..	13,024	6,741	19,765	608	624	1
	2022	..	12,759	7,340	20,099	606	611	*1
Guinea	2019	..	4,201	..	4,201	322	*131	..
	2020	..	4,533	..	4,533	339	*82	..
	2021	..	4,162	..	4,162	304	*130	..
	2022	..	4,146	..	4,146	295	*139	..

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Guinea-Bissau	2019	..	264	..	264	134	0	..
	2020	..	*321	..	*321	*159	0	..
	2021	..	*349	..	*349	*170	0	..
	2022	..	*352	..	*352	*167	*3	..
Kenya	2019	1,494	15,490	..	16,983	332	2,265	..
	2020	2,006	16,423	..	18,429	353	1,256	..
	2021	2,329	15,483	..	17,812	335	1,675	..
	2022	2,851	14,395	..	17,246	318	1,732	..
Lesotho	2019	*1,538	730	..	*2,268	*1,026	1	..
	2020	*1,414	645	..	*2,059	*921	0	..
	2021	*2,506	711	..	*3,217	*1,422	*1	..
	2022	1,711	928	..	2,639	1,154	0	..
Liberia	2019	..	812	..	812	161	*30	..
	2020	..	630	..	630	122	*29	..
	2021	..	589	..	589	112	*30	..
	2022	..	690	..	690	128	*32	..
Libya	2019	..	44,520	18,391	62,911	9,051	1,066	7,231
	2020	..	21,954	8,300	30,254	4,294	358	4,874
	2021	..	30,640	12,890	43,530	6,101	1,083	11,818
	2022	..	32,612	14,619	47,231	6,538	988	10,679
Madagascar	2019	1,316	2,927	..	4,243	150	158	..
	2020	*1,289	2,569	..	3,859	133	64	..
	2021	*1,328	3,003	..	4,331	146	48	..
	2022	1,194	3,036	..	4,229	139	93	..
Malawi	2019	220	1,404	..	1,625	85	*11	..
	2020	202	1,459	..	1,662	85	8	..
	2021	139	1,337	..	1,476	74	23	..
	2022	156	1,434	..	1,590	77	34	..
Mali	2019	..	5,336	..	5,336	253	215	..
	2020	..	5,890	..	5,890	271	163	..
	2021	..	6,904	..	6,904	308	267	..
	2022	..	6,437	..	6,437	279	198	..
Mauritania	2019	..	4,759	..	4,759	1,065	64	..
	2020	..	4,927	..	4,927	1,071	38	..
	2021	..	*4,637	..	*4,637	*979	53	..
	2022	..	5,397	..	5,397	1,107	56	..
Mauritius	2019	1,630	3,016	..	4,646	3,612	2,539	..
	2020	1,622	2,284	..	3,906	3,044	2,187	..
	2021	1,809	2,270	..	4,079	3,188	2,037	..
	2022	1,423	2,987	..	4,410	3,456	1,869	..
Morocco	2019	26,398	37,182	2,055	65,635	1,813	2,875	..
	2020	26,495	33,728	1,599	61,822	1,690	1,310	..
	2021	27,789	37,666	1,597	67,051	1,814	1,616	..
	2022	28,148	38,237	450	66,835	1,790	2,418	..
Mozambique	2019	48	4,396	1,776	6,220	208	111	*59
	2020	80	3,651	1,704	5,436	177	61	*99
	2021	27	4,983	1,849	6,858	216	72	*177
	2022	33	5,316	2,202	7,550	231	71	866
Namibia	2019	*137	3,157	..	3,294	1,243	258	..
	2020	*152	2,898	..	3,050	1,118	265	..
	2021	*129	3,053	..	3,182	1,132	296	..
	2022	31	2,995	..	3,026	1,047	309	..

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Niger	2019	342	2,044	75	2,461	107	*146	..
	2020	373	2,526	80	2,979	126	*153	..
	2021	159	2,204	119	2,483	101	*161	..
	2022	329	*2,687	*100	*3,115	*123	*228	..
Nigeria	2019	1,326	68,540	32,938	102,804	491	3,136	13,515
	2020	1,568	64,979	33,113	99,660	466	1,766	10,777
	2021	3,187	83,538	35,472	122,196	559	2,111	14,112
	2022	3,344	69,474	35,437	108,254	485	2,368	11,407
Rwanda	2019	*68	1,134	*94	1,296	101	*77	..
	2020	*41	1,130	*91	1,262	97	*50	..
	2021	*67	1,353	*93	1,513	113	*76	..
	2022	*211	*1,388	*93	*1,692	*124	*79	..
Sao Tome and Principe	2019	..	149	..	149	700	*11	..
	2020	..	*146	..	*146	*673	*11	..
	2021	..	*147	..	*147	*664	*12	..
	2022	..	*138	..	*138	*608	*12	..
Senegal	2019	2,182	8,082	28	10,292	629	1,221	..
	2020	1,410	6,801	28	8,239	491	1,178	..
	2021	2,061	7,528	14	9,604	558	1,062	..
	2022	2,183	9,088	10	11,281	639	976	..
Seychelles	2019	..	604	..	604	5,132	*490	..
	2020	..	*611	..	*611	*5,080	*371	..
	2021	..	*624	..	*624	*5,072	*340	..
	2022	..	*639	..	*639	*5,094	*395	..
Sierra Leone	2019	..	1,140	..	1,140	147	12	..
	2020	..	1,212	..	1,212	153	5	..
	2021	..	1,511	..	1,511	187	9	..
	2022	..	1,475	..	1,475	178	17	..
Somalia	2019	..	*1,095	..	*1,095	*68	*340	..
	2020	..	*1,167	..	*1,167	*70	*318	..
	2021	..	*1,182	..	*1,182	*68	*353	..
	2022	..	*1,302	..	*1,302	*73	*366	..
South Africa	2019	419,806	50,696	10,101	480,603	8,065	14,010	..
	2020	387,467	47,301	9,814	444,581	7,341	10,834	..
	2021	379,470	61,043	7,293	447,806	7,281	9,071	..
	2022	369,621	60,403	7,114	437,139	7,008	9,560	..
South Sudan	2019	..	1,823	..	1,823	175	231	..
	2020	..	1,760	..	1,760	165	153	..
	2021	..	1,789	..	1,789	165	231	..
	2022	..	1,680	..	1,680	152	231	..
St. Helena and Depend.	2019	..	14	..	14	2,591	..	..
	2020	..	11	..	11	2,026	..	..
	2021	..	9	..	9	1,727	..	..
	2022	..	11	..	11	2,033	..	..
Sudan	2019	..	*20,242	..	*20,242	*444	*564	..
	2020	..	19,656	..	19,656	420	*319	..
	2021	..	19,090	..	19,090	397	*456	..
	2022	..	17,386	..	17,386	352	*490	..
Togo	2019	..	1,344	127	1,471	174	183	..
	2020	..	1,771	144	1,915	221	177	..
	2021	..	1,432	292	1,724	194	297	..
	2022	..	1,480	339	1,820	200	311	..

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Tunisia	2019	..	13,298	12,978	26,276	2,213	977	486
	2020	..	12,615	12,377	24,992	2,087	340	460
	2021	..	13,651	13,267	26,917	2,234	436	537
	2022	..	13,561	12,975	26,536	2,190	693	550
Uganda	2019	0	5,413	..	5,413	126	335	..
	2020	*1	5,117	..	5,118	115	178	..
	2021	0	5,657	..	5,657	123	264	..
	2022	0	5,543	..	5,543	117	390	..
United Rep. of Tanzania	2019	1,446	9,091	3,480	14,017	237	540	*6
	2020	1,287	9,353	3,113	13,753	226	256	*5
	2021	1,537	10,433	3,540	15,510	247	328	*6
	2022	1,788	11,018	4,311	17,117	265	427	*7
Zambia	2019	3,615	4,536	..	8,151	440	91	..
	2020	4,639	4,594	..	9,233	484	55	..
	2021	3,687	4,911	..	8,598	439	73	..
	2022	5,326	5,086	..	10,413	517	102	..
Zimbabwe	2019	6,252	3,879	..	10,130	663	160	..
	2020	5,093	3,135	..	8,228	530	57	..
	2021	5,892	3,831	..	9,723	615	118	..
	2022	7,336	4,752	..	12,088	752	182	..
<b>Asia</b>	<b>2019</b>	<b>11,610,020</b>	<b>4,652,057</b>	<b>2,852,957</b>	<b>19,115,034</b>	<b>4,109</b>	<b>601,075</b>	<b>114,044</b>
	<b>2020</b>	<b>11,491,216</b>	<b>4,292,650</b>	<b>2,933,917</b>	<b>18,717,783</b>	<b>3,993</b>	<b>461,082</b>	<b>112,084</b>
	<b>2021</b>	<b>12,047,892</b>	<b>4,441,523</b>	<b>3,148,156</b>	<b>19,637,571</b>	<b>4,162</b>	<b>477,880</b>	<b>117,941</b>
	<b>2022</b>	<b>12,869,240</b>	<b>4,623,837</b>	<b>3,094,298</b>	<b>20,587,375</b>	<b>4,336</b>	<b>482,250</b>	<b>108,209</b>
Afghanistan	2019	3,429	6,863	254	10,545	279	*30	..
	2020	*3,803	7,290	158	11,251	288	*36	..
	2021	*3,131	*6,720	*161	*10,013	*250	*39	..
	2022	*3,645	*6,510	*146	*10,301	*254	*19	..
Armenia	2019	11	1,055	5,017	6,083	2,095	217	..
	2020	30	1,468	5,029	6,527	2,258	117	..
	2021	46	1,536	5,496	7,078	2,466	*164	..
	2022	45	1,532	5,701	7,279	2,527	309	..
Azerbaijan	2019	3	11,599	23,694	35,297	3,491	1,084	2,802
	2020	3	9,791	23,922	33,717	3,311	1,160	2,361
	2021	1	10,383	24,844	35,228	3,442	1,409	*2,649
	2022	1	12,007	26,032	38,040	3,695	1,389	*3,447
Bahrain	2019	..	2,993	30,814	33,807	22,755	1,602	336
	2020	..	2,934	30,778	33,712	22,731	905	465
	2021	..	2,569	29,730	32,300	21,508	1,015	267
	2022	..	3,913	29,766	33,678	21,962	1,636	185
Bangladesh	2019	9,070	25,707	57,716	92,493	561	1,735	28
	2020	11,025	24,152	58,620	93,797	564	1,472	29
	2021	14,857	23,081	57,440	95,378	569	1,202	51
	2022	16,876	25,749	56,969	99,594	588	1,126	41
Bhutan	2019	564	590	..	1,154	1,508	13	..
	2020	530	417	..	946	1,229	4	..
	2021	770	423	..	1,193	1,538	3	..
	2022	828	487	..	1,315	1,684	6	..
Brunei Darussalam	2019	633	2,447	5,027	8,107	18,313	341	536
	2020	2,227	3,587	4,262	10,076	22,521	135	501
	2021	2,867	3,375	4,486	10,728	23,749	56	577
	2022	2,807	3,802	4,937	11,546	25,356	116	*273



Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Cambodia	2019	4,685	9,350	..	14,035	852	491	..
	2020	6,726	9,423	..	16,149	966	137	..
	2021	5,955	9,378	..	15,333	903	65	..
	2022	5,683	9,531	..	15,214	884	120	..
China	2019	7,566,960	1,524,025	626,002	9,716,986	6,826	66,271	4,023
	2020	7,700,466	1,477,433	672,652	9,850,550	6,907	49,783	5,418
	2021	8,051,976	1,470,381	763,937	10,286,295	7,211	52,489	5,044
	2022	8,462,273	1,482,715	765,952	10,710,939	7,516	2,527	4,902
China, Hong Kong SAR	2019	24,430	11,962	6,453	42,845	5,723	50,336	..
	2020	13,008	11,378	9,679	34,065	4,548	33,397	..
	2021	14,454	10,175	9,672	34,301	4,583	29,931	..
	2022	14,214	7,513	9,443	31,170	4,175	26,610	..
China, Macao SAR	2019	..	844	263	1,108	1,651	140	..
	2020	..	778	143	920	1,348	13	..
	2021	..	746	168	914	1,317	10	..
	2022	..	698	231	928	1,318	6	..
Cyprus	2019	68	6,195	..	6,263	4,867	1,814	..
	2020	55	5,689	..	5,744	4,411	1,159	..
	2021	162	5,660	..	5,822	4,420	1,272	..
	2022	129	5,816	..	5,944	4,465	1,702	..
Georgia	2019	1,068	3,645	5,086	9,798	2,581	325	0
	2020	936	3,524	5,104	9,564	2,520	186	1
	2021	951	3,753	5,335	10,039	2,650	307	0
	2022	992	3,783	6,425	11,200	2,952	428	0
India	2019	1,739,782	*661,370	*82,613	2,483,765	1,788	*17,940	2,572
	2020	1,576,927	*560,506	*73,421	2,210,855	1,576	*8,648	2,941
	2021	1,764,631	*597,841	*79,092	2,441,564	1,726	10,643	2,904
	2022	2,018,629	690,554	*76,081	2,785,264	1,954	*15,319	3,064
Indonesia	2019	372,641	227,692	75,722	676,055	2,481	3,585	15,015
	2020	354,066	209,252	71,006	634,324	2,308	2,500	12,387
	2021	347,122	212,799	73,301	633,222	2,288	1,500	12,341
	2022	530,786	238,309	73,840	842,935	3,023	1,613	3,315
Iran (Islamic Rep. of)	2019	4,618	213,233	407,700	625,552	7,186	5,694	27,209
	2020	5,359	190,877	441,272	637,508	7,267	3,900	26,121
	2021	6,123	214,984	465,517	686,624	7,762	6,231	34,055
	2022	6,309	194,808	473,177	674,294	7,532	6,961	33,928
Iraq	2019	..	114,663	33,146	147,809	3,588	1,611	35,294
	2020	..	93,293	35,262	128,555	3,052	988	34,229
	2021	..	111,957	36,295	148,252	3,442	1,118	35,250
	2022	..	134,588	37,010	171,598	3,894	1,284	35,272
Israel	2019	18,840	21,879	18,086	58,805	6,792	4,610	*2
	2020	17,885	18,400	22,757	59,042	6,709	2,535	*2
	2021	14,998	19,957	23,697	58,653	6,559	2,937	1
	2022	15,202	22,198	24,523	61,923	6,802	4,531	18
Japan	2019	454,270	391,751	215,573	1,061,594	8,379	35,464	..
	2020	401,085	364,672	215,929	981,685	7,772	23,553	..
	2021	429,745	371,198	203,148	1,004,091	7,989	26,827	..
	2022	429,326	381,758	193,925	1,005,009	8,040	29,141	..
Jordan	2019	850	14,669	8,066	23,585	2,210	*386	..
	2020	647	11,410	7,555	19,612	1,805	268	..
	2021	671	12,041	7,327	20,038	1,811	332	..
	2022	894	12,443	7,658	20,995	1,865	*296	..

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Kazakhstan	2019	137,398	46,037	46,670	230,105	11,979	1,462	..
	2020	130,263	32,946	46,535	209,744	10,766	651	..
	2021	133,699	51,006	39,323	224,028	11,347	1,526	..
	2022	133,391	46,469	42,012	221,872	11,074	1,394	..
Korea, Dem.Ppl's.Rep.	2019	66,369	3,203	..	69,572	2,672	..	..
	2020	62,378	3,080	..	65,458	2,504	..	..
	2021	50,883	2,491	..	53,375	2,035	..	..
	2022	52,999	2,601	..	55,600	2,112	..	..
Korea, Republic of	2019	329,103	157,696	113,184	599,984	11,590	42,363	..
	2020	294,980	156,721	111,801	563,501	10,866	39,703	..
	2021	298,519	178,520	123,747	600,786	11,587	40,418	..
	2022	269,468	155,718	123,495	548,681	10,596	45,625	..
Kuwait	2019	..	45,948	47,486	93,434	21,033	6,100	1,440
	2020	..	26,315	53,050	79,365	18,037	4,329	1,456
	2021	..	22,103	55,525	77,628	17,802	4,402	1,340
	2022	..	44,592	48,560	93,153	20,297	5,945	1,147
Kyrgyzstan	2019	3,312	4,408	636	8,355	1,287	*16	..
	2020	3,315	3,693	667	7,675	1,152	*6	..
	2021	4,342	4,294	786	9,421	1,381	*13	..
	2022	5,861	4,006	873	10,740	1,544	..	..
Lao People's Dem. Rep.	2019	14,265	2,767	..	17,032	2,353	*114	..
	2020	13,879	2,727	..	16,606	2,260	*35	..
	2021	14,271	2,747	..	17,018	2,283	*13	..
	2022	15,599	2,804	..	18,403	2,435	14	..
Lebanon	2019	114	24,159	..	24,273	4,189	947	..
	2020	*46	23,343	..	23,389	4,102	399	..
	2021	166	18,937	..	19,104	3,341	503	..
	2022	*55	14,627	..	14,681	2,556	809	..
Malaysia	2019	84,227	91,103	66,719	242,049	7,238	8,906	2,364
	2020	98,834	62,792	64,360	225,986	6,668	4,554	1,970
	2021	92,101	70,421	78,786	241,307	7,039	4,361	1,773
	2022	93,793	67,959	88,122	249,874	7,202	4,830	2,010
Maldives	2019	..	2,059	..	2,059	4,221	*234	..
	2020	..	1,734	..	1,734	3,454	*200	..
	2021	..	2,061	..	2,061	3,993	*215	..
	2022	..	2,275	..	2,275	4,340	*276	..
Mongolia	2019	43,501	5,125	..	48,626	15,045	136	..
	2020	38,649	5,085	..	43,734	13,290	56	..
	2021	31,962	4,921	..	36,883	11,044	80	..
	2022	36,242	5,238	..	41,480	12,250	*220	..
Myanmar	2019	4,109	20,231	7,843	32,183	611	230	45
	2020	4,520	19,649	8,778	32,948	621	50	50
	2021	3,010	15,052	9,285	27,346	512	32	41
	2022	3,056	16,820	9,261	29,137	542	66	26
Nepal	2019	4,087	5,154	..	9,241	325	252	..
	2020	5,529	7,324	..	12,853	444	122	..
	2021	4,727	7,658	..	12,385	420	271	..
	2022	7,484	8,236	..	15,720	529	320	..
Oman	2019	..	-1,491	49,811	48,320	10,524	2,212	5,184
	2020	..	7,948	51,851	59,799	13,223	*1,115	4,959
	2021	..	6,549	54,083	60,632	13,473	616	4,876
	2022	..	8,081	56,044	64,125	13,556	1,557	4,082

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Other Asia	2019	154,367	64,270	51,595	270,232	11,415	15,018	..
	2020	143,821	59,518	55,724	259,063	10,948	10,663	..
	2021	169,741	55,147	60,626	285,514	12,119	11,516	..
	2022	160,482	59,177	62,840	282,499	12,062	11,166	..
Pakistan	2019	46,768	62,451	61,170	170,388	738	*709	485
	2020	54,382	80,782	58,634	193,798	825	547	476
	2021	65,122	95,072	60,033	220,227	920	768	463
	2022	62,243	73,132	55,170	190,545	782	*799	473
Philippines	2019	71,351	56,394	8,686	136,431	1,231	5,347	..
	2020	71,485	47,144	7,877	126,506	1,129	2,142	..
	2021	77,122	50,349	6,755	134,227	1,187	1,941	..
	2022	78,292	57,808	6,258	142,359	1,249	4,206	..
Qatar	2019	..	-6,359	82,797	76,438	27,320	7,053	1,379
	2020	..	-5,507	82,108	76,601	27,325	4,666	2,167
	2021	..	-6,445	85,859	79,414	28,211	5,578	1,399
	2022	..	148	83,620	83,768	28,961	6,980	2,384
Saudi Arabia	2019	501	339,991	227,466	567,958	18,638	*21,134	*4,138
	2020	439	281,850	228,803	511,091	16,491	*12,008	*4,461
	2021	543	310,209	237,002	547,753	17,484	*12,642	*4,183
	2022	492	335,294	189,270	525,055	16,319	19,391	*3,665
Singapore	2019	1,814	55,667	21,440	78,921	13,920	175,225	..
	2020	1,715	57,788	21,673	81,176	14,444	162,263	..
	2021	1,838	57,611	22,120	81,570	14,707	162,839	..
	2022	2,326	62,111	21,889	86,325	15,279	171,231	..
Sri Lanka	2019	6,167	15,020	..	21,187	945	3,466	..
	2020	7,411	13,085	..	20,496	908	1,720	..
	2021	6,464	14,469	..	20,933	922	2,378	..
	2022	6,147	12,120	..	18,267	800	2,347	..
State of Palestine	2019	..	3,328	..	3,328	671	..	..
	2020	..	3,388	..	3,388	668	..	..
	2021	..	3,703	..	3,703	714	..	..
	2022	..	4,773	..	4,773	900	..	..
Syrian Arab Republic	2019	3	24,597	5,993	30,593	1,503	858	1,903
	2020	3	23,983	5,263	29,249	1,390	853	2,094
	2021	3	23,285	5,603	28,891	1,336	859	2,284
	2022	3	23,406	4,584	27,993	1,246	874	2,099
Tajikistan	2019	3,577	2,938	284	6,799	713	126	..
	2020	3,684	3,369	*456	7,509	770	77	..
	2021	3,835	3,145	477	7,457	748	52	..
	2022	4,381	3,706	484	8,572	842	192	..
Thailand	2019	51,341	112,721	95,295	259,358	3,626	*17,843	621
	2020	53,248	107,444	92,726	253,418	3,537	*7,933	636
	2021	62,654	95,645	93,329	251,628	3,508	6,882	524
	2022	56,985	104,962	84,365	246,312	3,434	*10,669	428
Timor-Leste	2019	..	624	0	624	479	*9	83
	2020	..	605	0	605	456	*10	70
	2021	..	592	0	592	438	*11	78
	2022	..	624	0	624	456	*12	54
Türkiye	2019	169,145	117,974	85,893	373,012	4,370	16,387	4
	2020	161,117	111,438	91,753	364,307	4,232	7,462	4
	2021	166,113	118,979	113,493	398,585	4,598	10,069	4
	2022	168,914	123,120	97,384	389,419	4,473	14,214	4

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Turkmenistan	2019	..	17,545	42,229	59,774	8,785	904	2,649
	2020	..	16,125	43,941	60,066	8,643	202	3,285
	2021	..	16,357	74,173	90,531	12,765	86	2,305
	2022	..	17,050	84,237	101,287	14,009	222	2,108
United Arab Emirates	2019	7,040	34,167	133,250	174,457	18,603	74,987	1,774
	2020	8,451	42,644	134,665	185,759	19,660	65,520	1,882
	2021	10,506	44,144	126,772	181,423	18,533	69,810	1,712
	2022	4,123	35,902	137,135	177,161	17,297	78,849	1,827
Uzbekistan	2019	8,674	10,781	85,342	104,797	3,179	*418	1,228
	2020	12,046	12,052	79,801	103,899	3,093	*350	1,085
	2021	10,711	*10,762	97,973	119,446	3,488	289	924
	2022	12,437	11,157	93,215	116,808	3,343	491	863
Viet Nam	2019	200,575	71,706	17,896	290,178	2,986	4,599	1,522
	2020	225,975	69,223	15,863	311,061	3,172	2,245	1,317
	2021	180,835	65,003	12,720	258,558	2,613	1,863	1,042
	2022	185,559	73,291	13,624	272,474	2,733	4,110	1,164
Yemen	2019	291	9,312	40	9,644	275	330	1,408
	2020	266	8,092	40	8,398	232	302	1,718
	2021	263	7,778	40	8,082	218	299	1,853
	2022	267	7,918	40	8,226	215	303	1,433
<b>Europe</b>	<b>2019</b>	<b>1,411,223</b>	<b>1,775,355</b>	<b>1,812,929</b>	<b>4,999,507</b>	<b>6,651</b>	<b>384,233</b>	<b>43,018</b>
	<b>2020</b>	<b>1,225,302</b>	<b>1,606,450</b>	<b>1,776,928</b>	<b>4,608,680</b>	<b>6,131</b>	<b>253,393</b>	<b>39,881</b>
	<b>2021</b>	<b>1,357,354</b>	<b>1,704,720</b>	<b>1,958,951</b>	<b>5,021,024</b>	<b>6,687</b>	<b>270,612</b>	<b>52,473</b>
	<b>2022</b>	<b>1,321,464</b>	<b>1,743,905</b>	<b>1,786,028</b>	<b>4,851,397</b>	<b>6,476</b>	<b>332,025</b>	<b>58,668</b>
Albania	2019	472	3,474	135	4,082	1,415	165	..
	2020	597	2,924	97	3,617	1,259	149	..
	2021	899	2,897	104	3,901	1,369	142	..
	2022	568	2,974	90	3,632	1,284	210	..
Andorra	2019	0	500	5	505	6,602	*1	..
	2020	0	384	5	389	5,027	0	..
	2021	0	418	7	425	5,430	0	..
	2022	0	426	7	434	5,445	*1	..
Austria	2019	11,462	31,693	17,197	60,352	6,796	2,972	..
	2020	10,013	28,497	16,395	54,905	6,154	1,013	..
	2021	10,342	29,870	17,387	57,599	6,423	1,291	..
	2022	9,878	29,098	15,493	54,469	6,009	1,933	..
Belarus	2019	3,635	17,321	35,217	56,173	5,953	586	..
	2020	3,357	17,382	32,452	53,192	5,688	334	..
	2021	3,339	18,447	33,234	55,020	5,947	387	..
	2022	3,628	17,564	31,964	53,156	5,795	369	..
Belgium	2019	11,539	42,687	33,305	87,532	7,618	31,888	..
	2020	8,690	37,729	32,844	79,263	6,868	24,057	..
	2021	9,571	40,107	33,261	82,940	7,168	28,856	..
	2022	10,159	38,845	28,429	77,433	6,651	29,815	..
Bosnia and Herzegovina	2019	15,797	4,822	442	21,061	6,295	28	..
	2020	16,305	4,423	403	21,131	6,405	12	..
	2021	16,103	4,966	485	21,554	6,643	43	..
	2022	15,744	4,822	473	21,039	6,565	92	..
Bulgaria	2019	20,831	13,053	5,381	39,265	5,629	970	..
	2020	16,937	11,978	5,556	34,472	4,972	690	..
	2021	21,477	12,584	6,295	40,356	5,868	773	..
	2022	25,611	13,380	5,160	44,152	6,468	888	..

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Croatia	2019	1,682	9,001	4,678	15,362	3,854	678	9
	2020	1,443	8,029	5,003	14,475	3,661	226	13
	2021	1,656	8,339	5,085	15,081	3,843	370	3
	2022	1,622	9,182	4,888	15,692	4,016	618	1
Czechia	2019	57,164	21,193	16,585	94,942	8,995	1,277	..
	2020	49,276	19,708	16,866	85,850	8,137	347	..
	2021	51,682	21,067	18,119	90,869	8,629	467	..
	2022	54,302	21,526	14,750	90,579	8,487	807	..
Denmark	2019	3,604	17,612	5,941	27,157	4,670	5,520	157
	2020	3,104	16,397	4,961	24,463	4,195	2,768	92
	2021	4,365	16,616	4,541	25,522	4,358	2,793	90
	2022	4,272	17,598	3,380	25,250	4,278	3,908	89
Estonia	2019	13,521	-365	893	14,049	10,588	790	..
	2020	10,895	-589	818	11,124	8,366	1,010	..
	2021	11,879	-820	926	11,985	8,999	1,095	..
	2022	12,943	20	688	13,651	10,111	1,137	..
Faeroe Islands	2019	..	*762	..	*762	*14,706	143	..
	2020	..	*783	..	*783	*14,888	169	..
	2021	..	*810	..	*810	*15,194	179	..
	2022	..	*742	..	*742	*13,729	187	..
Finland	2019	14,589	19,172	4,957	38,718	7,012	3,638	..
	2020	12,016	18,315	4,922	35,254	6,375	1,853	..
	2021	12,591	17,188	4,880	34,658	6,255	1,739	..
	2022	12,428	17,893	2,460	32,781	5,886	2,693	..
France	2019	28,421	181,498	85,576	295,496	4,348	24,674	..
	2020	20,326	156,123	79,610	256,060	3,758	11,377	..
	2021	34,044	166,207	84,528	284,779	4,168	11,781	..
	2022	29,755	168,869	75,997	274,621	4,008	18,438	..
Germany	2019	226,711	250,151	169,558	646,419	7,736	34,394	27
	2020	179,209	233,056	168,531	580,796	6,945	18,124	25
	2021	216,910	216,453	174,508	607,871	7,263	23,023	20
	2022	221,321	222,997	151,631	595,949	7,087	32,265	18
Gibraltar	2019	..	686	37	723	20,364	13,444	..
	2020	..	535	108	643	17,786	13,644	..
	2021	..	533	113	646	17,514	13,317	..
	2022	..	533	106	640	17,007	14,867	..
Greece	2019	13,149	30,790	9,539	53,478	4,989	11,656	..
	2020	7,525	26,576	10,695	44,796	4,187	6,364	..
	2021	7,027	27,246	12,083	46,355	4,382	8,008	..
	2022	6,528	31,091	10,293	47,912	4,601	9,874	..
Hungary	2019	7,390	18,656	18,716	44,763	4,582	851	..
	2020	6,765	16,865	19,296	42,925	4,403	309	..
	2021	5,481	18,122	20,575	44,177	4,551	375	..
	2022	5,008	18,825	17,801	41,634	4,299	788	..
Iceland	2019	-12	1,691	..	1,679	4,654	1,161	..
	2020	-34	1,507	..	1,473	4,018	339	..
	2021	60	1,596	..	1,656	4,444	536	..
	2022	12	1,730	..	1,742	4,580	1,121	..
Ireland	2019	4,463	18,667	10,711	33,841	6,859	3,763	..
	2020	4,357	17,237	10,698	32,293	6,481	1,658	..
	2021	5,198	18,169	10,280	33,648	6,692	1,847	..
	2022	4,380	18,170	10,474	33,024	6,463	3,393	..

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Isle of Man	2019	..	..	275	275	3,280	..	..
	2020	..	..	267	267	3,174	..	..
	2021	..	..	183	183	2,179	..	..
	2022	..	..	249	249	2,963	..	..
Italy	2019	25,777	133,037	141,647	300,461	4,994	20,786	..
	2020	20,271	112,808	135,367	268,446	4,478	12,484	..
	2021	22,077	133,992	145,077	301,146	5,039	13,144	..
	2022	29,309	131,994	130,485	291,788	4,891	16,710	..
Kosovo	2019	6,205	2,301	..	8,507	4,847	8	..
	2020	6,365	2,244	..	8,610	4,916	7	..
	2021	6,461	2,515	..	8,976	5,154	7	..
	2022	6,321	2,343	..	8,664	5,043	11	..
Latvia	2019	161	3,983	2,591	6,735	3,518	1,401	0
	2020	94	3,846	2,138	6,078	3,197	828	0
	2021	75	3,951	2,265	6,290	3,336	891	0
	2022	53	3,956	1,625	5,634	2,995	783	0
Liechtenstein	2019	..	..	50	50	1,311	..	..
	2020	..	..	49	49	1,253	..	..
	2021	..	..	54	54	1,388	..	..
	2022	..	..	46	46	1,158	..	..
Lithuania	2019	776	7,985	2,127	10,888	3,896	1,002	..
	2020	605	7,717	2,504	10,827	3,873	750	..
	2021	719	7,882	2,552	11,154	3,991	789	..
	2022	714	8,074	1,887	10,676	3,790	804	..
Luxembourg	2019	182	7,288	1,607	9,077	14,637	1,840	..
	2020	153	5,763	1,459	7,375	11,695	1,674	..
	2021	157	6,061	1,573	7,791	12,168	1,910	..
	2022	164	5,279	1,235	6,678	10,222	1,983	..
Malta	2019	..	945	719	1,664	3,302	7,844	..
	2020	..	867	747	1,615	3,116	7,267	..
	2021	..	873	750	1,623	3,095	6,518	..
	2022	..	1,031	758	1,789	3,388	7,268	..
Montenegro	2019	1,519	1,053	..	2,572	4,205	67	..
	2020	1,579	916	..	2,496	4,105	15	..
	2021	1,386	1,116	..	2,502	4,143	38	..
	2022	1,472	1,120	..	2,592	4,217	55	..
Netherlands (Kingd. of the)	2019	25,259	49,262	69,093	143,614	8,189	48,129	40
	2020	16,069	42,987	68,034	127,091	7,206	43,718	35
	2021	22,049	45,732	64,589	132,370	7,466	43,098	153
	2022	21,844	44,926	51,043	117,813	6,580	45,073	126
North Macedonia	2019	4,229	3,100	573	7,903	4,164	85	..
	2020	3,611	2,964	656	7,231	3,863	48	..
	2021	2,661	3,247	833	6,741	3,642	51	..
	2022	3,470	3,555	563	7,588	4,124	82	..
Norway	2019	3,088	20,031	10,475	33,595	6,282	2,676	707
	2020	3,183	20,819	9,509	33,511	6,230	1,451	611
	2021	3,220	20,349	10,764	34,333	6,348	1,460	547
	2022	3,167	15,547	8,570	27,285	5,000	2,340	6,779
Poland	2019	175,594	79,544	33,721	288,859	7,557	4,168	27
	2020	163,150	75,785	35,362	274,297	7,186	2,348	44
	2021	181,178	82,435	38,223	301,835	7,935	2,823	30
	2022	168,583	84,655	31,343	284,581	7,414	3,856	28

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Portugal	2019	4,967	25,193	12,410	42,570	4,116	7,567	..
	2020	2,752	22,273	12,046	37,071	3,575	3,828	..
	2021	936	22,214	11,508	34,657	3,335	4,177	..
	2022	30	24,403	11,160	35,593	3,417	6,538	..
Republic of Moldova	2019	384	2,820	1,780	4,983	1,601	151	..
	2020	299	2,660	1,811	4,771	1,554	53	..
	2021	352	2,966	2,074	5,392	1,783	128	..
	2022	246	3,152	1,478	4,876	1,604	142	..
Romania	2019	20,572	28,366	20,643	69,582	3,568	519	..
	2020	14,399	27,491	21,454	63,344	3,266	264	..
	2021	16,815	30,089	22,198	69,103	3,590	333	..
	2022	14,681	30,791	19,350	64,822	3,382	303	..
Russian Federation	2019	507,963	311,726	796,859	1,616,548	11,032	52,123	39,513
	2020	467,771	301,852	793,708	1,563,331	10,681	36,248	37,127
	2021	519,289	331,449	933,022	1,783,760	12,231	36,619	50,052
	2022	519,294	348,760	890,404	1,758,459	12,079	36,316	50,229
Serbia	2019	31,168	9,224	4,364	44,756	6,425	485	..
	2020	32,568	8,572	4,321	45,461	6,581	292	..
	2021	28,871	9,603	5,375	43,849	6,415	385	0
	2022	28,493	10,758	5,438	44,689	6,580	480	1
Slovakia	2019	10,714	9,116	8,746	28,576	5,243	139	2
	2020	9,080	8,514	8,690	26,284	4,818	88	2
	2021	11,130	8,910	9,735	29,775	5,471	69	2
	2022	9,447	9,337	8,142	26,927	4,920	104	2
Slovenia	2019	4,399	6,784	1,715	12,897	6,190	689	..
	2020	4,226	5,789	1,715	11,731	5,580	403	..
	2021	3,747	6,334	1,807	11,888	5,625	309	..
	2022	3,146	6,983	1,593	11,722	5,542	67	..
Spain	2019	20,166	141,645	71,475	233,286	4,918	37,667	..
	2020	12,082	117,276	64,552	193,910	4,067	25,017	..
	2021	12,354	131,569	68,173	212,097	4,443	28,787	..
	2022	14,603	139,427	65,088	219,118	4,581	38,519	..
Sweden	2019	7,964	23,463	1,418	32,845	3,195	9,210	..
	2020	6,219	20,542	2,063	28,823	2,784	9,146	..
	2021	6,904	22,357	1,523	30,784	2,955	9,144	..
	2022	5,982	22,391	1,122	29,495	2,812	8,612	..
Switzerland	2019	373	25,351	6,879	32,602	3,801	5,724	..
	2020	360	23,406	6,694	30,461	3,525	2,103	..
	2021	364	22,716	7,279	30,359	3,487	2,379	..
	2022	378	22,213	5,987	28,578	3,250	4,237	..
Ukraine	2019	101,939	38,755	51,440	192,134	4,274	..	..
	2020	87,957	39,695	47,861	175,513	3,928	..	..
	2021	81,552	42,541	49,149	173,242	3,911	..	..
	2022	52,049	37,608	33,814	123,471	3,008	..	..
United Kingdom	2019	23,405	161,318	153,447	338,171	5,039	43,352	2,536
	2020	21,724	133,804	146,658	302,186	4,487	20,916	1,933
	2021	22,432	145,005	153,832	321,269	4,748	20,530	1,576
	2022	19,855	149,315	140,563	309,732	4,543	34,340	1,395
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>182,462</b>	<b>968,558</b>	<b>444,425</b>	<b>1,595,444</b>	<b>2,488</b>	<b>73,177</b>	<b>36,918</b>
	<b>2020</b>	<b>155,637</b>	<b>852,999</b>	<b>421,943</b>	<b>1,430,578</b>	<b>2,216</b>	<b>45,036</b>	<b>34,272</b>
	<b>2021</b>	<b>164,159</b>	<b>955,364</b>	<b>473,406</b>	<b>1,592,929</b>	<b>2,453</b>	<b>53,421</b>	<b>32,283</b>
	<b>2022</b>	<b>152,381</b>	<b>987,277</b>	<b>444,906</b>	<b>1,584,565</b>	<b>2,425</b>	<b>68,363</b>	<b>33,506</b>

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Anguilla	2019	..	147	..	147	9,925	*36	..
	2020	..	139	..	139	9,386	*23	..
	2021	..	143	..	143	9,885	*38	..
	2022	..	144	..	144	10,179	*41	..
Antigua and Barbuda	2019	..	*650	..	*650	*7,118	*383	..
	2020	..	*628	..	*628	*6,839	*367	..
	2021	..	*646	..	*646	*6,996	*380	..
	2022	..	*649	..	*649	*6,993	*380	..
Argentina	2019	2,238	73,512	95,812	171,562	3,815	4,215	0
	2020	3,371	62,425	91,432	157,227	3,479	2,277	0
	2021	4,714	81,784	95,525	182,024	4,017	1,639	0
	2022	4,944	82,214	91,983	179,141	3,945	3,963	0
Aruba	2019	..	*843	..	*843	*7,873	*298	..
	2020	..	*834	..	*834	*7,766	*284	..
	2021	..	*874	..	*874	*8,129	*307	..
	2022	..	*897	..	*897	*8,319	*318	..
Bahamas	2019	*4	2,574	..	2,578	6,533	*1,359	..
	2020	*4	2,100	..	2,104	5,315	*1,284	..
	2021	*4	2,793	..	2,797	7,057	*1,890	..
	2022	*4	3,014	..	3,018	7,591	*1,356	..
Barbados	2019	..	1,262	45	1,307	4,649	396	*4
	2020	..	1,165	31	1,196	4,245	195	*2
	2021	..	1,076	27	1,104	3,911	167	*2
	2022	..	1,195	32	1,227	4,345	336	*2
Belize	2019	..	782	1	784	2,031	*63	*2
	2020	..	657	1	658	1,684	*66	2
	2021	..	697	..	697	1,763	*70	1
	2022	..	727	..	727	1,805	73	2
Bolivia (Plur. State of)	2019	21	12,849	7,718	20,588	1,764	203	109
	2020	9	10,285	6,720	17,014	1,440	82	87
	2021	23	12,703	7,401	20,127	1,686	91	70
	2022	22	13,688	7,628	21,338	1,767	163	*70
Bonaire, St Eustatius, Saba	2019	..	*143	..	*143	*5,583	*61	..
	2020	..	*137	..	*137	*5,164	*40	..
	2021	..	*143	..	*143	*5,239	*45	..
	2022	..	*149	..	*149	*5,192	*47	..
Brazil	2019	61,640	287,603	67,064	416,307	2,007	18,106	3,438
	2020	55,823	275,652	61,774	393,248	1,885	15,105	2,724
	2021	68,288	292,720	85,778	446,786	2,132	12,758	2,364
	2022	57,680	294,599	63,459	415,739	1,977	15,709	2,502
British Virgin Islands	2019	..	*187	..	*187	*5,143	..	..
	2020	..	*184	..	*184	*4,948	..	..
	2021	..	*187	..	*187	*4,959	..	..
	2022	..	*190	..	*190	*4,967	..	..
Cayman Islands	2019	..	706	..	706	10,491	106	..
	2020	..	642	..	642	9,351	47	..
	2021	..	651	..	651	9,292	24	..
	2022	..	664	..	664	9,272	82	..
Chile	2019	32,404	50,120	10,507	93,031	4,846	2,594	*1
	2020	26,288	44,835	9,946	81,069	4,185	1,318	11
	2021	25,166	48,421	11,063	84,651	4,351	1,584	8
	2022	20,733	53,027	12,384	86,145	4,406	2,286	8



Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Colombia	2019	23,728	46,208	24,531	94,468	1,893	4,591	947
	2020	20,051	43,358	24,301	87,710	1,732	2,238	607
	2021	19,181	57,065	22,024	98,269	1,920	3,094	645
	2022	17,126	44,171	21,763	83,060	1,605	5,049	480
Costa Rica	2019	1	7,346	..	7,347	1,469	706	..
	2020	0	6,512	..	6,513	1,294	306	..
	2021	54	7,349	..	7,403	1,463	542	..
	2022	61	7,608	..	7,669	1,509	752	..
Cuba	2019	0	20,283	1,874	22,157	1,978	*1,549	32
	2020	5	19,361	1,763	21,129	1,891	*1,507	28
	2021	13	20,737	1,701	22,451	2,019	*1,526	76
	2022	6	21,446	1,662	23,113	2,090	*1,122	90
Curaçao	2019	..	2,458	0	2,458	12,968	6,497	..
	2020	..	2,060	..	2,060	11,132	5,174	..
	2021	..	2,195	..	2,195	11,844	5,443	..
	2022	..	2,266	..	2,266	12,228	5,880	..
Dominica	2019	..	*177	..	*177	*2,615	*5	..
	2020	..	*162	..	*162	*2,391	*5	..
	2021	..	*163	..	*163	*2,432	*5	..
	2022	..	*168	..	*168	*2,510	*5	..
Dominican Republic	2019	4,657	19,424	2,865	26,946	2,473	1,596	..
	2020	6,812	15,077	3,020	24,909	2,263	654	..
	2021	6,425	17,446	3,707	27,579	2,479	1,119	..
	2022	7,765	18,302	2,865	28,931	2,576	1,575	..
Ecuador	2019	..	35,368	1,244	36,612	2,111	2,612	1,298
	2020	..	27,814	1,057	28,870	1,645	899	1,209
	2021	..	33,088	1,115	34,203	1,934	3,390	1,173
	2022	..	36,742	1,028	37,770	2,119	3,776	1,349
El Salvador	2019	2	7,239	..	7,241	1,164	552	..
	2020	1	5,837	..	5,838	936	215	..
	2021	2	6,664	0	6,666	1,066	401	..
	2022	1	7,143	410	7,555	1,203	466	..
Falkland Is. (Malvinas)	2019	*5	37	..	42	11,931	..	..
	2020	3	39	..	42	11,842	..	..
	2021	3	38	..	40	11,534	..	..
	2022	*3	*38	..	*41	*11,667	..	..
Grenada	2019	..	343	..	343	2,955	30	..
	2020	..	296	..	296	2,541	26	..
	2021	..	318	..	318	2,729	27	..
	2022	..	350	..	350	2,990	30	..
Guatemala	2019	4,712	13,746	..	18,458	1,079	1,667	..
	2020	3,043	13,068	..	16,110	928	1,393	..
	2021	3,895	14,871	..	18,765	1,066	1,758	..
	2022	1,487	15,904	..	17,390	974	1,781	..
Guyana	2019	1	2,705	1	2,707	3,352	53	..
	2020	0	2,629	2	2,632	3,259	15	..
	2021	1	2,744	2	2,747	3,368	24	..
	2022	1	4,164	3	4,168	5,073	29	..
Haiti	2019	..	3,082	..	3,082	277	70	..
	2020	..	3,229	..	3,229	287	31	..
	2021	..	3,472	..	3,472	305	35	..
	2022	..	2,803	..	2,803	244	66	..

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Honduras	2019	..	10,376	..	10,376	1,043	..	..
	2020	..	9,503	..	9,503	939	..	..
	2021	..	10,528	..	10,528	1,023	..	..
	2022	..	11,130	..	11,130	1,064	..	..
Jamaica	2019	288	8,368	577	9,233	3,270	918	..
	2020	288	4,871	1,420	6,579	2,324	474	..
	2021	288	5,251	1,465	7,004	2,468	530	..
	2022	231	6,153	1,197	7,581	2,670	793	..
Mexico	2019	47,561	236,994	160,540	445,095	3,539	14,974	0
	2020	35,383	202,828	164,587	402,798	3,177	6,070	0
	2021	30,859	221,030	169,818	421,707	3,304	10,179	0
	2022	36,951	233,064	163,546	433,561	3,371	14,522	0
Montserrat	2019	..	25	..	25	5,473	*3	..
	2020	..	24	..	24	5,377	*3	..
	2021	..	*24	..	*24	*5,431	*3	..
	2022	..	25	..	25	5,538	*2	..
Nicaragua	2019	..	5,077	..	5,077	783	51	..
	2020	..	4,523	..	4,523	689	20	..
	2021	..	5,014	..	5,014	755	28	..
	2022	..	4,974	..	4,974	739	48	..
Panama	2019	2,189	8,301	1,708	12,198	2,881	1,882	..
	2020	2,355	3,180	921	6,456	1,504	656	..
	2021	2,243	6,555	1,100	9,898	2,278	1,037	..
	2022	2,186	8,652	520	11,358	2,581	1,999	..
Paraguay	2019	5	8,023	..	8,028	1,232	224	..
	2020	2	7,295	..	7,297	1,105	80	..
	2021	2	8,039	..	8,041	1,203	107	..
	2022	2	7,334	..	7,335	1,085	143	..
Peru	2019	2,709	34,731	16,090	53,530	1,650	3,510	226
	2020	1,990	28,470	13,520	43,980	1,339	1,545	139
	2021	2,788	33,873	17,834	54,494	1,644	2,237	*128
	2022	2,952	35,394	20,333	58,679	1,753	2,252	*236
Puerto Rico	2019	..	..	3,743	3,743	1,138	..	..
	2020	..	..	2,758	2,758	842	..	..
	2021	..	..	3,940	3,940	1,211	..	..
	2022	..	..	2,789	2,789	861	..	..
Saint Barthélemy	2019	..	*110	..	*110	*10,699	*31	..
	2020	..	*111	..	*111	*10,548	*31	..
	2021	..	*113	..	*113	*10,499	*31	..
	2022	..	*123	..	*123	*11,236	*31	..
Saint Martin (French Part)	2019	..	*419	..	*419	*12,224	*258	..
	2020	..	*418	..	*418	*13,157	*242	..
	2021	..	*419	..	*419	*13,980	*241	..
	2022	..	*417	..	*417	*14,444	*250	..
Sint Maarten (Dutch part)	2019	..	*705	..	*705	*17,461	*667	..
	2020	..	*670	..	*670	*16,346	*587	..
	2021	..	*701	..	*701	*16,852	*646	..
	2022	..	*712	..	*712	*16,898	*707	..
St. Kitts-Nevis	2019	..	*266	..	*266	*5,673	*17	..
	2020	..	*248	..	*248	*5,291	*16	..
	2021	..	*243	..	*243	*5,188	*16	..
	2022	..	*256	..	*256	*5,485	*17	..

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
St. Lucia	2019	..	514	..	514	2,893	*103	..
	2020	..	*499	..	*499	*2,802	*87	..
	2021	..	*519	..	*519	*2,908	*91	..
	2022	..	*528	..	*528	*2,954	*94	..
St. Vincent-Grenadines	2019	..	225	..	225	2,165	0	..
	2020	..	241	..	241	2,327	0	..
	2021	..	*240	..	*240	*2,330	0	..
	2022	..	*250	..	*250	*2,446	0	..
Suriname	2019	..	2,617	12	2,628	4,339	*243	2
	2020	..	2,914	14	2,927	4,781	*215	2
	2021	..	2,635	13	2,648	4,286	*241	2
	2022	..	2,796	14	2,810	4,509	*254	*2
Trinidad and Tobago	2019	..	3,673	14,537	18,210	12,263	732	2,876
	2020	..	3,374	12,157	15,530	10,486	506	2,742
	2021	..	3,086	11,808	14,894	10,011	547	2,323
	2022	..	4,023	12,862	16,885	11,287	*596	1,992
Turks and Caicos Islands	2019	..	*373	..	*373	*8,633	*78	..
	2020	..	*366	..	*366	*8,254	*77	..
	2021	..	*374	..	*374	*8,271	*79	..
	2022	..	*372	..	*372	*8,119	*78	..
Uruguay	2019	0	5,991	171	6,162	1,814	801	..
	2020	0	6,085	126	6,212	1,828	445	..
	2021	0	7,428	145	7,573	2,230	417	..
	2022	0	7,030	152	7,183	2,118	534	..
Venezuela (Bolivar. Rep.)	2019	298	51,974	35,384	87,655	3,029	936	27,982
	2020	208	38,255	26,393	64,857	2,280	433	26,718
	2021	210	40,300	38,940	79,450	2,814	636	25,491
	2022	227	51,781	40,276	92,284	3,271	757	26,772
<b>Northern America</b>	<b>2019</b>	<b>1,165,129</b>	<b>2,278,809</b>	<b>1,957,626</b>	<b>5,401,563</b>	<b>14,377</b>	<b>164,419</b>	<b>32,641</b>
	<b>2020</b>	<b>939,760</b>	<b>1,986,152</b>	<b>1,923,219</b>	<b>4,849,130</b>	<b>12,837</b>	<b>103,627</b>	<b>21,569</b>
	<b>2021</b>	<b>1,075,757</b>	<b>2,167,735</b>	<b>1,924,926</b>	<b>5,168,418</b>	<b>13,646</b>	<b>122,575</b>	<b>18,953</b>
	<b>2022</b>	<b>1,000,859</b>	<b>2,147,997</b>	<b>2,055,247</b>	<b>5,204,103</b>	<b>13,678</b>	<b>131,772</b>	<b>18,219</b>
Bermuda	2019	0	604	..	604	9,416	*78	..
	2020	0	443	..	444	6,890	*66	..
	2021	0	526	..	526	8,132	*73	..
	2022	0	*536	..	*537	*8,286	*75	..
Canada	2019	49,973	259,588	270,086	579,647	15,342	15,747	2,882
	2020	39,151	231,825	256,856	527,833	13,828	7,373	2,854
	2021	45,259	231,687	264,505	541,451	14,080	7,182	3,078
	2022	30,519	243,070	281,407	554,996	14,296	11,851	3,276
Greenland	2019	..	583	..	583	10,398	64	..
	2020	..	559	..	559	9,960	64	..
	2021	..	564	..	564	10,070	39	..
	2022	..	628	..	628	11,208	70	..
St. Pierre-Miquelon	2019	..	*67	..	*67	*11,477	*17	..
	2020	..	*64	..	*64	*10,927	*10	..
	2021	..	*57	..	*57	*9,868	*5	..
	2022	..	*55	..	*55	*9,564	*4	..
United States	2019	1,115,155	2,017,967	1,687,540	4,820,662	14,271	148,513	29,760
	2020	900,609	1,753,261	1,666,362	4,320,232	12,728	96,114	18,715
	2021	1,030,498	1,934,901	1,660,421	4,625,820	13,599	115,276	15,875
	2022	970,340	1,903,709	1,773,840	4,647,888	13,609	119,772	14,943

Table 4

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
<b>Oceania</b>	<b>2019</b>	<b>200,287</b>	<b>157,459</b>	<b>85,128</b>	<b>442,874</b>	<b>10,181</b>	<b>23,484</b>	<b>448</b>
	<b>2020</b>	<b>182,589</b>	<b>155,207</b>	<b>93,400</b>	<b>431,197</b>	<b>9,783</b>	<b>16,613</b>	<b>362</b>
	<b>2021</b>	<b>173,633</b>	<b>150,583</b>	<b>90,712</b>	<b>414,928</b>	<b>9,313</b>	<b>7,110</b>	<b>353</b>
	<b>2022</b>	<b>160,077</b>	<b>154,475</b>	<b>85,344</b>	<b>399,896</b>	<b>8,877</b>	<b>10,385</b>	<b>395</b>
American Samoa	2019	..	*409	..	*409	*8,153	*79	..
	2020	..	*403	..	*403	*8,092	*73	..
	2021	..	*403	..	*403	*8,182	*73	..
	2022	..	*409	..	*409	*8,458	*73	..
Australia	2019	191,764	122,726	77,262	391,752	15,373	17,337	241
	2020	174,774	124,083	84,600	383,458	14,895	13,593	202
	2021	165,678	118,270	82,865	366,813	14,132	5,010	170
	2022	153,908	122,532	77,979	354,419	13,527	7,104	182
Cook Islands	2019	..	*82	..	*82	*5,055	*30	..
	2020	..	*69	..	*69	*4,417	*8	..
	2021	..	*75	..	*75	*4,954	*6	..
	2022	..	*79	..	*79	*5,386	*18	..
Fiji	2019	..	1,540	..	1,540	1,683	584	..
	2020	..	1,396	..	1,396	1,526	336	..
	2021	..	1,113	..	1,113	1,214	216	..
	2022	..	1,419	..	1,419	1,543	569	..
French Polynesia	2019	..	911	..	911	3,264	..	..
	2020	..	851	..	851	3,047	..	..
	2021	..	894	..	894	3,194	..	..
	2022	..	912	..	912	3,252	..	..
Kiribati	2019	..	*73	..	*73	*590	*2	..
	2020	..	*72	..	*72	*571	*2	..
	2021	..	*72	..	*72	*561	*2	..
	2022	..	*73	..	*73	*558	*2	..
Marshall Islands	2019	..	*152	..	*152	*3,457	*7	..
	2020	..	*150	..	*150	*3,518	*6	..
	2021	..	*150	..	*150	*3,618	*6	..
	2022	..	*152	..	*152	*3,789	*6	..
Micronesia (Fed. States of)	2019	..	*147	..	*147	*1,337	*32	..
	2020	..	*146	..	*146	*1,317	*30	..
	2021	..	*144	..	*144	*1,294	*30	..
	2022	..	*147	..	*147	*1,312	*30	..
Nauru	2019	..	*54	..	*54	*4,682	*24	..
	2020	..	*55	..	*55	*4,705	*22	..
	2021	..	*58	..	*58	*4,934	*23	..
	2022	..	*60	..	*60	*5,107	*23	..
New Caledonia	2019	2,337	2,658	..	4,995	17,612	114	..
	2020	2,115	2,419	..	4,535	15,957	65	..
	2021	1,728	2,261	..	3,989	13,987	73	..
	2022	2,069	2,368	..	4,437	15,454	108	..
New Zealand	2019	6,186	20,555	6,835	33,576	6,729	4,859	141
	2020	5,700	18,282	6,780	30,763	6,068	2,120	52
	2021	6,227	19,764	5,884	31,875	6,240	1,313	53
	2022	4,099	18,421	5,494	28,014	5,459	2,079	45
Niue	2019	..	*6	..	*6	*3,605	2	..
	2020	..	*6	..	*6	*3,571	*2	..
	2021	..	*7	..	*7	*3,597	*2	..
	2022	..	*7	..	*7	*3,686	*2	..

## CO2 emissions from fossil fuel combustion

Thousand metric tons and kilograms per capita

Country or area	Year	Type of fuel			Total	Per capita	Additional sources	
		Coal	Oil	Natural gas			International bunkers	Gas flaring
Northern Mariana Islands	2019	..	*388	..	*388	*8,053	68	..
	2020	..	*274	..	*274	*5,775	38	..
	2021	..	*312	..	*312	*6,640	47	..
	2022	..	*310	..	*310	*6,727	47	..
Palau	2019	..	*221	..	*221	*12,406	*22	..
	2020	..	*215	..	*215	*12,108	*19	..
	2021	..	*217	..	*217	*12,203	*19	..
	2022	..	*221	..	*221	*12,468	*19	..
Papua New Guinea	2019	..	6,591	1,031	7,622	793	*199	67
	2020	..	5,850	2,020	7,870	802	*208	108
	2021	..	5,864	1,964	7,827	782	*207	130
	2022	..	*6,452	*1,872	*8,324	*816	*214	167
Samoa	2019	..	268	..	268	1,277	*38	..
	2020	..	240	..	240	1,134	*11	..
	2021	..	274	..	274	1,284	*7	..
	2022	..	240	..	240	1,115	11	..
Solomon Islands	2019	..	*307	..	*307	*422	*30	..
	2020	..	*302	..	*302	*406	*25	..
	2021	..	*299	..	*299	*393	*24	..
	2022	..	*290	..	*290	*371	*23	..
Tonga	2019	..	165	..	165	1,558	0	..
	2020	..	143	..	143	1,349	1	..
	2021	..	144	..	144	1,363	0	..
	2022	..	149	..	149	1,418	0	..
Tuvalu	2019	..	*10	..	*10	*965	*1	..
	2020	..	*9	..	*9	*909	*1	..
	2021	..	*10	..	*10	*944	*1	..
	2022	..	*10	..	*10	*968	*1	..
Vanuatu	2019	..	169	..	169	580	*52	..
	2020	..	210	..	210	703	*49	..
	2021	..	224	..	224	732	*51	..
	2022	..	194	..	194	620	*53	..
Wallis and Futuna Is.	2019	..	27	..	27	2,287	4	..
	2020	..	*28	..	*28	*2,446	3	..
	2021	..	*29	..	*29	*2,506	2	..
	2022	..	*31	..	*31	*2,691	3	..



## Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

### Table Notes

**Production** includes hard coal, brown coal, oil shale and peat. Production from other sources of hard coal and brown coal is also included, representing recovered slurries, middlings, and other low-grade coal products which cannot be classified according to type of coal and which includes coal recovered from waste piles and other waste receptacles.

**Imports, Exports and Changes in stocks** refer to hard coal, brown coal, oil shale, peat, coke oven coke, gas coke, coal tar, patent fuel, brown coal briquettes, peat products and other coal products.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 14: Production of coal by region, 1990-2022**

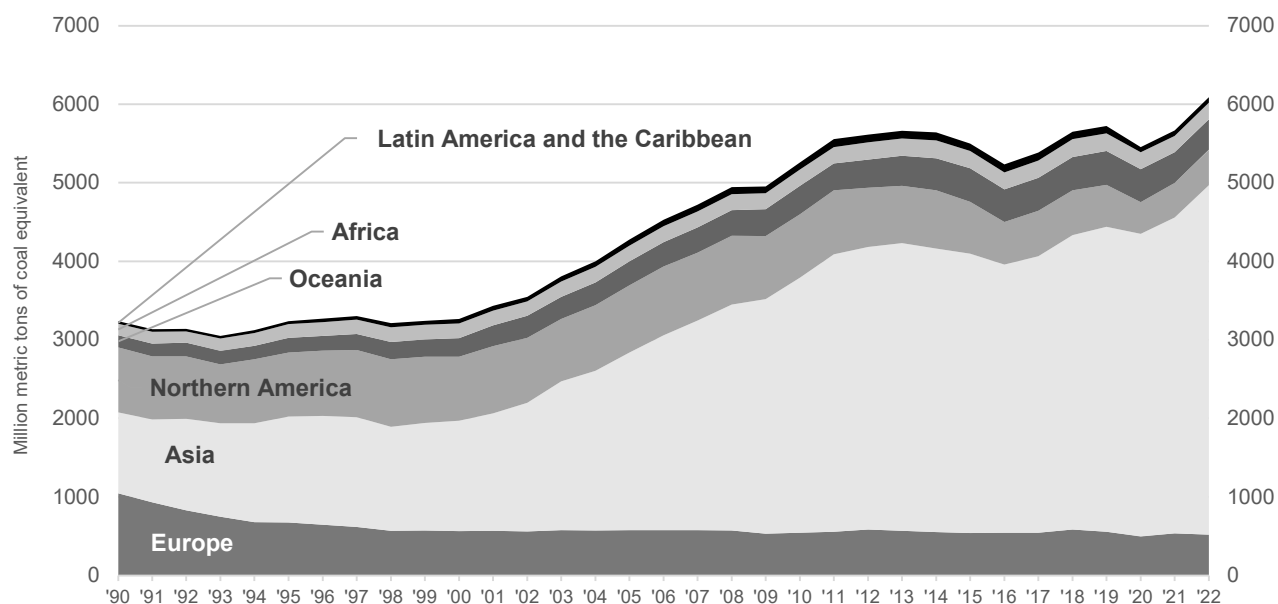


Table 5

### Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2019</b>	<b>5,724,218</b>	<b>1,202,798</b>	<b>1,279,135</b>	<b>125,304</b>	<b>5,522,578</b>	<b>707</b>
	<b>2020</b>	<b>5,453,431</b>	<b>1,097,369</b>	<b>1,213,342</b>	<b>22,425</b>	<b>5,315,034</b>	<b>674</b>
	<b>2021</b>	<b>5,665,779</b>	<b>1,149,641</b>	<b>1,199,561</b>	<b>9,795</b>	<b>5,606,064</b>	<b>705</b>
	<b>2022</b>	<b>6,091,691</b>	<b>1,149,546</b>	<b>1,243,631</b>	<b>117,869</b>	<b>5,879,737</b>	<b>733</b>
<b>Africa</b>	<b>2019</b>	<b>223,468</b>	<b>20,136</b>	<b>66,600</b>	<b>465</b>	<b>176,539</b>	<b>131</b>
	<b>2020</b>	<b>213,786</b>	<b>17,604</b>	<b>68,132</b>	<b>927</b>	<b>162,331</b>	<b>118</b>
	<b>2021</b>	<b>207,154</b>	<b>21,494</b>	<b>64,896</b>	<b>492</b>	<b>163,260</b>	<b>116</b>
	<b>2022</b>	<b>209,333</b>	<b>19,438</b>	<b>67,909</b>	<b>42</b>	<b>160,821</b>	<b>111</b>
Algeria	2019	..	467	..	-14	481	11
	2020	..	218	..	0	217	5
	2021	..	452	..	8	443	10
	2022	..	285	..	-2	286	6
Benin	2019	..	90	..	..	90	7
	2020	..	97	..	..	97	7
	2021	..	139	..	28	111	8
	2022	..	158	..	26	131	10
Botswana	2019	1,700	..	245	..	1,455	624
	2020	1,520	..	416	..	1,104	467
	2021	1,708	..	468	..	1,240	516
	2022	1,981	..	341	..	1,641	672
Burundi	2019	8	9	..	..	17	1
	2020	5	4	..	..	9	1
	2021	6	10	..	..	16	1
	2022	6	9	..	..	16	1
Egypt	2019	..	3,972	156	..	3,816	35
	2020	..	2,053	17	..	2,036	19
	2021	..	3,280	..	..	3,280	30
	2022	..	2,926	..	..	2,926	26
Eswatini	2019	103	67	103	..	67	57
	2020	123	53	123	..	53	45
	2021	161	60	161	..	60	50
	2022	252	67	252	..	67	55
Ethiopia	2019	7	556	..	..	563	5
	2020	350	290	..	..	640	5
	2021	377	493	..	..	870	7
	2022	401	524	..	..	925	7
Kenya	2019	..	539	..	..	539	11
	2020	..	724	..	..	724	14
	2021	..	840	..	..	840	16
	2022	..	1,028	..	..	1,028	19
Lesotho	2019	..	*555	..	..	*555	*251
	2020	..	*510	..	..	*510	*228
	2021	..	*904	..	..	*904	*400
	2022	..	617	..	..	617	270
Madagascar	2019	..	473	..	..	473	17
	2020	..	*463	..	..	*463	*16
	2021	..	*477	..	..	*477	*16
	2022	..	429	..	..	429	14
Malawi	2019	48	32	1	..	79	4
	2020	48	25	0	..	73	4
	2021	27	24	..	..	50	3
	2022	55	2	..	..	56	3



Table 5

## Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Mauritius	2019	..	1,039	..	451	588	457
	2020	..	1,053	..	468	585	456
	2021	..	677	..	24	652	510
	2022	..	519	..	6	513	402
Morocco	2019	..	9,535	..	14	9,522	263
	2020	..	9,396	..	-161	9,557	261
	2021	..	10,316	..	293	10,023	271
	2022	..	10,147	..	-5	10,153	272
Mozambique	2019	9,928	..	9,968	-58	17	1
	2020	6,820	..	6,501	291	29	1
	2021	10,076	..	9,534	532	10	0
	2022	12,679	..	12,667	0	12	0
Namibia	2019	..	*54	..	5	*49	*19
	2020	..	*55	..	..	*55	*20
	2021	..	*46	..	..	*46	*17
	2022	..	11	..	..	11	4
Niger	2019	123	..	..	..	123	5
	2020	135	..	..	0	135	6
	2021	58	..	..	0	58	2
	2022	128	..	..	*10	119	5
Nigeria	2019	478	..	..	..	478	2
	2020	565	..	..	..	565	3
	2021	1,149	..	..	..	1,149	5
	2022	1,206	..	..	..	1,206	5
Rwanda	2019	*22	..	..	..	*22	*2
	2020	*13	..	..	..	*13	*1
	2021	*21	..	..	..	*21	*2
	2022	*68	..	..	..	*68	*5
Senegal	2019	..	787	..	..	787	48
	2020	..	509	..	..	509	30
	2021	..	744	..	..	744	43
	2022	..	787	..	..	787	45
South Africa	2019	206,712	1,824	55,803	..	152,733	2,563
	2020	199,496	2,022	60,551	..	140,966	2,328
	2021	188,472	2,881	53,205	..	138,149	2,246
	2022	185,714	1,725	52,871	..	134,568	2,157
United Rep. of Tanzania	2019	627	..	105	..	521	9
	2020	607	..	143	..	464	8
	2021	859	..	305	..	554	9
	2022	1,392	..	747	..	645	10
Zambia	2019	1,197	113	12	..	1,298	70
	2020	1,570	132	35	..	1,667	87
	2021	1,249	149	74	..	1,324	68
	2022	1,821	201	107	..	1,915	95
Zimbabwe	2019	2,515	25	207	67	2,266	148
	2020	2,534	0	346	328	1,860	120
	2021	2,990	2	1,149	-394	2,237	142
	2022	3,630	1	924	6	2,701	168
<b>Asia</b>	<b>2019</b>	<b>3,883,189</b>	<b>943,153</b>	<b>453,451</b>	<b>80,983</b>	<b>4,291,909</b>	<b>923</b>
	<b>2020</b>	<b>3,851,767</b>	<b>891,557</b>	<b>423,168</b>	<b>59,695</b>	<b>4,260,461</b>	<b>909</b>
	<b>2021</b>	<b>4,026,063</b>	<b>913,891</b>	<b>429,445</b>	<b>54,642</b>	<b>4,455,867</b>	<b>944</b>
	<b>2022</b>	<b>4,452,551</b>	<b>914,906</b>	<b>486,855</b>	<b>100,565</b>	<b>4,780,036</b>	<b>1,007</b>

Table 5

### Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Afghanistan	2019	1,883	*94	744	..	1,233	33
	2020	*1,803	*88	521	..	*1,369	*35
	2021	*2,236	*79	1,186	..	*1,129	*28
	2022	*2,022	*70	*777	..	*1,315	*32
Armenia	2019	0	4	..	..	4	1
	2020	0	11	..	..	11	4
	2021	0	17	..	..	17	6
	2022	0	17	0	..	17	6
Azerbaijan	2019	..	1	..	0	1	0
	2020	..	1	..	..	1	0
	2021	..	0	..	0	0	0
	2022	..	17	..	..	17	2
Bangladesh	2019	575	2,696	..	..	3,271	20
	2020	579	3,397	..	..	3,976	24
	2021	538	4,820	..	..	5,359	32
	2022	349	5,738	..	..	6,087	36
Bhutan	2019	163	59	23	..	199	260
	2020	64	120	0	..	183	238
	2021	98	167	0	..	265	342
	2022	140	146	0	..	286	366
Brunei Darussalam	2019	..	219	..	..	219	495
	2020	..	771	..	..	771	1,724
	2021	..	993	..	..	993	2,199
	2022	..	972	..	..	972	2,135
Cambodia	2019	31	1,592	..	..	1,623	98
	2020	7	2,323	..	..	2,330	139
	2021	10	2,053	..	..	2,063	122
	2022	10	1,958	..	..	1,969	114
China	2019	2,721,262	186,142	10,583	61,481	2,835,340	1,992
	2020	2,747,172	191,190	5,627	38,292	2,894,442	2,030
	2021	2,848,762	201,712	8,036	25,568	3,016,871	2,115
	2022	3,116,744	187,870	10,910	101,586	3,192,118	2,240
China, Hong Kong SAR	2019	..	9,028	..	217	8,812	1,177
	2020	..	4,935	..	243	4,692	626
	2021	..	5,879	..	666	5,213	697
	2022	..	5,593	..	466	5,127	687
Cyprus	2019	..	29	..	4	24	19
	2020	..	21	..	1	20	15
	2021	..	57	..	-1	58	44
	2022	..	68	..	22	46	35
Georgia	2019	10	386	2	27	367	97
	2020	59	270	2	5	322	85
	2021	86	234	1	-2	321	85
	2022	85	226	0	-26	337	89
India	2019	410,951	229,249	621	12,988	626,591	451
	2020	395,677	189,030	1,651	15,070	567,986	405
	2021	431,971	183,769	1,113	-20,982	635,609	449
	2022	496,992	222,919	666	-7,812	727,057	510
Indonesia	2019	514,671	7,094	383,650	3,166	134,948	495
	2020	488,534	9,480	359,382	10,315	128,317	467
	2021	527,822	15,244	372,624	44,654	125,787	455
	2022	607,317	11,922	413,796	12,333	193,110	693

Table 5

## Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Iran (Islamic Rep. of)	2019	1,439	892	156	-4	2,180	25
	2020	1,506	961	17	-1	2,452	28
	2021	1,674	1,304	237	-2	2,743	31
	2022	1,738	1,310	237	-2	2,812	31
Israel	2019	55	7,118	..	384	6,788	784
	2020	53	6,531	..	140	6,444	732
	2021	58	5,498	..	155	5,402	604
	2022	34	5,516	..	72	5,479	602
Japan	2019	614	165,738	1,591	-33	164,794	1,301
	2020	597	148,347	3,210	6	145,729	1,154
	2021	527	157,578	2,261	59	155,785	1,240
	2022	543	155,975	796	132	155,590	1,245
Jordan	2019	..	298	..	..	298	28
	2020	..	233	..	..	233	21
	2021	..	242	..	..	242	22
	2022	..	323	..	..	323	29
Kazakhstan	2019	64,165	1,250	15,634	460	49,322	2,568
	2020	63,305	1,217	17,933	-215	46,803	2,402
	2021	65,511	1,411	18,564	288	48,071	2,435
	2022	70,338	663	20,117	2,919	47,965	2,394
Korea, Dem.Ppl's.Rep.	2019	24,028	124	..	..	24,153	928
	2020	22,592	112	..	..	22,704	869
	2021	18,422	94	..	..	18,517	706
	2022	19,249	46	..	..	19,295	733
Korea, Republic of	2019	717	119,524	..	1,146	119,095	2,301
	2020	674	105,252	..	-828	106,754	2,059
	2021	594	106,760	..	-669	108,024	2,083
	2022	497	97,414	..	364	97,547	1,884
Kyrgyzstan	2019	1,347	355	584	-38	1,156	178
	2020	1,408	353	573	29	1,159	174
	2021	1,608	582	599	65	1,526	224
	2022	1,963	556	886	-414	2,046	294
Lao People's Dem. Rep.	2019	5,154	..	12	*196	4,946	683
	2020	4,995	..	171	*12	4,812	655
	2021	5,073	..	405	*-283	4,951	664
	2022	6,136	..	693	24	5,419	717
Lebanon	2019	..	41	..	..	41	7
	2020	..	*17	..	..	*17	*3
	2021	..	60	..	..	60	10
	2022	..	*20	..	..	*20	*3
Malaysia	2019	3,115	28,034	4	940	30,205	903
	2020	2,682	31,763	..	-1,012	35,457	1,046
	2021	2,801	29,738	..	-437	32,976	962
	2022	2,929	30,698	..	..	33,627	969
Mongolia	2019	46,670	53	31,124	*47	15,552	4,812
	2020	38,928	4	27,173	*-2,039	13,798	4,193
	2021	28,955	8	15,363	*2,216	11,385	3,409
	2022	31,497	19	30,639	*-12,047	12,924	3,817
Myanmar	2019	1,482	..	..	..	1,482	28
	2020	1,630	..	..	..	1,630	31
	2021	1,086	..	..	..	1,086	20
	2022	1,102	..	..	..	1,102	21

Table 5

**Production, trade and supply of coal**  
 Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Nepal	2019	8	1,466	..	..	1,474	52
	2020	12	1,982	..	..	1,994	69
	2021	13	1,692	..	..	1,705	58
	2022	22	2,677	..	..	2,699	91
Other Asia	2019	..	56,962	20	1,132	55,810	2,357
	2020	..	53,415	118	1,287	52,009	2,198
	2021	..	62,458	47	1,144	61,268	2,601
	2022	..	58,664	52	730	57,882	2,471
Pakistan	2019	3,470	13,320	1	..	16,789	73
	2020	5,409	14,129	0	..	19,538	83
	2021	5,923	17,468	1	..	23,390	98
	2022	6,211	16,128	1	..	22,338	92
Philippines	2019	10,369	20,823	7,525	-1,250	24,917	225
	2020	9,765	22,261	5,674	1,286	25,066	224
	2021	10,592	23,554	7,011	116	27,019	239
	2022	10,901	24,653	5,349	2,954	27,251	239
Saudi Arabia	2019	..	182	1	..	181	6
	2020	..	159	0	..	159	5
	2021	..	194	0	..	194	6
	2022	..	190	0	..	190	6
Singapore	2019	..	654	0	..	654	115
	2020	..	619	0	..	619	110
	2021	..	663	0	..	663	120
	2022	..	839	..	..	839	148
Sri Lanka	2019	..	2,389	..	164	2,224	99
	2020	..	2,544	..	-129	2,673	118
	2021	..	2,204	..	-127	2,331	103
	2022	..	2,215	..	-3	2,217	97
Syrian Arab Republic	2019	..	1	..	..	1	0
	2020	..	1	..	..	1	0
	2021	..	1	..	..	1	0
	2022	..	1	..	..	1	0
Tajikistan	2019	1,283	17	12	..	1,289	135
	2020	1,342	18	34	..	1,326	136
	2021	1,341	61	22	..	1,381	139
	2022	1,533	68	*24	..	1,577	155
Thailand	2019	5,046	13,125	68	23	18,079	253
	2020	4,733	14,105	71	24	18,744	262
	2021	4,647	17,503	123	13	22,014	307
	2022	4,827	15,244	90	23	19,959	278
Türkiye	2019	24,898	34,726	183	-514	59,955	702
	2020	21,437	36,410	268	400	57,178	664
	2021	24,503	34,238	401	-428	58,767	678
	2022	26,908	34,690	751	1,091	59,755	686
United Arab Emirates	2019	..	2,539	1	..	2,539	271
	2020	..	3,048	1	..	3,048	323
	2021	..	3,790	1	..	3,789	387
	2022	..	1,565	80	..	1,485	145
Uzbekistan	2019	2,056	852	0	-118	3,025	92
	2020	2,102	1,660	1	-437	4,198	125
	2021	2,565	1,380	0	209	3,736	109
	2022	2,716	1,525	31	-126	4,335	124

Table 5

## Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Viet Nam	2019	37,726	35,971	914	564	72,219	743
	2020	34,700	44,684	738	-2,753	81,398	830
	2021	38,646	30,287	1,450	2,423	65,060	658
	2022	39,750	26,294	959	-1,721	66,806	670
Yemen	2019	..	105	..	..	105	3
	2020	..	96	..	..	96	3
	2021	..	95	..	..	95	3
	2022	..	96	..	..	96	3
<b>Europe</b>	<b>2019</b>	<b>553,880</b>	<b>178,056</b>	<b>213,259</b>	<b>13,137</b>	<b>505,539</b>	<b>673</b>
	<b>2020</b>	<b>495,949</b>	<b>137,450</b>	<b>207,650</b>	<b>-13,532</b>	<b>439,281</b>	<b>584</b>
	<b>2021</b>	<b>532,253</b>	<b>157,102</b>	<b>209,777</b>	<b>-6,598</b>	<b>486,175</b>	<b>648</b>
	<b>2022</b>	<b>517,774</b>	<b>162,093</b>	<b>192,983</b>	<b>13,556</b>	<b>473,328</b>	<b>632</b>
Albania	2019	66	104	..	..	170	59
	2020	99	116	..	..	215	75
	2021	187	137	..	..	324	114
	2022	153	74	22	..	205	72
Andorra	2019	..	0	..	..	0	*1
	2020	..	0	..	..	0	*1
	2021	..	0	..	..	0	*1
	2022	..	0	..	..	0	*2
Austria	2019	..	3,932	36	-137	4,033	454
	2020	..	3,491	28	-80	3,542	397
	2021	..	3,685	42	-20	3,662	408
	2022	..	3,514	39	-4	3,479	384
Belarus	2019	767	3,430	2,773	110	1,314	139
	2020	533	1,940	1,347	-89	1,216	130
	2021	648	1,632	1,060	..	1,220	132
	2022	809	1,433	923	..	1,319	144
Belgium	2019	118	4,534	126	142	4,383	381
	2020	121	3,595	227	117	3,372	292
	2021	46	3,459	105	-241	3,640	315
	2022	42	3,943	119	31	3,835	329
Bosnia and Herzegovina	2019	4,861	1,606	502	382	5,583	1,669
	2020	4,755	1,295	412	-86	5,724	1,735
	2021	4,459	1,559	463	-117	5,671	1,748
	2022	4,782	1,359	713	-104	5,533	1,726
Bulgaria	2019	6,765	573	12	22	7,304	1,047
	2020	5,401	581	7	23	5,952	858
	2021	6,743	786	2	-2	7,528	1,095
	2022	8,445	1,150	110	516	8,969	1,314
Croatia	2019	..	641	..	40	602	151
	2020	..	547	..	31	516	131
	2021	..	598	..	4	593	151
	2022	..	586	..	5	581	149
Czechia	2019	19,194	4,068	2,283	610	20,368	1,930
	2020	14,584	3,917	1,602	-651	17,550	1,663
	2021	15,042	4,910	2,265	-777	18,464	1,753
	2022	16,298	4,791	1,975	-194	19,308	1,809
Denmark	2019	..	1,957	37	621	1,299	223
	2020	..	920	159	-357	1,118	192
	2021	..	671	497	-1,399	1,573	269
	2022	..	1,621	..	82	1,539	261

Table 5

**Production, trade and supply of coal**  
 Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Estonia	2019	4,553	41	20	169	4,405	3,320
	2020	3,599	3	18	11	3,572	2,687
	2021	3,470	5	17	-419	3,877	2,911
	2022	3,915	3	24	-307	4,201	3,112
Finland	2019	1,499	3,251	200	-465	5,014	908
	2020	826	2,581	132	-858	4,132	747
	2021	349	2,333	168	-1,829	4,343	784
	2022	458	3,976	69	56	4,310	774
France	2019	..	10,430	6	-78	10,502	155
	2020	..	7,302	12	-292	7,582	111
	2021	..	8,888	6	-3,272	12,153	178
	2022	..	8,670	8	-1,954	10,616	155
Germany	2019	40,598	40,254	2,132	-1,871	80,590	964
	2020	33,410	30,128	2,012	-2,220	63,747	762
	2021	39,349	39,212	2,405	-854	77,011	920
	2022	40,703	42,214	2,549	1,751	78,617	935
Greece	2019	4,411	290	..	135	4,566	426
	2020	2,329	267	0	-20	2,616	244
	2021	2,056	235	..	-154	2,444	231
	2022	2,369	76	60	121	2,265	218
Hungary	2019	1,419	1,524	318	-16	2,641	270
	2020	1,332	1,318	258	-23	2,416	248
	2021	1,104	1,235	470	-104	1,974	203
	2022	1,113	894	156	61	1,790	185
Iceland	2019	..	152	..	..	152	421
	2020	..	133	..	..	133	362
	2021	..	184	..	..	184	493
	2022	..	182	..	..	182	478
Ireland	2019	558	382	4	-560	1,496	303
	2020	182	352	4	-939	1,469	295
	2021	182	1,386	2	-247	1,814	361
	2022	182	1,314	1	-17	1,513	296
Italy	2019	..	9,411	283	-130	9,258	154
	2020	..	7,070	295	-517	7,292	122
	2021	..	7,935	254	-237	7,918	132
	2022	..	11,182	335	262	10,586	177
Kosovo	2019	2,146	3	7	-7	2,149	1,225
	2020	2,231	9	2	33	2,205	1,259
	2021	2,272	24	71	-14	2,239	1,286
	2022	2,204	9	34	-11	2,190	1,275
Latvia	2019	3	66	4	7	58	30
	2020	0	33	4	-5	34	18
	2021	1	30	7	-3	27	14
	2022	3	36	6	15	19	10
Lithuania	2019	12	281	1	18	274	98
	2020	7	182	0	-25	213	76
	2021	7	227	1	-21	254	91
	2022	5	307	3	57	253	90
Luxembourg	2019	..	61	..	-5	65	105
	2020	..	62	..	7	55	87
	2021	..	55	..	-1	56	88
	2022	..	60	..	1	59	90

Table 5

## Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Montenegro	2019	566	2	39	2	526	860
	2020	572	2	28	-1	547	900
	2021	530	..	51	-1	480	795
	2022	594	..	84	..	510	830
Netherlands (Kingd. of the)	2019	..	9,463	83	201	9,179	523
	2020	..	5,664	267	-477	5,874	333
	2021	..	7,992	37	-39	7,993	451
	2022	..	8,218	131	184	7,903	441
North Macedonia	2019	1,229	175	0	-64	1,468	774
	2020	1,128	115	0	-8	1,251	668
	2021	787	167	0	31	923	499
	2022	1,016	195	11	-1	1,202	653
Norway	2019	116	1,111	76	7	1,145	214
	2020	66	1,129	44	-27	1,177	219
	2021	116	1,160	78	-3	1,200	222
	2022	112	1,159	81	34	1,156	212
Poland	2019	63,729	14,384	9,827	4,694	63,591	1,664
	2020	57,457	11,054	10,130	-782	59,164	1,550
	2021	60,288	10,763	12,587	-7,259	65,723	1,728
	2022	58,353	16,269	10,736	2,779	61,106	1,592
Portugal	2019	..	2,186	..	396	1,790	173
	2020	..	16	85	-1,060	992	96
	2021	..	13	..	-323	336	32
	2022	..	10	..	1	10	1
Republic of Moldova	2019	..	125	..	-14	138	44
	2020	..	110	..	2	108	35
	2021	..	104	..	-23	127	42
	2022	..	106	..	17	89	29
Romania	2019	5,611	1,562	0	101	7,071	363
	2020	3,703	1,118	1	-116	4,936	255
	2021	4,297	1,396	31	-103	5,764	299
	2022	3,966	1,077	52	-42	5,033	263
Russian Federation	2019	360,965	20,523	192,148	7,013	182,326	1,244
	2020	331,861	20,817	187,410	-2,695	167,963	1,148
	2021	367,082	20,263	187,178	13,587	186,579	1,279
	2022	348,973	18,292	172,704	7,555	187,007	1,285
Serbia	2019	9,751	1,148	23	131	10,745	1,542
	2020	10,293	755	19	-223	11,252	1,629
	2021	8,975	962	10	-39	9,967	1,458
	2022	8,542	1,368	7	67	9,836	1,448
Slovakia	2019	508	3,716	119	208	3,897	715
	2020	349	2,883	38	-103	3,296	604
	2021	389	3,617	54	-104	4,056	745
	2022	295	3,379	73	160	3,441	629
Slovenia	2019	1,258	312	..	39	1,532	735
	2020	1,236	262	..	27	1,471	700
	2021	1,023	147	..	-136	1,306	618
	2022	934	301	..	139	1,096	518
Spain	2019	..	7,907	1,398	-712	7,220	152
	2020	..	4,216	1,785	-1,847	4,278	90
	2021	..	5,290	635	251	4,403	92
	2022	..	8,733	1,345	2,121	5,267	110

Table 5

### Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Sweden	2019	154	2,813	47	81	2,839	276
	2020	84	2,150	22	-24	2,236	216
	2021	87	2,258	23	-142	2,463	236
	2022	44	2,252	33	104	2,159	206
Switzerland	2019	..	114	0	-16	130	15
	2020	..	114	0	-11	125	14
	2021	..	127	0	1	126	14
	2022	..	132	0	1	131	15
Ukraine	2019	20,652	18,912	64	2,138	37,362	831
	2020	18,218	15,780	59	1,727	32,212	721
	2021	11,765	18,209	175	-1	29,800	673
	2022	12,850	6,172	10	..	19,012	463
United Kingdom	2019	2,372	6,615	688	-55	8,353	124
	2020	1,571	5,424	1,241	-1,975	7,729	115
	2021	999	5,452	1,082	-2,589	7,958	118
	2022	613	7,035	573	73	7,002	103
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>97,507</b>	<b>45,477</b>	<b>74,323</b>	<b>2,917</b>	<b>65,744</b>	<b>103</b>
	<b>2020</b>	<b>65,659</b>	<b>37,798</b>	<b>70,718</b>	<b>-23,472</b>	<b>56,210</b>	<b>87</b>
	<b>2021</b>	<b>70,182</b>	<b>43,927</b>	<b>59,549</b>	<b>-4,723</b>	<b>59,283</b>	<b>91</b>
	<b>2022</b>	<b>71,774</b>	<b>40,395</b>	<b>59,883</b>	<b>-2,989</b>	<b>55,274</b>	<b>85</b>
Argentina	2019	88	955	50	186	807	18
	2020	17	1,199	..	..	1,216	27
	2021	17	1,683	..	..	1,700	38
	2022	17	1,766	..	..	1,783	39
Bahamas	2019	..	*1	..	..	*1	*4
	2020	..	*1	..	..	*1	*4
	2021	..	*1	..	..	*1	*4
	2022	..	*1	..	..	*1	*4
Bolivia (Plur. State of)	2019	..	8	..	..	8	1
	2020	..	3	..	..	3	0
	2021	..	8	..	..	8	1
	2022	..	8	..	..	8	1
Brazil	2019	3,090	19,056	..	75	22,070	106
	2020	2,978	16,641	..	-319	19,939	96
	2021	3,794	20,603	..	-35	24,432	117
	2022	3,496	17,440	..	158	20,778	99
Chile	2019	813	10,730	53	-201	11,690	609
	2020	273	9,062	131	-292	9,496	490
	2021	24	9,328	61	208	9,084	467
	2022	14	7,385	29	-116	7,485	383
Colombia	2019	85,847	0	73,305	3,576	8,967	180
	2020	55,248	0	69,887	-22,306	7,667	151
	2021	61,528	..	58,404	-4,317	7,441	145
	2022	63,491	0	59,691	-2,944	6,744	130
Costa Rica	2019	..	0	..	..	0	0
	2020	..	0	..	..	0	0
	2021	..	19	..	..	19	4
	2022	..	22	..	..	22	4
Cuba	2019	..	0	..	..	0	0
	2020	..	2	..	..	2	0
	2021	..	5	..	..	5	0
	2022	..	2	..	..	2	0



Table 5

## Production, trade and supply of coal

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Dominican Republic	2019	..	1,667	..	-12	1,680	154
	2020	..	2,465	..	8	2,457	223
	2021	..	2,317	..	..	2,317	208
	2022	..	2,801	..	..	2,801	249
El Salvador	2019	..	1	..	..	1	0
	2020	..	0	..	..	0	0
	2021	..	1	..	..	1	0
	2022	..	0	..	..	0	0
Falkland Is. (Malvinas)	2019	2	..	..	..	2	462
	2020	1	..	..	..	1	244
	2021	1	..	..	..	1	244
	2022	*1	..	..	..	*1	*252
Guatemala	2019	..	2,504	..	805	1,700	99
	2020	..	1,085	..	-13	1,097	63
	2021	..	2,203	..	799	1,405	80
	2022	..	888	..	352	536	30
Jamaica	2019	..	89	..	-15	104	37
	2020	..	89	..	-15	104	37
	2021	..	89	..	-15	104	37
	2022	..	89	..	6	83	29
Mexico	2019	7,071	9,241	5	-540	16,847	134
	2020	6,276	6,070	3	-248	12,591	99
	2021	4,407	6,511	4	35	10,880	85
	2022	4,408	8,679	4	-15	13,098	102
Panama	2019	..	743	..	-47	789	186
	2020	..	886	..	37	849	198
	2021	..	800	..	-10	809	186
	2022	..	799	..	10	789	179
Paraguay	2019	..	2	..	..	2	0
	2020	..	1	..	..	1	0
	2021	..	1	..	..	1	0
	2022	..	1	..	..	1	0
Peru	2019	170	480	591	-911	970	30
	2020	115	293	21	-323	710	22
	2021	145	357	891	-1,387	999	30
	2022	192	511	86	-440	1,057	32
Uruguay	2019	..	0	..	..	0	0
	2020	..	0	..	..	0	0
	2021	..	0	..	..	0	0
	2022	..	*3	..	..	*3	*1
Venezuela (Bolivar. Rep.)	2019	426	..	319	..	107	4
	2020	751	..	676	..	75	3
	2021	265	..	189	..	76	3
	2022	155	..	73	..	82	3
<b>Northern America</b>	<b>2019</b>	<b>533,779</b>	<b>13,491</b>	<b>108,548</b>	<b>26,987</b>	<b>411,735</b>	<b>1,096</b>
	<b>2020</b>	<b>403,010</b>	<b>10,441</b>	<b>84,913</b>	<b>-3,441</b>	<b>331,979</b>	<b>879</b>
	<b>2021</b>	<b>436,561</b>	<b>10,789</b>	<b>99,294</b>	<b>-31,875</b>	<b>379,931</b>	<b>1,003</b>
	<b>2022</b>	<b>448,593</b>	<b>10,722</b>	<b>104,908</b>	<b>873</b>	<b>353,533</b>	<b>929</b>
Bermuda	2019	..	0	..	..	0	1
	2020	..	0	..	..	0	1
	2021	..	0	..	..	0	1
	2022	..	0	..	..	0	*1

**Table 5****Production, trade and supply of coal**

Thousand metric tons of coal equivalent and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Canada	2019	39,655	8,552	30,495	201	17,511	463
	2020	34,924	6,658	27,480	370	13,733	360
	2021	35,862	6,741	27,213	-510	15,900	413
	2022	36,692	5,974	31,545	338	10,783	278
United States	2019	494,124	4,939	78,053	26,786	394,224	1,167
	2020	368,086	3,783	57,434	-3,810	318,246	938
	2021	400,699	4,048	72,081	-31,365	364,031	1,070
	2022	411,901	4,748	73,363	536	342,750	1,004
<b>Oceania</b>	<b>2019</b>	<b>432,394</b>	<b>2,485</b>	<b>362,952</b>	<b>815</b>	<b>71,111</b>	<b>1,635</b>
	<b>2020</b>	<b>423,260</b>	<b>2,519</b>	<b>358,761</b>	<b>2,247</b>	<b>64,772</b>	<b>1,470</b>
	<b>2021</b>	<b>393,566</b>	<b>2,439</b>	<b>336,600</b>	<b>-2,143</b>	<b>61,548</b>	<b>1,381</b>
	<b>2022</b>	<b>391,665</b>	<b>1,993</b>	<b>331,093</b>	<b>5,821</b>	<b>56,745</b>	<b>1,260</b>
Australia	2019	429,801	581	361,528	948	67,907	2,665
	2020	420,884	669	357,653	2,049	61,851	2,403
	2021	391,282	424	335,403	-2,288	58,591	2,257
	2022	389,526	513	329,857	5,821	54,361	2,075
New Caledonia	2019	..	1,029	..	-27	1,057	3,725
	2020	..	992	..	49	943	3,318
	2021	..	765	..	-31	797	2,793
	2022	..	973	..	13	960	3,342
New Zealand	2019	2,593	874	1,424	-105	2,148	430
	2020	2,376	858	1,108	148	1,978	390
	2021	2,284	1,250	1,197	176	2,161	423
	2022	2,139	508	1,235	-13	1,424	278





### Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

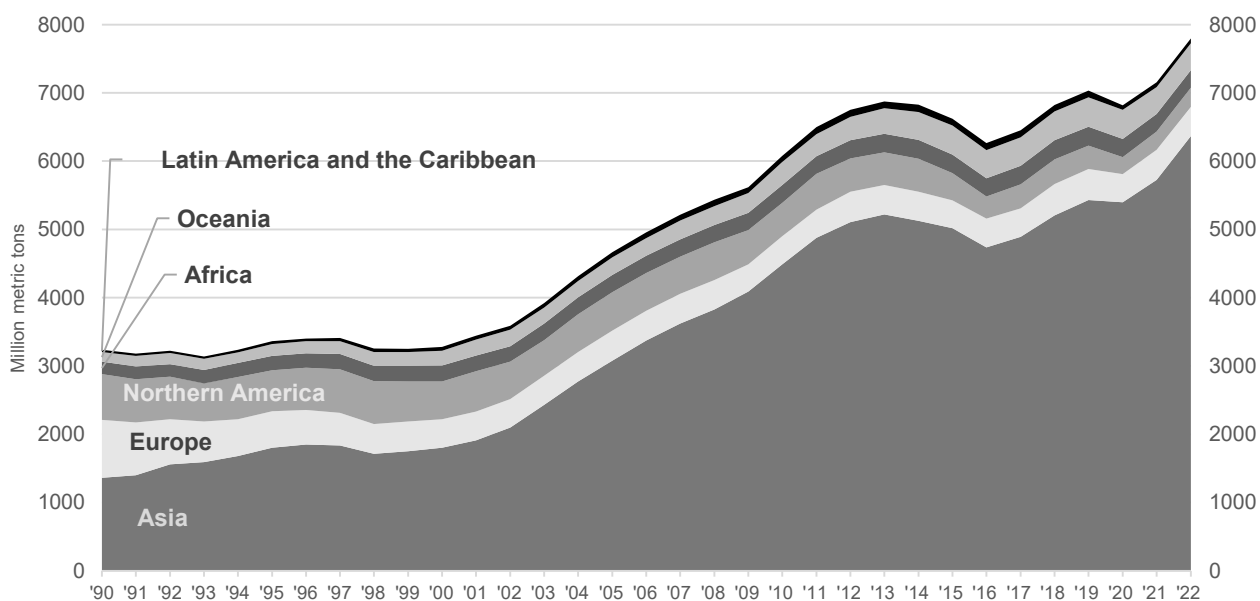
#### Table Notes

**Production** includes production from other sources as defined in the previous table.

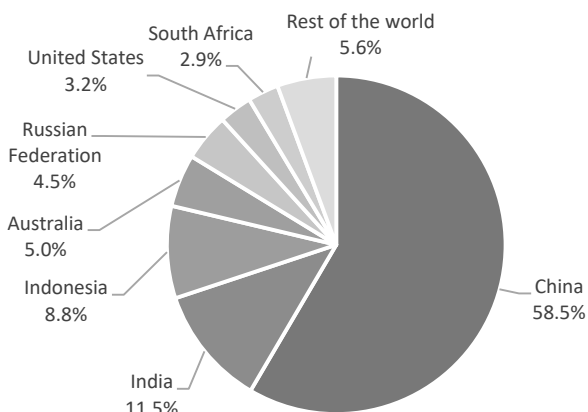
Data for China include brown coal.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 15: Production of hard coal by region, 1990-2022**



**Figure 16: Major hard coal producing countries, 2022**



**Figure 17: Major hard coal consuming countries, 2022**

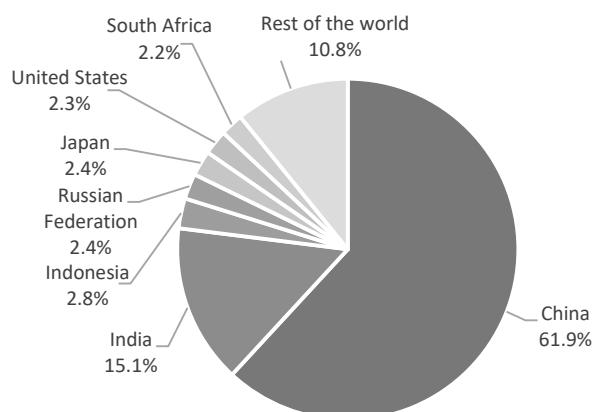


Table 6

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
World	2019	7,033,235	1,364,582	1,403,519	156,954	6,837,344	875
	2020	6,815,730	1,257,080	1,311,457	49,727	6,711,626	851
	2021	7,154,146	1,306,347	1,285,148	31,544	7,143,801	898
	2022	7,798,954	1,289,420	1,339,316	168,339	7,580,718	945
Africa	2019	274,563	21,188	80,636	528	214,586	159
	2020	263,268	18,030	83,163	1,033	197,101	143
	2021	254,126	21,869	77,819	524	197,652	140
	2022	256,715	20,428	81,917	56	195,170	135
Algeria	2019	..	10	..	-11	21	0
	2020	..	9	..	1	8	0
	2021	..	15	..	-4	18	0
	2022	..	7	..	0	7	0
Benin	2019	..	102	..	..	102	8
	2020	..	110	..	..	110	8
	2021	..	158	..	32	126	9
	2022	..	179	..	30	149	11
Botswana	2019	2,111	..	304	..	1,807	775
	2020	1,888	..	517	..	1,371	579
	2021	2,121	..	581	..	1,540	641
	2022	2,461	..	423	..	2,038	835
Burundi	2019	..	10	..	..	10	1
	2020	..	5	..	..	5	0
	2021	..	11	..	..	11	1
	2022	..	10	..	..	10	1
Egypt	2019	..	4,513	..	..	4,513	42
	2020	..	1,775	..	..	1,775	16
	2021	..	3,126	..	..	3,126	28
	2022	..	3,040	..	..	3,040	27
Eswatini	2019	117	76	117	..	76	64
	2020	140	61	140	..	61	51
	2021	177	69	177	..	69	57
	2022	277	76	277	..	76	63
Ethiopia	2019	8	632	..	..	640	6
	2020	398	330	..	..	727	6
	2021	428	516	..	..	944	8
	2022	456	549	..	..	1,005	8
Kenya	2019	..	612	..	..	612	12
	2020	..	822	..	..	822	16
	2021	..	954	..	..	954	18
	2022	..	1,168	..	..	1,168	22
Lesotho	2019	..	*630	..	..	*630	*285
	2020	..	*580	..	..	*580	*259
	2021	..	*1,027	..	..	*1,027	*454
	2022	..	701	..	..	701	307
Madagascar	2019	..	511	..	..	511	18
	2020	..	*501	..	..	*501	*17
	2021	..	*516	..	..	*516	*17
	2022	..	459	..	..	459	15
Malawi	2019	55	36	1	..	90	5
	2020	55	28	0	..	83	4
	2021	30	27	..	..	57	3
	2022	62	2	..	..	64	3

Table 6

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Mauritius	2019	..	1,173	..	509	664	516
	2020	..	1,189	..	529	661	515
	2021	..	764	..	27	737	576
	2022	..	586	..	7	580	454
Morocco	2019	..	10,113	..	15	10,099	279
	2020	..	9,965	..	-171	10,136	277
	2021	..	10,941	..	310	10,630	288
	2022	..	10,762	..	-6	10,768	288
Mozambique	2019	10,878	..	10,923	-64	19	1
	2020	7,449	..	7,100	317	31	1
	2021	11,080	..	10,484	585	11	0
	2022	14,251	..	14,237	0	13	0
Namibia	2019	..	*70	..	6	*64	*24
	2020	..	*71	..	..	*71	*26
	2021	..	*60	..	..	*60	*21
	2022	..	14	..	..	14	5
Niger	2019	226	..	..	..	226	10
	2020	247	..	..	1	246	10
	2021	106	..	..	0	105	4
	2022	235	..	..	*18	217	9
Nigeria	2019	543	..	..	..	543	3
	2020	642	..	..	..	642	3
	2021	1,306	..	..	..	1,306	6
	2022	1,370	..	..	..	1,370	6
Senegal	2019	..	890	..	..	890	54
	2020	..	575	..	..	575	34
	2021	..	841	..	..	841	49
	2022	..	890	..	..	890	50
South Africa	2019	255,762	1,724	69,045	..	188,442	3,162
	2020	247,146	1,912	75,014	..	174,044	2,874
	2021	233,175	2,724	65,824	..	170,075	2,765
	2022	229,921	1,802	65,456	..	166,266	2,665
United Rep. of Tanzania	2019	712	..	120	..	592	10
	2020	690	..	163	..	527	9
	2021	976	..	347	..	630	10
	2022	1,581	..	848	..	732	11
Zambia	2019	1,420	75	12	..	1,482	80
	2020	1,862	99	39	..	1,922	101
	2021	1,481	118	85	..	1,514	77
	2022	2,160	181	125	..	2,216	110
Zimbabwe	2019	2,730	11	115	73	2,553	167
	2020	2,751	0	191	356	2,204	142
	2021	3,246	3	321	-428	3,355	212
	2022	3,941	0	549	7	3,385	211
<b>Asia</b>	<b>2019</b>	<b>5,430,479</b>	<b>1,102,172</b>	<b>523,821</b>	<b>117,214</b>	<b>5,891,616</b>	<b>1,266</b>
	<b>2020</b>	<b>5,396,152</b>	<b>1,054,373</b>	<b>468,496</b>	<b>89,127</b>	<b>5,892,902</b>	<b>1,257</b>
	<b>2021</b>	<b>5,721,827</b>	<b>1,073,277</b>	<b>471,857</b>	<b>56,765</b>	<b>6,266,483</b>	<b>1,328</b>
	<b>2022</b>	<b>6,366,917</b>	<b>1,051,999</b>	<b>537,255</b>	<b>146,779</b>	<b>6,734,881</b>	<b>1,419</b>
Afghanistan	2019	2,139	1	772	..	1,368	36
	2020	*2,048	2	516	..	*1,534	*39
	2021	*2,540	5	1,271	..	*1,274	*32
	2022	*2,297	*3	*807	..	*1,493	*37

Table 6

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Armenia	2019	..	4	..	..	4	2
	2020	..	12	..	..	12	4
	2021	..	18	..	..	18	6
	2022	..	18	0	..	18	6
Azerbaijan	2019	..	1	..	0	1	0
	2020	..	1	..	..	1	0
	2021	..	0	..	0	0	0
	2022	..	18	..	..	18	2
Bangladesh	2019	806	3,776	..	..	4,582	28
	2020	811	4,758	..	..	5,569	33
	2021	754	6,751	..	..	7,505	45
	2022	489	8,036	..	..	8,525	50
Bhutan	2019	185	26	26	..	185	242
	2020	73	69	0	..	141	183
	2021	112	80	0	..	192	247
	2022	159	54	0	..	213	273
China	2019	3,846,330	299,770	5,995	84,547	4,055,558	2,849
	2020	3,901,580	303,610	3,163	56,749	4,145,278	2,907
	2021	4,125,834	323,274	2,584	40,313	4,406,212	3,089
	2022	4,558,553	293,704	4,005	157,029	4,691,223	3,292
China, Hong Kong SAR	2019	..	10,035	..	241	9,794	1,308
	2020	..	5,485	..	270	5,215	696
	2021	..	6,534	..	740	5,794	774
	2022	..	6,216	..	518	5,698	763
Cyprus	2019	..	32	..	5	28	22
	2020	..	24	..	1	22	17
	2021	..	65	..	-2	66	50
	2022	..	78	..	25	53	40
Georgia	2019	..	254	..	9	245	65
	2020	..	197	..	16	182	48
	2021	..	100	..	-7	107	28
	2022	..	103	..	-35	138	36
India	2019	730,873	248,537	1,047	23,791	954,572	687
	2020	716,084	215,251	2,945	27,753	900,637	642
	2021	778,190	208,934	1,169	-40,171	1,026,126	726
	2022	893,190	237,668	1,163	-15,572	1,145,267	803
Indonesia	2019	616,167	6,770	459,136	3,774	160,027	587
	2020	552,638	9,021	406,230	11,668	143,761	523
	2021	595,840	15,066	420,460	50,409	140,037	506
	2022	685,249	10,700	466,574	13,913	215,462	773
Iran (Islamic Rep. of)	2019	1,508	593	163	..	1,938	22
	2020	1,578	686	18	..	2,246	26
	2021	1,754	816	210	..	2,359	27
	2022	1,820	816	210	..	2,426	27
Israel	2019	..	8,417	..	454	7,963	920
	2020	..	7,743	..	166	7,578	861
	2021	..	6,571	..	185	6,387	714
	2022	..	6,561	..	85	6,476	711
Japan	2019	775	186,892	4	..	187,664	1,481
	2020	748	173,039	4	..	173,783	1,376
	2021	659	183,824	6	..	184,478	1,468
	2022	680	180,360	4	..	181,037	1,448



Table 6

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Jordan	2019	..	259	..	..	259	24
	2020	..	256	..	..	256	24
	2021	..	266	..	..	266	24
	2022	..	354	..	..	354	31
Kazakhstan	2019	98,593	288	22,615	786	75,480	3,929
	2020	97,924	297	25,527	-145	72,839	3,739
	2021	102,638	426	27,211	60	75,793	3,839
	2022	104,501	105	29,194	4,222	71,189	3,553
Korea, Dem.Ppl's.Rep.	2019	25,394	19	..	..	25,413	976
	2020	23,876	..	..	..	23,876	914
	2021	19,603	..	..	..	19,603	747
	2022	20,483	..	..	..	20,483	778
Korea, Republic of	2019	1,084	139,526	..	1,631	138,979	2,685
	2020	1,019	121,659	..	-1,259	123,937	2,390
	2021	898	123,581	..	-1,018	125,497	2,420
	2022	820	123,136	..	484	123,472	2,384
Kyrgyzstan	2019	329	489	568	-39	289	45
	2020	522	495	589	62	366	55
	2021	570	821	512	88	791	116
	2022	561	774	753	37	545	78
Lao People's Dem. Rep.	2019	161	..	14	..	148	20
	2020	320	..	200	..	121	16
	2021	699	..	473	..	226	30
	2022	1,271	..	809	..	462	61
Lebanon	2019	..	44	..	..	44	8
	2020	..	*18	..	..	*18	*3
	2021	..	64	..	..	64	11
	2022	..	*21	..	..	*21	*4
Malaysia	2019	3,459	29,655	4	1,044	32,067	959
	2020	2,978	33,653	..	-1,123	37,754	1,114
	2021	3,111	30,961	..	-485	34,557	1,008
	2022	3,252	32,367	..	..	35,619	1,027
Mongolia	2019	44,822	54	32,192	*49	12,636	3,909
	2020	36,740	5	28,127	*-2,114	10,731	3,261
	2021	26,204	9	15,708	*2,297	8,207	2,457
	2022	28,861	12	31,694	*-12,488	9,667	2,855
Myanmar	2019	1,867	..	..	..	1,867	35
	2020	2,054	..	..	..	2,054	39
	2021	1,368	..	..	..	1,368	26
	2022	1,389	..	..	..	1,389	26
Nepal	2019	9	1,710	..	..	1,720	61
	2020	14	2,313	..	..	2,327	80
	2021	15	1,975	..	..	1,989	67
	2022	26	3,124	..	..	3,149	106
Other Asia	2019	..	55,582	1	1,056	54,524	2,303
	2020	..	51,605	1	545	51,059	2,158
	2021	..	56,385	1	1,393	54,991	2,334
	2022	..	51,765	1	374	51,390	2,194
Pakistan	2019	5,407	12,372	..	..	17,779	77
	2020	8,428	13,231	..	..	21,659	92
	2021	9,229	16,191	..	..	25,420	106
	2022	9,677	14,430	..	..	24,107	99

Table 6

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Saudi Arabia	2019	..	109	0	..	109	4
	2020	..	65	0	..	64	2
	2021	..	74	0	..	74	2
	2022	..	114	..	..	114	4
Singapore	2019	..	743	0	..	743	131
	2020	..	703	0	..	703	125
	2021	..	753	0	..	753	136
	2022	..	953	..	..	953	169
Sri Lanka	2019	..	2,389	..	164	2,224	99
	2020	..	2,544	..	-129	2,673	118
	2021	..	2,204	..	-127	2,331	103
	2022	..	2,215	..	-3	2,217	97
Tajikistan	2019	1,964	19	18	..	1,965	206
	2020	2,011	5	53	..	1,963	201
	2021	1,992	96	34	..	2,054	206
	2022	2,254	104	*37	..	2,321	228
Thailand	2019	..	8,398	65	26	8,307	116
	2020	..	8,509	67	27	8,415	117
	2021	..	8,870	100	14	8,756	122
	2022	..	6,247	35	25	6,187	86
Türkiye	2019	1,206	38,141	57	-997	40,288	472
	2020	1,066	40,106	144	102	40,927	475
	2021	1,236	37,189	304	40	38,081	439
	2022	1,416	37,619	681	315	38,039	437
United Arab Emirates	2019	..	2,671	1	..	2,670	285
	2020	..	3,211	0	..	3,211	340
	2021	..	4,057	1	..	4,056	414
	2022	..	1,585	51	..	1,534	150
Uzbekistan	2019	242	707	..	-30	979	30
	2020	264	880	1	-21	1,163	35
	2021	275	918	1	7	1,185	35
	2022	282	926	39	0	1,169	33
Viet Nam	2019	47,158	43,770	1,143	705	89,080	917
	2020	43,375	54,812	910	-3,441	100,718	1,027
	2021	48,308	36,291	1,812	3,029	79,758	806
	2022	49,688	31,704	1,199	-2,151	82,345	826
Yemen	2019	..	119	..	..	119	3
	2020	..	109	..	..	109	3
	2021	..	108	..	..	108	3
	2022	..	110	..	..	110	3
<b>Europe</b>	<b>2019</b>	<b>450,859</b>	<b>181,757</b>	<b>217,448</b>	<b>14,049</b>	<b>401,120</b>	<b>534</b>
	<b>2020</b>	<b>413,403</b>	<b>136,577</b>	<b>210,836</b>	<b>-10,581</b>	<b>349,726</b>	<b>465</b>
	<b>2021</b>	<b>442,232</b>	<b>155,351</b>	<b>210,404</b>	<b>-532</b>	<b>387,712</b>	<b>516</b>
	<b>2022</b>	<b>424,914</b>	<b>165,524</b>	<b>193,483</b>	<b>16,219</b>	<b>380,736</b>	<b>508</b>
Albania	2019	95	121	..	..	216	75
	2020	127	137	..	..	265	92
	2021	241	162	..	..	403	141
	2022	196	88	28	..	256	90
Andorra	2019	..	0	..	..	0	*2
	2020	..	0	..	..	0	*1
	2021	..	0	..	..	0	*2
	2022	..	0	..	..	0	*2

Table 6

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Austria	2019	..	3,078	0	-50	3,128	352
	2020	..	2,709	0	-129	2,838	318
	2021	..	2,771	0	22	2,749	307
	2022	..	2,480	0	-19	2,499	276
Belarus	2019	..	4,015	3,243	23	749	79
	2020	..	2,261	1,574	-56	743	79
	2021	..	1,892	1,213	..	679	73
	2022	..	1,620	966	..	654	71
Belgium	2019	13	3,707	85	120	3,515	306
	2020	11	3,063	91	119	2,863	248
	2021	11	2,938	61	-196	3,084	266
	2022	12	3,196	97	-12	3,123	268
Bosnia and Herzegovina	2019	..	1,531	..	180	1,351	404
	2020	..	1,261	..	12	1,249	379
	2021	..	1,563	..	62	1,501	463
	2022	..	1,308	..	13	1,295	404
Bulgaria	2019	..	558	..	-52	610	87
	2020	..	591	..	16	575	83
	2021	..	858	..	58	801	116
	2022	..	1,346	..	651	695	102
Croatia	2019	..	710	..	51	658	165
	2020	..	593	..	37	555	140
	2021	..	670	..	5	665	169
	2022	..	644	..	8	636	163
Czechia	2019	3,540	3,713	1,435	357	5,463	518
	2020	2,200	3,632	846	-302	5,289	501
	2021	2,260	4,614	1,447	-528	5,955	566
	2022	1,734	4,639	928	-124	5,569	522
Denmark	2019	..	2,387	46	762	1,579	272
	2020	..	1,111	194	-436	1,353	232
	2021	..	774	583	-1,643	1,834	313
	2022	..	1,871	..	95	1,775	301
Estonia	2019	..	49	..	-2	50	38
	2020	..	4	..	-9	12	9
	2021	..	5	..	2	4	3
	2022	..	3	..	0	3	2
Finland	2019	..	3,156	..	-145	3,301	598
	2020	..	2,432	..	-294	2,726	493
	2021	..	2,217	113	-891	2,995	541
	2022	..	3,983	..	733	3,250	584
France	2019	..	10,239	..	-116	10,355	152
	2020	..	7,142	..	-322	7,464	110
	2021	..	7,775	..	-1,057	8,832	129
	2022	..	7,810	..	270	7,540	110
Germany	2019	0	40,993	462	-1,979	42,510	509
	2020	..	29,573	526	-2,151	31,198	373
	2021	..	38,418	919	-901	38,401	459
	2022	..	42,265	959	1,103	40,203	478
Greece	2019	..	327	..	15	311	29
	2020	..	304	..	39	266	25
	2021	..	266	..	-21	287	27
	2022	..	86	..	-19	104	10

Table 6

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Hungary	2019	..	1,366	..	-16	1,382	141
	2020	..	1,214	..	-39	1,253	129
	2021	..	1,132	..	-17	1,149	118
	2022	..	758	..	-29	787	81
Iceland	2019	..	150	..	..	150	415
	2020	..	123	..	..	123	336
	2021	..	179	..	..	179	481
	2022	..	178	..	..	178	468
Ireland	2019	..	401	..	-187	588	119
	2020	..	389	..	-297	687	138
	2021	..	1,561	..	82	1,479	294
	2022	..	1,476	..	295	1,182	231
Italy	2019	..	10,261	..	-165	10,426	173
	2020	..	7,179	..	-545	7,724	129
	2021	..	7,913	..	-246	8,159	137
	2022	..	11,811	..	268	11,542	193
Kosovo	2019	..	1	..	..	1	0
	2020	..	5	0	..	5	3
	2021	..	15	1	..	14	8
	2022	..	8	0	..	8	5
Latvia	2019	..	79	5	7	67	35
	2020	..	40	4	-4	39	21
	2021	..	37	9	-2	30	16
	2022	..	45	7	18	20	11
Lithuania	2019	..	285	..	24	261	94
	2020	..	176	..	-27	203	73
	2021	..	225	..	-22	247	88
	2022	..	295	..	72	223	79
Luxembourg	2019	..	64	..	-5	70	112
	2020	..	65	..	8	57	91
	2021	..	59	..	-2	61	96
	2022	..	62	..	1	61	94
Netherlands (Kingd. of the)	2019	..	10,359	..	187	10,172	580
	2020	..	6,034	..	-459	6,493	368
	2021	..	8,722	..	-125	8,847	499
	2022	..	9,052	..	218	8,833	493
North Macedonia	2019	..	81	0	-2	84	44
	2020	..	1	0	-7	8	4
	2021	..	46	0	6	39	21
	2022	..	1	0	0	1	1
Norway	2019	121	794	79	7	829	155
	2020	69	849	46	-26	898	167
	2021	121	882	82	-6	928	172
	2022	117	814	84	30	817	150
Poland	2019	62,081	16,623	4,373	5,558	68,774	1,799
	2020	54,714	12,771	4,575	-566	63,476	1,663
	2021	55,285	12,382	6,429	-8,744	69,982	1,840
	2022	53,145	20,025	5,362	3,097	64,711	1,686
Portugal	2019	..	2,575	..	469	2,106	204
	2020	..	5	82	-1,026	949	92
	2021	..	3	..	-315	318	31
	2022	..	3	..	0	2	0

Table 6

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Republic of Moldova	2019	..	147	..	-16	163	52
	2020	..	133	..	3	130	42
	2021	..	125	..	-28	153	51
	2022	..	127	..	20	107	35
Romania	2019	..	161	..	-4	164	8
	2020	..	129	..	8	121	6
	2021	..	124	..	3	120	6
	2022	..	47	..	-18	65	3
Russian Federation	2019	357,564	21,924	205,395	6,905	167,189	1,141
	2020	330,441	22,400	199,600	-2,170	155,412	1,062
	2021	367,708	21,800	197,785	16,317	175,405	1,203
	2022	352,058	21,800	183,042	6,742	184,073	1,264
Serbia	2019	..	253	..	-4	256	37
	2020	..	216	..	-7	223	32
	2021	..	302	..	27	275	40
	2022	..	204	..	-5	209	31
Slovakia	2019	..	3,344	..	92	3,252	597
	2020	..	2,520	..	-74	2,594	476
	2021	..	3,327	..	-170	3,497	643
	2022	..	2,982	..	30	2,952	539
Slovenia	2019	..	11	..	0	11	5
	2020	..	12	..	0	13	6
	2021	..	6	..	0	6	3
	2022	..	5	..	0	5	3
Spain	2019	..	8,586	1,525	-580	7,641	161
	2020	..	3,968	1,986	-2,120	4,102	86
	2021	..	5,275	627	270	4,378	92
	2022	..	9,896	1,420	2,505	5,971	125
Sweden	2019	..	2,368	..	-51	2,419	235
	2020	..	2,029	..	-1	2,030	196
	2021	..	2,113	..	33	2,080	200
	2022	..	1,878	..	-88	1,966	187
Switzerland	2019	..	29	0	-19	48	6
	2020	..	22	0	-14	36	4
	2021	..	33	0	-2	35	4
	2022	..	39	..	0	39	4
Ukraine	2019	24,854	21,082	61	2,571	43,304	963
	2020	24,168	16,951	3	2,354	38,762	868
	2021	15,553	19,558	5	..	35,106	792
	2022	17,000	6,323	..	..	23,323	568
United Kingdom	2019	2,591	6,229	740	115	7,965	119
	2020	1,673	4,532	1,309	-2,095	6,992	104
	2021	1,054	4,608	1,130	-2,504	7,036	104
	2022	651	6,358	590	363	6,056	89
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>98,316</b>	<b>46,739</b>	<b>72,527</b>	<b>3,213</b>	<b>69,315</b>	<b>108</b>
	<b>2020</b>	<b>67,045</b>	<b>39,170</b>	<b>68,507</b>	<b>-23,914</b>	<b>61,622</b>	<b>95</b>
	<b>2021</b>	<b>71,156</b>	<b>46,393</b>	<b>56,526</b>	<b>-4,859</b>	<b>65,882</b>	<b>101</b>
	<b>2022</b>	<b>72,537</b>	<b>41,228</b>	<b>56,578</b>	<b>-3,554</b>	<b>60,741</b>	<b>93</b>
Argentina	2019	105	933	59	221	758	17
	2020	20	1,209	..	..	1,229	27
	2021	20	1,716	..	..	1,736	38
	2022	20	1,783	..	..	1,803	40

Table 6

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Bolivia (Plur. State of)	2019	..	9	..	..	9	1
	2020	..	4	..	..	4	0
	2021	..	10	..	..	10	1
	2022	..	9	..	..	9	1
Brazil	2019	5,410	18,859	..	51	24,218	117
	2020	5,481	16,066	..	-297	21,844	105
	2021	6,665	20,112	..	-295	27,072	129
	2022	6,122	15,742	..	-172	22,036	105
Chile	2019	1,427	13,107	..	-296	14,830	773
	2020	479	11,060	..	-474	12,013	620
	2021	43	12,565	..	378	12,231	629
	2022	25	9,842	..	-274	10,140	519
Colombia	2019	87,482	0	71,527	3,644	12,311	247
	2020	56,300	0	67,835	-22,731	11,197	221
	2021	62,700	..	55,450	-4,399	11,649	228
	2022	64,700	0	56,418	-3,000	11,282	218
Costa Rica	2019	..	0	..	..	0	0
	2020	..	0	..	..	0	0
	2021	..	21	..	..	21	4
	2022	..	23	..	..	23	5
Cuba	2019	..	0	..	..	0	0
	2020	..	2	..	..	2	0
	2021	..	4	..	..	4	0
	2022	..	1	..	..	1	0
Dominican Republic	2019	..	1,894	..	-14	1,908	175
	2020	..	2,800	..	9	2,791	254
	2021	..	2,632	..	..	2,632	237
	2022	..	3,181	..	..	3,181	283
Guatemala	2019	..	2,542	..	817	1,725	101
	2020	..	1,101	..	-13	1,114	64
	2021	..	2,236	..	810	1,426	81
	2022	..	901	..	357	544	30
Jamaica	2019	..	101	..	-17	118	42
	2020	..	101	..	-17	118	42
	2021	..	101	..	-17	118	42
	2022	..	101	..	6	95	33
Mexico	2019	3,303	8,085	5	-121	11,504	91
	2020	3,930	5,558	3	-139	9,624	76
	2021	1,330	5,799	4	78	7,047	55
	2022	1,329	8,306	4	-21	9,652	75
Panama	2019	..	844	..	-53	897	212
	2020	..	1,007	..	42	965	225
	2021	..	908	..	-11	919	212
	2022	..	907	..	11	896	204
Paraguay	2019	..	2	..	..	2	0
	2020	..	1	..	..	1	0
	2021	..	1	..	..	1	0
	2022	..	1	..	..	1	0
Peru	2019	181	364	630	-1,019	933	29
	2020	115	262	21	-294	649	20
	2021	145	287	891	-1,403	945	28
	2022	192	430	86	-462	998	30

Table 6

## Production, trade and supply of hard coal

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Venezuela (Bolivar. Rep.)	2019	409	..	306	..	103	4
	2020	720	..	648	..	72	3
	2021	254	..	181	..	73	3
	2022	149	..	70	..	79	3
<b>Northern America</b>	<b>2019</b>	<b>343,744</b>	<b>11,271</b>	<b>114,712</b>	<b>21,116</b>	<b>219,187</b>	<b>583</b>
	<b>2020</b>	<b>248,958</b>	<b>7,476</b>	<b>90,631</b>	<b>-8,208</b>	<b>174,010</b>	<b>461</b>
	<b>2021</b>	<b>269,534</b>	<b>8,414</b>	<b>102,846</b>	<b>-17,833</b>	<b>192,934</b>	<b>509</b>
	<b>2022</b>	<b>283,292</b>	<b>8,999</b>	<b>110,114</b>	<b>2,554</b>	<b>179,622</b>	<b>472</b>
Canada	2019	33,882	7,091	35,546	296	5,131	136
	2020	30,972	4,862	31,724	325	3,784	99
	2021	31,841	5,407	31,480	400	5,367	140
	2022	35,622	4,868	36,101	239	4,150	107
United States	2019	309,862	4,180	79,166	20,820	214,056	634
	2020	217,986	2,614	58,907	-8,533	170,226	501
	2021	237,693	3,007	71,366	-18,233	187,567	551
	2022	247,670	4,130	74,013	2,315	175,472	514
<b>Oceania</b>	<b>2019</b>	<b>435,273</b>	<b>1,455</b>	<b>394,374</b>	<b>834</b>	<b>41,520</b>	<b>954</b>
	<b>2020</b>	<b>426,905</b>	<b>1,454</b>	<b>389,824</b>	<b>2,271</b>	<b>36,265</b>	<b>823</b>
	<b>2021</b>	<b>395,271</b>	<b>1,044</b>	<b>365,697</b>	<b>-2,521</b>	<b>33,139</b>	<b>744</b>
	<b>2022</b>	<b>394,580</b>	<b>1,242</b>	<b>359,969</b>	<b>6,285</b>	<b>29,568</b>	<b>656</b>
Australia	2019	433,982	182	392,934	1,032	40,198	1,577
	2020	425,776	296	388,716	2,232	35,124	1,364
	2021	394,014	142	364,507	-2,491	32,140	1,238
	2022	393,349	106	358,737	6,342	28,376	1,083
New Caledonia	2019	..	1,160	..	-30	1,191	4,199
	2020	..	1,118	..	56	1,063	3,740
	2021	..	863	..	-35	898	3,149
	2022	..	1,096	..	15	1,082	3,767
New Zealand	2019	1,291	112	1,440	-168	131	26
	2020	1,129	40	1,108	-17	78	15
	2021	1,257	39	1,190	5	101	20
	2022	1,231	40	1,232	-72	110	21

Table 7

**International trade of hard coal  
(Principal importers/exporters)**

Thousand metric tons

**2021**

Importers	Exporters					
	World	Australia	Canada	China	Colombia	Indonesia
Austria	2,771	438	..	..	..	..
Belgium	2,938	1,060	..	..	..	..
Brazil	20,112	4,940	78	1	5,955	..
Canada	5,407	..	..	1	880	..
Chile	12,565	2,612	1,491	..	6,819	..
China	323,274	21,242	10,556	..	4,202	87,658
China, Hong Kong SAR	6,534	241	..	..	..	5,351
Denmark	774	..	..	..	6	..
Finland	2,217	52	331	..	..	..
France	7,775	2,648	..	3	847	..
Germany	38,418	5,249	1,301	10	2,284	..
India	208,934	74,526	2,020	*954	..	77,154
Israel	6,571	..	..	..	..	..
Italy	7,913	514	164	..	216	..
Japan	183,824	123,761	7,084	1,007	624	20,682
Korea, Republic of	123,581	62,697	*5,174	298	2,264	15,446
Malaysia	30,961	8,419	..	38	128	*19,467
Mexico	5,799	..	1	..	131	..
Morocco	10,941	..	..	..	13	..
Netherlands (Kingd. of the)	8,722	1,927	..	..	392	..
Pakistan	16,191	1,457	..	150	..	*2,844
Poland	12,382	2,012	120	2	614	..
Portugal	3	..	..	..	..	..
Russian Federation	21,800	..	..	1	38	..
Slovakia	3,327	78	322	..	47	..
Spain	5,275	931	1	6	1,568	77
Thailand	8,870	5,975	..	3	..	*2,474
Türkiye	37,189	5,200	765	..	14,354	..
Ukraine	19,558	73	..	..	132	..
United Kingdom	4,608	511	..	6	167	..
United States	3,007	..	762	103	1,800	..



**International trade of hard coal  
(Principal importers/exporters)**

Thousand metric tons

**2021**

Exporters					
Kazakhstan	Mongolia	Mozambique	Russian Federation	South Africa	United States
..	..	..	369	..	256
..	..	..	1,261	161	319
55	..	..	*2,937	477	5,669
..	..	..	229	..	4,255
..	..	..	716	..	910
542	*15,708	970	54,624	6,871	11,290
..	..	..	671	..	73
..	..	..	693	4	57
..	..	..	1,046	..	650
10	..	..	2,704	574	771
..	..	16	20,224	1,028	6,883
651	..	5,673	7,526	26,046	13,871
..	..	..	..	..	..
..	..	..	4,910	281	1,100
52	..	332	20,331	380	8,843
..	..	1,208	18,469	2,328	2,786
..	..	..	2,321	157	..
..	..	..	2,848	..	735
..	..	..	8,223	602	1,938
404	..	373	*3,294	203	2,128
..	..	262	830	*10,423	225
545	..	149	8,182	..	345
..	..	..	..	..	..
18,880	..	..	..	..	..
..	..	343	859	..	433
237	..	..	1,559	..	589
..	..	..	363	..	2
1,161	..	..	13,589	206	900
2,484	..	..	12,953	..	2,379
74	..	..	1,969	97	1,128
..	..	..	307	33	..

Table 7

**International trade of hard coal  
(Principal importers/exporters)**

Thousand metric tons

**2022**

Importers	Exporters					
	World	Australia	Canada	China	Colombia	Indonesia
Austria	2,480	327	..	..	15	..
Belgium	3,196	1,145	..	..	14	..
Brazil	15,742	4,837	150	80	3,273	..
Canada	4,868	..	..	1	960	..
Chile	9,842	2,427	592	..	5,303	..
China	293,704	..	*7,087	..	380	48,774
China, Hong Kong SAR	6,216	314	81	..	..	5,204
Denmark	1,871	..	..	..	117	9
Finland	3,983	621	452	27	332	17
France	7,810	2,795	..	8	841	..
Germany	42,265	6,305	888	31	7,205	20
India	237,668	61,356	2,925	226	136	107,571
Israel	6,561	..	..	..	..	..
Italy	11,811	967	135	..	602	1,154
Japan	180,360	122,691	10,514	370	980	24,412
Korea, Republic of	123,136	45,984	8,628	521	1,751	24,617
Malaysia	32,367	6,482	91	117	32	*23,619
Mexico	8,306	1,262	1,540	11	*2,602	..
Morocco	10,762	..	..	1	393	..
Netherlands (Kingd. of the)	9,052	1,668	454	..	604	..
Pakistan	14,430	310	..	49	..	3,137
Poland	20,025	3,251	208	12	2,745	1,755
Portugal	3	..	..	..	..	..
Russian Federation	21,800	..	..	..	..	..
Slovakia	2,982	..	305	..	144	..
Spain	9,896	1,364	1	7	2,182	951
Thailand	6,247	*5,755	..	4	..	..
Türkiye	37,619	3,119	533	39	11,002	..
Ukraine	6,323	189	..	..	293	..
United Kingdom	6,358	770	69	..	451	..
United States	4,130	..	1,448	199	2,371	..

**International trade of hard coal  
(Principal importers/exporters)**

Thousand metric tons

**2022**

Exporters					
Kazakhstan	Mongolia	Mozambique	Russian Federation	South Africa	United States
..	..	..	297	..	480
..	..	..	783	363	697
50	..	..	*1,099	438	5,814
..	..	..	..	..	3,791
..	..	..	..	..	1,503
147	31,040	187	64,069	1,074	2,645
..	..	..	453	..	..
19	..	..	262	1,337	70
117	..	5	601	316	1,135
8	..	..	1,315	1,200	1,389
561	..	72	12,879	4,077	8,972
..	..	8,383	18,011	19,528	14,743
..	..	..	..	..	..
309	..	..	3,921	2,180	1,447
..	..	74	9,788	1,920	8,728
..	..	1,592	26,497	6,055	4,612
..	..	..	1,806	219	..
..	..	..	1	..	2,889
73	..	..	5,604	2,295	2,108
550	..	64	942	1,916	2,712
..	..	840	326	6,006	57
3,204	..	632	2,490	3,373	946
..	..	..	..	..	..
..	..	..	..	..	..
136	..	321	265	..	721
1,026	..	..	1,594	1,557	1,060
..	..	..	487	..	1
306	..	156	20,354	312	1,717
374	..	..	1,962	4	384
149	..	58	1,010	615	2,448
..	..	..	..	25	..



### Production, trade and supply of brown coal and oil shale

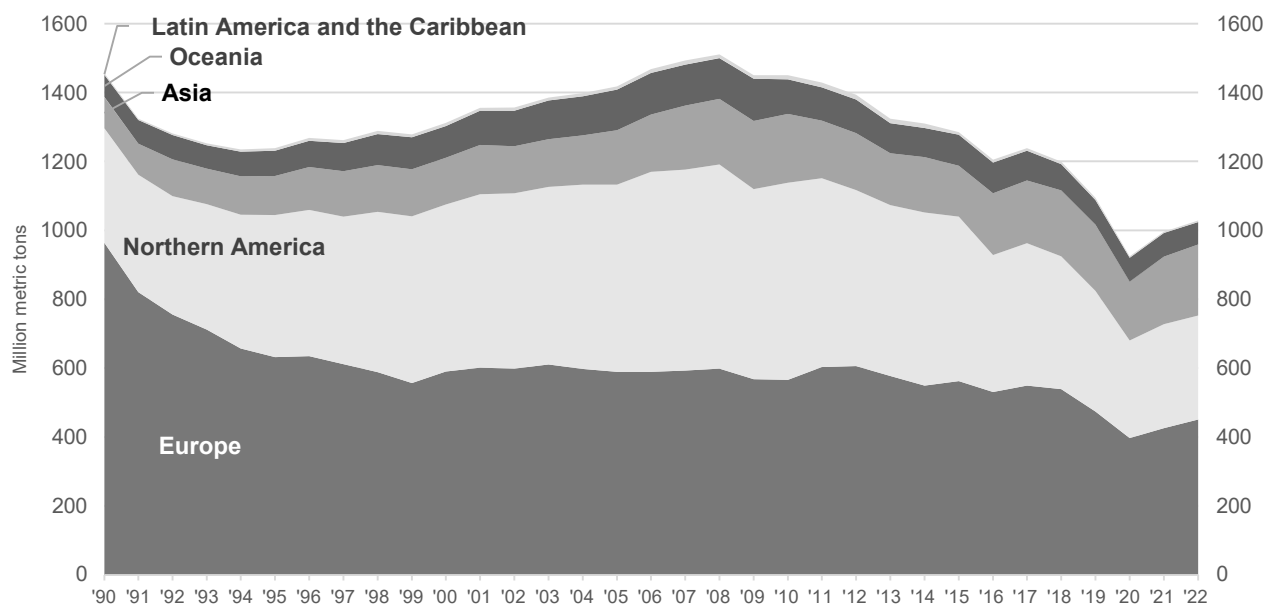
Thousand metric tons and kilograms per capita

#### Table Notes

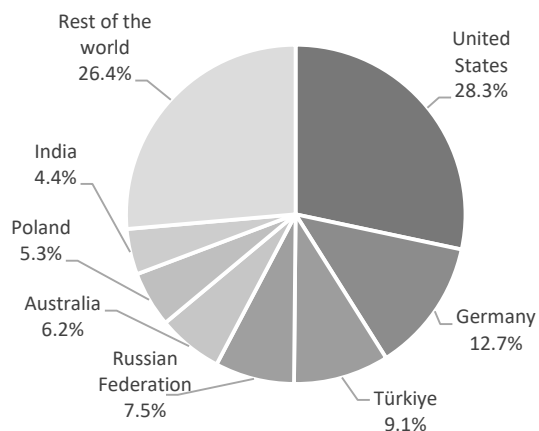
Data refer to brown coal and oil shale.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 18: Production of brown coal and oil shale by region, 1990-2022**



**Figure 19: Major brown coal producing countries, 2022**



**Figure 20: Major brown coal consuming countries, 2022**

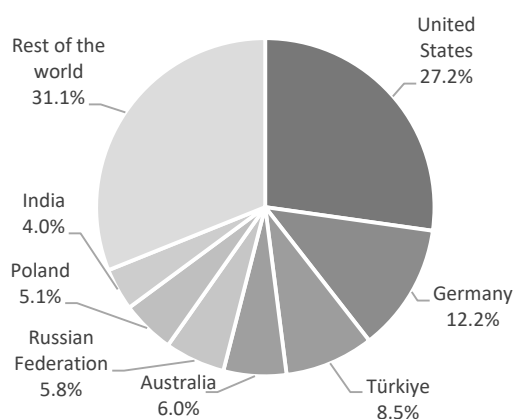


Table 8

## Production, trade and supply of brown coal and oil shale

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
World	2019	1,093,941	72,132	32,820	15,152	1,118,101	143
	2020	923,955	77,939	29,529	7,782	964,583	122
	2021	996,300	78,903	34,921	-28,891	1,069,174	134
	2022	1,028,486	81,183	33,782	5,511	1,070,376	133
Asia	2019	192,419	61,379	13,386	-5	240,417	52
	2020	171,652	68,573	11,764	3,711	224,750	48
	2021	196,315	69,894	13,635	125	252,449	54
	2022	205,741	73,060	10,495	8,015	260,290	55
Brunei Darussalam	2019	..	341	..	..	341	770
	2020	..	1,200	..	..	1,200	2,682
	2021	..	1,297	..	..	1,297	2,871
	2022	..	1,257	..	..	1,257	2,761
Cambodia	2019	77	2,346	..	..	2,423	147
	2020	18	3,423	..	..	3,441	206
	2021	25	3,025	..	..	3,050	180
	2022	25	2,886	..	..	2,912	169
Georgia	2019	15	..	1	11	4	1
	2020	99	..	1	15	84	22
	2021	148	..	1	-4	151	40
	2022	146	..	0	2	144	38
India	2019	42,103	54	93	177	41,887	30
	2020	36,614	19	150	604	35,879	26
	2021	47,490	68	18	1,592	45,948	32
	2022	44,990	23	2	1,833	43,178	30
Israel	2019	403	..	..	..	403	47
	2020	393	..	..	..	393	45
	2021	431	..	..	..	431	48
	2022	254	..	..	..	254	28
Kazakhstan	2019	5,929	0	2,698	36	3,195	166
	2020	5,422	..	3,564	-129	1,987	102
	2021	4,861	0	3,203	252	1,406	71
	2022	5,665	0	2,261	309	3,096	155
Korea, Dem.Ppl's.Rep.	2019	1,791	..	..	..	1,791	69
	2020	1,685	..	..	..	1,685	64
	2021	1,383	..	..	..	1,383	53
	2022	1,445	..	..	..	1,445	55
Korea, Republic of	2019	..	1,870	..	..	1,870	36
	2020	..	1,833	..	..	1,833	35
	2021	..	2,036	..	..	2,036	39
	2022	..	2,016	..	..	2,016	39
Kyrgyzstan	2019	2,277	14	448	-26	1,869	288
	2020	2,155	4	400	-21	1,780	267
	2021	2,493	2	549	18	1,928	283
	2022	3,214	10	817	-874	3,281	472
Lao People's Dem. Rep.	2019	15,264	..	..	*595	14,669	2,027
	2020	14,367	..	..	*37	14,330	1,951
	2021	13,618	..	..	*-862	14,480	1,943
	2022	15,358	..	..	72	15,286	2,022
Mongolia	2019	6,977	..	137	..	6,840	2,116
	2020	7,105	..	90	..	7,015	2,132
	2021	7,488	1	430	..	7,059	2,114
	2022	7,434	14	128	..	7,319	2,162

Table 8

## Production, trade and supply of brown coal and oil shale

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Other Asia	2019	..	11,751	..	245	11,505	486
	2020	..	11,658	..	962	10,697	452
	2021	..	11,016	..	-103	11,119	472
	2022	..	11,881	..	519	11,362	485
Pakistan	2019	..	3,190	1	..	3,189	14
	2020	..	3,250	1	..	3,249	14
	2021	..	4,405	2	..	4,403	18
	2022	..	5,082	1	..	5,080	21
Philippines	2019	13,751	27,692	9,980	-1,658	33,122	299
	2020	12,951	29,524	7,525	1,706	33,244	297
	2021	14,048	31,239	9,298	154	35,834	317
	2022	14,457	32,696	7,094	3,918	36,141	317
Saudi Arabia	2019	..	2	0	..	2	0
	2020	..	1	..	..	1	0
	2021	..	1	..	..	1	0
	2022	..	1	..	..	1	0
Tajikistan	2019	65	9	..	..	74	8
	2020	78	26	..	..	104	11
	2021	96	..	..	..	96	10
	2022	140	5	..	..	144	14
Thailand	2019	14,078	13,393	27	..	27,444	384
	2020	13,250	15,527	29	..	28,748	401
	2021	14,222	15,306	101	..	29,427	410
	2022	13,641	15,363	166	..	28,838	402
Türkiye	2019	85,883	..	1	811	85,071	997
	2020	73,646	..	4	1,386	72,256	839
	2021	85,230	..	33	-1,330	86,527	998
	2022	93,896	..	14	2,488	91,394	1,050
Uzbekistan	2019	3,806	717	0	-197	4,720	143
	2020	3,869	2,107	0	-848	6,824	203
	2021	4,781	1,499	0	409	5,871	171
	2022	5,074	1,826	12	-252	7,140	204
<b>Europe</b>	<b>2019</b>	<b>474,193</b>	<b>5,553</b>	<b>13,400</b>	<b>4,164</b>	<b>462,182</b>	<b>615</b>
	<b>2020</b>	<b>397,151</b>	<b>4,715</b>	<b>13,793</b>	<b>-2,845</b>	<b>390,917</b>	<b>520</b>
	<b>2021</b>	<b>425,682</b>	<b>4,518</b>	<b>15,192</b>	<b>-4,827</b>	<b>419,835</b>	<b>559</b>
	<b>2022</b>	<b>450,237</b>	<b>5,088</b>	<b>19,089</b>	<b>-158</b>	<b>436,394</b>	<b>583</b>
Austria	2019	..	68	0	..	68	8
	2020	..	64	0	..	64	7
	2021	..	59	0	..	59	7
	2022	..	68	0	..	68	8
Belgium	2019	136	1	1	-5	141	12
	2020	143	2	0	-2	147	13
	2021	113	1	0	0	114	10
	2022	99	2	1	0	100	9
Bosnia and Herzegovina	2019	13,377	117	163	489	12,842	3,839
	2020	13,536	71	157	-238	13,688	4,149
	2021	12,831	37	161	-519	13,227	4,076
	2022	13,328	40	958	-398	12,807	3,996
Bulgaria	2019	28,344	..	50	44	28,250	4,050
	2020	22,587	..	28	-13	22,572	3,255
	2021	28,419	..	8	-175	28,585	4,156
	2022	35,602	..	466	65	35,071	5,138

Table 8

## Production, trade and supply of brown coal and oil shale

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Croatia	2019	..	31	..	..	31	8
	2020	..	18	..	..	18	5
	2021	..	6	..	..	6	1
	2022	..	8	..	..	8	2
Czechia	2019	37,486	62	685	670	36,193	3,429
	2020	29,433	54	491	-782	29,778	2,822
	2021	29,279	38	337	-694	29,675	2,818
	2022	33,388	22	977	-198	32,632	3,057
Estonia	2019	15,877	..	..	624	15,253	11,496
	2020	12,144	..	..	103	12,041	9,056
	2021	11,743	..	..	-1,443	13,186	9,901
	2022	13,967	..	..	-1,092	15,060	11,155
France	2019	..	55	..	-4	59	1
	2020	..	45	..	-10	56	1
	2021	..	45	..	-1	46	1
	2022	..	24	..	1	24	0
Germany	2019	131,314	24	..	-113	131,451	1,573
	2020	107,377	27	..	-25	107,430	1,285
	2021	126,257	27	..	105	126,179	1,508
	2022	130,801	30	..	-30	130,861	1,556
Greece	2019	27,375	..	..	754	26,621	2,484
	2020	14,054	..	2	-328	14,380	1,344
	2021	12,398	..	..	-816	13,214	1,249
	2022	14,251	..	361	829	13,061	1,254
Hungary	2019	6,847	113	4	74	6,882	704
	2020	6,125	80	2	1	6,202	636
	2021	4,988	70	3	20	5,035	519
	2022	4,927	109	3	79	4,954	512
Italy	2019	..	1	..	..	1	0
	2020	..	1	..	..	1	0
	2021	..	1	..	..	1	0
	2022	..	0	..	..	0	0
Kosovo	2019	8,063	11	27	-26	8,073	4,600
	2020	8,382	19	9	124	8,268	4,721
	2021	8,535	48	266	-51	8,368	4,805
	2022	8,279	9	127	-42	8,203	4,775
Lithuania	2019	..	..	..	-1	1	0
	2020	..	..	..	0	0	0
	2021	..	..	..	..	..	..
	2022	..	27	..	2	25	9
Montenegro	2019	1,605	5	111	6	1,494	2,442
	2020	1,665	6	81	-3	1,594	2,621
	2021	1,549	..	148	-3	1,403	2,324
	2022	1,723	..	243	..	1,479	2,407
Netherlands (Kingd. of the)	2019	..	9	..	0	9	1
	2020	..	14	..	..	14	1
	2021	..	7	..	..	7	0
	2022	..	14	..	..	14	1
North Macedonia	2019	5,477	146	1	-277	5,900	3,109
	2020	5,028	173	1	-7	5,207	2,782
	2021	4,119	355	0	132	4,342	2,346
	2022	5,079	738	53	-7	5,771	3,136



Table 8

## Production, trade and supply of brown coal and oil shale

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Poland	2019	50,329	290	148	10	50,461	1,320
	2020	45,983	151	54	-26	46,107	1,208
	2021	52,356	130	9	-139	52,615	1,383
	2022	54,621	270	0	82	54,808	1,428
Romania	2019	21,652	882	0	315	22,218	1,139
	2020	15,031	496	2	-319	15,844	817
	2021	17,733	597	..	-541	18,872	980
	2022	18,201	533	226	-26	18,533	967
Russian Federation	2019	81,886	2,338	12,116	1,674	70,434	481
	2020	71,834	2,229	12,894	-328	61,497	420
	2021	75,259	2,201	14,219	*-100	63,341	434
	2022	77,614	..	15,647	..	61,967	426
Serbia	2019	38,881	378	94	517	38,648	5,548
	2020	39,673	328	73	-746	40,674	5,888
	2021	36,418	386	40	-254	37,017	5,415
	2022	35,130	2,158	27	205	37,056	5,456
Slovakia	2019	1,465	507	..	45	1,927	354
	2020	981	486	..	-211	1,678	308
	2021	1,074	234	..	2	1,306	240
	2022	869	494	..	17	1,346	246
Slovenia	2019	3,143	418	..	97	3,464	1,663
	2020	3,175	348	..	72	3,450	1,641
	2021	2,612	169	..	-351	3,132	1,482
	2022	2,358	436	..	352	2,442	1,154
Spain	2019	..	..	..	-729	729	15
	2020	..	..	..	-105	105	2
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Switzerland	2019	..	97	..	1	96	11
	2020	..	103	..	1	102	12
	2021	..	106	..	3	103	12
	2022	..	106	..	1	105	12
Ukraine	2019	935	..	..	..	935	21
	2020	..	..	..	..	..	..
	2021	..	0	..	-1	1	0
	2022	..	..	..	..	..	..
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>5,626</b>	<b>1,417</b>	<b>..</b>	<b>-622</b>	<b>7,665</b>	<b>12</b>
	<b>2020</b>	<b>3,531</b>	<b>237</b>	<b>..</b>	<b>-164</b>	<b>3,932</b>	<b>6</b>
	<b>2021</b>	<b>4,569</b>	<b>69</b>	<b>..</b>	<b>-63</b>	<b>4,701</b>	<b>7</b>
	<b>2022</b>	<b>4,572</b>	<b>335</b>	<b>..</b>	<b>9</b>	<b>4,898</b>	<b>7</b>
Chile	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	77	..	..	77	4
Guyana	2019	..	0	..	..	0	0
	2020	..	..	..	..	..	..
	2021	..	0	..	..	0	1
	2022	..	0	..	..	0	0
Mexico	2019	5,626	1,417	..	-622	7,665	61
	2020	3,531	237	..	-164	3,932	31
	2021	4,569	69	..	-63	4,701	37
	2022	4,572	252	..	9	4,815	37

Table 8

## Production, trade and supply of brown coal and oil shale

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Uruguay	2019	..	0	..	..	0	0
	2020	..	0	..	..	0	0
	2021	..	0	..	..	0	0
	2022	..	*6	..	..	*6	*2
<b>Northern America</b>	<b>2019</b>	<b>350,174</b>	<b>2,821</b>	<b>6,024</b>	<b>11,537</b>	<b>335,433</b>	<b>893</b>
	<b>2020</b>	<b>282,926</b>	<b>3,375</b>	<b>3,940</b>	<b>6,860</b>	<b>275,502</b>	<b>729</b>
	<b>2021</b>	<b>301,912</b>	<b>2,616</b>	<b>6,039</b>	<b>-24,386</b>	<b>322,876</b>	<b>852</b>
	<b>2022</b>	<b>302,420</b>	<b>2,014</b>	<b>4,152</b>	<b>-2,441</b>	<b>302,723</b>	<b>796</b>
Canada	2019	19,284	926	128	-288	20,369	539
	2020	15,174	1,329	190	350	15,964	418
	2021	15,769	734	190	-1,617	17,931	466
	2022	11,083	417	187	80	11,233	289
United States	2019	330,890	1,895	5,896	11,825	315,064	933
	2020	267,752	2,046	3,750	6,510	259,538	765
	2021	286,143	1,882	5,849	-22,769	304,945	896
	2022	291,337	1,597	3,965	-2,521	291,490	853
<b>Oceania</b>	<b>2019</b>	<b>71,530</b>	<b>962</b>	<b>10</b>	<b>79</b>	<b>72,404</b>	<b>1,664</b>
	<b>2020</b>	<b>68,695</b>	<b>1,040</b>	<b>33</b>	<b>219</b>	<b>69,483</b>	<b>1,576</b>
	<b>2021</b>	<b>67,822</b>	<b>1,806</b>	<b>55</b>	<b>261</b>	<b>69,313</b>	<b>1,556</b>
	<b>2022</b>	<b>65,516</b>	<b>687</b>	<b>46</b>	<b>86</b>	<b>66,071</b>	<b>1,467</b>
Australia	2019	69,787	..	..	..	69,787	2,739
	2020	67,005	..	..	..	67,005	2,603
	2021	66,211	..	..	..	66,211	2,551
	2022	64,109	..	..	..	64,109	2,447
New Zealand	2019	1,743	962	10	79	2,617	524
	2020	1,690	1,040	33	219	2,478	489
	2021	1,611	1,806	55	261	3,102	607
	2022	1,407	687	46	86	1,962	382





### Production, trade and supply of coke

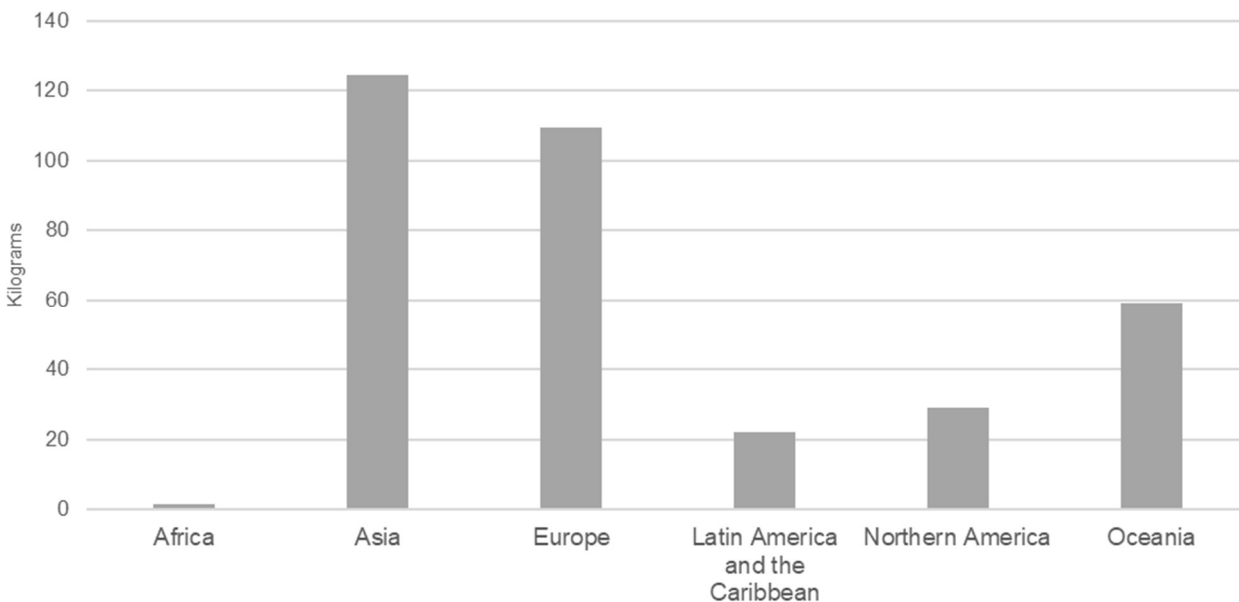
Thousand metric tons and kilograms per capita

#### Table Notes

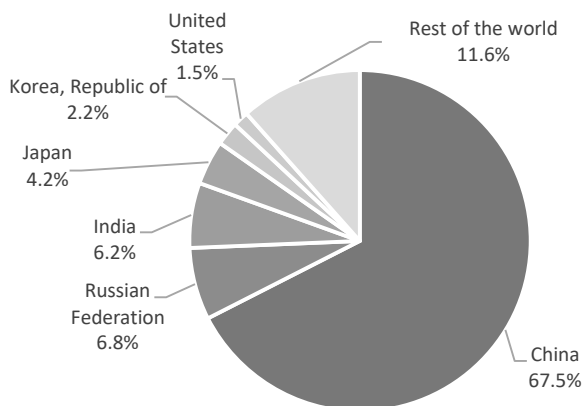
Data comprise coal tar, gas coke and coke oven coke.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 21: Per capita supply of coke by region, 2022**



**Figure 22: Major coke producing countries, 2022**



**Figure 23: Major coke consuming countries, 2022**

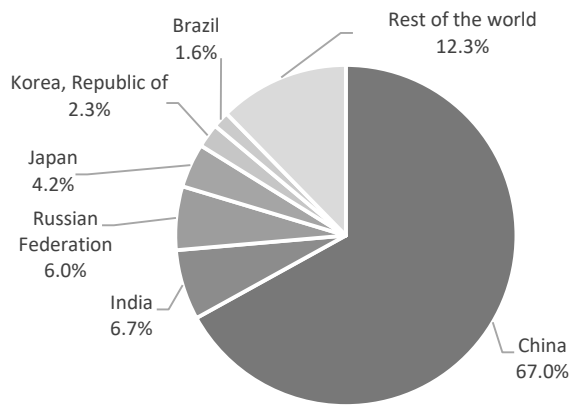


Table 9

## Production, trade and supply of coke

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2019</b>	<b>712,585</b>	<b>26,515</b>	<b>25,923</b>	<b>2,653</b>	<b>710,524</b>	<b>91</b>
	<b>2020</b>	<b>695,165</b>	<b>26,475</b>	<b>24,699</b>	<b>-3,170</b>	<b>700,111</b>	<b>89</b>
	<b>2021</b>	<b>703,148</b>	<b>31,361</b>	<b>31,367</b>	<b>-6,036</b>	<b>709,178</b>	<b>89</b>
	<b>2022</b>	<b>700,762</b>	<b>29,501</b>	<b>31,932</b>	<b>-4,796</b>	<b>703,126</b>	<b>88</b>
<b>Africa</b>	<b>2019</b>	<b>2,628</b>	<b>568</b>	<b>288</b>	<b>-4</b>	<b>2,912</b>	<b>2</b>
	<b>2020</b>	<b>1,415</b>	<b>820</b>	<b>219</b>	<b>0</b>	<b>2,016</b>	<b>1</b>
	<b>2021</b>	<b>2,564</b>	<b>1,099</b>	<b>998</b>	<b>12</b>	<b>2,654</b>	<b>2</b>
	<b>2022</b>	<b>2,180</b>	<b>635</b>	<b>490</b>	<b>-2</b>	<b>2,327</b>	<b>2</b>
Algeria	2019	15	476	..	-4	494	11
	2020	5	218	..	0	223	5
	2021	13	455	..	12	455	10
	2022	5	289	..	-2	295	6
Egypt	2019	509	..	168	..	342	3
	2020	61	528	18	..	571	5
	2021	..	569	..	..	569	5
	2022	308	270	..	..	577	5
Madagascar	2019	..	*24	..	..	*24	*1
	2020	..	*24	..	..	*24	*1
	2021	..	*24	..	..	*24	*1
	2022	..	*26	..	..	*26	*1
South Africa	2019	1,885	..	..	..	1,885	32
	2020	1,042	..	..	..	1,042	17
	2021	1,439	..	..	..	1,439	23
	2022	1,190	..	..	..	1,190	19
Zambia	2019	..	*52	*2	..	*50	*3
	2020	..	*51	*2	..	*49	*3
	2021	..	*51	*2	..	*49	*2
	2022	..	*51	*2	..	*49	*2
Zimbabwe	2019	219	16	118	..	118	8
	2020	308	..	199	..	108	7
	2021	1,113	..	996	..	118	7
	2022	677	..	488	..	190	12
<b>Asia</b>	<b>2019</b>	<b>583,974</b>	<b>10,155</b>	<b>8,401</b>	<b>1,767</b>	<b>583,962</b>	<b>126</b>
	<b>2020</b>	<b>576,020</b>	<b>12,136</b>	<b>7,119</b>	<b>-1,746</b>	<b>582,784</b>	<b>124</b>
	<b>2021</b>	<b>576,763</b>	<b>13,435</b>	<b>9,574</b>	<b>-2,369</b>	<b>582,993</b>	<b>124</b>
	<b>2022</b>	<b>582,394</b>	<b>12,951</b>	<b>10,505</b>	<b>-5,947</b>	<b>590,787</b>	<b>124</b>
Afghanistan	2019	*67	*97	*67	..	*97	*3
	2020	*68	*89	*70	..	*88	*2
	2021	*69	*77	*70	..	*76	*2
	2022	*69	*70	*70	..	*69	*2
Bhutan	2019	..	37	..	..	37	48
	2020	..	61	..	..	61	80
	2021	..	100	..	..	100	129
	2022	..	102	..	..	102	131
China	2019	472,958	523	6,523	1,622	465,337	327
	2020	471,882	2,979	3,492	-1,751	473,120	332
	2021	464,240	1,332	6,434	-2,339	461,477	324
	2022	472,953	514	8,920	-6,318	470,865	330
Georgia	2019	..	145	..	12	133	35
	2020	..	82	..	-18	100	26
	2021	..	148	..	6	142	37
	2022	..	138	..	3	135	36

Table 9

## Production, trade and supply of coke

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
India	2019	*40,623	*2,875	*22	..	*43,476	*31
	2020	*37,318	*2,457	*25	..	*39,750	*28
	2021	*43,514	*2,481	*500	..	*45,495	*32
	2022	*43,250	*3,632	*39	..	*46,843	*33
Indonesia	2019	*433	*160	0	..	*593	*2
	2020	*433	*160	..	..	*593	*2
	2021	..	..	..	..	..	..
	2022	296	1,690	296	..	1,690	6
Iran (Islamic Rep. of)	2019	1,478	384	0	-5	1,867	21
	2020	1,482	371	0	-2	1,855	21
	2021	1,564	605	38	-2	2,134	24
	2022	1,620	605	38	-2	2,190	24
Japan	2019	33,462	708	1,595	-33	32,608	257
	2020	30,029	870	3,242	6	27,652	219
	2021	30,989	2,174	2,280	59	30,824	245
	2022	29,453	852	801	134	29,369	235
Jordan	2019	..	65	..	..	65	6
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Kazakhstan	2019	2,668	1,059	34	-49	3,742	195
	2020	2,450	994	10	-44	3,479	179
	2021	2,539	1,066	61	108	3,435	174
	2022	2,538	622	56	30	3,073	153
Korea, Dem.Ppl's.Rep.	2019	..	112	..	..	112	4
	2020	..	116	..	..	116	4
	2021	..	98	..	..	98	4
	2022	..	47	..	..	47	2
Korea, Republic of	2019	17,354	328	..	68	17,614	340
	2020	16,235	291	..	4	16,522	319
	2021	16,410	338	..	4	16,744	323
	2022	15,648	302	..	73	15,877	307
Malaysia	2019	..	1,474	..	..	1,474	44
	2020	..	1,618	..	..	1,618	48
	2021	..	2,061	..	..	2,061	60
	2022	..	1,721	..	..	1,721	50
Other Asia	2019	6,175	260	19	39	6,376	269
	2020	5,955	248	117	137	5,949	251
	2021	6,288	200	46	-102	6,544	278
	2022	5,731	209	51	-29	5,918	253
Pakistan	2019	..	130	..	..	130	1
	2020	..	100	..	..	100	0
	2021	..	94	0	..	94	0
	2022	..	93	..	..	93	0
Saudi Arabia	2019	..	69	..	..	69	2
	2020	..	83	..	..	83	3
	2021	..	113	..	..	113	4
	2022	..	56	..	..	56	2
Syrian Arab Republic	2019	..	1	..	..	1	0
	2020	..	1	..	..	1	0
	2021	..	1	..	..	1	0
	2022	..	1	..	..	1	0

Table 9

## Production, trade and supply of coke

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Thailand	2019	..	19	..	..	19	0
	2020	..	17	..	..	17	0
	2021	..	14	..	..	14	0
	2022	..	21	..	..	21	0
Türkiye	2019	4,422	666	141	111	4,836	57
	2020	4,362	679	153	-78	4,966	58
	2021	4,262	1,177	145	-103	5,397	62
	2022	4,149	1,233	202	162	5,018	58
United Arab Emirates	2019	..	5	0	..	5	1
	2020	..	1	0	..	1	0
	2021	..	4	0	..	3	0
	2022	..	51	33	..	18	2
Uzbekistan	2019	..	46	..	..	46	1
	2020	..	50	..	..	50	1
	2021	..	*50	..	..	*50	*1
	2022	..	*25	..	..	*25	*1
Viet Nam	2019	4,334	993	0	..	5,327	55
	2020	5,806	867	11	..	6,662	68
	2021	6,887	1,303	0	..	8,190	83
	2022	6,688	967	0	..	7,655	77
<b>Europe</b>	<b>2019</b>	<b>94,515</b>	<b>11,308</b>	<b>12,461</b>	<b>634</b>	<b>92,728</b>	<b>123</b>
	<b>2020</b>	<b>88,995</b>	<b>9,252</b>	<b>12,359</b>	<b>-1,141</b>	<b>87,029</b>	<b>116</b>
	<b>2021</b>	<b>91,392</b>	<b>12,056</b>	<b>14,021</b>	<b>-3,728</b>	<b>93,155</b>	<b>124</b>
	<b>2022</b>	<b>84,870</b>	<b>11,416</b>	<b>13,551</b>	<b>780</b>	<b>81,954</b>	<b>109</b>
Austria	2019	1,365	951	38	-90	2,369	267
	2020	1,370	816	30	46	2,111	237
	2021	1,365	921	44	-43	2,284	255
	2022	1,318	962	40	17	2,223	245
Belarus	2019	..	47	..	-4	51	5
	2020	..	36	..	-2	38	4
	2021	..	39	..	..	39	4
	2022	..	34	..	..	34	4
Belgium	2019	1,253	585	38	26	1,774	154
	2020	1,140	430	136	1	1,434	124
	2021	1,310	400	43	-47	1,714	148
	2022	1,317	647	23	43	1,898	163
Bosnia and Herzegovina	2019	907	46	455	26	472	141
	2020	784	29	368	-14	459	139
	2021	961	11	446	3	523	161
	2022	822	68	403	28	459	143
Bulgaria	2019	..	62	..	0	62	9
	2020	..	70	..	7	63	9
	2021	..	56	..	-1	57	8
	2022	..	81	..	8	73	11
Croatia	2019	..	28	..	-3	31	8
	2020	..	29	..	-1	30	8
	2021	..	30	..	0	30	8
	2022	..	31	..	-2	33	8
Czechia	2019	2,536	465	593	-7	2,415	229
	2020	2,381	439	529	-39	2,330	221
	2021	2,688	539	666	33	2,528	240
	2022	2,448	482	615	11	2,304	216



Table 9

## Production, trade and supply of coke

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Denmark	2019	..	9	..	-1	10	2
	2020	..	11	..	0	12	2
	2021	..	12	..	0	11	2
	2022	..	13	..	0	13	2
Estonia	2019	23	..	20	3	0	0
	2020	15	..	19	-4	0	0
	2021	16	..	17	-1	0	0
	2022	9	..	9	..	0	0
Finland	2019	874	322	202	84	910	165
	2020	796	301	134	49	914	165
	2021	870	249	64	-51	1,106	200
	2022	843	336	71	168	940	169
France	2019	3,255	631	6	36	3,844	57
	2020	2,417	493	13	21	2,877	42
	2021	108	1,507	6	-2,372	3,980	58
	2022	110	1,251	9	-2,315	3,667	54
Germany	2019	8,822	1,903	761	..	9,964	119
	2020	7,872	1,600	746	-126	8,852	106
	2021	8,247	2,326	641	-6	9,939	119
	2022	8,271	2,420	774	742	9,175	109
Hungary	2019	932	45	317	-15	675	69
	2020	866	16	257	16	609	62
	2021	801	17	474	-92	436	45
	2022	546	38	155	72	357	37
Iceland	2019	..	11	..	..	11	30
	2020	..	17	..	..	17	47
	2021	..	15	..	..	15	39
	2022	..	14	..	..	14	37
Italy	2019	1,759	582	292	12	2,037	34
	2020	1,292	427	305	-13	1,426	24
	2021	1,397	634	263	-10	1,778	30
	2022	1,674	315	346	15	1,628	27
Lithuania	2019	..	17	..	0	17	6
	2020	..	18	..	0	18	7
	2021	..	17	..	..	17	6
	2022	..	15	..	0	16	6
Luxembourg	2019	..	1	..	..	1	1
	2020	..	0	..	..	0	0
	2021	..	0	..	..	0	0
	2022	..	1	..	..	1	1
Netherlands (Kingd. of the)	2019	2,054	63	85	33	1,998	114
	2020	1,947	43	274	-52	1,768	100
	2021	1,957	74	39	77	1,915	108
	2022	1,903	46	136	-13	1,828	102
North Macedonia	2019	..	1	..	0	1	0
	2020	..	1	..	0	1	0
	2021	..	0	..	0	1	0
	2022	..	0	0	0	1	0
Norway	2019	..	360	0	0	359	67
	2020	..	323	0	-2	325	60
	2021	..	323	..	3	319	59
	2022	..	389	0	6	383	70

Table 9

## Production, trade and supply of coke

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Poland	2019	9,277	189	6,526	217	2,724	71
	2020	8,096	193	6,644	-326	1,971	52
	2021	9,648	222	7,614	-22	2,278	60
	2022	8,818	156	6,653	248	2,073	54
Portugal	2019	..	9	..	0	10	1
	2020	..	10	..	2	8	1
	2021	..	9	..	-2	11	1
	2022	..	7	..	1	7	1
Romania	2019	..	795	0	26	769	39
	2020	..	665	0	-49	713	37
	2021	..	891	35	29	828	43
	2022	..	668	2	-23	688	36
Russian Federation	2019	45,999	66	2,798	15	43,252	295
	2020	45,926	78	2,687	-603	43,920	300
	2021	47,279	132	3,293	-940	45,058	309
	2022	47,924	223	4,037	1,651	42,459	292
Serbia	2019	..	812	..	32	780	112
	2020	..	467	..	-29	497	72
	2021	..	576	..	7	569	83
	2022	..	584	..	27	556	82
Slovakia	2019	1,454	235	124	108	1,457	267
	2020	1,206	170	40	47	1,289	236
	2021	1,681	166	56	66	1,725	317
	2022	1,530	162	76	130	1,486	272
Slovenia	2019	..	31	..	0	30	15
	2020	..	28	..	0	28	13
	2021	..	30	..	1	29	14
	2022	..	25	..	-1	26	12
Spain	2019	878	841	143	110	1,466	31
	2020	567	888	96	12	1,347	28
	2021	1,174	800	102	20	1,852	39
	2022	1,336	467	166	22	1,615	34
Sweden	2019	1,105	456	49	137	1,375	134
	2020	1,070	129	23	-24	1,200	116
	2021	955	168	24	-182	1,281	123
	2022	1,056	399	34	200	1,221	116
Switzerland	2019	..	12	0	..	12	1
	2020	..	13	..	..	13	1
	2021	..	14	0	..	14	2
	2022	..	15	0	..	15	2
Ukraine	2019	10,651	877	14	37	11,476	255
	2020	9,975	382	58	-49	10,348	232
	2021	9,769	790	195	..	10,365	234
	2022	4,007	359	4	..	4,363	106
United Kingdom	2019	1,370	857	..	-148	2,375	35
	2020	1,274	1,129	..	-8	2,411	36
	2021	1,167	1,089	..	-198	2,454	36
	2022	938	1,206	..	-255	2,399	35
Latin America & Carib.	2019	14,471	2,633	3,199	63	13,842	22
	2020	14,154	2,417	3,489	-213	13,295	21
	2021	16,057	3,118	4,095	143	14,936	23
	2022	16,255	2,823	4,403	324	14,350	22

Table 9

## Production, trade and supply of coke

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Argentina	2019	573	..	..	..	573	13
	2020	631	..	..	..	631	14
	2021	776	..	..	..	776	17
	2022	916	..	..	..	916	20
Brazil	2019	9,260	1,307	..	47	10,520	51
	2020	8,512	1,358	..	-160	10,030	48
	2021	9,977	1,671	..	134	11,513	55
	2022	9,729	1,568	..	260	11,037	52
Chile	2019	391	1	52	-31	371	19
	2020	398	1	134	-22	287	15
	2021	373	1	63	-8	319	16
	2022	391	4	30	41	323	17
Colombia	2019	3,188	..	3,147	..	40	1
	2020	3,392	..	3,355	..	37	1
	2021	4,077	..	4,032	..	44	1
	2022	4,373	..	4,373	..	0	0
Cuba	2019	..	0	..	..	0	0
	2020	..	0	..	..	0	0
	2021	..	1	..	..	1	0
	2022	..	1	..	..	1	0
El Salvador	2019	..	1	..	..	1	0
	2020	..	0	..	..	0	0
	2021	..	1	..	..	1	0
	2022	..	0	..	..	0	0
Mexico	2019	1,059	1,219	..	..	2,278	18
	2020	1,221	1,025	..	..	2,246	18
	2021	855	1,371	..	..	2,226	17
	2022	846	1,166	..	..	2,012	16
Peru	2019	..	105	0	47	58	2
	2020	..	32	..	-31	63	2
	2021	..	73	..	17	56	2
	2022	..	84	..	23	61	2
<b>Northern America</b>	<b>2019</b>	<b>14,103</b>	<b>1,403</b>	<b>917</b>	<b>193</b>	<b>14,396</b>	<b>38</b>
	<b>2020</b>	<b>11,556</b>	<b>1,432</b>	<b>698</b>	<b>-70</b>	<b>12,360</b>	<b>33</b>
	<b>2021</b>	<b>13,328</b>	<b>1,338</b>	<b>1,984</b>	<b>-95</b>	<b>12,777</b>	<b>34</b>
	<b>2022</b>	<b>12,217</b>	<b>1,228</b>	<b>2,345</b>	<b>49</b>	<b>11,051</b>	<b>29</b>
Bermuda	2019	..	0	..	..	0	0
	2020	..	0	..	..	0	1
	2021	..	0	..	..	0	1
	2022	..	0	..	..	0	*1
Canada	2019	2,428	1,298	39	115	3,572	95
	2020	2,164	1,285	78	-107	3,478	91
	2021	1,947	1,232	94	22	3,063	80
	2022	1,881	1,166	242	95	2,711	70
United States	2019	11,675	105	878	78	10,824	32
	2020	9,392	147	620	37	8,882	26
	2021	11,381	106	1,890	-117	9,714	29
	2022	10,336	61	2,103	-46	8,340	24
<b>Oceania</b>	<b>2019</b>	<b>2,893</b>	<b>448</b>	<b>657</b>	<b>..</b>	<b>2,684</b>	<b>62</b>
	<b>2020</b>	<b>3,023</b>	<b>417</b>	<b>814</b>	<b>..</b>	<b>2,626</b>	<b>60</b>
	<b>2021</b>	<b>3,044</b>	<b>316</b>	<b>696</b>	<b>..</b>	<b>2,664</b>	<b>60</b>
	<b>2022</b>	<b>2,845</b>	<b>449</b>	<b>638</b>	<b>..</b>	<b>2,656</b>	<b>59</b>

**Table 9****Production, trade and supply of coke**

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Australia	2019	2,468	448	657	..	2,259	89
	2020	2,616	417	814	..	2,219	86
	2021	2,595	316	696	..	2,215	85
	2022	2,447	449	638	..	2,258	86
New Zealand	2019	425	..	..	..	425	85
	2020	407	..	..	..	407	80
	2021	449	..	..	..	449	88
	2022	398	..	..	..	398	78

### Production, trade and supply of patent fuel

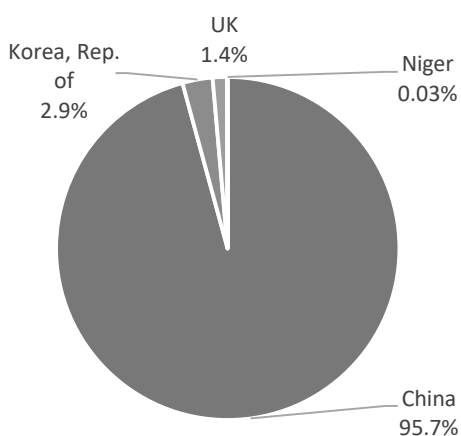
Thousand metric tons and kilograms per capita

#### Table Notes

Data refer to patent fuel.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 24: Major patent fuel producing countries, 2022**



**Figure 25: Major patent fuel consuming countries, 2022**

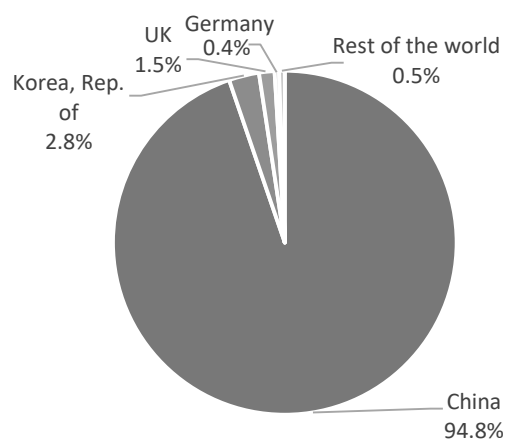


Table 10

## Production, trade and supply of patent fuel

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2019</b>	<b>14,780</b>	<b>152</b>	<b>74</b>	<b>137</b>	<b>14,721</b>	<b>2</b>
	<b>2020</b>	<b>14,294</b>	<b>114</b>	<b>61</b>	<b>52</b>	<b>14,294</b>	<b>2</b>
	<b>2021</b>	<b>14,898</b>	<b>121</b>	<b>64</b>	<b>-14</b>	<b>14,969</b>	<b>2</b>
	<b>2022</b>	<b>14,902</b>	<b>188</b>	<b>72</b>	<b>-10</b>	<b>15,029</b>	<b>2</b>
<b>Africa</b>	<b>2019</b>	<b>5</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>5</b>	<b>0</b>
	<b>2020</b>	<b>6</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>6</b>	<b>0</b>
	<b>2021</b>	<b>4</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>4</b>	<b>0</b>
	<b>2022</b>	<b>5</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>5</b>	<b>0</b>
Niger	2019	*5	..	..	..	*5	0
	2020	*6	..	..	..	*6	0
	2021	*4	..	..	..	*4	0
	2022	*5	..	..	..	*5	0
<b>Asia</b>	<b>2019</b>	<b>14,586</b>	<b>15</b>	<b>35</b>	<b>153</b>	<b>14,413</b>	<b>3</b>
	<b>2020</b>	<b>14,079</b>	<b>8</b>	<b>27</b>	<b>51</b>	<b>14,009</b>	<b>3</b>
	<b>2021</b>	<b>14,683</b>	<b>9</b>	<b>28</b>	<b>..</b>	<b>14,664</b>	<b>3</b>
	<b>2022</b>	<b>14,694</b>	<b>14</b>	<b>27</b>	<b>..</b>	<b>14,681</b>	<b>3</b>
China	2019	13,905	..	35	153	13,716	10
	2020	13,561	..	27	51	13,483	9
	2021	14,234	..	28	..	14,206	10
	2022	14,269	..	27	..	14,242	10
Korea, Republic of	2019	644	5	..	..	648	13
	2020	508	1	..	..	509	10
	2021	449	0	..	..	449	9
	2022	425	0	..	..	425	8
Saudi Arabia	2019	..	10	0	..	10	0
	2020	..	7	0	..	7	0
	2021	..	9	0	..	9	0
	2022	..	14	..	..	14	0
Uzbekistan	2019	38	..	..	..	38	1
	2020	10	..	..	..	10	0
	2021	0	..	..	..	0	0
	2022	0	..	..	..	0	0
<b>Europe</b>	<b>2019</b>	<b>189</b>	<b>135</b>	<b>38</b>	<b>-16</b>	<b>302</b>	<b>0</b>
	<b>2020</b>	<b>209</b>	<b>104</b>	<b>34</b>	<b>1</b>	<b>278</b>	<b>0</b>
	<b>2021</b>	<b>211</b>	<b>109</b>	<b>36</b>	<b>-14</b>	<b>299</b>	<b>0</b>
	<b>2022</b>	<b>204</b>	<b>172</b>	<b>45</b>	<b>-10</b>	<b>341</b>	<b>0</b>
Austria	2019	..	2	..	..	2	0
	2020	..	2	..	..	2	0
	2021	..	1	..	..	1	0
	2022	..	2	0	..	2	0
Belgium	2019	..	2	1	0	1	0
	2020	..	2	2	0	1	0
	2021	..	3	2	0	1	0
	2022	..	3	1	0	1	0
France	2019	..	9	..	..	9	0
	2020	..	6	..	0	6	0
	2021	..	12	..	..	12	0
	2022	..	18	..	..	18	0
Germany	2019	..	73	0	..	72	1
	2020	..	66	2	..	65	1
	2021	..	70	4	..	66	1
	2022	..	65	4	..	62	1

## Production, trade and supply of patent fuel

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Poland	2019	7	22	26	-6	9	0
	2020	11	8	19	0	0	0
	2021	9	10	18	0	1	0
	2022	0	55	22	0	34	1
Slovakia	2019	..	9	..	..	9	2
	2020	..	7	..	..	7	1
	2021	..	7	..	..	7	1
	2022	..	4	..	..	4	1
United Kingdom	2019	182	18	11	-10	200	3
	2020	198	12	12	1	197	3
	2021	202	7	11	-14	212	3
	2022	204	25	18	-10	221	3
<b>Latin America &amp; Carib.</b>	<b>2019</b>	..	<b>2</b>	..	..	<b>2</b>	<b>0</b>
	<b>2020</b>	..	<b>2</b>	..	..	<b>2</b>	<b>0</b>
	<b>2021</b>	..	<b>2</b>	..	..	<b>2</b>	<b>0</b>
	<b>2022</b>	..	<b>2</b>	..	..	<b>2</b>	<b>0</b>
Bahamas	2019	..	*2	..	..	*2	*5
	2020	..	*2	..	..	*2	*5
	2021	..	*2	..	..	*2	*5
	2022	..	*2	..	..	*2	*5





### Production, trade and supply of brown coal briquettes and peat products

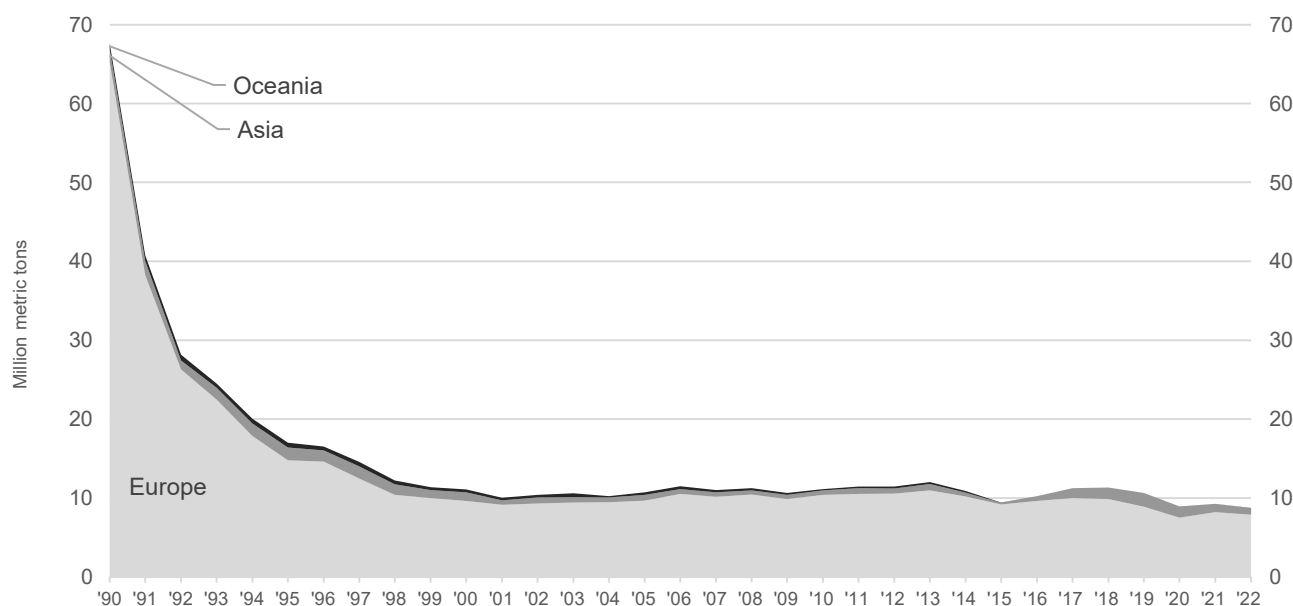
Thousand metric tons and kilograms per capita

#### Table Notes

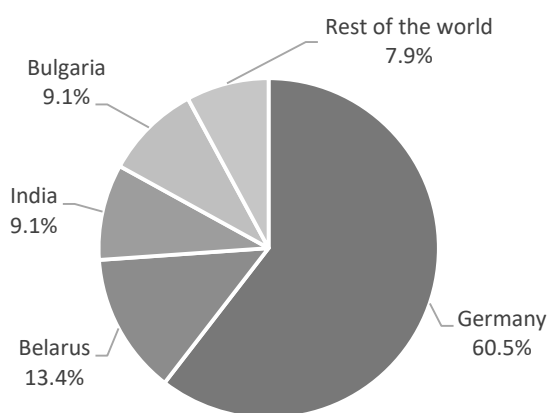
Data refer to brown coal briquettes (BKB) and peat products.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 26: Production of BKB and peat products by region, 1990-2022**



**Figure 27: Major BKB and peat products producing countries, 2022**



**Figure 28: Major BKB and peat products consuming countries, 2022**

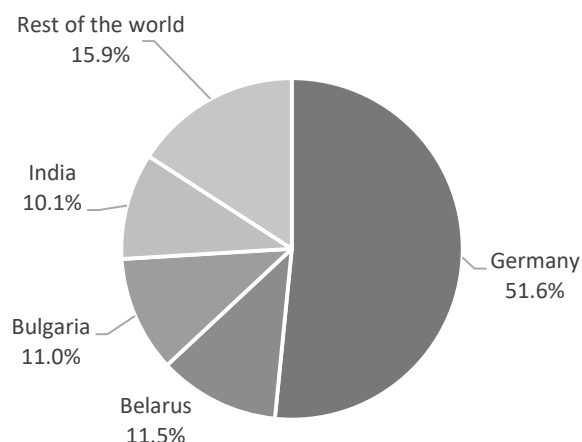


Table 11

## Production, trade and supply of brown coal briquettes and peat products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2019</b>	<b>10,648</b>	<b>1,468</b>	<b>1,770</b>	<b>295</b>	<b>10,051</b>	<b>1</b>
	<b>2020</b>	<b>8,927</b>	<b>1,582</b>	<b>1,675</b>	<b>-39</b>	<b>8,873</b>	<b>1</b>
	<b>2021</b>	<b>9,247</b>	<b>1,820</b>	<b>1,690</b>	<b>-63</b>	<b>9,440</b>	<b>1</b>
	<b>2022</b>	<b>8,722</b>	<b>706</b>	<b>1,623</b>	<b>-88</b>	<b>7,893</b>	<b>1</b>
<b>Africa</b>	<b>2019</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>
	<b>2020</b>	<b>2</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>2</b>	<b>0</b>
	<b>2021</b>	<b>2</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>2</b>	<b>0</b>
	<b>2022</b>	<b>2</b>	<b>0</b>	<b>..</b>	<b>..</b>	<b>2</b>	<b>0</b>
Niger	2019	..	..	..	..	..	..
	2020	2	..	..	..	2	0
	2021	2	..	..	..	2	0
	2022	*2	..	..	..	*2	0
<b>Asia</b>	<b>2019</b>	<b>1,760</b>	<b>605</b>	<b>203</b>	<b>20</b>	<b>2,143</b>	<b>0</b>
	<b>2020</b>	<b>1,372</b>	<b>921</b>	<b>387</b>	<b>..</b>	<b>1,905</b>	<b>0</b>
	<b>2021</b>	<b>1,037</b>	<b>1,060</b>	<b>230</b>	<b>..</b>	<b>1,867</b>	<b>0</b>
	<b>2022</b>	<b>853</b>	<b>8</b>	<b>0</b>	<b>2</b>	<b>858</b>	<b>0</b>
India	2019	*475	..	..	..	*475	0
	2020	*874	..	..	..	*874	*1
	2021	*938	..	..	..	*938	*1
	2022	*795	..	..	..	*795	*1
Indonesia	2019	1,021	603	203	20	1,401	5
	2020	456	914	387	..	983	4
	2021	80	1,058	230	..	908	3
	2022	57	0	0	2	54	0
Saudi Arabia	2019	..	3	..	..	3	0
	2020	..	7	..	..	7	0
	2021	..	2	..	..	2	0
	2022	..	8	..	..	8	0
Uzbekistan	2019	264	..	..	..	264	8
	2020	41	..	..	..	41	1
	2021	19	..	..	..	19	1
	2022	1	..	..	..	1	0
<b>Europe</b>	<b>2019</b>	<b>8,888</b>	<b>860</b>	<b>1,567</b>	<b>276</b>	<b>7,905</b>	<b>11</b>
	<b>2020</b>	<b>7,553</b>	<b>659</b>	<b>1,288</b>	<b>-39</b>	<b>6,964</b>	<b>9</b>
	<b>2021</b>	<b>8,208</b>	<b>757</b>	<b>1,460</b>	<b>-63</b>	<b>7,568</b>	<b>10</b>
	<b>2022</b>	<b>7,868</b>	<b>696</b>	<b>1,623</b>	<b>-90</b>	<b>7,030</b>	<b>9</b>
Austria	2019	..	10	0	..	10	1
	2020	..	10	0	..	10	1
	2021	..	12	0	..	12	1
	2022	..	8	0	..	8	1
Belarus	2019	962	..	120	75	767	81
	2020	694	..	64	-44	674	72
	2021	876	..	116	..	760	82
	2022	1,170	..	266	..	904	99
Belgium	2019	..	324	..	..	324	28
	2020	..	229	..	1	229	20
	2021	..	266	..	-1	267	23
	2022	..	236	..	0	236	20
Bulgaria	2019	749	..	..	134	615	88
	2020	757	..	..	16	741	107
	2021	1,037	..	..	-22	1,060	154
	2022	793	..	..	-75	868	127

Table 11

## Production, trade and supply of brown coal briquettes and peat products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Czechia	2019	136	209	113	3	229	22
	2020	154	194	133	-2	217	21
	2021	134	253	109	2	276	26
	2022	157	244	129	-4	275	26
France	2019	..	51	..	0	51	1
	2020	..	17	..	0	17	0
	2021	..	25	..	0	25	0
	2022	..	23	..	0	23	0
Germany	2019	5,949	14	1,318	17	4,628	55
	2020	5,203	15	1,067	-26	4,178	50
	2021	5,477	11	1,229	-23	4,282	51
	2022	5,276	11	1,217	-3	4,073	48
Hungary	2019	..	39	..	..	39	4
	2020	..	33	..	..	33	3
	2021	..	36	..	..	36	4
	2022	..	31	..	..	31	3
Ireland	2019	123	21	13	-16	146	30
	2020	141	13	13	-14	155	31
	2021	124	28	6	0	146	29
	2022	73	11	3	-9	89	17
Latvia	2019	2	..	1	0	1	1
	2020	2	..	1	0	1	1
	2021	2	..	0	0	1	1
	2022	4	..	1	3	0	0
Lithuania	2019	3	58	1	-1	61	22
	2020	3	39	0	-1	42	15
	2021	3	51	1	2	52	18
	2022	10	58	7	0	61	22
Luxembourg	2019	..	9	..	..	9	14
	2020	..	9	..	..	9	14
	2021	..	6	..	..	6	10
	2022	..	9	..	..	9	14
Netherlands (Kingd. of the)	2019	..	43	..	..	43	2
	2020	..	11	..	..	11	1
	2021	..	13	..	..	13	1
	2022	..	0	..	..	0	0
Poland	2019	..	41	1	0	40	1
	2020	..	6	..	0	6	0
	2021	..	2	..	0	2	0
	2022	..	5	..	3	3	0
Russian Federation	2019	31	..	..	0	31	0
	2020	43	..	..	14	29	0
	2021	37	..	..	-7	44	0
	2022	31	..	..	3	28	0
Serbia	2019	360	3	..	-45	407	58
	2020	399	1	..	11	389	56
	2021	306	2	..	-15	322	47
	2022	186	3	..	-8	197	29
Slovakia	2019	..	38	..	-1	39	7
	2020	..	39	..	-1	40	7
	2021	..	52	..	..	52	10
	2022	..	56	..	..	56	10

**Table 11****Production, trade and supply of brown coal briquettes and peat products**

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Ukraine	2019	574	..	..	110	464	10
	2020	159	42	10	11	180	4
	2021	212	..	..	..	212	5
	2022	167	..	..	..	167	4
<b>Latin America &amp; Carib.</b>	<b>2019</b>	..	<b>2</b>	..	..	<b>2</b>	<b>0</b>
	<b>2020</b>	..	<b>2</b>	..	..	<b>2</b>	<b>0</b>
	<b>2021</b>	..	<b>2</b>	..	..	<b>2</b>	<b>0</b>
	<b>2022</b>	..	<b>2</b>	..	..	<b>2</b>	<b>0</b>
Mexico	2019	..	2	..	..	2	0
	2020	..	2	..	..	2	0
	2021	..	2	..	..	2	0
	2022	..	2	..	..	2	0
<b>Oceania</b>	<b>2019</b>	..	<b>1</b>	..	..	<b>1</b>	<b>0</b>
	<b>2020</b>	..	..	..	..	..	..
	<b>2021</b>	..	<b>1</b>	..	..	<b>1</b>	<b>0</b>
	<b>2022</b>	..	..	..	..	..	..
Australia	2019	..	1	..	..	1	0
	2020	..	..	..	..	..	..
	2021	..	1	..	..	1	0
	2022	..	..	..	..	..	..

### Production, trade and supply of peat

Thousand metric tons and kilograms per capita

#### Table Notes

Data refer to peat.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

Figure 29: World production of peat, 1990-2022

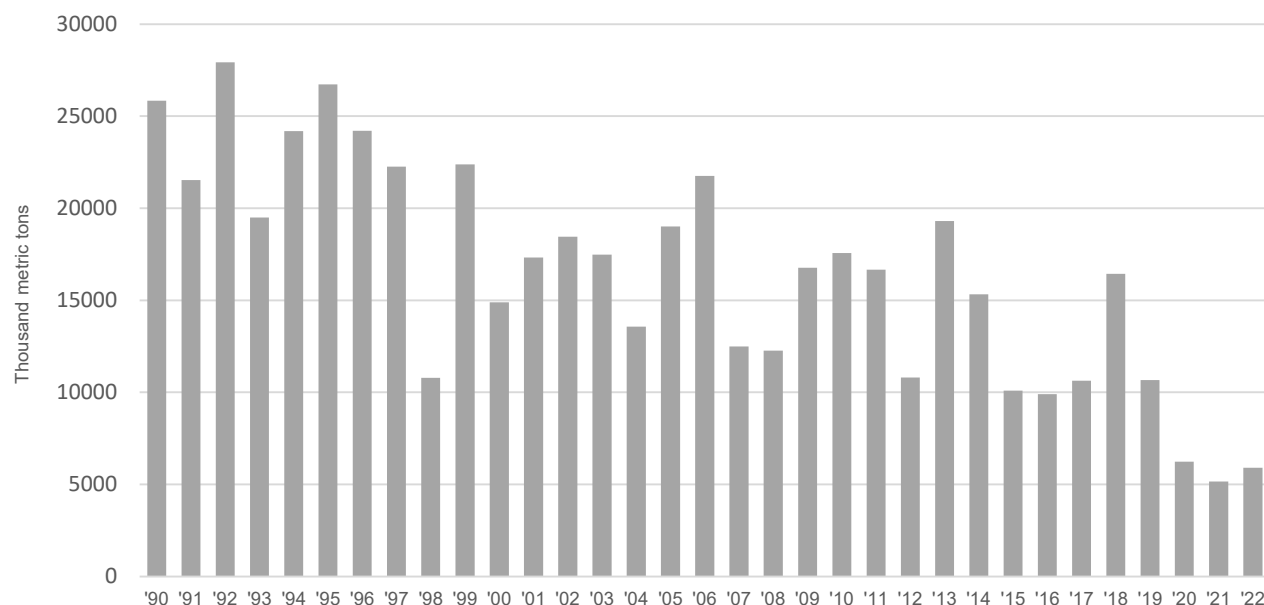


Figure 30: Major peat producing countries, 2022

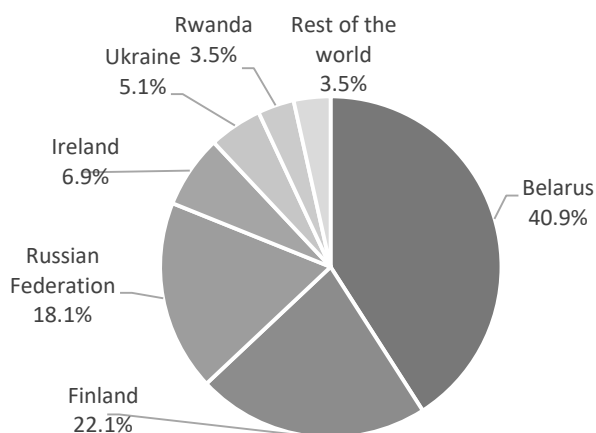


Figure 31: Major peat consuming countries, 2022

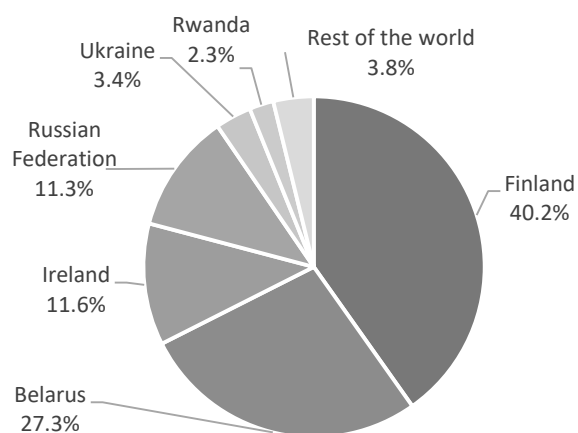


Table 12

## Production, trade and supply of peat

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>World</b>	<b>2019</b>	<b>10,675</b>	<b>297</b>	<b>246</b>	<b>-2,177</b>	<b>12,904</b>	<b>2</b>
	<b>2020</b>	<b>6,239</b>	<b>264</b>	<b>290</b>	<b>-3,387</b>	<b>9,600</b>	<b>1</b>
	<b>2021</b>	<b>5,161</b>	<b>266</b>	<b>180</b>	<b>-3,364</b>	<b>8,612</b>	<b>1</b>
	<b>2022</b>	<b>5,900</b>	<b>244</b>	<b>161</b>	<b>-2,854</b>	<b>8,836</b>	<b>1</b>
<b>Africa</b>	<b>2019</b>	<b>81</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>81</b>	<b>0</b>
	<b>2020</b>	<b>49</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>49</b>	<b>0</b>
	<b>2021</b>	<b>77</b>	<b>0</b>	<b>..</b>	<b>..</b>	<b>77</b>	<b>0</b>
	<b>2022</b>	<b>217</b>	<b>2</b>	<b>..</b>	<b>..</b>	<b>219</b>	<b>0</b>
Burundi	2019	15	..	..	..	15	1
	2020	10	..	..	..	10	1
	2021	13	..	..	..	13	1
	2022	13	..	..	..	13	1
Rwanda	2019	*66	..	..	..	*66	*5
	2020	*39	..	..	..	*39	*3
	2021	*65	..	..	..	*65	*5
	2022	*204	..	..	..	*204	*15
Zimbabwe	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	2	..	..	2	0
<b>Asia</b>	<b>2019</b>	<b>4</b>	<b>38</b>	<b>4</b>	<b>..</b>	<b>38</b>	<b>0</b>
	<b>2020</b>	<b>5</b>	<b>44</b>	<b>5</b>	<b>..</b>	<b>44</b>	<b>0</b>
	<b>2021</b>	<b>..</b>	<b>41</b>	<b>0</b>	<b>..</b>	<b>41</b>	<b>0</b>
	<b>2022</b>	<b>..</b>	<b>63</b>	<b>0</b>	<b>..</b>	<b>63</b>	<b>0</b>
Georgia	2019	4	7	4	..	7	2
	2020	5	7	5	..	7	2
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Saudi Arabia	2019	..	29	0	..	29	1
	2020	..	35	0	..	35	1
	2021	..	39	0	..	38	1
	2022	..	62	0	..	62	2
Uzbekistan	2019	..	3	..	..	3	0
	2020	..	2	..	..	2	0
	2021	..	3	..	..	3	0
	2022	..	*1	..	..	*1	0
<b>Europe</b>	<b>2019</b>	<b>10,585</b>	<b>259</b>	<b>242</b>	<b>-2,177</b>	<b>12,780</b>	<b>17</b>
	<b>2020</b>	<b>6,183</b>	<b>220</b>	<b>285</b>	<b>-3,387</b>	<b>9,504</b>	<b>13</b>
	<b>2021</b>	<b>5,081</b>	<b>225</b>	<b>179</b>	<b>-3,364</b>	<b>8,491</b>	<b>11</b>
	<b>2022</b>	<b>5,681</b>	<b>178</b>	<b>161</b>	<b>-2,854</b>	<b>8,552</b>	<b>11</b>
Belarus	2019	2,269	..	..	205	2,064	219
	2020	1,578	..	..	-76	1,654	177
	2021	1,933	..	..	..	1,933	209
	2022	2,415	..	..	..	2,415	263
Estonia	2019	65	..	..	-31	96	72
	2020	40	..	..	-24	64	48
	2021	35	..	..	16	20	15
	2022	65	..	42	-9	32	23
Finland	2019	4,207	54	..	-1,164	5,425	982
	2020	2,325	36	..	-1,780	4,141	749
	2021	981	35	..	-2,654	3,670	662
	2022	1,302	36	..	-2,215	3,553	638

## Production, trade and supply of peat

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Ireland	2019	1,706	..	..	-1,171	2,877	583
	2020	408	..	..	-1,504	1,912	384
	2021	408	..	..	-715	1,123	223
	2022	408	..	..	-613	1,021	200
Latvia	2019	8	..	..	2	5	3
	2020	0	..	1	-4	3	2
	2021	2	..	0	-3	5	3
	2022	6	..	0	-2	8	4
Lithuania	2019	30	..	2	-3	31	11
	2020	18	..	1	-3	20	7
	2021	17	..	2	-8	23	8
	2022	12	0	1	-15	26	9
Romania	2019	1	70	1	..	70	4
	2020	2	76	0	..	78	4
	2021	6	79	0	..	85	4
	2022	5	81	1	..	86	4
Russian Federation	2019	1,398	40	230	-30	1,237	8
	2020	1,343	55	272	4	1,122	8
	2021	1,197	42	163	..	1,075	7
	2022	1,066	32	98	..	1,000	7
Sweden	2019	362	60	..	..	422	41
	2020	197	10	..	..	207	20
	2021	203	7	..	..	210	20
	2022	102	5	..	..	107	10
Ukraine	2019	540	35	9	13	553	12
	2020	272	43	11	..	303	7
	2021	299	63	14	..	348	8
	2022	298	24	19	..	303	7
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>5</b>	<b>0</b>	<b>..</b>	<b>..</b>	<b>5</b>	<b>0</b>
	<b>2020</b>	<b>3</b>	<b>0</b>	<b>..</b>	<b>..</b>	<b>3</b>	<b>0</b>
	<b>2021</b>	<b>3</b>	<b>0</b>	<b>..</b>	<b>..</b>	<b>3</b>	<b>0</b>
	<b>2022</b>	<b>3</b>	<b>0</b>	<b>..</b>	<b>..</b>	<b>3</b>	<b>0</b>
Falkland Is. (Malvinas)	2019	5	..	..	..	5	1,422
	2020	3	..	..	..	3	750
	2021	3	..	..	..	3	751
	2022	*3	..	..	..	*3	*774





## Production of biofuels and wastes

Terajoules

### Table Notes

The conversion of fuelwood (solid volume, 9.135 TJ/m<sup>3</sup>) is based on an average 20-30% moisture content of wood from an unspecified species.

The methodology used for estimating fuel bagasse production for certain countries is derived from the work done by the Economic Commission for Latin America and the Caribbean (ECLAC). Although several different methodologies have been devised, the one selected assumes a yield of 3.26 tons of fuel bagasse at 50% humidity per ton of cane sugar produced. This methodology was used for instances where national data on bagasse production were not available. In these cases, data were derived from

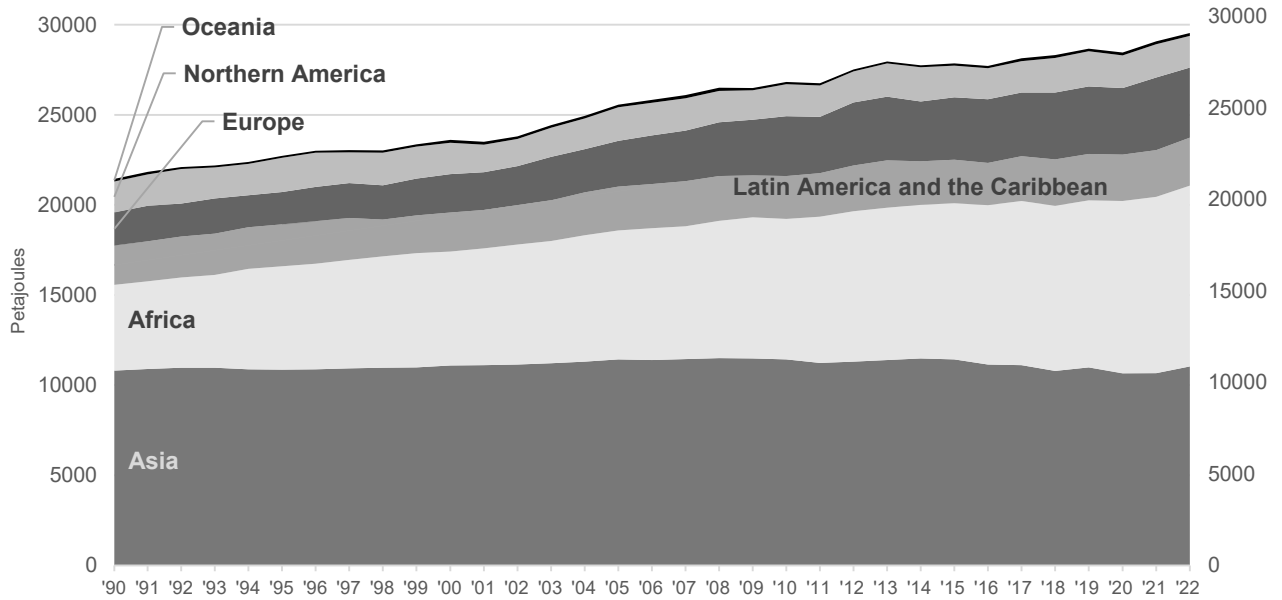
sugar production figures extracted from the Sugar Yearbook of the International Sugar Organization (London) or from the FAOSTAT database of the Food and Agriculture Organization of the United Nations.

Biogasoline includes Other liquid biofuels.

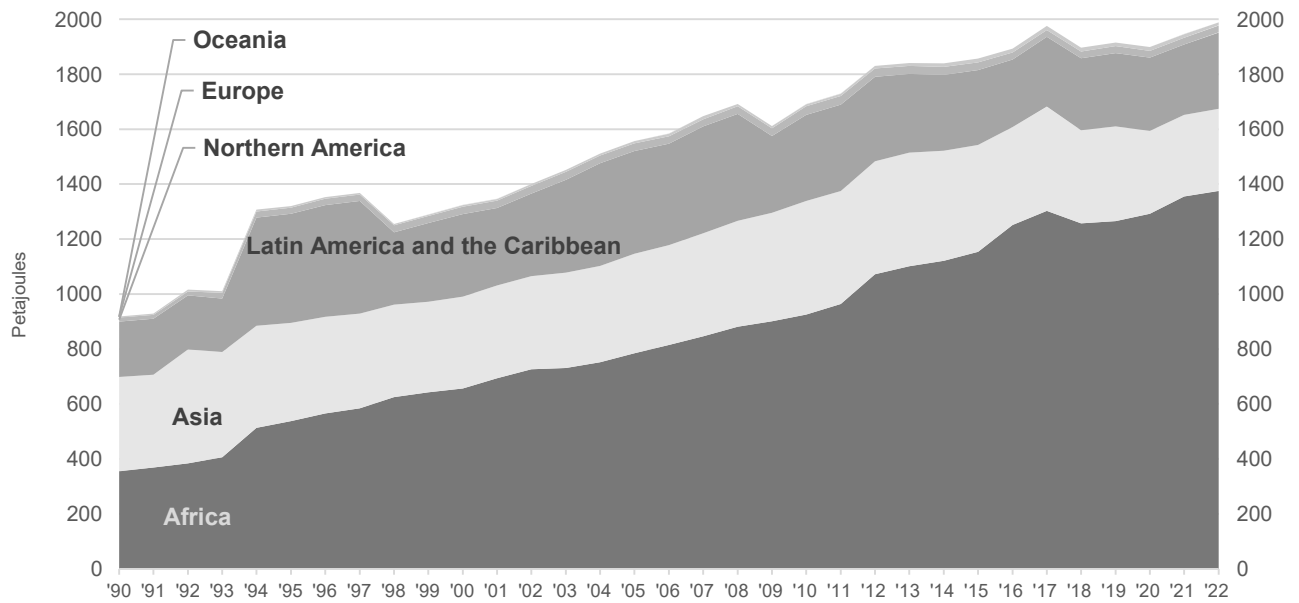
The total column excludes charcoal as it is the only secondary energy product in the table.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

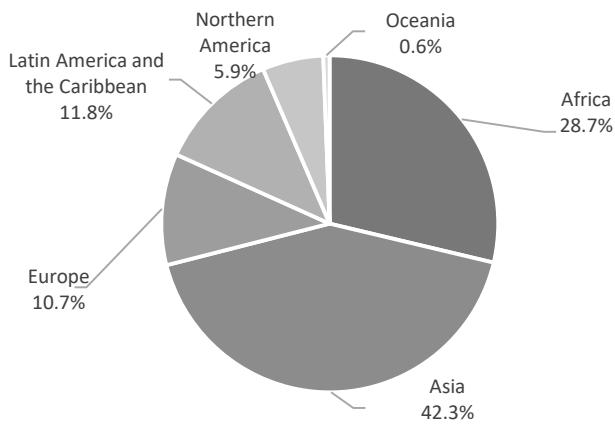
**Figure 32: Production of fuelwood by region, 1990-2022**



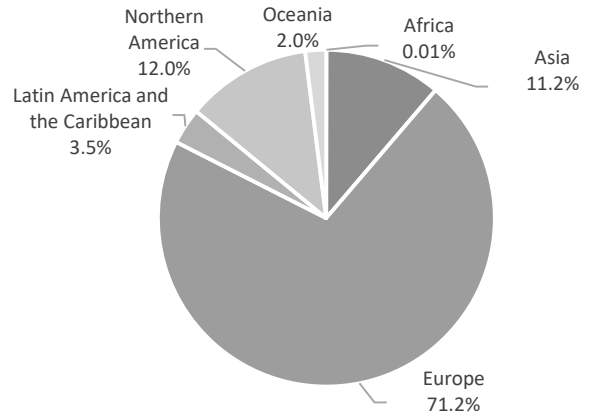
**Figure 33: Production of charcoal by region, 1990-2022**



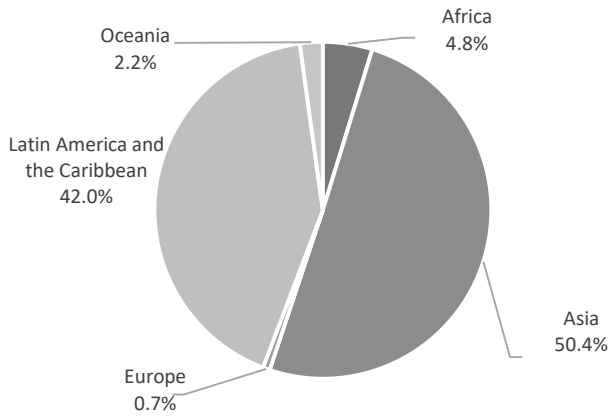
**Figure 34: Production of total solid biofuels by region, 2022**



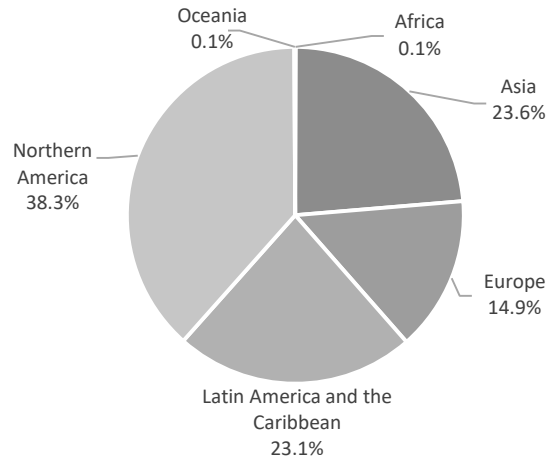
**Figure 35: Production of biogases by region, 2022**



**Figure 36: Production of bagasse by region, 2022**



**Figure 37: Production of liquids biofuels by region, 2022**



**Figure 38: Production of energy from waste by region, 2022**

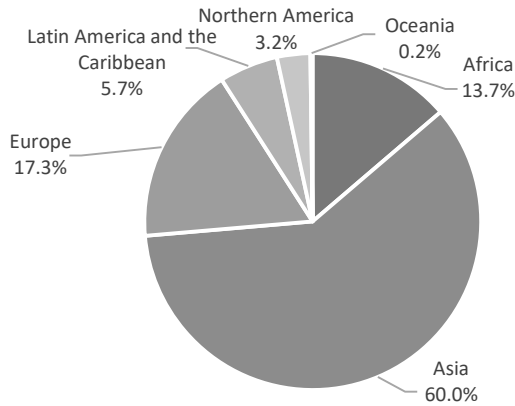


Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
World	2019	28,673,832	328,149	7,559,362	3,955,725	1,828,805	1,914,945
	2020	28,447,734	329,900	7,755,475	4,028,380	1,723,047	1,898,823
	2021	29,073,915	346,253	8,434,921	3,861,699	1,764,480	1,946,083
	2022	29,537,368	347,521	8,045,507	4,060,944	1,751,058	1,988,795
Africa	2019	9,278,237	178,926	1,252,458	195,311	18,645	1,265,884
	2020	9,567,690	182,252	1,290,590	198,371	16,371	1,291,514
	2021	9,770,187	182,884	1,305,052	182,555	16,371	1,355,316
	2022	10,037,940	187,236	1,320,542	193,218	16,371	1,375,612
Algeria	2019	484	..	..	..	..	..
	2020	475	..	..	..	..	..
	2021	119	..	..	..	..	..
	2022	741	..	..	..	..	..
Angola	2019	171,135	..	111,234	*1,422	..	34,214
	2020	173,433	..	112,727	*1,429	..	34,663
	2021	175,585	..	114,126	*1,429	..	35,840
	2022	177,651	..	115,469	*1,429	..	36,261
Benin	2019	117,218	..	3,386	..	..	15,676
	2020	120,634	..	3,595	..	..	16,134
	2021	119,615	..	4,691	..	..	16,603
	2022	122,682	..	4,892	..	..	17,576
Botswana	2019	6,390	..	..	..	..	2,216
	2020	6,391	..	..	..	..	2,216
	2021	6,391	..	..	..	..	2,216
	2022	6,392	..	..	..	..	2,216
Burkina Faso	2019	174,888	..	1,650	1,084	..	30,562
	2020	*176,634	..	*1,663	*1,095	..	30,857
	2021	*181,047	..	*1,696	*1,122	..	31,624
	2022	*182,855	..	*1,704	*1,134	..	31,949
Burundi	2019	54,801	..	..	468	..	7,788
	2020	54,801	..	..	514	..	7,788
	2021	54,801	..	..	400	..	11,004
	2022	54,801	..	..	490	..	11,181
Cabo Verde	2019	*1,385	..	..	..	..	*20
	2020	*1,370	..	..	..	..	*19
	2021	*1,370	..	..	..	..	*19
	2022	*1,352	..	..	..	..	*19
Cameroon	2019	285,599	..	5,601	1,538	..	7,602
	2020	293,453	..	5,755	1,546	..	7,811
	2021	301,296	..	5,908	1,603	..	8,020
	2022	309,243	..	6,064	1,645	..	8,231
Central African Rep.	2019	38,284	..	..	..	..	435
	2020	39,241	..	..	..	..	446
	2021	43,165	..	..	..	..	490
	2022	*43,381	..	..	..	..	*493
Chad	2019	73,920	..	..	*985	..	14,839
	2020	74,948	..	..	*927	..	15,200
	2021	75,991	..	..	*942	..	15,572
	2022	77,054	..	..	*942	..	15,954
Comoros	2019	*4,202	..	*160	..	..	*266
	2020	*4,147	..	*160	..	..	*266
	2021	*4,102	..	*160	..	..	*266
	2022	*4,047	..	*160	..	..	*266
Congo	2019	46,210	..	23,105	..	..	7,194
	2020	46,866	..	23,433	..	..	7,296
	2021	47,550	..	23,775	..	..	7,403
	2022	48,245	..	24,122	..	..	7,511

Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
1,132,807	1,406,224	2,418,751	1,830,542	1,005,070	50,139,266
1,157,539	1,415,264	2,179,465	1,776,554	1,033,809	49,847,168
1,179,715	1,431,135	2,288,402	1,970,441	1,091,545	51,442,507
1,188,065	1,447,919	2,321,706	2,067,573	1,101,784	51,869,446
3,106	1,393	2,581	..	118	10,930,776
2,828	1,407	2,504	..	134	11,262,146
3,090	1,428	2,589	..	118	11,464,273
2,875	1,440	2,562	..	112	11,762,293
..	..	..	..	..	484
..	..	..	..	..	475
..	..	..	..	..	119
..	..	..	..	..	741
..	..	..	..	..	283,791
..	..	..	..	..	287,589
..	..	..	..	..	291,140
..	..	..	..	..	294,549
..	..	..	..	..	120,604
..	..	..	..	..	124,229
..	..	..	..	..	124,306
..	..	..	..	..	127,574
..	..	..	..	..	6,390
..	..	..	..	..	6,391
..	..	..	..	..	6,391
..	..	..	..	..	6,392
..	1,393	..	..	*36	179,051
..	*1,407	..	..	*36	*180,835
..	*1,428	..	..	*36	*185,329
..	*1,440	..	..	*36	*187,168
..	..	..	..	..	55,268
..	..	..	..	..	55,315
..	..	..	..	..	55,201
..	..	..	..	..	55,291
..	..	..	..	..	*1,385
..	..	..	..	..	*1,370
..	..	..	..	..	*1,370
..	..	..	..	..	*1,352
..	..	..	..	7	292,745
..	..	..	..	7	300,761
..	..	..	..	7	308,814
..	..	..	..	7	316,959
..	..	..	..	..	38,284
..	..	..	..	..	39,241
..	..	..	..	..	43,165
..	..	..	..	..	*43,381
..	..	..	..	..	74,906
..	..	..	..	..	75,874
..	..	..	..	..	76,933
..	..	..	..	..	77,996
..	..	..	..	..	*4,362
..	..	..	..	..	*4,307
..	..	..	..	..	*4,262
..	..	..	..	..	*4,207
..	..	..	..	..	69,315
..	..	..	..	..	70,299
..	..	..	..	..	71,325
..	..	..	..	..	72,367

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					Charcoal
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	
Côte d'Ivoire	2019	249,701	..	3,894	..	..	41,379
	2020	264,606	..	4,647	..	..	42,459
	2021	321,224	..	6,838	..	..	67,319
	2022	359,500	..	9,337	..	..	43,106
Dem. Rep. of the Congo	2019	1,219,458	..	..	4,131	..	249,494
	2020	1,270,090	..	..	4,131	..	256,921
	2021	1,311,685	..	..	*4,170	..	265,335
	2022	1,357,594	..	..	*4,232	..	274,622
Djibouti	2019	3,696	..	..	..	..	1,615
	2020	3,743	..	..	..	..	1,636
	2021	3,790	..	..	..	..	1,658
	2022	3,838	..	..	..	..	1,680
Egypt	2019	142,632	..	..	*23,939	..	43,279
	2020	143,592	..	..	32,247	..	42,427
	2021	144,517	..	..	26,726	..	42,736
	2022	142,112	..	..	34,541	..	43,047
Equatorial Guinea	2019	4,083	..	..	..	..	324
	2020	4,083	..	..	..	..	338
	2021	4,083	..	..	..	..	344
	2022	4,083	..	..	..	..	351
Eritrea	2019	26,133	2,770	1,508	..	..	4,841
	2020	26,500	2,808	1,529	..	..	4,918
	2021	26,911	2,852	1,553	..	..	5,008
	2022	*27,516	*2,916	*1,588	..	..	5,100
Eswatini	2019	*12,062	..	..	15,178	..	*295
	2020	12,062	..	..	15,956	..	277
	2021	12,062	..	..	14,150	..	277
	2022	*12,062	..	..	13,783	..	*295
Ethiopia	2019	1,305,207	162,923	159,697	3,241	..	163,645
	2020	1,334,603	166,332	163,038	2,909	..	167,899
	2021	1,335,581	166,966	163,660	2,529	..	176,588
	2022	1,396,178	171,265	167,874	*2,317	..	181,173
Gabon	2019	*29,528	..	*9,965	*5,985	..	9,411
	2020	*29,225	..	*10,039	*6,100	..	9,853
	2021	*28,922	..	*10,327	*6,185	..	10,473
	2022	*28,620	..	10,539	*6,224	..	11,186
Gambia	2019	7,074	..	..	..	..	2,083
	2020	7,153	..	..	..	..	2,121
	2021	7,233	..	..	..	..	2,161
	2022	7,314	..	..	..	..	2,200
Ghana	2019	173,064	..	..	..	..	52,066
	2020	178,994	..	..	..	..	54,453
	2021	174,939	..	..	..	..	45,312
	2022	183,388	..	..	..	..	53,582
Guinea	2019	113,089	..	..	*647	..	12,377
	2020	113,461	..	..	*649	..	12,619
	2021	113,861	..	..	*653	..	12,863
	2022	114,275	..	..	*663	..	13,112
Guinea-Bissau	2019	13,230	..	..	..	..	2,271
	2020	13,633	..	..	..	..	2,374
	2021	14,994	..	..	..	..	2,429
	2022	15,120	..	..	..	..	2,484
Kenya	2019	688,304	..	30,731	1,775	..	79,052
	2020	700,623	..	31,144	2,624	..	77,483
	2021	711,577	..	31,535	2,999	..	79,003
	2022	723,166	..	31,914	3,172	..	80,525

Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	253,594
..	..	..	..	..	269,253
..	..	..	..	..	328,062
..	..	..	..	..	368,837
..	..	..	..	..	1,223,589
..	..	..	..	..	1,274,221
..	..	..	..	..	1,315,855
..	..	..	..	..	1,361,826
..	..	..	..	..	3,696
..	..	..	..	..	3,743
..	..	..	..	..	3,790
..	..	..	..	..	3,838
..	..	..	..	..	166,571
..	..	..	..	..	175,839
..	..	..	..	..	171,243
..	..	..	..	..	176,653
..	..	..	..	..	4,083
..	..	..	..	..	4,083
..	..	..	..	..	4,083
..	..	..	..	..	4,083
..	..	..	..	..	30,411
..	..	..	..	..	30,837
..	..	..	..	..	31,315
..	..	..	..	..	*32,019
..	..	..	..	..	27,240
..	..	..	..	..	28,018
..	..	..	..	..	26,212
..	..	2	..	..	25,847
..	..	302	..	..	1,631,371
..	..	303	..	..	1,667,186
..	..	336	..	..	1,669,072
..	..	357	..	..	1,737,991
..	..	..	..	..	*45,478
..	..	..	..	..	*45,365
..	..	..	..	..	*45,435
..	..	..	..	..	*45,383
..	..	..	..	..	7,074
..	..	..	..	..	7,153
..	..	..	..	..	7,233
..	..	..	..	..	7,314
..	..	..	..	..	173,064
..	..	..	..	..	178,994
..	..	..	..	..	174,939
..	..	..	..	..	183,388
..	..	..	..	..	113,736
..	..	..	..	..	114,110
..	..	..	..	..	114,514
..	..	..	..	..	114,939
..	..	..	..	..	13,230
..	..	..	..	..	13,633
..	..	..	..	..	14,994
..	..	..	..	..	15,120
..	..	..	..	4	720,814
..	..	..	..	2	734,393
..	..	..	..	6	746,117
..	..	..	..	4	758,256

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Lesotho	2019	*9,793	*6,439	*85	..	..	0
	2020	*9,857	*6,292	*64	..	..	0
	2021	*9,884	*6,149	*49	..	..	0
	2022	9,087	6,010	37	..	..	1
Liberia	2019	86,462	..	..	..	..	9,513
	2020	89,276	..	..	..	..	9,853
	2021	92,181	..	..	..	..	*10,178
	2022	95,177	..	..	..	..	10,522
Libya	2019	25,222	..	..	..	..	3,405
	2020	25,497	..	..	..	..	3,439
	2021	25,768	..	..	..	..	3,474
	2022	26,037	..	..	..	..	3,508
Madagascar	2019	312,613	..	..	2,487	..	28,497
	2020	*325,117	..	..	*2,462	..	*29,636
	2021	*338,122	..	..	*2,511	..	*30,822
	2022	*338,122	..	..	*2,511	..	*30,822
Malawi	2019	133,563	..	..	*5,614	..	6,967
	2020	137,220	..	..	5,097	..	7,396
	2021	140,879	..	..	3,961	..	7,959
	2022	137,220	..	..	3,961	..	8,520
Mali	2019	*143,910	..	..	896	..	17,435
	2020	*143,838	..	..	896	..	18,054
	2021	143,675	..	..	896	..	18,703
	2022	148,846	..	..	896	..	19,382
Mauritania	2019	20,179	..	..	..	..	6,844
	2020	20,563	..	..	..	..	6,992
	2021	20,947	..	..	..	..	7,139
	2022	*21,330	..	..	..	..	*7,287
Mauritius	2019	162	..	..	8,541	..	12
	2020	145	..	..	7,087	..	12
	2021	139	..	..	6,716	..	9
	2022	140	..	..	5,690	..	8
Morocco	2019	61,315	..	..	1,122	..	616
	2020	60,685	..	..	1,714	..	622
	2021	59,916	..	..	1,326	..	638
	2022	59,504	..	..	1,236	..	653
Mozambique	2019	278,241	..	17,147	9,520	..	48,647
	2020	282,748	..	17,384	8,988	..	49,125
	2021	287,241	..	17,663	9,179	..	49,613
	2022	296,834	..	16,126	9,721	..	51,077
Namibia	2019	18,426	..	1,594	..	..	7,258
	2020	20,161	..	1,496	..	..	8,475
	2021	21,366	..	1,532	..	..	9,139
	2022	*26,656	..	*1,819	..	..	11,317
Niger	2019	*94,287	*876	*705	..	..	1,711
	2020	*95,389	*949	*763	..	..	1,800
	2021	*96,492	1,172	879	..	..	1,926
	2022	*97,595	*1,340	*1,086	..	..	*2,065
Nigeria	2019	736,099	..	266,381	*541	..	40,244
	2020	754,801	..	270,562	*548	..	41,584
	2021	775,602	..	271,257	*548	..	43,035
	2022	781,872	..	276,336	*556	..	43,756
Rwanda	2019	*84,526	..	..	248	..	*18,467
	2020	*84,800	..	..	*243	..	*18,556
	2021	*84,800	..	..	*243	..	*18,556
	2022	*89,888	..	..	*246	..	*19,576



Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	*16,316
..	..	..	..	..	*16,213
..	..	..	..	..	*16,082
..	..	..	..	..	15,134
..	..	..	..	..	86,462
..	..	..	..	..	89,276
..	..	..	..	..	92,181
..	..	..	..	..	95,177
..	..	..	..	..	25,222
..	..	..	..	..	25,497
..	..	..	..	..	25,768
..	..	..	..	..	26,037
..	..	..	..	..	315,100
..	..	..	..	..	*327,579
..	..	..	..	..	*340,634
..	..	..	..	..	*340,634
*98	..	371	..	..	139,645
45	..	307	..	..	142,669
46	..	316	..	..	145,203
48	..	152	..	..	141,382
..	..	..	..	..	*144,806
..	..	..	..	..	*144,734
..	..	..	..	..	144,571
..	..	..	..	..	149,741
..	..	..	..	..	20,179
..	..	..	..	..	20,563
..	..	..	..	..	20,947
..	..	..	..	..	*21,330
..	..	..	..	71	8,775
..	..	..	..	89	7,321
..	..	..	..	69	6,923
..	..	..	..	*65	5,895
3,008	..	..	..	..	65,445
2,783	..	..	..	..	65,182
3,044	..	..	..	..	64,286
2,827	..	..	..	..	63,567
..	..	..	..	..	304,908
..	..	..	..	..	309,120
..	..	..	..	..	314,083
..	..	..	..	..	322,681
..	..	..	..	..	20,020
..	..	..	..	..	21,657
..	..	..	..	..	22,898
..	..	..	..	..	*28,475
..	..	..	..	..	*95,868
..	..	..	..	..	*97,101
..	..	..	..	..	*98,543
..	..	..	..	..	*100,021
..	..	..	..	..	1,003,021
..	..	..	..	..	1,025,911
..	..	..	..	..	1,047,407
..	..	..	..	..	1,058,764
..	..	..	..	..	*84,774
..	..	..	..	..	*85,043
..	..	..	..	..	*85,043
..	..	..	..	..	*90,134

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Sao Tome and Principe	2019	1,039	..	..	..	..	289
	2020	1,051	..	..	..	..	295
	2021	1,056	..	..	..	..	300
	2022	1,061	..	..	..	..	303
Senegal	2019	65,601	..	1,513	5,880	..	5,476
	2020	75,144	..	1,680	6,003	..	6,728
	2021	76,709	..	1,885	3,642	..	6,918
	2022	75,565	..	1,218	3,428	..	6,688
Seychelles	2019	29	..	..	..	..	..
	2020	29	..	..	..	..	..
	2021	29	..	..	..	..	..
	2022	29	..	..	..	..	..
Sierra Leone	2019	54,572	..	*72	*201	..	13,924
	2020	55,038	..	*72	*201	..	14,249
	2021	55,519	..	*72	*201	..	14,561
	2022	*56,024	..	*72	*201	..	14,886
Somalia	2019	146,278	..	..	503	..	40,235
	2020	150,132	..	..	460	..	41,704
	2021	154,103	..	..	461	..	43,230
	2022	*156,414	..	..	*464	..	*43,878
South Africa	2019	90,838	..	..	56,494	18,645	8,247
	2020	88,080	..	..	53,494	16,371	7,531
	2021	87,717	..	..	50,496	16,371	7,618
	2022	84,952	..	..	52,822	16,371	7,402
South Sudan	2019	8,449	..	..	..	..	347
	2020	8,570	..	..	..	..	352
	2021	8,679	..	..	..	..	357
	2022	8,348	..	..	..	..	362
St. Helena and Depend.	2019	5	..	..	..	..	..
	2020	5	..	..	..	..	..
	2021	5	..	..	..	..	..
	2022	5	..	..	..	..	..
Sudan	2019	*180,142	..	*9,588	*17,004	..	*29,500
	2020	*172,266	..	9,658	16,742	..	21,703
	2021	*168,541	..	*9,725	*16,757	..	21,703
	2022	*172,652	..	*9,800	*16,911	..	*22,125
Togo	2019	127,498	..	1,415	..	..	21,594
	2020	135,797	..	1,495	..	..	22,125
	2021	126,387	..	2,150	..	..	22,627
	2022	*127,839	..	*2,054	..	..	23,158
Tunisia	2019	39,946	5,919	..	..	..	6,873
	2020	40,193	5,870	..	..	..	7,028
	2021	40,477	5,744	..	..	..	7,139
	2022	40,720	5,705	..	..	..	7,291
Uganda	2019	550,564	..	193,277	11,892	..	76,954
	2020	631,742	..	215,136	11,589	..	84,054
	2021	651,340	..	219,859	11,609	..	94,571
	2022	672,274	..	223,859	*11,892	..	99,317
United Rep. of Tanzania	2019	569,782	..	239,151	7,761	..	50,367
	2020	578,493	..	240,519	7,822	..	51,784
	2021	587,518	..	234,223	7,599	..	53,237
	2022	598,752	..	233,664	7,644	..	54,732
Zambia	2019	274,789	..	46,914	*3,475	..	34,665
	2020	280,017	..	47,806	*3,475	..	35,324
	2021	*282,336	..	52,770	*3,500	..	*36,875
	2022	*298,619	..	53,683	*3,500	..	38,232

Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	1,039
..	..	..	..	..	1,051
..	..	..	..	..	1,056
..	..	..	..	..	1,061
..	..	..	..	..	72,994
..	..	..	..	..	82,826
..	..	..	..	..	82,236
..	..	..	..	..	80,211
..	..	..	..	..	29
..	..	..	..	..	29
..	..	..	..	..	29
..	..	..	..	..	29
..	..	..	..	..	54,845
..	..	..	..	..	55,311
..	..	..	..	..	55,792
..	..	..	..	..	*56,296
..	..	..	..	..	146,782
..	..	..	..	..	150,592
..	..	..	..	..	154,564
..	..	..	..	..	*156,878
..	..	..	..	..	165,977
..	..	..	..	..	157,945
..	..	..	..	..	154,584
..	..	..	..	..	154,145
..	..	..	..	..	8,449
..	..	..	..	..	8,570
..	..	..	..	..	8,679
..	..	..	..	..	8,348
..	..	..	..	..	5
..	..	..	..	..	5
..	..	..	..	..	5
..	..	..	..	..	5
..	..	..	..	..	*206,733
..	..	..	..	..	*198,665
..	..	..	..	..	*195,023
..	..	..	..	..	*199,363
..	..	..	..	..	128,913
..	..	..	..	..	137,292
..	..	..	..	..	128,537
..	..	..	..	..	*129,892
..	..	..	..	..	45,864
..	..	..	..	..	46,063
..	..	..	..	..	46,220
..	..	..	..	..	46,425
..	..	..	..	..	755,734
..	..	..	..	..	858,467
..	..	..	..	..	882,809
..	..	..	..	..	908,026
..	..	..	..	..	816,694
..	..	..	..	..	826,835
..	..	..	..	..	829,339
..	..	..	..	..	840,060
..	..	..	..	..	325,178
..	..	..	..	..	331,299
..	..	..	..	..	*338,606
..	..	..	..	..	*355,801

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Zimbabwe	2019	202,127	..	123,687	2,741	..	*4,856
	2020	206,274	..	126,225	1,423	..	*4,621
	2021	*210,348	..	*128,718	*3	..	*4,428
	2022	213,167	..	*127,125	968	..	4,626
<b>Asia</b>	<b>2019</b>	<b>10,978,052</b>	<b>129,675</b>	<b>5,377,846</b>	<b>1,870,631</b>	<b>172,494</b>	<b>344,498</b>
	<b>2020</b>	<b>10,657,550</b>	<b>128,403</b>	<b>5,496,801</b>	<b>1,806,924</b>	<b>145,834</b>	<b>301,682</b>
	<b>2021</b>	<b>10,671,230</b>	<b>146,550</b>	<b>5,913,104</b>	<b>1,799,439</b>	<b>159,220</b>	<b>296,585</b>
	<b>2022</b>	<b>11,036,248</b>	<b>143,341</b>	<b>5,677,228</b>	<b>2,045,756</b>	<b>155,117</b>	<b>298,472</b>
Afghanistan	2019	17,578	..	..	..	..	4,265
	2020	17,898	..	..	..	..	4,384
	2021	18,225	..	..	..	..	4,508
	2022	18,559	..	..	..	..	4,633
Armenia	2019	4,976	2,762	..	..	..	..
	2020	5,339	2,863	..	..	..	..
	2021	4,581	2,770	..	..	..	..
	2022	5,036	2,527	..	..	..	..
Azerbaijan	2019	1,413	..	408	..	..	3
	2020	974	..	397	..	..	2
	2021	838	..	372	..	..	3
	2022	644	..	267	..	..	6
Bahrain	2019	66	..	..	..	..	35
	2020	64	..	..	..	..	35
	2021	68	..	..	..	..	36
	2022	69	..	..	..	..	36
Bangladesh	2019	286,779	101,766	193,698	*1,949	..	10,023
	2020	289,646	100,810	191,878	*1,977	..	10,048
	2021	290,862	118,887	226,286	*2,331	..	10,076
	2022	281,718	114,871	218,642	*2,252	..	10,103
Bhutan	2019	48,209	..	..	..	..	257
	2020	48,591	..	..	..	..	263
	2021	48,976	..	..	..	..	263
	2022	49,329	..	..	..	..	271
Brunei Darussalam	2019	106	..	..	..	..	10
	2020	106	..	..	..	..	10
	2021	106	..	..	..	..	10
	2022	106	..	..	..	..	10
Cambodia	2019	63,554	..	1,388	..	..	9,470
	2020	65,015	..	1,272	..	..	9,953
	2021	63,923	..	956	..	..	9,233
	2022	62,867	..	240	..	..	8,564
China	2019	1,460,521	..	2,760,247	261,810	..	47,510
	2020	1,433,306	..	2,830,491	*270,274	..	47,123
	2021	1,406,900	..	3,082,977	*270,274	..	46,727
	2022	1,380,987	..	3,165,215	*270,274	..	46,334
China, Macao SAR	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Cyprus	2019	798	..	246	..	..	40
	2020	761	..	217	..	..	34
	2021	748	..	257	..	..	39
	2022	966	..	322	..	..	61
Georgia	2019	8,625	137	32	..	..	..
	2020	8,072	43	31	..	..	..
	2021	8,368	31	19	..	..	..
	2022	7,416	37	13	..	..	..

Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	1,908	..	..	330,463
..	..	1,893	..	..	335,815
..	..	1,937	..	..	*341,005
..	..	2,050	..	..	343,310
<b>555,157</b>	<b>189,722</b>	<b>202,375</b>	<b>762,507</b>	<b>102,571</b>	<b>20,341,031</b>
<b>540,561</b>	<b>186,482</b>	<b>182,696</b>	<b>735,472</b>	<b>104,693</b>	<b>19,985,418</b>
<b>537,729</b>	<b>193,838</b>	<b>201,285</b>	<b>778,701</b>	<b>115,933</b>	<b>20,517,029</b>
<b>546,760</b>	<b>244,746</b>	<b>216,842</b>	<b>817,574</b>	<b>123,592</b>	<b>21,007,205</b>
..	..	..	..	..	17,578
..	..	..	..	..	17,898
..	..	..	..	..	18,225
..	..	..	..	..	18,559
..	..	..	..	..	7,738
..	..	..	..	..	8,202
..	..	..	..	..	7,352
..	..	..	..	..	7,563
..	3,075	..	..	..	4,895
..	3,164	..	..	..	4,535
..	3,019	..	..	..	4,229
..	3,093	..	..	..	4,004
..	..	..	..	..	66
..	..	..	..	..	64
..	..	..	..	..	68
..	..	..	..	..	69
..	..	..	..	..	584,192
..	..	..	..	..	584,311
..	..	..	..	..	638,366
..	..	..	..	..	617,483
..	..	..	..	..	48,209
..	..	..	..	..	48,591
..	..	..	..	..	48,976
..	..	..	..	..	49,329
..	..	..	..	..	106
..	..	..	..	..	106
..	..	..	..	..	106
..	..	..	..	..	106
..	..	..	..	..	64,942
..	..	..	..	..	66,288
..	..	..	..	..	64,879
..	..	..	..	..	63,107
181,564	..	85,760	*323,840	..	5,073,742
163,570	..	81,027	*312,800	..	5,091,468
140,933	..	78,344	*323,840	..	5,303,267
146,252	..	80,507	*323,840	..	5,367,075
..	3,878	..	..	..	3,878
..	3,423	..	..	..	3,423
..	3,554	..	..	..	3,554
..	3,400	..	..	..	3,400
164	101	..	..	579	1,889
271	148	..	..	556	1,952
251	316	..	..	559	2,130
217	432	..	..	521	2,458
..	..	..	10	..	8,803
..	..	..	4	..	8,151
..	..	..	0	..	8,419
..	..	..	0	..	7,467

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
India	2019	5,851,142	..	1,047,001	957,070	..	*80,535
	2020	5,998,430	..	1,092,146	954,022	..	*76,553
	2021	6,160,345	..	1,107,256	974,946	..	*74,724
	2022	6,226,970	..	1,111,833	1,186,068	..	*50,711
Indonesia	2019	947,857	..	419,574	*53,782	..	52,923
	2020	569,187	..	493,729	*63,800	..	23,866
	2021	460,937	..	543,435	*51,159	..	23,069
	2022	677,366	..	138,417	*47,483	..	41,770
Iran (Islamic Rep. of)	2019	*73,994	*1,175	8,205	..	..	5
	2020	*73,994	*1,175	8,579	..	..	7
	2021	*73,994	*1,175	8,629	..	..	7
	2022	*74,450	*1,180	9,298	..	..	7
Iraq	2019	2,008	..	..	..	..	574
	2020	2,039	..	..	..	..	583
	2021	2,190	..	..	..	..	626
	2022	2,220	..	..	..	..	635
Israel	2019	183	..	..	..	..	..
	2020	183	..	..	..	..	..
	2021	183	..	..	..	..	..
	2022	183	..	..	..	..	..
Japan	2019	79,194	..	102,947	..	144,794	235
	2020	89,763	..	89,951	..	120,939	217
	2021	92,238	..	117,225	..	133,195	197
	2022	97,358	..	85,732	..	132,948	185
Jordan	2019	3,397	..	..	..	..	1,473
	2020	3,469	..	..	..	..	1,506
	2021	3,540	..	..	..	..	1,537
	2022	3,613	..	..	..	..	1,572
Kazakhstan	2019	2,436	..	..	..	..	41
	2020	1,862	..	11	..	..	50
	2021	936	..	..	..	..	43
	2022	323	..	157	..	..	106
Korea, Dem.Ppl's.Rep.	2019	46,788	..	..	..	..	4,970
	2020	46,992	..	..	..	..	5,011
	2021	47,182	..	..	..	..	5,050
	2022	47,359	..	..	..	..	5,050
Korea, Republic of	2019	76,104	..	..	..	7,857	..
	2020	71,464	..	..	..	7,666	..
	2021	65,786	..	..	..	6,696	..
	2022	73,600	..	..	..	7,097	..
Kuwait	2019	189	..	..	..	..	93
	2020	190	..	..	..	..	94
	2021	193	..	..	..	..	95
	2022	195	..	..	..	..	95
Kyrgyzstan	2019	85	..	..	..	..	..
	2020	69	..	..	..	..	..
	2021	54	..	..	..	..	..
	2022	60	..	..	..	..	..
Lao People's Dem. Rep.	2019	52,363	..	..	4,031	..	*6,195
	2020	52,025	..	..	*3,830	..	6,048
	2021	*51,687	..	..	*4,015	..	*6,136
	2022	51,357	..	..	*4,031	..	6,195
Lebanon	2019	4,971	..	..	..	..	89
	2020	4,931	..	..	..	..	89
	2021	4,928	..	..	..	..	89
	2022	*5,024	..	..	..	..	89

Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	41,513	6,550	..	7,903,277
..	..	36,823	5,888	..	8,087,310
..	..	62,900	6,072	..	8,311,518
..	..	73,700	6,550	..	8,605,122
..	..	..	271,993	526	1,693,731
..	..	..	278,282	*526	1,405,524
..	..	..	312,658	*526	1,368,714
..	..	..	356,856	*540	1,220,661
..	..	..	..	219	*83,592
..	..	..	..	278	*84,025
..	..	..	..	271	*84,068
..	..	..	..	271	*85,199
..	..	..	..	..	2,008
..	..	..	..	..	2,039
..	..	..	..	..	2,190
..	..	..	..	..	2,220
1,807	2,142	..	..	878	5,010
1,855	2,203	..	..	963	5,204
1,803	1,607	..	..	846	4,439
1,851	1,656	..	..	913	4,603
232,850	32,094	4	465	147	592,496
228,859	29,774	4	382	159	559,830
238,936	31,697	..	315	137	613,742
240,414	37,266	..	315	166	594,200
..	..	..	..	42	3,439
..	..	..	..	42	3,511
..	..	..	..	31	3,571
..	..	..	..	1	3,614
..	..	..	..	43	2,479
..	..	..	..	70	1,943
..	..	85	..	37	1,058
..	..	237	..	3	721
..	..	..	..	..	46,788
..	..	..	..	..	46,992
..	..	..	..	..	47,182
..	..	..	..	..	47,359
102,191	37,090	12,841	23,551	8,108	267,743
107,650	36,229	10,731	23,885	8,384	266,010
110,470	35,270	8,089	24,072	8,043	258,426
110,539	34,019	7,727	25,543	9,642	268,167
..	..	..	..	..	189
..	..	..	..	..	190
..	..	..	..	..	193
..	..	..	..	..	195
..	..	..	..	..	85
..	..	..	..	..	69
..	..	..	..	..	54
..	..	..	..	..	60
..	..	..	..	..	56,394
..	..	..	..	..	55,855
..	..	..	..	..	*55,702
..	..	..	..	..	55,388
..	3	..	..	415	5,389
..	2	..	..	257	5,190
..	..	..	..	..	4,928
..	..	..	..	..	*5,024

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					Charcoal
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	
Malaysia	2019	22,083	..	12,624	45	..	458
	2020	21,751	..	9,945	51	..	515
	2021	21,438	..	10,886	54	..	..
	2022	21,136	..	10,925	54	..	77
Maldives	2019	151	..	..	..	..	26
	2020	152	..	..	..	..	27
	2021	153	..	..	..	..	27
	2022	153	..	..	..	..	28
Mongolia	2019	5,481	..	..	..	..	515
	2020	5,772	..	..	..	..	519
	2021	6,686	..	..	..	..	523
	2022	6,697	..	..	..	..	523
Myanmar	2019	334,811	..	33,900	8,842	..	1,310
	2020	335,292	..	30,925	6,479	..	983
	2021	*338,317	..	28,750	6,508	..	*1,394
	2022	421,455	..	29,045	10,333	..	4,016
Nepal	2019	367,766	17,878	18,254	..	..	324
	2020	378,726	17,967	18,782	..	..	329
	2021	387,578	18,387	19,580	..	..	337
	2022	*379,482	*19,500	*21,400	..	..	271
Oman	2019	458	..	..	..	..	221
	2020	458	..	..	..	..	221
	2021	469	..	..	..	..	232
	2022	469	..	..	..	..	232
Other Asia	2019	6,780	..	..	..	..	..
	2020	6,572	..	..	..	..	..
	2021	7,143	..	..	..	..	..
	2022	7,170	..	..	..	..	..
Pakistan	2019	*306,579	*5,387	*252,769	*149,508	..	2,617
	2020	*303,604	*5,118	*250,317	*149,824	..	2,617
	2021	*298,916	*4,862	*246,452	*150,224	..	*2,614
	2022	*294,467	*4,789	*246,100	*149,886	..	*2,623
Philippines	2019	*279,500	569	38,065	32,768	..	65,372
	2020	*281,131	427	33,312	31,280	..	67,098
	2021	*286,417	437	33,398	30,342	..	69,856
	2022	*291,343	437	33,174	32,376	..	72,594
Qatar	2019	47	..	..	..	..	23
	2020	47	..	..	..	..	23
	2021	47	..	..	..	..	23
	2022	47	..	..	..	..	23
Singapore	2019	258	..	..	..	..	137
	2020	258	..	..	..	..	137
	2021	250	..	..	..	..	133
	2022	250	..	..	..	..	133
Sri Lanka	2019	128,649	..	..	1,651	..	..
	2020	131,422	..	..	1,545	..	..
	2021	132,686	..	..	2,030	..	..
	2022	*132,686	..	..	*2,317	..	..
State of Palestine	2019	3,541	..	1,190	..	..	..
	2020	3,582	..	510	..	..	..
	2021	3,668	..	453	..	..	..
	2022	3,760	..	1,376	..	..	..
Syrian Arab Republic	2019	330	..	..	..	..	80
	2020	333	..	..	..	..	80
	2021	335	..	..	..	..	80
	2022	339	..	..	..	..	80



Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	56,557	4,425	95,733
..	..	..	38,182	6,025	75,954
..	..	..	41,910	5,795	80,084
..	..	..	41,910	5,835	79,860
..	..	..	..	..	151
..	..	..	..	..	152
..	..	..	..	..	153
..	..	..	..	..	153
..	..	..	..	..	5,481
..	..	..	..	..	5,772
..	..	..	..	..	6,686
..	..	..	..	..	6,697
..	3,172	..	..	1	380,726
..	2,572	..	..	*1	375,269
..	2,144	..	..	*1	*375,719
..	1,185	..	..	*1	462,019
..	..	..	..	10,141	414,039
..	..	..	..	9,757	425,233
..	..	..	..	10,488	436,034
..	..	..	..	10,668	*431,050
..	..	..	..	..	458
..	..	..	..	..	458
..	..	..	..	..	469
..	..	..	..	..	469
..	63,691	3	..	243	70,717
..	62,641	3	..	827	70,043
..	62,602	2	..	540	70,287
..	63,379	2	..	723	71,274
..	..	..	*110	..	*714,354
..	..	..	*258	..	*709,121
..	..	..	*331	..	*700,786
..	..	..	*184	..	*695,426
..	634	13,030	7,044	..	*371,611
..	467	10,141	5,195	..	*361,953
..	274	13,116	6,191	..	*370,174
..	609	13,488	7,437	..	*378,863
..	..	..	..	..	47
..	..	..	..	..	47
..	..	..	..	..	47
..	..	..	..	..	47
..	25,133	..	..	..	25,392
..	23,346	..	..	..	23,604
..	21,888	..	..	..	22,138
..	25,464	..	..	..	25,714
..	..	..	..	..	130,300
..	..	..	..	..	132,967
..	..	..	..	..	134,716
..	..	..	..	..	*135,003
..	..	..	..	..	4,731
..	..	..	..	..	4,092
..	..	..	..	..	4,120
..	..	..	..	..	5,136
..	..	..	..	..	330
..	..	..	..	..	333
..	..	..	..	..	335
..	..	..	..	..	339

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Tajikistan	2019	50,142	..	..	..	..	..
	2020	50,142	..	..	..	..	..
	2021	50,142	..	..	..	..	..
	2022	50,142	..	..	..	..	..
Thailand	2019	163,876	..	338,373	361,997	19,843	42,510
	2020	125,433	..	302,230	285,324	17,229	32,568
	2021	103,837	..	287,131	258,775	19,329	27,701
	2022	109,582	..	405,681	293,540	15,072	28,851
Timor-Leste	2019	742	..	..	..	..	..
	2020	709	..	..	..	..	..
	2021	677	..	..	..	..	..
	2022	647	..	..	..	..	..
Türkiye	2019	43,794	..	30,898	..	..	..
	2020	48,232	..	38,454	..	..	..
	2021	49,860	..	45,703	..	..	..
	2022	56,940	..	51,192	..	..	..
Turkmenistan	2019	77	..	..	..	..	..
	2020	77	..	..	..	..	..
	2021	78	..	..	..	..	..
	2022	79	..	..	..	..	..
United Arab Emirates	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Uzbekistan	2019	*929	..	..	..	..	..
	2020	*959	..	..	..	..	..
	2021	*1,005	..	..	..	..	..
	2022	*621	..	..	..	..	..
Viet Nam	2019	223,240	..	118,026	37,179	..	10,060
	2020	172,915	..	103,623	38,519	..	8,541
	2021	168,005	..	153,341	48,781	..	9,005
	2022	185,146	..	*148,198	*47,143	..	10,346
Yemen	2019	5,486	..	..	..	..	2,102
	2020	5,614	..	..	..	..	2,151
	2021	5,736	..	..	..	..	2,198
	2022	5,860	..	..	..	..	2,245
<b>Europe</b>	<b>2019</b>	<b>3,740,159</b>	<b>19,535</b>	<b>355,842</b>	<b>25,911</b>	<b>570,180</b>	<b>12,820</b>
	<b>2020</b>	<b>3,702,454</b>	<b>19,241</b>	<b>370,345</b>	<b>29,638</b>	<b>565,976</b>	<b>13,172</b>
	<b>2021</b>	<b>4,035,058</b>	<b>16,795</b>	<b>401,480</b>	<b>25,890</b>	<b>578,002</b>	<b>12,989</b>
	<b>2022</b>	<b>3,887,568</b>	<b>16,879</b>	<b>396,316</b>	<b>26,888</b>	<b>563,380</b>	<b>11,100</b>
Albania	2019	6,699	..	..	..	..	59
	2020	6,490	..	..	..	..	103
	2021	6,314	..	..	..	..	30
	2022	6,155	..	..	..	..	35
Andorra	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Austria	2019	154,653	..	7,107	..	33,643	42
	2020	160,363	..	7,245	..	33,170	43
	2021	*174,682	..	6,764	..	34,393	43
	2022	165,615	..	7,967	..	33,432	32
Belarus	2019	67,665	..	2,161	..	5,759	189
	2020	70,034	..	2,132	..	8,049	272
	2021	70,906	..	2,482	..	9,660	272
	2022	65,960	..	2,309	..	8,986	272

Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	50,142
..	..	..	..	..	50,142
..	..	..	..	..	50,142
..	..	..	..	..	50,142
..	18,176	43,657	67,933	51,980	1,065,835
..	22,118	39,610	67,822	48,820	908,586
..	26,849	35,537	61,014	51,000	843,472
..	64,692	38,190	51,189	52,400	1,030,347
..	..	..	..	..	742
..	..	..	..	..	709
..	..	..	..	..	677
..	..	..	..	..	647
36,581	436	2,217	4,453	24,824	143,202
38,357	364	1,677	2,774	28,029	157,887
45,337	4,382	2,709	2,297	37,659	187,946
47,488	9,019	2,215	3,749	41,908	212,512
..	..	..	..	..	77
..	..	..	..	..	77
..	..	..	..	..	78
..	..	..	..	..	79
..	96	..	..	..	96
..	30	..	..	..	30
..	238	..	..	..	238
..	532	..	..	..	532
..	..	..	..	..	*929
..	..	..	..	..	*959
..	..	..	..	..	*1,005
..	..	..	..	..	*621
..	..	3,350	..	..	381,795
..	..	2,680	..	..	317,736
..	..	504	..	..	370,632
..	..	775	..	..	*381,262
..	..	..	..	..	5,486
..	..	..	..	..	5,614
..	..	..	..	..	5,736
..	..	..	..	..	5,860
<b>523,338</b>	<b>919,379</b>	<b>123,217</b>	<b>551,894</b>	<b>700,486</b>	<b>7,529,940</b>
<b>566,399</b>	<b>932,827</b>	<b>122,500</b>	<b>528,298</b>	<b>729,368</b>	<b>7,567,046</b>
<b>589,188</b>	<b>943,445</b>	<b>128,724</b>	<b>540,635</b>	<b>772,138</b>	<b>8,031,355</b>
<b>569,529</b>	<b>920,797</b>	<b>131,188</b>	<b>527,461</b>	<b>785,009</b>	<b>7,825,014</b>
..	..	..	..	..	6,699
..	..	..	..	..	6,490
..	..	..	..	..	6,314
..	..	..	..	..	6,155
..	291	..	..	..	291
..	270	..	..	..	270
..	241	..	..	..	241
..	268	..	..	..	268
14,476	19,796	5,492	10,969	8,983	255,120
14,420	21,576	4,365	9,647	8,787	259,574
14,653	21,543	5,915	9,531	6,743	*274,225
16,272	21,047	5,762	11,686	7,710	269,491
792	..	..	589	465	77,431
381	..	..	..	2,170	82,766
398	..	..	..	2,048	85,494
379	..	..	..	1,885	79,519

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Belgium	2019	40,749	818	6,909	..	1,548	..
	2020	40,756	639	6,783	..	1,308	..
	2021	45,846	324	7,587	..	1,507	..
	2022	45,108	315	7,621	..	1,460	..
Bosnia and Herzegovina	2019	60,775	..	..	..	..	944
	2020	62,209	..	..	..	..	885
	2021	62,218	..	..	..	..	944
	2022	63,433	..	..	..	..	885
Bulgaria	2019	52,470	..	11,043	..	4,331	62
	2020	53,551	..	12,944	..	3,839	68
	2021	48,511	..	24,544	..	3,202	86
	2022	42,260	..	18,866	..	5,398	68
Croatia	2019	62,228	23	7	..	..	416
	2020	63,166	43	54	..	..	390
	2021	69,720	30	132	..	..	420
	2022	66,525	31	127	..	..	339
Czechia	2019	116,959	..	5,331	..	18,803	..
	2020	122,005	..	5,667	..	19,783	..
	2021	138,192	..	5,974	..	19,670	..
	2022	131,799	..	4,855	..	19,372	..
Denmark	2019	44,503	..	17,984	..	..	..
	2020	41,317	..	18,934	..	..	..
	2021	42,336	..	21,582	..	..	..
	2022	43,884	..	21,186	..	..	..
Estonia	2019	58,683	..	13,906	..	1,229	..
	2020	58,757	..	11,405	..	1,285	..
	2021	63,504	..	10,854	..	1,422	..
	2022	62,268	..	10,506	..	1,162	..
Finland	2019	189,374	249	1,986	..	169,744	..
	2020	171,942	195	1,942	..	158,132	..
	2021	210,303	95	1,820	..	166,151	..
	2022	210,093	78	1,680	..	142,448	..
France	2019	393,664	2,806	6,952	6,262	33,969	782
	2020	357,788	2,543	8,180	6,457	33,068	813
	2021	405,290	2,163	6,914	4,876	32,419	728
	2022	375,463	1,968	6,277	7,130	32,868	728
Germany	2019	490,503	3,277	13,321	..	27,299	974
	2020	485,548	2,846	13,643	..	27,508	974
	2021	535,538	2,681	19,825	..	23,647	974
	2022	551,412	2,660	20,601	..	27,513	974
Greece	2019	25,746	..	6,532	..	..	30
	2020	24,110	..	6,918	..	..	30
	2021	27,510	..	5,434	..	..	18
	2022	27,925	..	5,431	..	..	6
Hungary	2019	73,931	379	11,253	..	377	..
	2020	73,063	229	11,563	..	385	..
	2021	79,172	464	11,805	..	405	..
	2022	75,325	406	11,401	..	402	..
Iceland	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Ireland	2019	8,913	1,022	..	..	..	..
	2020	7,973	1,429	..	..	..	..
	2021	9,612	110	..	..	..	..
	2022	10,440	87	..	..	..	..

Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
12,705	30,138	8,513	9,358	9,698	120,436
11,755	30,586	9,624	7,846	10,261	119,558
11,805	32,504	9,134	7,051	10,292	126,049
10,978	29,548	9,790	5,704	10,807	121,331
..	..	..	..	67	60,842
..	..	..	..	104	62,313
..	..	..	..	98	62,316
..	..	..	..	91	63,524
2,785	2,472	439	6,299	2,133	81,973
2,770	1,755	411	5,046	2,232	82,549
3,107	1,779	590	7,445	2,499	91,677
3,246	1,777	782	9,830	2,098	84,258
1,129	..	..	10	3,442	66,838
1,630	..	..	6	3,481	68,380
1,892	..	..	14	4,154	75,942
1,935	..	..	15	3,799	72,432
12,499	6,376	2,493	9,142	24,332	195,934
12,753	6,688	2,028	9,518	24,889	203,332
12,561	6,694	2,204	9,008	24,737	219,041
12,105	6,641	2,226	8,907	25,054	210,959
..	35,707	105	..	16,482	114,781
..	35,531	58	..	21,152	116,991
..	35,084	126	..	26,166	125,295
..	34,281	65	..	28,848	128,265
614	1,791	..	..	592	76,815
14	2,217	..	..	784	74,462
9	2,289	..	..	762	78,841
11	2,370	..	..	761	77,077
1,818	25,214	2,090	12,188	7,851	410,514
2,025	24,105	2,953	10,920	7,080	379,294
2,213	26,626	4,577	21,592	8,138	441,515
2,115	25,727	7,810	17,500	7,387	414,838
20,753	104,340	25,978	76,237	40,722	711,682
16,986	102,929	22,394	73,599	45,642	669,586
20,144	104,046	22,122	57,376	57,648	712,998
20,593	109,221	24,728	53,170	68,747	700,165
48,440	258,838	17,090	131,854	317,935	1,308,557
45,628	260,696	17,944	115,074	325,115	1,294,002
46,897	263,802	17,937	124,310	343,375	1,378,012
43,663	253,186	18,153	122,765	340,167	1,380,119
1,758	..	253	7,206	5,233	46,726
405	..	629	6,633	5,665	44,359
329	..	434	6,119	5,326	45,152
423	..	434	6,119	6,083	46,414
3,339	4,445	13,588	6,182	3,785	117,279
3,857	4,820	13,320	5,336	3,748	116,321
3,847	4,771	14,016	6,587	3,545	124,613
3,239	4,902	13,373	6,955	4,053	120,057
..	..	..	..	78	78
..	..	..	..	78	78
..	..	..	..	80	80
..	..	..	..	85	85
..	11,812	180	1,714	2,120	25,762
..	12,215	137	2,242	2,105	26,101
..	12,007	135	2,956	2,179	26,997
..	12,566	208	3,500	2,218	29,019

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Isle of Man	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Italy	2019	291,986	..	12,043	..	..	295
	2020	285,298	..	12,958	..	..	295
	2021	302,775	..	15,016	..	..	295
	2022	290,138	..	14,036	..	..	295
Jersey	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Kosovo	2019	13,364	..	..	..	..	..
	2020	12,874	..	..	..	..	..
	2021	12,887	..	..	..	..	..
	2022	8,301	..	..	..	..	..
Latvia	2019	102,427	..	359	..	..	248
	2020	95,417	..	233	..	..	244
	2021	96,624	..	249	..	..	250
	2022	105,120	..	154	..	..	201
Liechtenstein	2019	161	..	..	..	..	..
	2020	124	..	..	..	..	..
	2021	117	..	..	..	..	..
	2022	119	..	..	..	..	..
Lithuania	2019	50,969	..	1,265	..	..	15
	2020	51,852	..	1,431	..	..	15
	2021	56,892	..	1,542	..	..	6
	2022	52,650	..	1,657	..	..	..
Luxembourg	2019	4,546	..	226	..	..	..
	2020	6,899	..	327	..	..	..
	2021	7,420	..	223	..	..	..
	2022	7,599	..	233	..	..	..
Malta	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Montenegro	2019	8,164	..	..	..	..	22
	2020	8,205	..	..	..	..	22
	2021	7,892	..	..	..	..	25
	2022	7,897	..	..	..	..	12
Netherlands (Kingd. of the)	2019	48,425	..	11,882	..	..	..
	2020	51,492	..	12,875	..	..	..
	2021	59,366	..	22,917	..	..	..
	2022	45,794	..	27,144	..	..	..
North Macedonia	2019	6,895	..	..	..	..	..
	2020	6,693	..	..	..	..	..
	2021	7,129	..	..	..	..	..
	2022	7,195	..	..	..	..	..
Norway	2019	37,527	..	..	..	408	..
	2020	40,574	..	..	..	334	..
	2021	47,608	..	..	..	339	..
	2022	48,187	..	..	..	360	..
Poland	2019	318,155	363	48,295	..	10,245	..
	2020	305,482	829	58,211	..	10,794	..
	2021	309,725	489	41,522	..	19,189	..
	2022	307,614	576	35,498	..	19,508	..

Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	*542	..	..	..	*542
..	*543	..	..	..	*543
..	*526	..	..	..	*526
..	*542	..	..	..	*542
12,951	73,103	9,118	32,085	84,288	515,574
14,524	70,608	10,767	38,175	84,484	516,813
13,061	71,140	8,000	45,522	87,045	542,560
13,297	71,026	4,203	43,148	86,728	522,578
..	*764	..	..	..	*764
..	*760	..	..	..	*760
..	*760	..	..	..	*760
..	*760	..	..	..	*760
..	..	..	..	..	13,364
..	..	..	..	..	12,874
..	..	..	..	..	12,887
..	..	..	..	..	8,301
108	652	23	3,044	3,376	109,988
167	911	..	3,149	3,359	103,235
102	691	..	2,635	2,763	103,064
82	604	..	3,056	2,323	111,338
..	432	..	..	25	617
..	463	..	..	25	612
..	483	..	..	25	625
..	447	..	..	21	586
744	1,498	456	6,146	1,632	62,709
1,010	2,693	847	5,987	1,617	65,437
1,312	4,733	592	5,741	1,682	72,494
1,279	4,611	670	5,851	1,748	68,466
620	1,567	..	..	753	7,712
977	1,441	..	..	755	10,399
861	1,412	..	..	735	10,651
879	1,380	..	..	799	10,891
..	..	..	..	73	73
..	..	..	..	60	60
..	..	..	..	81	81
..	..	..	..	82	82
..	..	..	..	..	8,164
..	..	..	..	..	8,205
..	..	..	..	..	7,892
..	..	..	..	..	7,897
3,238	60,667	1,273	69,979	14,913	210,379
2,955	64,867	880	71,328	17,405	221,802
2,686	66,912	666	72,615	18,169	243,330
2,331	60,548	1,056	68,338	18,138	223,348
..	..	..	..	793	7,688
..	..	..	50	825	7,568
..	..	..	..	775	7,904
..	..	..	..	740	7,935
3,533	16,262	..	3,175	2,624	63,529
3,573	15,856	..	3,150	2,489	65,975
3,484	15,906	..	3,237	2,636	73,210
3,631	15,874	..	3,033	2,550	73,635
28,437	20,415	5,468	35,341	12,498	479,216
27,657	22,310	5,510	35,064	13,498	479,356
26,514	20,951	6,828	36,315	13,372	474,904
29,324	18,430	8,346	36,647	14,765	470,708

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Portugal	2019	67,503	..	7,024	489	43,452	266
	2020	71,972	..	5,741	445	43,435	266
	2021	71,068	..	8,785	191	42,299	295
	2022	70,409	..	9,712	215	44,047	260
Republic of Moldova	2019	*19,424	*101	*7,566	..	..	15
	2020	*22,421	*193	*5,032	..	..	30
	2021	24,653	165	5,918	..	..	30
	2022	15,663	81	4,804	..	..	30
Romania	2019	144,700	..	..	..	..	30
	2020	142,414	..	..	..	..	49
	2021	151,785	..	..	..	..	60
	2022	145,320	..	..	..	..	*10
Russian Federation	2019	126,553	..	..	..	..	1,963
	2020	119,561	..	..	..	..	1,665
	2021	128,998	..	..	..	..	1,696
	2022	111,798	..	..	..	..	1,698
Serbia	2019	49,145	..	99	..	..	347
	2020	67,289	..	93	..	..	442
	2021	67,007	..	103	..	..	227
	2022	67,642	..	99	..	..	195
Slovakia	2019	38,216	..	7,309	..	12,797	..
	2020	35,384	..	*6,631	..	13,297	..
	2021	38,318	..	8,664	..	15,652	..
	2022	30,716	..	11,133	..	16,057	..
Slovenia	2019	22,610	..	317	..	..	..
	2020	22,563	..	274	..	..	..
	2021	25,104	..	182	..	..	..
	2022	21,943	..	175	..	..	..
Spain	2019	118,607	2,033	39,590	19,160	31,331	433
	2020	127,534	1,861	34,569	22,736	24,695	433
	2021	137,345	1,852	36,623	20,823	24,356	433
	2022	135,401	2,195	39,386	19,543	25,269	433
Sweden	2019	220,661	64	..	..	175,245	..
	2020	210,846	84	..	..	186,893	..
	2021	245,938	123	..	..	183,690	..
	2022	236,944	80	..	..	185,097	..
Switzerland	2019	42,330	..	..	..	..	..
	2020	42,930	..	..	..	..	..
	2021	50,750	..	..	..	..	..
	2022	45,430	..	..	..	..	..
Ukraine	2019	133,765	..	..	..	..	5,691
	2020	147,860	..	..	..	..	6,136
	2021	*162,778	..	..	..	..	6,159
	2022	*150,660	..	..	..	..	4,628
United Kingdom	2019	26,512	8,400	115,375	..	..	..
	2020	27,698	8,350	124,561	..	..	..
	2021	33,228	8,300	134,017	..	..	..
	2022	31,364	8,402	133,458	..	..	..
Latin America & Carib.	2019	<b>2,571,394</b>	<b>13</b>	<b>519,393</b>	<b>1,767,355</b>	<b>151,574</b>	<b>266,184</b>
	2020	<b>2,557,805</b>	<b>5</b>	<b>544,447</b>	<b>1,904,817</b>	<b>155,274</b>	<b>266,887</b>
	2021	<b>2,594,509</b>	<b>24</b>	<b>760,131</b>	<b>1,760,997</b>	<b>156,794</b>	<b>255,620</b>
	2022	<b>2,659,052</b>	<b>66</b>	<b>592,999</b>	<b>1,705,368</b>	<b>146,421</b>	<b>278,032</b>
Anguilla	2019	*2	..	..	..	..	..
	2020	*2	..	..	..	..	..
	2021	*2	..	..	..	..	..
	2022	*2	..	..	..	..	..



Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
2,684	8,666	..	14,455	3,355	147,628
2,157	8,341	..	12,292	3,464	147,849
2,871	8,867	..	11,870	3,652	149,604
2,716	8,513	..	11,405	3,626	150,643
..	..	..	..	292	*27,383
..	..	..	..	327	*27,973
..	..	..	..	381	31,117
..	..	..	..	394	20,942
6,140	188	1,447	7,726	794	160,995
11,665	188	1,190	10,759	772	166,988
13,204	193	1,368	8,508	970	176,028
13,720	236	1,145	8,438	1,100	169,958
305,868	..	..	..	..	432,421
311,158	..	..	..	..	430,719
330,687	..	..	..	..	459,685
321,634	..	..	..	..	433,432
51	..	..	..	1,190	50,485
57	..	..	..	1,624	69,064
58	..	..	..	2,220	69,388
58	..	..	..	2,214	70,013
7,311	2,386	3,564	4,011	5,984	81,579
8,289	2,523	3,538	4,306	5,479	79,446
7,894	3,003	3,511	4,306	5,472	86,819
8,141	2,576	3,484	4,306	4,305	80,718
2,597	..	..	..	930	26,453
2,395	..	..	..	1,129	26,361
2,292	..	..	..	1,044	28,622
2,253	..	..	..	1,025	25,397
11,308	21,412	11,504	73,065	12,184	340,194
12,713	19,769	11,420	67,909	13,539	336,745
11,732	21,785	11,719	65,111	13,644	344,990
11,599	21,865	10,585	65,467	13,955	345,265
744	62,211	6,694	11,850	7,600	485,069
4,132	67,825	7,543	11,482	7,780	496,585
3,888	59,363	11,265	14,462	8,154	526,884
3,948	59,894	8,907	13,506	8,204	516,579
11,820	49,050	..	501	5,564	109,265
11,920	48,960	..	491	5,742	110,042
12,380	47,900	..	475	5,888	117,393
12,280	45,990	..	488	6,127	110,315
..	..	1,874	..	2,028	137,667
34,090	..	..	..	3,862	185,812
34,227	..	..	..	3,862	*200,866
23,179	..	..	..	3,862	*177,701
4,077	98,345	5,574	18,768	95,670	372,721
4,336	101,381	6,941	18,290	97,840	389,397
4,080	107,435	7,584	17,848	101,778	414,270
4,218	105,968	9,460	17,627	102,509	413,007
<b>1,323</b>	<b>1,349</b>	<b>778,487</b>	<b>293,073</b>	<b>21,342</b>	<b>6,105,302</b>
<b>1,523</b>	<b>1,580</b>	<b>720,420</b>	<b>275,431</b>	<b>22,539</b>	<b>6,183,841</b>
<b>8,895</b>	<b>1,453</b>	<b>720,370</b>	<b>312,012</b>	<b>37,199</b>	<b>6,352,384</b>
<b>30,213</b>	<b>1,430</b>	<b>707,432</b>	<b>302,934</b>	<b>38,119</b>	<b>6,184,034</b>
..	..	..	..	..	*2
..	..	..	..	..	*2
..	..	..	..	..	*2
..	..	..	..	..	*2

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Argentina	2019	42,551	..	..	53,476	..	12,125
	2020	42,007	..	..	49,465	..	12,002
	2021	41,658	..	..	56,750	..	12,154
	2022	51,134	..	..	47,746	..	9,499
Aruba	2019	22	..	..	..	..	8
	2020	23	..	..	..	..	8
	2021	24	..	..	..	..	8
	2022	*25	..	..	..	..	*9
Bahamas	2019	309	..	..	..	..	34
	2020	310	..	..	..	..	34
	2021	310	..	..	..	..	34
	2022	311	..	..	..	..	34
Barbados	2019	43	..	..	342	..	9
	2020	43	..	..	391	..	9
	2021	42	..	..	396	..	9
	2022	42	..	..	416	..	*9
Belize	2019	1,048	..	..	4,416	..	91
	2020	679	..	..	3,862	..	91
	2021	1,054	..	..	4,958	..	91
	2022	671	..	..	4,874	..	120
Bolivia (Plur. State of)	2019	6,799	..	..	36,806	..	1,488
	2020	7,654	..	..	36,618	..	1,529
	2021	6,401	..	..	*38,269	..	1,489
	2022	6,743	..	..	*38,532	..	1,507
Brazil	2019	1,045,802	..	453,384	1,252,702	..	182,812
	2020	1,046,688	..	482,276	1,402,503	..	183,372
	2021	1,060,139	..	694,695	1,234,833	..	179,245
	2022	1,108,195	..	525,965	1,212,709	..	204,527
British Virgin Islands	2019	15	..	..	..	..	2
	2020	15	..	..	..	..	2
	2021	16	..	..	..	..	2
	2022	16	..	..	..	..	3
Chile	2019	237,692	..	..	..	98,853	3,704
	2020	*215,418	..	..	..	101,233	4,490
	2021	226,014	..	1,827	..	101,881	..
	2022	231,883	..	1,827	..	94,228	..
Colombia	2019	109,935	..	..	84,032	..	350
	2020	105,517	..	..	92,837	..	13
	2021	101,123	..	..	87,615	..	423
	2022	104,458	..	..	77,316	..	452
Costa Rica	2019	4,651	..	3,750	10,258	..	28
	2020	5,079	..	3,172	10,428	..	27
	2021	4,951	..	3,221	10,181	..	27
	2022	5,364	..	3,591	8,706	..	71
Cuba	2019	7,525	..	*88	40,119	..	2,245
	2020	7,417	..	*88	31,238	..	2,230
	2021	6,723	..	*88	27,857	..	1,746
	2022	6,021	..	*100	19,701	..	1,162
Dominica	2019	67	..	..	..	..	7
	2020	67	..	..	..	..	7
	2021	67	..	..	..	..	7
	2022	66	..	..	..	..	7
Dominican Republic	2019	20,722	..	*525	*10,800	..	3,624
	2020	21,160	..	*525	12,646	..	3,786
	2021	21,607	..	*530	13,194	..	3,954
	2022	*21,750	..	*530	10,406	..	3,987

Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	22,780	79,010	..	197,816
..	..	30,238	43,130	..	164,840
..	..	12,943	63,443	..	174,794
..	..	14,868	70,251	..	183,999
..	..	..	..	..	22
..	..	..	..	..	23
..	..	..	..	..	24
..	..	..	..	..	*25
..	..	..	..	..	309
..	..	..	..	..	310
..	..	..	..	..	310
..	..	..	..	..	311
..	..	..	..	..	385
..	..	..	..	..	433
..	..	..	..	..	438
..	..	..	..	..	458
..	..	..	..	..	5,464
..	..	..	..	..	4,541
..	..	..	..	..	6,012
..	..	..	..	..	5,546
..	..	945	..	..	44,550
..	..	1,497	..	..	45,770
..	..	2,113	..	..	*46,783
..	..	2,897	..	..	*48,172
..	..	733,409	189,733	11,245	3,686,276
..	..	670,858	208,294	13,011	3,823,630
..	..	685,812	219,105	26,531	3,921,115
29,626	..	670,776	202,690	26,092	3,776,053
..	..	..	..	..	15
..	..	..	..	..	15
..	..	..	..	..	16
..	..	..	..	..	16
..	..	..	..	4,235	340,780
..	..	..	..	3,522	*320,173
..	..	..	..	3,513	333,235
..	..	..	..	4,844	332,781
..	489	8,122	19,497	5	222,080
..	714	7,056	18,998	1	225,124
..	764	7,416	23,998	20	220,937
..	764	6,780	25,226	17	214,561
..	..	670	..	18	19,348
..	..	659	..	17	19,356
..	..	634	..	17	19,004
..	..	598	..	20	18,278
..	..	373	..	*45	48,150
..	..	368	..	*286	39,396
..	..	318	..	*1,944	36,930
..	..	310	..	*2,083	28,215
..	..	..	..	..	67
..	..	..	..	..	67
..	..	..	..	..	67
..	..	..	..	..	66
..	..	..	..	*157	32,204
..	..	..	..	*157	34,489
..	..	..	..	*160	35,491
..	..	..	..	*160	*32,846

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Ecuador	2019	9,815	..	..	13,524	..	..
	2020	9,466	..	..	12,959	..	..
	2021	9,095	..	..	11,654	..	..
	2022	8,708	..	..	9,113	..	..
El Salvador	2019	5,710	13	..	14,927	..	3
	2020	5,011	5	..	15,321	..	10
	2021	4,888	24	..	15,050	..	7
	2022	4,094	66	..	14,837	..	7
Grenada	2019	340	..	..	22	..	72
	2020	293	..	..	19	..	62
	2021	304	..	..	20	..	65
	2022	308	..	..	22	..	71
Guatemala	2019	338,392	..	..	53,779	..	1,994
	2020	348,593	..	..	54,054	..	*2,065
	2021	359,101	..	..	88,131	..	..
	2022	369,927	..	..	75,648	..	..
Guyana	2019	1,100	..	..	2,408	..	40
	2020	928	..	..	2,750	..	40
	2021	932	..	..	3,141	..	40
	2022	823	..	..	1,810	..	25
Haiti	2019	145,267	..	..	1,013	..	39,152
	2020	140,474	..	..	979	..	37,860
	2021	142,558	..	..	962	..	37,178
	2022	140,459	..	..	994	..	37,207
Honduras	2019	53,793	..	10,858	15,940	..	5
	2020	54,700	..	7,833	11,102	..	3
	2021	53,032	..	8,109	9,770	..	25
	2022	51,262	..	8,322	11,217	..	4
Jamaica	2019	*8,681	..	..	1,988	..	753
	2020	*8,076	..	..	1,627	..	753
	2021	8,076	..	..	1,627	..	753
	2022	7,042	..	..	*1,956	..	721
Mexico	2019	247,919	..	0	113,249	0	..
	2020	249,125	..	..	113,800	4	..
	2021	244,418	..	..	103,954	4	..
	2022	242,124	..	..	112,610	3	..
Nicaragua	2019	46,373	..	1,641	16,287	..	297
	2020	46,737	..	1,616	14,177	..	309
	2021	46,700	..	1,838	15,022	..	293
	2022	*46,976	..	*2,021	*20,291	..	301
Panama	2019	6,972	..	..	4,660	..	23
	2020	6,929	..	..	4,599	..	28
	2021	6,888	..	..	4,344	..	18
	2022	6,861	..	..	4,226	..	40
Paraguay	2019	98,604	..	23,692	..	..	11,871
	2020	95,738	..	23,355	..	..	12,295
	2021	96,134	..	23,438	..	..	12,161
	2022	95,314	..	21,838	..	..	12,273
Peru	2019	98,203	..	4,374	29,068	..	5,182
	2020	109,722	..	4,654	25,258	..	5,624
	2021	120,796	..	4,405	*25,290	..	5,620
	2022	114,685	..	4,466	24,210	..	5,665
Puerto Rico	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..

Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	1,581	..	867	25,787
..	..	801	..	929	24,156
..	..	1,297	..	885	22,931
..	..	1,520	..	873	20,213
..	557	..	..	570	21,777
..	419	..	..	423	21,179
..	358	..	..	382	20,702
..	340	..	..	406	19,743
..	..	..	..	..	362
..	..	..	..	..	312
..	..	..	..	..	324
..	..	..	..	..	331
..	..	..	..	308	392,479
..	..	..	..	281	402,928
..	..	..	..	472	447,704
..	..	..	..	290	445,864
..	..	..	..	..	3,508
..	..	..	..	..	3,678
..	..	..	..	..	4,073
..	..	..	..	..	2,633
..	..	241	..	..	146,521
..	..	241	..	..	141,694
..	..	233	..	..	143,752
..	..	236	..	..	141,689
..	..	..	..	..	80,592
..	..	..	..	..	73,635
..	..	..	..	..	70,911
..	..	..	..	..	70,801
..	..	..	..	..	*10,670
..	..	..	..	..	*9,703
..	..	..	..	..	9,703
..	..	..	..	..	8,998
1,067	..	..	..	2,799	365,034
1,200	..	..	..	3,000	367,129
8,602	..	..	..	2,437	359,415
285	..	..	..	2,403	357,425
..	..	..	..	75	64,376
..	..	..	..	71	62,601
..	..	..	..	92	63,652
..	..	..	..	88	*69,375
..	*302	..	..	..	11,934
..	*447	..	..	..	11,975
..	*331	..	..	..	11,563
..	*326	..	..	..	11,413
..	..	8,366	..	..	130,662
..	..	7,093	..	..	126,186
..	..	7,812	..	..	127,384
..	..	7,518	..	..	124,671
..	..	271	3,231	823	135,970
..	..	..	3,530	719	143,883
..	..	..	*4,111	572	155,174
..	..	..	4,285	667	148,312
..	..	..	..	*195	*195
..	..	..	..	*121	*121
..	..	..	..	*175	*175
..	..	..	..	*179	*179

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
St. Kitts-Nevis	2019	*1	..	..	..	..	0
	2020	0	..	..	..	..	0
	2021	0	..	..	..	..	0
	2022	0	..	..	..	..	0
St. Lucia	2019	*595	..	..	..	..	*91
	2020	*575	..	..	..	..	*86
	2021	*603	..	..	..	..	*89
	2022	*608	..	..	..	..	*91
St. Vincent-Grenadines	2019	65	..	..	..	..	11
	2020	64	..	..	..	..	11
	2021	64	..	..	..	..	11
	2022	64	..	..	..	..	11
Suriname	2019	916	..	751	..	..	..
	2020	784	..	642	..	..	..
	2021	782	..	693	..	..	..
	2022	792	..	706	..	..	..
Trinidad and Tobago	2019	276	..	..	..	..	54
	2020	273	..	..	..	..	54
	2021	270	..	..	..	..	53
	2022	268	..	..	..	..	53
Turks and Caicos Islands	2019	11	..	..	..	..	4
	2020	11	..	..	..	..	5
	2021	11	..	..	..	..	5
	2022	*11	..	..	..	..	*5
United States Virgin Is.	2019	*30	..	..	..	..	*5
	2020	*31	..	..	..	..	*5
	2021	*31	..	..	..	..	*5
	2022	*31	..	..	..	..	*5
Uruguay	2019	24,286	..	*12,339	829	52,720	..
	2020	22,885	..	*14,689	969	54,037	..
	2021	23,079	..	*15,664	1,028	54,909	..
	2022	22,489	..	17,530	1,090	*52,191	..
Venezuela (Bolivar. Rep.)	2019	6,862	..	7,992	6,711	..	102
	2020	5,312	..	5,598	7,212	..	80
	2021	6,616	..	5,623	6,950	..	108
	2022	9,526	..	6,102	*6,938	..	166
<b>Northern America</b>	<b>2019</b>	<b>1,950,827</b>	<b>..</b>	<b>35,673</b>	<b>..</b>	<b>887,080</b>	<b>25,134</b>
	<b>2020</b>	<b>1,812,753</b>	<b>..</b>	<b>33,047</b>	<b>..</b>	<b>811,506</b>	<b>25,134</b>
	<b>2021</b>	<b>1,852,011</b>	<b>..</b>	<b>33,563</b>	<b>..</b>	<b>828,310</b>	<b>25,134</b>
	<b>2022</b>	<b>1,761,662</b>	<b>..</b>	<b>37,156</b>	<b>..</b>	<b>853,822</b>	<b>25,134</b>
Bermuda	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Canada	2019	294,008	..	..	..	179,153	..
	2020	274,502	..	..	..	159,109	..
	2021	289,719	..	..	..	165,717	..
	2022	298,028	..	..	..	157,845	..
Greenland	2019	..	..	..	..	..	..
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
St. Pierre-Miquelon	2019	5	..	..	..	..	..
	2020	5	..	..	..	..	..
	2021	5	..	..	..	..	..
	2022	5	..	..	..	..	..

Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	*1
..	..	..	..	..	0
..	..	..	..	..	0
..	..	..	..	..	0
..	..	..	..	..	*595
..	..	..	..	..	*575
..	..	..	..	..	*603
..	..	..	..	..	*608
..	..	..	..	..	65
..	..	..	..	..	64
..	..	..	..	..	64
..	..	..	..	..	64
..	..	..	..	..	1,667
..	..	..	..	..	1,426
..	..	..	..	..	1,475
..	..	..	..	..	1,498
..	..	..	..	..	276
..	..	..	..	..	273
..	..	..	..	..	270
..	..	..	..	..	268
..	..	..	..	..	11
..	..	..	..	..	11
..	..	..	..	..	11
..	..	..	..	..	*11
..	..	..	..	..	*30
..	..	..	..	..	*31
..	..	..	..	..	*31
..	..	..	..	..	*31
*256	..	1,729	1,601	..	93,760
*323	..	1,608	1,479	..	95,989
*293	..	1,792	1,354	..	98,119
302	..	1,930	482	..	*96,012
..	..	..	..	..	21,564
..	..	..	..	..	18,122
..	..	..	..	..	19,189
..	..	..	..	..	22,566
<b>46,274</b>	<b>294,381</b>	<b>1,306,629</b>	<b>222,994</b>	<b>160,601</b>	<b>4,904,459</b>
<b>42,544</b>	<b>292,967</b>	<b>1,146,923</b>	<b>237,248</b>	<b>156,728</b>	<b>4,533,715</b>
<b>37,049</b>	<b>290,972</b>	<b>1,231,729</b>	<b>338,988</b>	<b>144,541</b>	<b>4,757,163</b>
<b>35,069</b>	<b>279,507</b>	<b>1,259,685</b>	<b>419,565</b>	<b>132,719</b>	<b>4,779,184</b>
..	*600	..	..	..	*600
..	*600	..	..	..	*600
..	*600	..	..	..	*600
..	*600	..	..	..	*600
6,491	9,858	41,084	11,666	14,713	556,973
6,668	9,943	34,143	14,867	14,275	513,507
6,845	9,861	34,384	14,205	14,273	535,004
7,022	9,861	35,269	12,181	14,273	534,479
..	110	..	..	..	110
..	103	..	..	..	103
..	102	..	..	..	102
..	88	..	..	..	88
..	..	..	..	..	5
..	..	..	..	..	5
..	..	..	..	..	5
..	..	..	..	..	5

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
United States	2019	*1,656,814	..	*35,673	..	*707,927	25,134
	2020	*1,538,246	..	*33,047	..	*652,397	25,134
	2021	*1,562,287	..	*33,563	..	*662,593	25,134
	2022	*1,463,629	..	*37,156	..	*695,977	25,134
<b>Oceania</b>	<b>2019</b>	<b>155,162</b>	<b>..</b>	<b>18,151</b>	<b>96,517</b>	<b>28,832</b>	<b>425</b>
	<b>2020</b>	<b>149,482</b>	<b>..</b>	<b>20,246</b>	<b>88,629</b>	<b>28,087</b>	<b>433</b>
	<b>2021</b>	<b>150,921</b>	<b>..</b>	<b>21,590</b>	<b>92,818</b>	<b>25,783</b>	<b>439</b>
	<b>2022</b>	<b>154,899</b>	<b>..</b>	<b>21,267</b>	<b>89,714</b>	<b>15,947</b>	<b>445</b>
Australia	2019	72,141	..	2,665	91,324	15,438	..
	2020	69,643	..	4,634	83,844	14,777	..
	2021	69,262	..	5,455	87,968	12,791	..
	2022	69,320	..	4,647	84,442	15,947	..
Cook Islands	2019	..	..	*57	..	..	..
	2020	..	..	*57	..	..	..
	2021	..	..	*57	..	..	..
	2022	..	..	*57	..	..	..
Fiji	2019	338	..	..	4,255	..	74
	2020	338	..	..	3,830	..	74
	2021	338	..	..	*3,822	..	74
	2022	338	..	..	*4,193	..	75
French Polynesia	2019	43	..	..	..	..	16
	2020	43	..	..	..	..	16
	2021	43	..	..	..	..	16
	2022	43	..	..	..	..	16
Kiribati	2019	*70	..	*514	..	..	12
	2020	*70	..	*512	..	..	13
	2021	*69	..	*510	..	..	13
	2022	*70	..	*511	..	..	13
Marshall Islands	2019	..	..	*197	..	..	..
	2020	..	..	*192	..	..	..
	2021	..	..	*193	..	..	..
	2022	..	..	*195	..	..	..
Micronesia (Fed. States of)	2019	25	..	..	..	..	11
	2020	25	..	..	..	..	11
	2021	25	..	..	..	..	12
	2022	25	..	..	..	..	12
New Caledonia	2019	118	..	..	..	..	19
	2020	119	..	..	..	..	19
	2021	120	..	..	..	..	20
	2022	121	..	..	..	..	20
New Zealand	2019	28,807	..	..	..	13,394	..
	2020	25,620	..	..	..	13,310	..
	2021	27,574	..	..	..	12,992	..
	2022	31,472	..	..	..	..	..
Niue	2019	1	..	..	..	..	0
	2020	1	..	..	..	..	0
	2021	1	..	..	..	..	0
	2022	1	..	..	..	..	0
Papua New Guinea	2019	50,544	..	*12,300	938	..	204
	2020	50,544	..	*12,400	955	..	209
	2021	50,544	..	*13,000	*1,028	..	212
	2022	50,544	..	*13,500	*1,078	..	215
Samoa	2019	984	..	343	..	..	17
	2020	984	..	351	..	..	17
	2021	846	..	296	..	..	17
	2022	861	..	291	..	..	18



Table 13

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
39,783	283,813	1,265,545	211,328	145,888	*4,346,770
35,876	282,321	1,112,780	222,381	142,453	*4,019,499
30,204	280,409	1,197,345	324,783	130,268	*4,221,451
28,047	268,958	1,224,416	407,384	118,446	*4,244,012
<b>3,609</b>	..	<b>5,462</b>	<b>75</b>	<b>19,951</b>	<b>327,758</b>
<b>3,685</b>	..	<b>4,422</b>	<b>105</b>	<b>20,347</b>	<b>315,002</b>
<b>3,764</b>	..	<b>3,705</b>	<b>106</b>	<b>21,616</b>	<b>320,304</b>
<b>3,619</b>	..	<b>3,998</b>	<b>39</b>	<b>22,233</b>	<b>311,716</b>
3,609	..	5,333	37	16,325	206,872
3,685	..	4,342	74	16,662	197,660
3,764	..	3,618	51	17,984	200,893
3,619	..	3,966	38	18,594	200,574
..	..	..	..	..	*57
..	..	..	..	..	*57
..	..	..	..	..	*57
..	..	..	..	..	*57
..	..	..	..	..	4,593
..	..	..	..	..	4,168
..	..	..	..	..	*4,160
..	..	..	..	..	*4,531
..	..	..	..	..	43
..	..	..	..	..	43
..	..	..	..	..	43
..	..	..	..	..	43
..	..	..	..	..	*584
..	..	..	..	..	*582
..	..	..	..	..	*579
..	..	..	..	..	*581
..	..	..	..	..	*197
..	..	..	..	..	*192
..	..	..	..	..	*193
..	..	..	..	..	*195
..	..	..	..	..	25
..	..	..	..	..	25
..	..	..	..	..	25
..	..	..	..	..	25
..	..	4	..	..	123
..	..	4	..	..	123
..	..	4	..	..	123
..	..	3	..	..	123
..	..	116	38	3,356	45,711
..	..	68	31	3,410	42,439
..	..	84	55	3,347	44,051
..	..	29	0	3,354	34,856
..	..	..	..	..	1
..	..	..	..	..	1
..	..	..	..	..	1
..	..	..	..	..	1
..	..	..	..	*270	64,052
..	..	..	..	*275	64,173
..	..	..	..	*285	64,857
..	..	..	..	*285	65,407
..	..	..	..	0	1,327
..	..	..	..	0	1,335
..	..	..	..	0	1,142
..	..	..	..	0	1,153

Table 13

## Production of biofuels and wastes

Terajoules

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Solomon Islands	2019	1,235	..	*2,075	..	..	45
	2020	1,239	..	*2,100	..	..	46
	2021	1,243	..	*2,080	..	..	47
	2022	1,246	..	*2,066	..	..	47
Tonga	2019	19	..	..	..	..	7
	2020	19	..	..	..	..	7
	2021	19	..	..	..	..	7
	2022	19	..	..	..	..	7
Vanuatu	2019	831	..	..	..	..	20
	2020	831	..	..	..	..	20
	2021	831	..	..	..	..	21
	2022	*831	..	..	..	..	*21
Wallis and Futuna Is.	2019	*7	..	..	..	..	..
	2020	*7	..	..	..	..	..
	2021	*7	..	..	..	..	..
	2022	*7	..	..	..	..	..

## Production of biofuels and wastes

Terajoules

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	*3,310
..	..	..	..	..	*3,339
..	..	..	..	..	*3,323
..	..	..	..	..	*3,312
..	..	..	..	..	19
..	..	..	..	..	19
..	..	..	..	..	19
..	..	..	..	..	19
..	..	8	..	..	840
..	..	8	..	..	840
..	..	0	..	..	831
..	..	0	..	..	*831
..	..	..	..	..	*7
..	..	..	..	..	*7
..	..	..	..	..	*7
..	..	..	..	..	*7

**Table 14**

**Production, trade and supply of conventional crude oil**

Thousand metric tons; kilograms per capita; reserves production ratio (R/P) in years

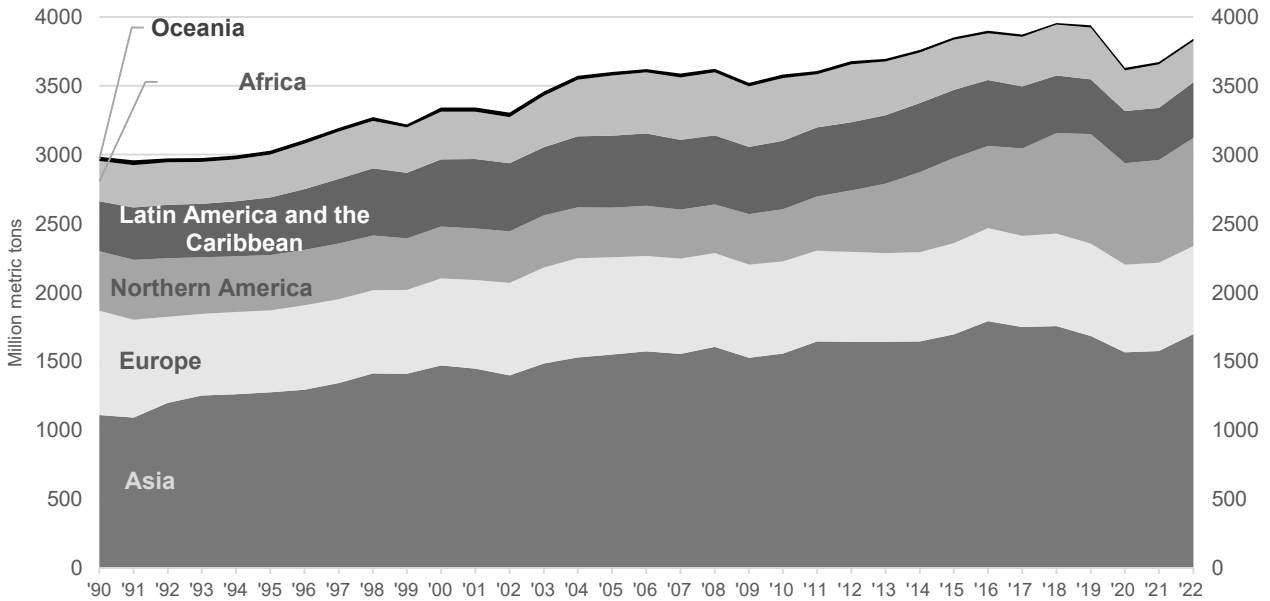
**Table Notes**

The **Reserves / Production** ratio refers to crude oil and natural gas liquids.

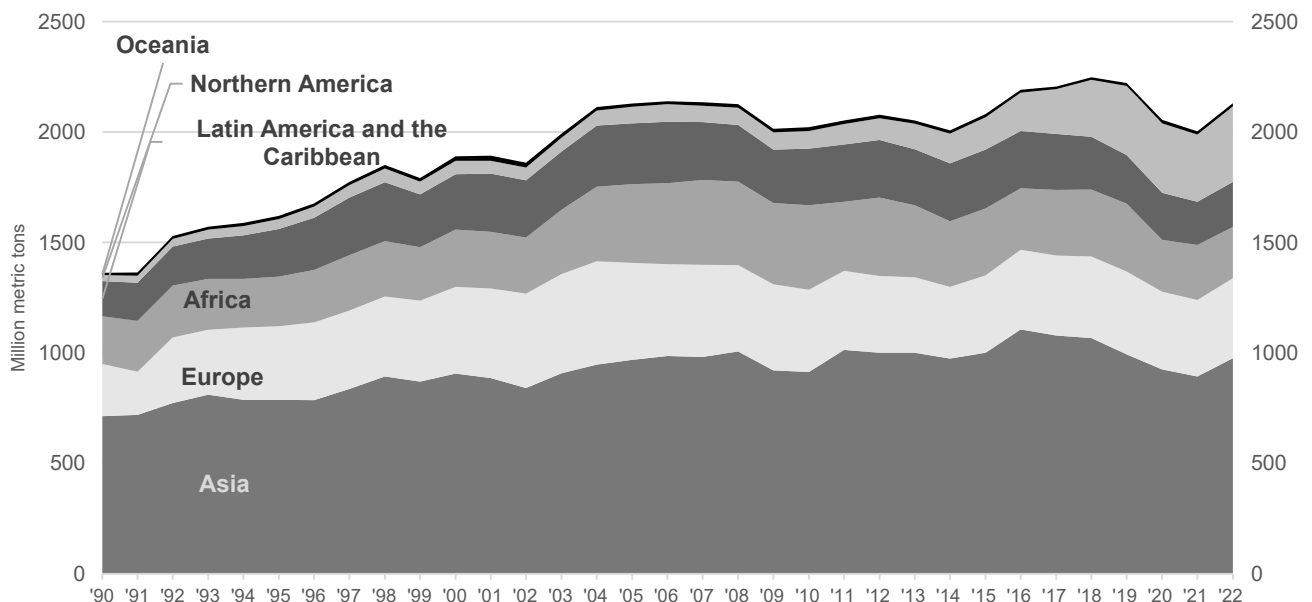
Data on reserves were taken from the Survey of Energy Resources, World Energy Council.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

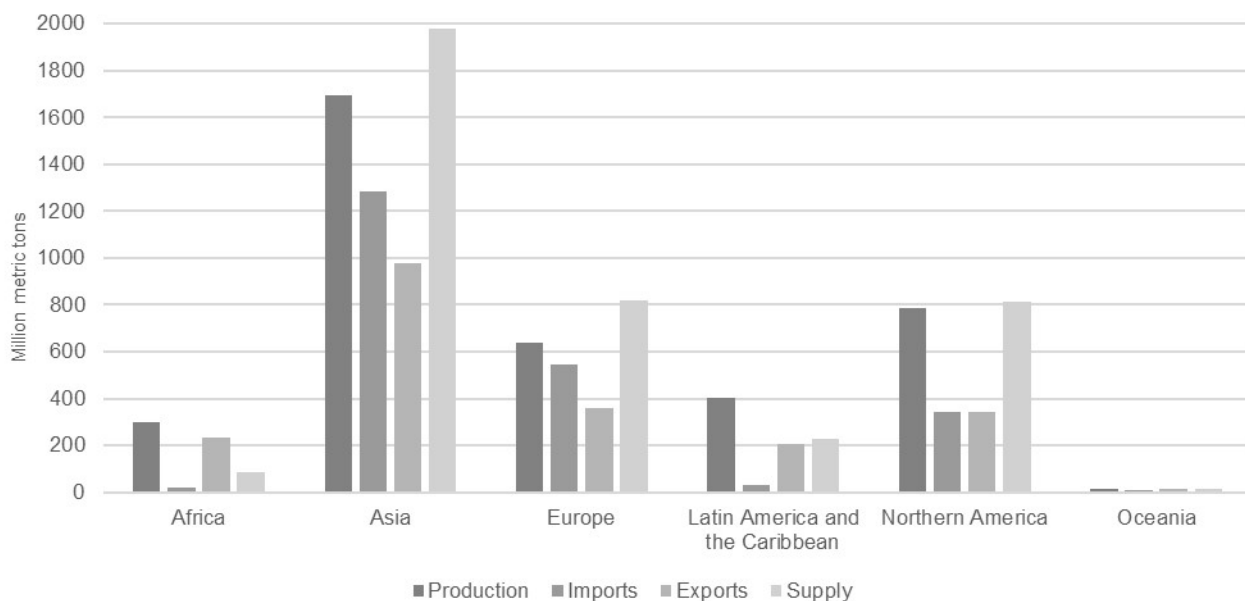
**Figure 39: Production of conventional crude oil by region, 1990-2022**



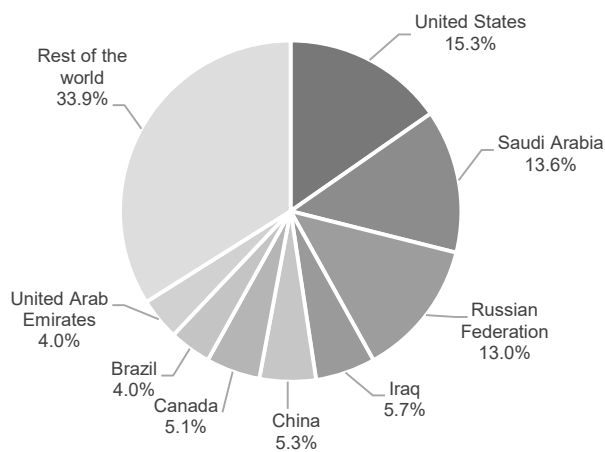
**Figure 40: Exports of conventional crude oil by region, 1990-2022**



**Figure 41: Production, trade and supply of conventional crude oil by region, 2022**



**Figure 42: Major crude oil producing countries, 2022**



**Figure 43: Major crude oil consuming countries, 2022**

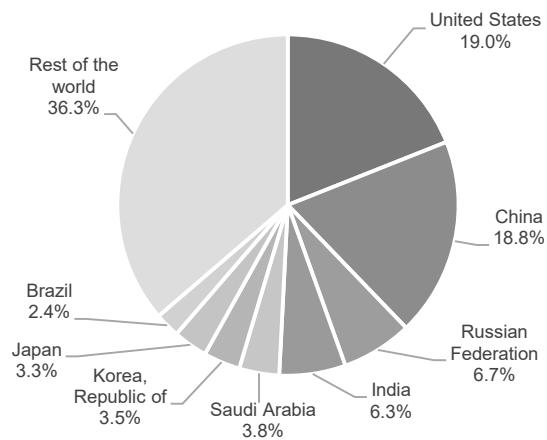


Table 14

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
<b>World</b>	<b>2019</b>	<b>3,938,050</b>	<b>56</b>	<b>2,322,137</b>	<b>2,221,212</b>	<b>7,349</b>	<b>4,031,626</b>	<b>516</b>
	<b>2020</b>	<b>3,630,171</b>	<b>60</b>	<b>2,140,118</b>	<b>2,054,096</b>	<b>31,349</b>	<b>3,684,844</b>	<b>467</b>
	<b>2021</b>	<b>3,670,721</b>	<b>59</b>	<b>2,149,711</b>	<b>2,001,826</b>	<b>-54,608</b>	<b>3,873,214</b>	<b>487</b>
	<b>2022</b>	<b>3,840,731</b>	<b>56</b>	<b>2,229,800</b>	<b>2,130,208</b>	<b>4,601</b>	<b>3,935,722</b>	<b>491</b>
<b>Africa</b>	<b>2019</b>	<b>375,256</b>	<b>40</b>	<b>31,173</b>	<b>307,474</b>	<b>2,358</b>	<b>96,597</b>	<b>72</b>
	<b>2020</b>	<b>294,966</b>	<b>51</b>	<b>31,021</b>	<b>235,553</b>	<b>1,364</b>	<b>89,071</b>	<b>65</b>
	<b>2021</b>	<b>314,608</b>	<b>48</b>	<b>23,916</b>	<b>248,778</b>	<b>-4,547</b>	<b>94,293</b>	<b>67</b>
	<b>2022</b>	<b>299,525</b>	<b>50</b>	<b>19,091</b>	<b>232,161</b>	<b>1,650</b>	<b>84,806</b>	<b>59</b>
Algeria	2019	48,394	24	160	22,181	32	26,341	608
	2020	42,567	26	0	16,736	331	25,500	579
	2021	42,688	26	0	17,127	-316	25,877	578
	2022	45,727	25	..	18,763	180	26,784	589
Angola	2019	66,981	15	..	63,862	*600	2,519	78
	2020	61,744	16	..	59,228	244	2,272	68
	2021	54,458	18	..	52,306	172	1,980	57
	2022	56,680	18	..	54,097	..	2,583	72
Cameroon	2019	3,606	5	280	3,284	..	602	24
	2020	3,683	5	..	3,683	..	0	0
	2021	3,552	5	..	3,552	..	0	0
	2022	3,460	5	..	3,460	..	0	0
Chad	2019	6,731	32	..	6,031	..	700	42
	2020	*6,937	31	..	6,207	..	*730	*42
	2021	*6,664	32	..	5,864	..	*800	*45
	2022	*6,980	31	..	6,180	..	*800	*43
Congo	2019	16,924	24	..	15,904	185	835	149
	2020	15,461	26	..	14,545	109	807	140
	2021	13,708	29	..	12,887	-10	831	141
	2022	13,449	30	..	12,484	82	883	146
Côte d'Ivoire	2019	1,810	8	2,928	1,757	..	2,981	106
	2020	1,460	10	2,575	1,347	-32	2,719	94
	2021	1,220	11	3,371	1,154	-28	3,465	117
	2022	1,276	11	2,714	1,173	..	2,817	93
Dem. Rep. of the Congo	2019	1,118	21	..	1,118	..	0	0
	2020	1,197	20	..	1,197	..	0	0
	2021	1,175	20	..	1,175	..	0	0
	2022	1,025	23	..	1,025	..	0	0
Egypt	2019	31,103	12	5,458	10,311	..	26,250	244
	2020	29,996	13	11,462	9,177	..	32,281	295
	2021	28,503	13	9,537	7,631	..	30,409	274
	2022	27,879	13	7,234	6,390	..	28,723	255
Equatorial Guinea	2019	7,162	19	..	7,058	*9	95	57
	2020	7,168	20	..	7,073	..	95	55
	2021	5,930	24	..	5,947	*-114	97	55
	2022	5,395	26	..	*5,298	..	97	54
Gabon	2019	10,877	25	..	10,331	-49	595	262
	2020	10,385	26	..	9,869	-315	831	358
	2021	10,026	27	..	9,085	-16	957	403
	2022	12,499	22	..	11,536	..	964	397
Ghana	2019	10,206	9	830	10,141	14	882	28
	2020	9,561	9	692	9,637	90	526	17
	2021	7,864	11	73	7,917	-28	50	2
	2022	7,250	12	31	7,195	-66	153	5

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Libya	2019	59,710	100	..	50,288	..	9,422	1,355
	2020	18,799	307	..	16,762	..	2,037	289
	2021	58,125	102	..	52,517	..	5,608	786
	2022	50,106	117	..	44,293	..	5,814	805
Morocco	2019	4	58	..	..	..	4	0
	2020	4	61	..	..	..	4	0
	2021	3	77	..	..	..	3	0
	2022	2	104	..	..	..	2	0
Mozambique	2019	..	274	..	..	..	..	..
	2020	..	320	..	..	..	..	..
	2021	..	338	..	..	..	..	..
	2022	75	5	..	63	12	0	0
Niger	2019	905	22	..	..	150	755	33
	2020	855	23	..	..	..	855	36
	2021	853	23	..	..	-7	860	35
	2022	*854	23	..	..	*-1	*855	*34
Nigeria	2019	95,543	50	..	94,094	1,073	376	2
	2020	72,050	64	..	70,560	1,490	0	0
	2021	67,626	69	..	62,769	-561	5,418	25
	2022	55,627	83	..	52,175	3,134	317	1
Senegal	2019	..	..	1,024	..	..	1,024	63
	2020	..	..	767	..	-54	821	49
	2021	..	..	896	..	..	896	52
	2022	..	..	637	..	4	634	36
South Africa	2019	31	33	18,207	..	248	17,990	302
	2020	33	32	13,188	..	-344	13,565	224
	2021	15	45	7,658	..	-3,741	11,414	186
	2022	0	67	6,157	..	-1,519	7,676	123
South Sudan	2019	8,600	55	..	8,521	..	79	8
	2020	8,273	57	..	8,196	..	76	7
	2021	7,650	62	..	7,456	..	194	18
	2022	7,050	67	..	6,821	..	229	21
Sudan	2019	*3,867	52	*1,456	1,036	..	*4,287	*94
	2020	3,243	62	1,334	165	..	4,412	94
	2021	2,616	77	1,084	..	..	3,700	77
	2022	2,532	80	1,383	..	..	3,915	79
Tunisia	2019	1,686	30	125	1,559	93	159	13
	2020	1,550	33	807	1,170	20	1,167	97
	2021	1,932	27	1,254	1,392	116	1,677	139
	2022	1,657	31	934	1,208	-176	1,560	129
Zambia	2019	..	..	705	..	4	700	38
	2020	..	..	197	..	*-176	372	20
	2021	..	..	42	..	*-14	57	3
	2022	..	..	..	..	..	..	..
<b>Asia</b>	<b>2019</b>	<b>1,683,594</b>	<b>66</b>	<b>1,280,130</b>	<b>992,472</b>	<b>10,811</b>	<b>1,960,441</b>	<b>421</b>
	<b>2020</b>	<b>1,565,569</b>	<b>71</b>	<b>1,236,092</b>	<b>925,512</b>	<b>25,989</b>	<b>1,850,160</b>	<b>395</b>
	<b>2021</b>	<b>1,573,761</b>	<b>70</b>	<b>1,241,018</b>	<b>892,906</b>	<b>-23,964</b>	<b>1,945,837</b>	<b>412</b>
	<b>2022</b>	<b>1,697,427</b>	<b>66</b>	<b>1,282,847</b>	<b>975,838</b>	<b>27,638</b>	<b>1,976,798</b>	<b>416</b>
Afghanistan	2019	..	..	118	..	..	118	3
	2020	..	..	51	..	..	51	1
	2021	..	..	*141	86	..	*55	*1
	2022	..	..	*120	*65	..	*55	*1

Table 14

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Azerbaijan	2019	33,597	26	..	27,704	18	5,876	581
	2020	30,333	28	..	24,831	190	5,312	522
	2021	29,237	28	..	23,904	-206	5,539	541
	2022	27,632	29	673	22,242	314	5,750	558
Bahrain	2019	9,684	1	11,119	7,654	..	13,149	8,851
	2020	9,709	1	8,823	7,439	..	11,093	7,480
	2021	9,623	1	9,002	7,449	..	11,176	7,442
	2022	9,451	1	10,621	7,449	..	12,623	8,232
Bangladesh	2019	..	10	1,362	..	..	1,362	8
	2020	..	11	1,152	..	..	1,152	7
	2021	..	10	1,506	..	..	1,506	9
	2022	..	10	1,612	..	..	1,612	10
Brunei Darussalam	2019	5,442	25	1,453	5,312	*315	1,269	2,866
	2020	5,004	28	6,242	3,570	-55	7,731	17,280
	2021	4,873	29	6,348	3,513	21	7,687	17,016
	2022	4,161	33	6,294	2,367	25	8,063	17,705
Cambodia	2019	..	..	..	..	..	..	..
	2020	0	..	..	0	..	0	0
	2021	40	..	..	40	..	0	0
	2022	..	..	..	..	..	..	..
China	2019	191,014	19	505,676	810	15,805	680,075	478
	2020	194,769	18	542,007	1,638	35,441	699,697	491
	2021	198,881	18	512,922	2,611	-13,906	723,098	507
	2022	204,722	17	508,231	2,052	10,355	700,547	492
Georgia	2019	35	143	9	..	7	38	10
	2020	31	160	4	..	-2	37	10
	2021	35	141	0	..	1	35	9
	2022	37	137	1	..	4	34	9
India	2019	*32,169	17	*226,955	..	..	*259,124	*187
	2020	*30,494	17	*196,461	..	203	*226,752	*162
	2021	*29,691	18	*211,980	..	-691	*242,362	*171
	2022	29,180	18	232,730	..	..	261,910	184
Indonesia	2019	39,026	9	10,122	3,526	-3,515	49,137	180
	2020	41,216	8	12,193	5,158	-126	48,376	176
	2021	38,481	9	15,932	7,061	-478	47,831	173
	2022	32,583	10	14,122	2,159	146	44,400	159
Iran (Islamic Rep. of)	2019	131,559	155	..	32,330	..	99,229	1,140
	2020	110,853	182	..	18,047	..	92,806	1,058
	2021	133,211	153	..	31,506	..	101,705	1,150
	2022	142,241	143	..	42,291	..	99,950	1,116
Iraq	2019	231,478	84	..	194,941	-372	36,909	896
	2020	199,453	97	..	168,881	137	30,435	723
	2021	198,058	98	..	162,137	-190	36,111	838
	2022	218,410	89	..	174,479	369	43,563	988
Israel	2019	84	24	12,313	..	80	12,316	1,423
	2020	130	15	11,116	..	-109	11,356	1,290
	2021	165	12	11,672	..	-21	11,858	1,326
	2022	187	11	12,213	..	74	12,327	1,354
Japan	2019	211	10	145,187	..	-1,538	146,936	1,160
	2020	217	10	115,082	..	-3,023	118,322	937
	2021	190	11	126,783	..	985	125,988	1,002
	2022	155	13	133,592	..	-2,185	135,932	1,087



Table 14

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Jordan	2019	2	156	2,321	..	*-80	2,403	225
	2020	2	139	2,074	..	*256	1,820	167
	2021	21	12	1,757	..	*8	1,770	160
	2022	14	18	1,805	..	*220	1,599	142
Kazakhstan	2019	78,643	43	36	59,649	-462	19,492	1,015
	2020	73,007	46	14	57,935	-289	15,374	789
	2021	74,733	45	0	*56,412	-908	19,230	974
	2022	72,700	46	1	*53,744	-60	19,016	949
Korea, Dem.Ppl's.Rep.	2019	..	..	532	..	..	532	20
	2020	..	..	532	..	..	532	20
	2021	..	..	532	..	..	532	20
	2022	..	..	532	..	..	532	20
Korea, Republic of	2019	21	..	144,555	..	1,538	143,038	2,763
	2020	14	..	132,462	..	279	132,198	2,549
	2021	5	..	129,409	..	-3,653	133,067	2,566
	2022	2	..	136,514	..	988	135,529	2,617
Kuwait	2019	135,742	97	..	100,500	..	35,242	7,933
	2020	123,983	106	..	96,142	..	27,841	6,327
	2021	122,397	108	..	91,967	..	30,430	6,978
	2022	137,200	94	..	93,446	2,878	40,877	8,907
Kyrgyzstan	2019	233	21	134	51	-6	322	50
	2020	239	21	1	51	9	180	27
	2021	276	18	2	6	-11	283	41
	2022	295	17	3	..	..	298	43
Malaysia	2019	28,890	12	10,126	12,061	*1,994	24,961	746
	2020	25,897	13	6,847	10,245	*22	22,477	663
	2021	24,549	14	6,442	8,585	-757	23,165	676
	2022	23,308	14	10,632	14,828	-1,693	20,806	600
Mongolia	2019	814	43	..	775	*39	0	0
	2020	561	62	..	556	*5	0	0
	2021	638	55	..	594	*44	0	0
	2022	350	100	..	*350	..	0	0
Myanmar	2019	432	7	..	201	..	231	4
	2020	467	6	..	50	-2	419	8
	2021	200	15	..	83	..	117	2
	2022	296	10	..	30	..	266	5
Oman	2019	47,433	15	..	41,540	..	5,894	1,284
	2020	47,534	15	..	39,214	..	8,320	1,840
	2021	48,426	15	..	39,476	..	8,950	1,989
	2022	53,065	14	..	43,440	..	9,625	2,035
Other Asia	2019	4	8	51,561	..	-93	51,658	2,182
	2020	2	14	42,908	..	715	42,195	1,783
	2021	2	12	44,250	..	-364	44,617	1,894
	2022	2	16	47,205	..	-4	47,211	2,016
Pakistan	2019	3,769	12	6,677	474	..	9,973	43
	2020	3,698	13	8,815	280	..	12,233	52
	2021	3,769	12	9,279	402	..	12,646	53
	2022	3,402	13	7,823	227	..	10,998	45
Philippines	2019	106	31	8,288	136	83	8,175	74
	2020	96	35	4,500	346	-565	4,815	43
	2021	86	41	4,056	86	-102	4,158	37
	2022	76	45	5,921	66	-514	6,446	57

Table 14

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Qatar	2019	28,741	40	..	25,184	..	3,558	1,272
	2020	29,010	39	..	25,640	..	3,371	1,202
	2021	27,329	40	..	23,854	..	3,475	1,234
	2022	28,396	39	..	24,786	..	3,610	1,248
Saudi Arabia	2019	491,543	72	..	350,529	*-32	141,046	4,629
	2020	462,992	80	..	335,110	*-2,495	130,377	4,207
	2021	457,292	78	..	309,427	-731	148,595	4,743
	2022	523,182	70	..	350,467	*16,462	156,253	4,856
Singapore	2019	..	..	51,866	0	142	51,725	9,123
	2020	..	..	44,807	0	-105	44,912	7,991
	2021	..	..	47,601	1,238	-436	46,799	8,438
	2022	..	..	46,322	0	..	46,322	8,199
Sri Lanka	2019	..	..	1,843	..	..	1,843	82
	2020	..	..	1,666	..	..	1,666	74
	2021	..	..	1,130	..	-213	1,343	59
	2022	..	..	616	..	86	530	23
Syrian Arab Republic	2019	1,413	228	4,745	..	..	6,158	303
	2020	1,865	174	4,556	..	..	6,421	305
	2021	1,865	174	4,343	..	..	6,209	287
	2022	1,865	174	4,343	..	..	6,209	276
Tajikistan	2019	12	164	*21	..	..	*33	*3
	2020	25	82	*10	..	..	35	4
	2021	25	81	3	..	..	28	3
	2022	25	80	0	..	..	25	2
Thailand	2019	11,245	2	43,609	1,278	-3,409	56,985	797
	2020	10,093	2	43,895	1,228	-3,069	55,828	779
	2021	8,865	2	44,482	805	-2,241	54,784	764
	2022	7,247	2	47,334	669	..	53,912	752
Timor-Leste	2019	..	65	..	..	..	..	..
	2020	..	99	..	..	..	..	..
	2021	..	99	..	..	..	..	..
	2022	..	150	..	..	..	..	..
Türkiye	2019	2,986	15	31,075	..	301	33,760	396
	2020	3,203	14	29,369	..	-183	32,755	380
	2021	3,442	13	31,418	..	344	34,516	398
	2022	3,583	13	33,486	..	213	36,856	423
Turkmenistan	2019	9,400	8	..	1,698	..	7,702	1,132
	2020	9,175	8	..	1,967	..	7,208	1,037
	2021	8,900	8	..	1,637	..	7,263	1,024
	2022	8,600	8	..	1,093	..	7,507	1,038
United Arab Emirates	2019	152,482	71	..	120,379	..	32,103	3,423
	2020	138,666	77	8,147	120,596	-1,242	27,459	2,906
	2021	135,640	77	9,340	115,082	-599	30,497	3,115
	2022	152,790	68	9,334	135,479	..	26,645	2,602
Uzbekistan	2019	701	27	651	..	-5	1,357	41
	2020	754	29	613	..	-3	1,370	41
	2021	774	31	*645	..	*-5	1,424	42
	2022	788	39	*563	0	-5	1,356	39
Viet Nam	2019	11,043	52	7,776	3,976	..	14,843	153
	2020	8,820	65	11,745	4,657	..	15,908	162
	2021	9,053	63	10,040	3,125	144	15,824	160
	2022	8,980	61	10,202	2,775	-34	16,441	165

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Yemen	2019	3,639	99	..	1,766	..	1,873	53
	2020	3,259	110	..	1,931	..	1,329	37
	2021	2,988	120	..	1,819	..	1,168	31
	2022	2,499	143	..	1,335	..	1,163	30
<b>Europe</b>	<b>2019</b>	<b>671,876</b>	<b>23</b>	<b>578,484</b>	<b>375,017</b>	<b>876</b>	<b>874,468</b>	<b>1,163</b>
	<b>2020</b>	<b>635,972</b>	<b>24</b>	<b>500,307</b>	<b>350,871</b>	<b>1,062</b>	<b>784,346</b>	<b>1,043</b>
	<b>2021</b>	<b>641,322</b>	<b>24</b>	<b>507,786</b>	<b>346,325</b>	<b>-3,450</b>	<b>806,234</b>	<b>1,074</b>
	<b>2022</b>	<b>639,623</b>	<b>24</b>	<b>544,174</b>	<b>361,395</b>	<b>4,276</b>	<b>818,126</b>	<b>1,092</b>
Albania	2019	1,005	26	..	631	39	335	116
	2020	758	34	..	624	46	88	30
	2021	712	36	..	548	..	165	58
	2022	657	40	..	536	..	121	43
Austria	2019	634	11	8,592	..	102	9,124	1,027
	2020	548	12	7,610	..	-10	8,168	916
	2021	550	12	7,567	..	-125	8,243	919
	2022	505	14	5,138	..	26	5,617	620
Belarus	2019	1,690	15	17,998	1,649	163	17,876	1,895
	2020	1,710	15	15,972	1,217	156	16,309	1,744
	2021	1,737	15	15,972	1,217	..	16,492	1,783
	2022	1,628	16	14,274	1,087	..	14,815	1,615
Belgium	2019	..	..	34,513	..	-3	34,517	3,004
	2020	..	..	27,323	..	139	27,184	2,356
	2021	..	..	28,686	192	-239	28,733	2,483
	2022	..	..	27,694	9	-76	27,761	2,385
Bosnia and Herzegovina	2019	..	..	6	..	-77	83	25
	2020	..	..	..	..	..	..	..
	2021	..	..	..	..	..	..	..
	2022	..	..	..	..	..	..	..
Bulgaria	2019	..	..	6,985	..	175	6,810	976
	2020	..	..	4,859	..	-31	4,890	705
	2021	..	..	4,153	..	-60	4,213	613
	2022	..	..	7,109	..	94	7,014	1,028
Croatia	2019	664	10	2,006	122	-46	2,595	651
	2020	594	11	1,944	555	-6	1,988	503
	2021	566	11	1,762	473	-7	1,862	474
	2022	548	12	1,474	202	62	1,758	450
Czechia	2019	81	25	7,738	..	-28	7,847	743
	2020	92	22	6,174	..	198	6,068	575
	2021	84	24	6,841	..	-185	7,110	675
	2022	76	26	7,425	..	44	7,457	699
Denmark	2019	5,017	11	5,037	2,301	151	7,602	1,307
	2020	3,520	16	4,668	1,089	34	7,065	1,212
	2021	3,237	18	5,184	854	-68	7,636	1,304
	2022	3,185	18	4,458	574	-150	7,219	1,223
Finland	2019	..	..	11,901	..	-126	12,027	2,178
	2020	..	..	10,717	..	-29	10,746	1,943
	2021	..	..	7,820	..	-128	7,948	1,434
	2022	..	..	9,130	..	-80	9,210	1,654
France	2019	725	15	48,335	67	-49	49,042	722
	2020	650	17	33,121	82	-43	33,731	495
	2021	658	17	33,832	76	-309	34,723	508
	2022	595	18	41,016	..	126	41,485	605

Table 14

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Germany	2019	1,927	16	85,991	106	421	87,391	1,046
	2020	1,907	16	82,724	..	481	84,150	1,006
	2021	1,805	17	81,296	..	-672	83,773	1,001
	2022	1,704	18	88,248	95	-70	89,927	1,069
Greece	2019	168	6	22,826	242	-275	23,027	2,148
	2020	92	11	22,767	89	519	22,250	2,080
	2021	59	17	23,407	56	-309	23,719	2,242
	2022	..	..	21,928	..	-52	21,981	2,111
Hungary	2019	930	4	6,108	191	42	6,805	696
	2020	841	4	6,100	199	28	6,714	689
	2021	881	4	6,008	134	32	6,723	693
	2022	890	4	5,992	82	384	6,416	663
Ireland	2019	..	..	2,553	..	22	2,531	513
	2020	..	..	2,904	..	66	2,838	570
	2021	..	..	2,967	..	-58	3,025	602
	2022	..	..	3,059	..	76	2,983	584
Italy	2019	4,279	17	63,140	..	146	67,272	1,118
	2020	5,384	15	50,363	177	-80	55,650	928
	2021	4,831	16	57,023	174	-74	61,753	1,033
	2022	4,449	18	62,515	588	587	65,790	1,103
Lithuania	2019	40	25	9,630	38	116	9,516	3,404
	2020	32	32	7,840	37	-13	7,848	2,807
	2021	29	35	8,008	27	55	7,955	2,847
	2022	27	37	8,205	23	-36	8,245	2,927
Netherlands (Kingd. of the)	2019	747	34	57,555	393	1,061	56,848	3,241
	2020	737	35	49,449	383	-599	50,402	2,858
	2021	749	35	52,500	316	-855	53,788	3,034
	2022	391	62	53,195	19	2,300	51,267	2,863
Norway	2019	70,008	14	3,490	60,860	-616	13,254	2,478
	2020	84,427	11	3,236	75,112	729	11,822	2,198
	2021	87,414	11	2,470	78,909	-798	11,774	2,177
	2022	83,936	11	819	77,425	391	6,939	1,272
Poland	2019	973	15	26,622	243	76	27,276	714
	2020	937	16	24,906	199	37	25,607	671
	2021	888	17	23,620	181	-434	24,761	651
	2022	854	18	26,291	181	326	26,638	694
Portugal	2019	..	..	11,165	..	48	11,118	1,075
	2020	..	..	10,716	..	-187	10,903	1,051
	2021	..	..	9,366	..	-133	9,499	914
	2022	..	..	10,064	..	-78	10,142	974
Republic of Moldova	2019	5	..	..	..	..	5	2
	2020	5	..	..	4	0	1	0
	2021	5	..	..	5	0	1	0
	2022	5	..	..	2	1	2	1
Romania	2019	3,440	22	8,665	5	143	11,956	613
	2020	3,334	23	7,073	9	-100	10,499	541
	2021	3,196	24	6,823	8	-66	10,077	524
	2022	3,019	26	8,705	17	87	11,620	606
Russian Federation	2019	527,586	26	..	267,337	-1,569	261,818	1,787
	2020	482,214	29	..	234,722	-196	247,687	1,692
	2021	493,216	28	..	232,712	2,594	257,909	1,768
	2022	499,913	27	..	253,179	..	246,734	1,695

Table 14

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Serbia	2019	850	8	2,346	..	58	3,139	451
	2020	828	8	2,549	..	56	3,320	481
	2021	808	8	2,693	..	-85	3,585	524
	2022	797	9	3,378	..	43	4,132	608
Slovakia	2019	4	167	5,143	4	33	5,110	938
	2020	2	250	5,655	2	80	5,575	1,022
	2021	5	143	5,467	5	-40	5,507	1,012
	2022	2	333	5,459	2	64	5,395	986
Spain	2019	40	475	66,303	..	695	65,648	1,384
	2020	28	679	54,855	..	-271	55,154	1,157
	2021	6	3,267	56,172	..	-745	56,922	1,192
	2022	1	20,833	63,596	..	202	63,394	1,325
Sweden	2019	..	..	16,351	..	-4	16,355	1,591
	2020	..	..	17,676	..	182	17,494	1,690
	2021	..	..	17,953	..	-488	18,441	1,770
	2022	..	..	18,847	..	469	18,378	1,752
Switzerland	2019	..	..	2,732	..	9	2,723	317
	2020	..	..	2,804	..	-10	2,814	326
	2021	..	..	2,276	..	-12	2,289	263
	2022	..	..	3,042	..	17	3,025	344
Ukraine	2019	1,719	22	790	..	-16	2,525	56
	2020	1,675	22	1,246	80	-24	2,865	64
	2021	1,648	23	1,561	90	..	3,120	70
	2022	1,507	25	*1,093	*90	..	2,509	61
United Kingdom	2019	49,344	6	43,963	40,827	185	52,295	779
	2020	45,658	7	35,057	36,291	-93	44,517	661
	2021	38,239	8	36,359	30,350	-241	44,489	657
	2022	34,935	9	42,021	27,285	-480	50,151	736
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>398,687</b>	<b>122</b>	<b>30,966</b>	<b>220,885</b>	<b>-1,319</b>	<b>210,087</b>	<b>328</b>
	<b>2020</b>	<b>379,237</b>	<b>128</b>	<b>23,882</b>	<b>212,710</b>	<b>-6,524</b>	<b>196,932</b>	<b>305</b>
	<b>2021</b>	<b>379,154</b>	<b>129</b>	<b>26,203</b>	<b>195,936</b>	<b>-5,347</b>	<b>214,768</b>	<b>331</b>
	<b>2022</b>	<b>402,622</b>	<b>122</b>	<b>31,897</b>	<b>203,749</b>	<b>643</b>	<b>230,126</b>	<b>352</b>
Argentina	2019	26,001	11	0	3,354	-369	23,016	512
	2020	24,635	12	..	3,966	149	20,520	454
	2021	26,250	11	..	3,046	-178	23,383	516
	2022	29,772	10	..	5,868	172	23,731	523
Barbados	2019	29	9	..	29	..	0	0
	2020	24	11	..	23	0	0	0
	2021	21	12	..	22	-2	0	0
	2022	19	13	..	19	0	0	0
Belize	2019	39	6	..	31	..	8	20
	2020	27	9	..	10	-2	19	47
	2021	24	10	..	*7	-5	22	54
	2022	24	10	..	3	-2	23	57
Bolivia (Plur. State of)	2019	1,741	8	..	..	9	1,732	148
	2020	1,580	9	..	..	-8	1,588	134
	2021	1,535	8	..	..	-2	1,537	129
	2022	1,368	9	..	..	1	1,367	113
Brazil	2019	142,845	12	8,796	62,866	1,701	87,074	420
	2020	151,093	11	8,597	70,169	-758	90,279	433
	2021	147,437	11	7,105	63,453	302	90,787	433
	2022	153,331	11	12,474	68,215	461	97,129	462

Table 14

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Chile	2019	167	42	9,305	..	32	9,440	492
	2020	77	55	7,223	..	-88	7,388	381
	2021	91	58	7,914	..	45	7,961	409
	2022	737	20	7,168	..	-49	7,953	407
Colombia	2019	46,528	6	..	29,550	-453	17,432	349
	2020	41,139	7	65	28,639	-4,671	17,236	340
	2021	38,846	7	308	24,598	-5,280	19,835	387
	2022	39,789	7	..	20,673	286	18,830	364
Cuba	2019	2,372	1	2,416	..	..	4,787	427
	2020	2,320	1	1,793	..	..	4,114	368
	2021	2,433	1	2,305	..	..	4,739	426
	2022	1,814	2	2,674	..	..	4,488	406
Dominican Republic	2019	..	..	1,262	..	18	1,244	114
	2020	..	..	498	..	29	469	43
	2021	..	..	1,277	..	-28	1,305	117
	2022	..	..	1,192	..	18	1,173	104
Ecuador	2019	26,938	7	..	19,048	-484	8,374	483
	2020	24,386	8	..	17,574	395	6,417	366
	2021	23,989	8	..	16,324	-505	8,170	462
	2022	24,399	8	..	15,778	-299	8,920	500
Guatemala	2019	547	20	..	307	94	146	9
	2020	446	25	..	219	117	110	6
	2021	360	31	..	175	53	132	7
	2022	206	53	2	136	-63	136	8
Guyana	2019	63	..	..	..	63	0	0
	2020	*3,780	..	..	3,698	82	0	0
	2021	4,533	..	..	*4,435	99	0	0
	2022	13,805	..	..	*13,805	..	0	0
Jamaica	2019	..	..	1,386	..	..	1,386	491
	2020	..	..	1,155	..	..	1,155	408
	2021	..	..	1,184	..	0	1,184	417
	2022	..	..	1,069	..	0	1,069	377
Mexico	2019	88,386	9	..	59,426	-1,984	30,944	246
	2020	88,494	9	..	59,519	-1,645	30,620	241
	2021	90,385	9	..	54,053	309	36,023	282
	2022	91,056	9	..	50,109	39	40,908	318
Nicaragua	2019	..	..	559	..	-3	562	87
	2020	..	..	573	..	12	561	86
	2021	..	..	718	..	-12	731	110
	2022	..	..	835	..	80	756	112
Peru	2019	2,647	16	5,242	284	112	7,494	231
	2020	1,983	16	2,034	558	-179	3,637	111
	2021	1,914	19	3,390	587	-48	4,765	144
	2022	2,021	17	3,356	833	49	4,495	134
Suriname	2019	924	13	..	..	..	924	1,525
	2020	916	13	..	..	..	916	1,496
	2021	916	13	..	..	..	916	1,482
	2022	829	14	..	..	..	829	1,331
Trinidad and Tobago	2019	3,034	9	..	3,008	..	26	17
	2020	2,919	9	..	2,869	..	50	34
	2021	3,085	9	..	3,062	..	23	16
	2022	2,844	9	..	2,754	..	90	60

Table 14

## Production, trade and supply of conventional crude oil

Thousand metric tons; kilograms per capita; reserves/production ratio (R/P) in years

Country or area	Year	Production		Imports	Exports	Changes in stocks	Supply	
		Total	Reserves/ Production				Total	Per capita
Uruguay	2019	..	..	1,998	..	-57	2,055	605
	2020	..	..	1,944	..	43	1,901	559
	2021	..	..	2,002	..	-94	2,096	617
	2022	..	..	2,034	..	-50	2,084	615
Venezuela (Bolivar. Rep.)	2019	56,425	799	..	42,982	..	13,443	465
	2020	35,418	1,275	..	25,465	..	9,952	350
	2021	37,333	1,217	..	26,172	..	11,161	395
	2022	40,609	1,124	1,092	25,556	..	16,144	572
<b>Northern America</b>	<b>2019</b>	<b>792,572</b>	<b>37</b>	<b>377,650</b>	<b>312,572</b>	<b>-5,389</b>	<b>863,039</b>	<b>2,297</b>
	<b>2020</b>	<b>735,529</b>	<b>39</b>	<b>329,167</b>	<b>314,285</b>	<b>9,263</b>	<b>741,149</b>	<b>1,962</b>
	<b>2021</b>	<b>745,021</b>	<b>38</b>	<b>335,106</b>	<b>303,912</b>	<b>-16,668</b>	<b>792,884</b>	<b>2,093</b>
	<b>2022</b>	<b>784,714</b>	<b>36</b>	<b>341,259</b>	<b>341,832</b>	<b>-29,568</b>	<b>813,710</b>	<b>2,139</b>
Canada	2019	188,447	132	42,200	165,499	-966	66,114	1,750
	2020	177,480	138	38,025	156,109	707	58,690	1,538
	2021	189,942	130	32,745	157,916	98	64,673	1,682
	2022	197,231	125	31,303	165,437	-240	63,336	1,631
United States	2019	604,126	11	335,450	147,074	-4,423	796,925	2,359
	2020	558,049	12	291,142	158,176	8,556	682,459	2,011
	2021	555,079	12	302,361	145,996	-16,767	728,211	2,141
	2022	587,483	11	309,956	176,394	-29,329	750,374	2,197
<b>Oceania</b>	<b>2019</b>	<b>16,065</b>	<b>17</b>	<b>23,734</b>	<b>12,792</b>	<b>12</b>	<b>26,995</b>	<b>621</b>
	<b>2020</b>	<b>18,899</b>	<b>14</b>	<b>19,648</b>	<b>15,165</b>	<b>195</b>	<b>23,186</b>	<b>526</b>
	<b>2021</b>	<b>16,853</b>	<b>15</b>	<b>15,682</b>	<b>13,969</b>	<b>-632</b>	<b>19,198</b>	<b>431</b>
	<b>2022</b>	<b>16,819</b>	<b>15</b>	<b>10,532</b>	<b>15,233</b>	<b>-38</b>	<b>12,156</b>	<b>270</b>
Australia	2019	14,224	16	17,184	11,075	276	20,057	787
	2020	16,564	13	14,438	12,896	57	18,049	701
	2021	14,828	15	11,089	12,216	-410	14,110	544
	2022	14,866	14	8,427	13,474	91	9,727	371
New Zealand	2019	1,165	13	5,242	1,042	-266	5,632	1,129
	2020	963	15	3,816	899	208	3,672	724
	2021	844	17	3,363	594	-222	3,835	751
	2022	754	19	820	674	-129	1,029	201
Papua New Guinea	2019	676	36	1,308	676	2	1,306	136
	2020	1,371	17	1,395	1,371	-70	1,465	149
	2021	1,182	20	1,229	1,158	..	1,253	125
	2022	*1,200	19	*1,285	*1,085	..	*1,400	*137





## Production of additives and other hydrocarbons

Thousand metric tons

### Table Notes

**Additives** production refers to any quantities of additives (as per the definition in page x) which come from non-energy sources, such as Tetraethyllead (TEL) or detergents.

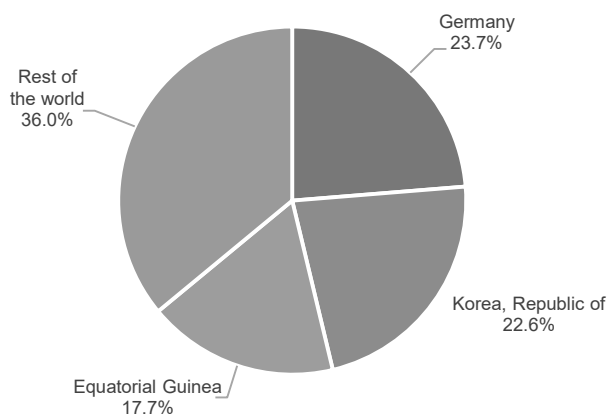
**Additives** from other sources refers to quantities of additives (as per the definition in page x) already accounted for in energy statistics, such as oxygenates from a biomass or hydrocarbon origin.

**Other hydrocarbons** production refers to quantities of other hydrocarbons which are oils obtained by non-conventional production techniques and are primary for the purposes of energy statistics.

**Other hydrocarbons** from other sources refers to the oils extracted from extra heavy oils, oil sands, coal and oil shale whose production has been already accounted for in energy statistics, together with the output of GTL plants.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 44: Major additives producing countries, 2022**



**Figure 45: Major other hydrocarbons producing countries, 2022**

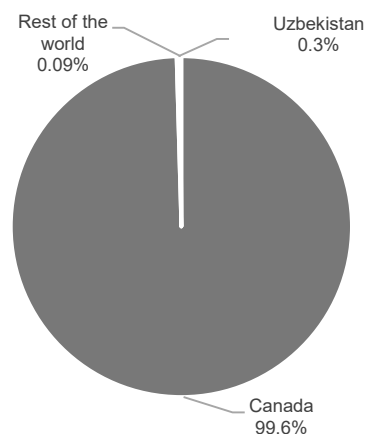


Table 15

## Production of additives and other hydrocarbons

Thousand metric tons

Country or area	Year	Additives		Other hydrocarbons	
		Production	From other sources	Production	From other sources
<b>World</b>	<b>2019</b>	<b>4,959</b>	<b>3,328</b>	<b>64,493</b>	<b>36,701</b>
	<b>2020</b>	<b>4,700</b>	<b>199</b>	<b>64,176</b>	<b>36,579</b>
	<b>2021</b>	<b>5,135</b>	<b>237</b>	<b>65,913</b>	<b>39,277</b>
	<b>2022</b>	<b>5,197</b>	<b>227</b>	<b>66,941</b>	<b>39,299</b>
<b>Africa</b>	<b>2019</b>	<b>933</b>	<b>..</b>	<b>..</b>	<b>5,336</b>
	<b>2020</b>	<b>737</b>	<b>..</b>	<b>..</b>	<b>5,059</b>
	<b>2021</b>	<b>921</b>	<b>..</b>	<b>..</b>	<b>4,699</b>
	<b>2022</b>	<b>922</b>	<b>..</b>	<b>..</b>	<b>4,365</b>
Equatorial Guinea	2019	933	..	..	..
	2020	737	..	..	..
	2021	921	..	..	..
	2022	922	..	..	..
Nigeria	2019	..	..	..	200
	2020	..	..	..	201
	2021	..	..	..	200
	2022	..	..	..	200
South Africa	2019	..	..	..	5,135
	2020	..	..	..	4,858
	2021	..	..	..	4,499
	2022	..	..	..	4,165
<b>Asia</b>	<b>2019</b>	<b>1,176</b>	<b>..</b>	<b>145</b>	<b>16,103</b>
	<b>2020</b>	<b>1,406</b>	<b>..</b>	<b>127</b>	<b>15,802</b>
	<b>2021</b>	<b>1,766</b>	<b>..</b>	<b>131</b>	<b>18,725</b>
	<b>2022</b>	<b>1,866</b>	<b>..</b>	<b>234</b>	<b>19,475</b>
China	2019	..	..	..	9,042
	2020	..	..	..	8,505
	2021	..	..	..	10,454
	2022	..	..	..	11,499
Israel	2019	..	..	..	124
	2020	..	..	..	83
	2021	..	..	..	105
	2022	..	..	..	103
Kazakhstan	2019	..	..	..	..
	2020	..	..	..	..
	2021	21	..	..	..
	2022	56	..	..	..
Korea, Republic of	2019	741	..	..	..
	2020	912	..	..	..
	2021	1,075	..	..	..
	2022	1,173	..	..	..
Malaysia	2019	..	..	..	445
	2020	..	..	..	481
	2021	..	..	..	565
	2022	..	..	..	472
Other Asia	2019	436	..	..	..
	2020	494	..	..	..
	2021	670	..	..	..
	2022	638	..	..	..
Qatar	2019	..	..	..	5,180
	2020	..	..	..	5,180
	2021	..	..	..	5,524
	2022	..	..	..	5,524

## Production of additives and other hydrocarbons

Thousand metric tons

Country or area	Year	Additives		Other hydrocarbons	
		Production	From other sources	Production	From other sources
Türkiye	2019	..	..	..	927
	2020	..	..	..	826
	2021	..	..	..	993
	2022	..	..	..	878
Turkmenistan	2019	..	..	..	385
	2020	..	..	..	727
	2021	..	..	..	727
	2022	..	..	..	727
Uzbekistan	2019	..	..	145	..
	2020	..	..	127	..
	2021	..	..	131	358
	2022	..	..	234	273
<b>Europe</b>	<b>2019</b>	<b>2,666</b>	<b>190</b>	<b>..</b>	<b>7,635</b>
	<b>2020</b>	<b>2,386</b>	<b>199</b>	<b>30</b>	<b>7,620</b>
	<b>2021</b>	<b>2,224</b>	<b>237</b>	<b>74</b>	<b>7,425</b>
	<b>2022</b>	<b>2,183</b>	<b>227</b>	<b>59</b>	<b>6,919</b>
Belgium	2019	..	..	..	53
	2020	..	..	..	51
	2021	..	..	..	39
	2022	..	..	..	37
Bulgaria	2019	..	4	..	183
	2020	..	2	..	167
	2021	..	2	..	136
	2022	4	5	..	162
Croatia	2019	..	..	..	54
	2020	..	..	..	53
	2021	..	..	..	49
	2022	..	..	..	44
Czechia	2019	82	31	..	..
	2020	3	36	..	..
	2021	3	40	..	..
	2022	2	39	..	..
Estonia	2019	..	..	..	1,159
	2020	..	..	..	1,158
	2021	..	..	..	1,202
	2022	..	..	..	997
Finland	2019	..	..	..	283
	2020	..	..	..	249
	2021	..	..	..	239
	2022	..	..	..	103
France	2019	239	..	..	..
	2020	169	..	..	..
	2021	206	..	..	..
	2022	217	..	..	..
Germany	2019	1,421	..	..	..
	2020	1,328	..	..	..
	2021	1,261	..	..	..
	2022	1,232	..	..	..
Hungary	2019	46	..	..	39
	2020	44	..	..	40
	2021	38	..	..	36
	2022	27	..	..	32

Table 15

## Production of additives and other hydrocarbons

Thousand metric tons

Country or area	Year	Additives		Other hydrocarbons	
		Production	From other sources	Production	From other sources
Ireland	2019	..	..	..	39
	2020	..	..	..	39
	2021	..	..	..	29
	2022	..	..	..	15
Italy	2019	486	..	..	..
	2020	486	..	30	..
	2021	347	..	74	..
	2022	339	..	59	..
Netherlands (Kingd. of the)	2019	233	..	..	..
	2020	191	..	..	..
	2021	269	..	..	..
	2022	230	..	..	..
Norway	2019	74	..	..	..
	2020	74	..	..	..
	2021	43	..	..	..
	2022	35	..	..	..
Poland	2019	22	..	..	592
	2020	7	..	..	550
	2021	7	..	..	485
	2022	48	..	..	317
Portugal	2019	..	..	..	66
	2020	..	..	..	55
	2021	..	..	..	49
	2022	..	..	..	15
Romania	2019	35	..	..	77
	2020	33	..	..	84
	2021	0	..	..	72
	2022	..	..	..	71
Russian Federation	2019	..	..	..	*4,749
	2020	..	..	..	*4,749
	2021	..	..	..	*4,749
	2022	..	..	..	*4,900
Serbia	2019	12	..	..	28
	2020	15	..	..	29
	2021	13	1	..	34
	2022	13	3	..	38
Slovakia	2019	..	155	..	129
	2020	..	161	..	126
	2021	..	194	..	140
	2022	..	180	..	127
Sweden	2019	..	..	..	184
	2020	..	..	..	272
	2021	..	..	..	165
	2022	..	..	..	61
Ukraine	2019	15	..	..	..
	2020	37	..	..	..
	2021	37	..	..	..
	2022	*37	..	..	..
Latin America & Carib.	2019	184	..	..	506
	2020	171	..	..	729
	2021	224	..	..	1,051
	2022	226	..	..	1,098

## Production of additives and other hydrocarbons

Thousand metric tons

Country or area	Year	Additives		Other hydrocarbons	
		Production	From other sources	Production	From other sources
Brazil	2019	..	..	..	475
	2020	..	..	..	714
	2021	..	..	..	1,013
	2022	..	..	..	983
Chile	2019	..	..	..	..
	2020	..	..	..	..
	2021	..	..	..	..
	2022	..	..	..	67
Mexico	2019	184	..	..	31
	2020	171	..	..	15
	2021	224	..	..	14
	2022	226	..	..	14
Trinidad and Tobago	2019	..	..	..	..
	2020	..	..	..	..
	2021	..	..	..	23
	2022	..	..	..	*33
<b>Northern America</b>	<b>2019</b>	..	<b>3,138</b>	<b>64,348</b>	<b>7,121</b>
	<b>2020</b>	..	..	<b>64,020</b>	<b>7,369</b>
	<b>2021</b>	..	..	<b>65,709</b>	<b>7,377</b>
	<b>2022</b>	..	<b>0</b>	<b>66,648</b>	<b>7,441</b>
Canada	2019	..	..	64,348	3,138
	2020	..	..	64,020	3,520
	2021	..	..	65,709	3,440
	2022	..	..	66,648	3,297
United States	2019	..	3,138	..	3,983
	2020	..	..	..	3,849
	2021	..	..	..	3,937
	2022	..	0	..	4,144

Table 16

**International trade of conventional crude oil  
(Principal importers/exporters)**

Thousand metric tons

**2021**

Importers	Exporters							
	World	Angola	Brazil	Canada	Iraq	Kazakhstan	Kuwait	Libya
Australia	11,089	..	..	..	..	..	..	314
Bahrain	9,002	..	..	..	..	..	..	..
Belarus	15,972	..	..	..	..	..	..	..
Belgium	28,686	..	..	541	1,193	3,900	..	189
Brazil	7,105	..	..	..	685	..	..	..
Canada	32,806	..	..	..	..	..	..	..
Chile	7,914	985	3,913	401	..	..	..	..
China	512,922	39,155	30,298	198	*50,119	4,491	30,163	6,138
Finland	7,820	..	..	..	..	..	..	..
France	33,832	404	138	381	2,395	4,514	..	3,371
Germany	81,296	..	161	197	2,399	8,000	..	6,952
Greece	23,407	..	..	..	10,370	3,312	..	2,115
India	211,980	3,124	4,083	..	51,883	791	13,569	635
Indonesia	15,932	902	..	..	..	..	..	..
Italy	57,023	269	331	92	8,194	1,204	..	10,501
Japan	126,516	..	..	..	135	289	10,877	58
Korea, Republic of	129,409	..	3,157	784	8,140	4,432	14,599	..
Netherlands (Kingd. of the)	52,499	253	1,398	424	1,073	635	1	2,901
Philippines	4,056	..	..	..	108	..	..	..
Poland	23,620	..	..	..	175	438	..	..
Portugal	9,366	130	3,608	..	..	..	..	..
Singapore	47,601	848	2,409	7	760	..	524	333
South Africa	7,658	662	..	..	..	..	..	..
Spain	56,172	679	2,063	1,435	3,751	4,201	..	6,270
Sweden	17,953	..	231	..	..	..	..	559
Thailand	44,482	2,912	..	..	..	..	504	2,284
Türkiye	31,418	..	..	..	13,276	4,519	..	1,960
United Kingdom	36,357	..	71	695	..	..	..	2,840
United States	302,361	1,575	5,109	*152,741	7,481	912	1,026	4,418

**International trade of conventional crude oil  
(Principal importers/exporters)**

Thousand metric tons

**2021**

Exporters									
Mexico	Nigeria	Norway	Oman	Russian Federation	Saudi Arabia	United Arab Emirates	United Kingdom	United States	Venezuela (Bolivar. Rep.)
..	275	..	..	151	..	1,193	..	960	..
..	..	..	..	..	*7,134	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	860	5,012	..	8,382	2,319	..	2,833	2,569	..
..	1,181	..	..	42	*2,558	..	..	2,638	..
..	2,983	137	..	..	3,496	..	..	24,769	..
..	122	..	..	..	..	..	..	751	..
265	2,127	11,866	*30,776	79,642	87,557	*9,264	4,678	12,893	..
..	..	1,151	..	6,491	..	..	..	95	..
..	3,881	2,327	..	2,995	2,617	..	1,134	4,424	..
..	2,554	7,815	..	27,741	1,249	..	7,592	10,235	..
..	162	1,016	..	3,063	1,110	..	..	..	..
7,844	*4,225	1,866	5,560	4,543	34,256	23,018	..	20,733	..
..	3,917	..	..	..	4,420	35	..	..	..
..	3,123	2,423	..	5,758	5,530	..	845	1,872	..
309	..	..	866	4,637	47,711	46,357	..	191	..
7,381	994	2,308	892	7,293	39,111	7,464	2,522	16,101	..
31	3,231	6,187	..	17,483	2,225	..	5,553	7,016	..
..	..	..	159	..	*2,965	823	..	..	..
..	1,658	1,204	..	14,983	4,726	..	324	81	..
..	2,046	470	..	..	245	..	..	946	..
..	1,774	64	243	615	4,701	13,235	..	7,043	..
..	2,265	51	..	..	4,441	130	..	108	..
7,648	10,275	1,600	..	2,569	3,942	..	502	4,096	..
..	805	12,900	..	1,565	..	..	452	1,289	..
..	1,211	..	192	1,780	9,808	13,563	..	1,818	..
..	1,114	1,741	..	5,422	1,676	..	..	..	..
..	2,443	13,049	..	2,810	78	..	..	10,980	..
28,748	5,326	2,386	..	9,812	17,577	..	2,020	..	..

Table 16

**International trade of conventional crude oil  
(Principal importers/exporters)**

Thousand metric tons

**2022**

Importers	Exporters							
	World	Angola	Brazil	Canada	Iraq	Kazakhstan	Kuwait	Libya
Australia	8,427	..	..	..	..	..	..	455
Bahrain	10,621	..	..	..	..	..	..	..
Belarus	14,274	..	..	..	..	..	..	..
Belgium	27,694	1,716	235	403	2,122	1,803	..	717
Brazil	12,474	747	..	..	..	..	..	..
Canada	31,303	46	..	..	..	..	..	..
Chile	7,168	539	5,053	..	..	..	..	..
China	508,231	30,088	24,929	..	*46,750	5,889	33,283	3,743
Finland	9,130	..	..	..	..	..	..	..
France	41,016	2,929	775	402	2,253	5,603	..	2,562
Germany	88,248	127	333	702	3,669	9,030	..	4,779
Greece	21,928	..	..	..	10,377	3,254	..	3,141
India	232,730	4,341	3,483	..	54,595	..	12,759	632
Indonesia	14,122	1,088	..	..	..	..	..	..
Italy	62,515	1,983	225	96	8,287	1,204	..	9,050
Japan	133,592	135	..	..	..	289	11,656	..
Korea, Republic of	136,514	..	3,274	308	10,909	4,432	15,333	..
Netherlands (Kingd. of the)	53,195	1,271	1,798	203	3,689	635	..	1,392
Philippines	5,921	..	..	..	782	..	159	..
Poland	26,291	..	..	..	..	415	..	..
Portugal	10,064	908	3,841	90	..	..	..	..
Singapore	46,322	398	3,223	..	1,269	186	20	348
South Africa	6,157	668	..	..	..	..	..	..
Spain	63,596	2,316	5,401	2,670	5,212	3,298	..	4,997
Sweden	18,847	..	76	..	..	..	..	397
Thailand	47,334	1,935	63	..	..	42	497	2,011
Türkiye	33,486	..	..	..	12,516	4,245	..	812
United Kingdom	42,021	363	..	1,691	..	939	..	1,959
United States	309,956	2,110	7,308	*158,872	12,048	1,127	1,311	3,879



**International trade of conventional crude oil  
(Principal importers/exporters)**

Thousand metric tons

**2022**

Exporters									
Mexico	Nigeria	Norway	Oman	Russian Federation	Saudi Arabia	United Arab Emirates	United Kingdom	United States	Venezuela (Bolivar. Rep.)
..	123	..	..	327	..	76	..	570	..
..	..	..	..	..	*9,320	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	1,321	3,254	..	6,124	2,516	645	2,662	2,569	..
..	1,603	..	..	..	4,501	..	..	3,049	..
..	1,493	251	..	..	3,955	..	83	24,853	..
..	..	..	..	..	..	..	..	..	..
..	475	4,314	*36,287	86,248	87,489	*15,804	*1,418	10,689	..
..	..	6,111	..	1,603	..	..	740	589	..
..	4,110	3,305	..	2,130	3,316	699	1,194	6,064	..
..	2,872	13,242	..	22,392	2,263	742	6,963	12,050	..
..	..	242	..	606	2,011	..	..	136	..
4,670	*4,376	295	4,802	37,020	43,453	23,419	..	15,337	..
..	5,679	72	..	..	4,195	38	..	..	..
..	1,924	507	..	12,075	4,148	..	579	4,390	100
345	..	..	1,517	534	52,705	51,566	..	1,955	..
5,531	1,364	421	479	2,847	47,004	11,147	1,267	18,104	..
..	4,031	6,786	..	12,597	5,252	..	6,191	7,422	..
..	..	..	..	..	3,496	*1,484	..	..	..
..	249	3,342	..	11,317	7,996	..	1,707	1,113	..
..	1,376	96	..	..	..	..	..	468	..
..	374	..	62	138	5,344	12,355	..	15,391	..
..	2,917	..	..	..	2,238	130	..	..	..
6,125	8,123	1,031	..	698	4,773	312	1,104	6,639	727
..	1,480	12,903	..	481	..	..	1,456	1,826	..
..	839	..	292	333	6,355	17,061	..	2,944	..
..	1,190	307	..	12,001	1,664	..	..	..	..
..	1,600	13,783	..	514	153	..	..	15,076	..
31,409	4,655	927	..	999	22,474	..	1,920	..	..

**Table 17**

**Refinery distillation capacity, throughput and output**

Thousand metric tons

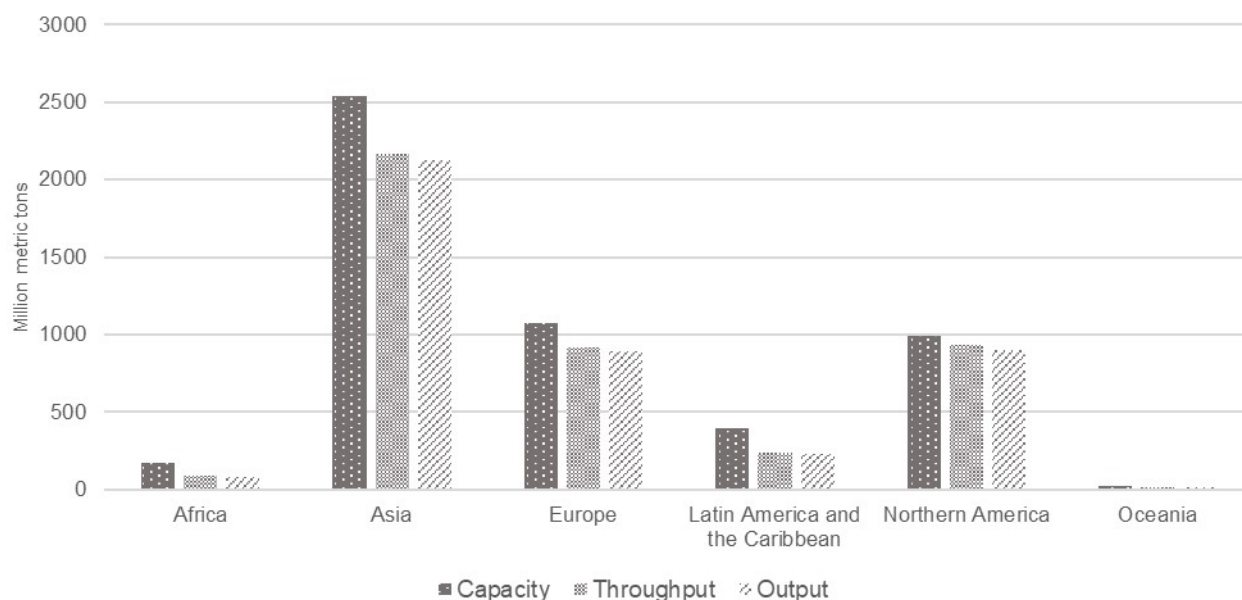
**Table Notes**

**Output** is equal to the sum of “production from refineries” for aviation gasoline, bitumen, gas/diesel oil, ethane, feedstocks, gasoline-type jet fuel, kerosene-type jet fuel, other kerosene, liquefied petroleum gas, lubricants, motor gasoline, naphtha, petroleum coke, other oil products, paraffin waxes, fuel oil, refinery gas and white spirits.

**Throughput** is equal to the sum of “transformation in refineries” for conventional crude oil, feedstocks, other hydrocarbons, additives and oxygenates, and natural gas liquids.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 46: Refinery distillation capacity, throughput and output by region, 2022**



**Figure 47: Total refinery distillation capacity by region, 1990-2022**

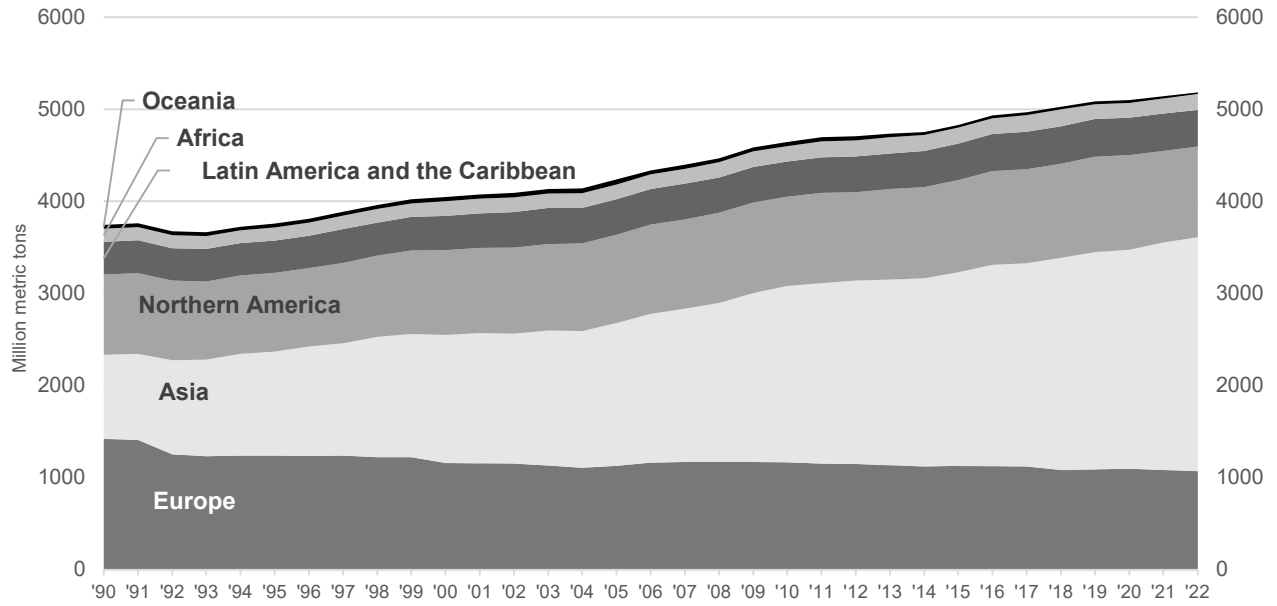


Table 17

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
<b>World</b>	<b>2019</b>	<b>5,085,859</b>	<b>4,413,874</b>	<b>4,303,280</b>
	<b>2020</b>	<b>5,099,874</b>	<b>4,060,944</b>	<b>3,961,460</b>
	<b>2021</b>	<b>5,140,599</b>	<b>4,277,484</b>	<b>4,154,134</b>
	<b>2022</b>	<b>5,184,809</b>	<b>4,357,823</b>	<b>4,246,710</b>
<b>Africa</b>	<b>2019</b>	<b>161,752</b>	<b>98,157</b>	<b>97,879</b>
	<b>2020</b>	<b>158,390</b>	<b>92,613</b>	<b>85,788</b>
	<b>2021</b>	<b>162,150</b>	<b>90,054</b>	<b>84,946</b>
	<b>2022</b>	<b>170,622</b>	<b>87,743</b>	<b>81,239</b>
Algeria	2019	32,858	28,928	28,903
	2020	32,858	29,068	28,444
	2021	33,466	29,805	28,626
	2022	33,766	31,113	30,050
Angola	2019	4,005	2,520	2,563
	2020	4,005	2,286	1,995
	2021	4,005	1,985	1,869
	2022	4,005	2,056	*2,122
Cameroon	2019	2,100	696	616
	2020	0	..	..
	2021	0	..	..
	2022	0	..	..
Chad	2019	*998	700	*680
	2020	*998	*730	*705
	2021	*998	*800	*773
	2022	*998	*800	*776
Congo	2019	1,047	860	735
	2020	1,047	831	713
	2021	1,047	856	738
	2022	1,047	909	784
Côte d'Ivoire	2019	*3,740	3,738	3,711
	2020	3,800	3,427	3,329
	2021	*4,500	4,339	4,111
	2022	*4,500	4,310	4,106
Egypt	2019	39,133	28,489	29,540
	2020	39,133	31,448	27,361
	2021	39,143	31,729	29,059
	2022	39,143	31,275	26,696
Gabon	2019	1,197	595	619
	2020	1,247	831	818
	2021	1,247	957	932
	2022	1,247	964	882
Ghana	2019	2,244	619	624
	2020	2,244	506	496
	2021	2,244	237	285
	2022	*2,244	*41	40
Libya	2019	*18,953	4,106	4,020
	2020	*18,953	2,900	2,839
	2021	*18,953	3,852	3,772
	2022	*18,953	3,708	3,630
Morocco	2019	7,716	..	..
	2020	7,716	..	..
	2021	7,716	..	..
	2022	7,716	..	..

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Niger	2019	*1,200	875	818
	2020	*1,200	851	791
	2021	*1,200	860	698
	2022	*1,200	779	690
Nigeria	2019	10,743	588	528
	2020	10,471	0	0
	2021	*10,471	230	*211
	2022	*10,471	253	235
Senegal	2019	1,248	1,024	886
	2020	1,248	821	757
	2021	1,248	896	868
	2022	1,500	634	604
Sierra Leone	2019	*499	..	..
	2020	*499	..	..
	2021	*499	..	..
	2022	*499	..	..
South Africa	2019	*25,000	20,037	19,212
	2020	*23,900	13,304	12,434
	2021	25,935	8,719	8,148
	2022	35,053	5,510	5,150
South Sudan	2019	..	..	..
	2020	..	..	..
	2021	407	123	119
	2022	407	164	159
Sudan	2019	*6,074	*3,540	*3,625
	2020	*6,074	4,124	3,653
	2021	*6,074	2,998	3,091
	2022	*6,074	*3,766	3,869
Tunisia	2019	1,800	142	141
	2020	*1,800	1,114	1,108
	2021	*1,800	1,610	1,593
	2022	*1,800	1,460	1,445
Zambia	2019	1,197	700	658
	2020	*1,197	372	344
	2021	*1,197	57	54
	2022	..	..	0
<b>Asia</b>	<b>2019</b>	<b>2,360,010</b>	<b>2,115,370</b>	<b>2,065,312</b>
	<b>2020</b>	<b>2,376,543</b>	<b>2,019,439</b>	<b>1,986,069</b>
	<b>2021</b>	<b>2,469,824</b>	<b>2,152,267</b>	<b>2,108,222</b>
	<b>2022</b>	<b>2,538,448</b>	<b>2,167,342</b>	<b>2,128,517</b>
Afghanistan	2019	*185	*119	*112
	2020	*185	*51	*46
	2021	*185	*55	*50
	2022	*185	*55	*50
Azerbaijan	2019	*5,985	6,162	6,045
	2020	*5,985	5,862	5,795
	2021	*7,500	6,595	6,572
	2022	7,500	6,242	6,127
Bahrain	2019	13,314	13,149	13,386
	2020	13,314	11,093	11,200
	2021	13,314	11,176	11,517
	2022	13,314	12,623	12,628

Table 17

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Bangladesh	2019	1,920	1,569	1,408
	2020	1,920	1,223	1,058
	2021	1,920	1,880	1,777
	2022	1,970	1,591	1,582
Brunei Darussalam	2019	*8,734	1,484	1,330
	2020	*8,734	8,441	8,223
	2021	*8,734	8,282	7,972
	2022	*8,734	8,643	8,300
China	2019	*860,000	766,235	763,910
	2020	*860,000	812,744	808,477
	2021	*910,000	848,577	842,814
	2022	*981,700	823,397	815,100
Georgia	2019	*5,440	38	37
	2020	*5,440	37	37
	2021	*5,440	50	50
	2022	*5,440	43	43
India	2019	249,866	*263,999	263,195
	2020	249,866	*230,431	231,656
	2021	251,216	*250,656	256,275
	2022	253,916	*270,343	269,158
Indonesia	2019	58,309	*48,174	41,413
	2020	59,202	48,124	40,752
	2021	*59,202	47,831	40,674
	2022	*59,202	46,909	39,603
Iran (Islamic Rep. of)	2019	109,776	103,856	100,133
	2020	109,902	97,456	95,861
	2021	109,825	106,588	100,865
	2022	111,544	105,021	104,248
Iraq	2019	41,087	31,956	29,619
	2020	55,700	27,182	25,664
	2021	55,661	31,307	29,551
	2022	63,127	35,043	32,775
Israel	2019	*15,225	15,268	15,268
	2020	*15,225	12,832	12,832
	2021	*15,225	13,497	13,411
	2022	*15,225	14,239	14,202
Japan	2019	172,459	151,812	147,427
	2020	172,459	123,464	121,293
	2021	171,721	130,281	128,925
	2022	*157,568	137,295	135,661
Jordan	2019	*4,509	2,403	2,174
	2020	*4,509	1,820	1,780
	2021	*4,509	1,771	1,777
	2022	*4,509	1,599	1,565
Kazakhstan	2019	21,446	17,070	15,910
	2020	*21,446	15,801	14,925
	2021	21,446	17,591	17,257
	2022	21,446	19,008	19,090
Korea, Dem.Ppl's.Rep.	2019	3,494	532	515
	2020	*3,494	532	515
	2021	*3,494	532	515
	2022	*3,494	532	515

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Korea, Republic of	2019	159,762	163,247	157,811
	2020	159,762	152,301	147,105
	2021	159,762	153,603	147,548
	2022	159,762	163,704	157,730
Kuwait	2019	39,900	31,400	32,155
	2020	36,835	28,919	28,487
	2021	39,891	34,366	34,708
	2022	50,113	40,697	38,872
Kyrgyzstan	2019	800	322	318
	2020	800	180	162
	2021	800	283	269
	2022	*800	298	303
Malaysia	2019	26,862	24,427	21,227
	2020	26,862	22,266	21,710
	2021	39,866	23,123	20,591
	2022	39,866	20,796	20,260
Myanmar	2019	*2,545	213	207
	2020	2,545	238	237
	2021	2,545	183	185
	2022	2,545	190	194
Oman	2019	*15,112	13,028	12,031
	2020	*15,112	11,309	10,528
	2021	*15,162	12,741	11,511
	2022	*15,162	13,915	12,760
Other Asia	2019	56,898	51,734	51,450
	2020	54,946	42,284	43,288
	2021	54,946	44,738	46,493
	2022	54,946	47,405	47,803
Pakistan	2019	19,370	*10,573	10,044
	2020	20,400	11,934	11,566
	2021	20,242	11,993	11,401
	2022	20,337	*10,498	9,873
Philippines	2019	*13,766	8,129	7,735
	2020	*8,978	4,729	4,525
	2021	*8,978	3,933	3,743
	2022	*8,978	5,987	5,661
Qatar	2019	21,446	16,306	16,201
	2020	21,446	16,829	16,715
	2021	21,446	17,276	17,159
	2022	21,446	17,365	17,250
Saudi Arabia	2019	144,404	142,782	129,546
	2020	146,350	116,776	112,331
	2021	165,895	152,448	140,201
	2022	164,100	139,720	137,270
Singapore	2019	67,057	50,147	49,843
	2020	67,057	42,758	41,391
	2021	72,818	43,143	41,906
	2022	64,938	47,931	46,469
Sri Lanka	2019	2,494	1,865	1,825
	2020	2,494	1,715	1,669
	2021	*2,494	1,272	1,219
	2022	*2,494	530	483

Table 17

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Syrian Arab Republic	2019	11,963	6,158	6,086
	2020	11,963	6,421	6,345
	2021	11,975	6,209	6,135
	2022	11,975	6,209	6,135
Tajikistan	2019	150	33	30
	2020	150	35	16
	2021	150	28	22
	2022	150	25	13
Thailand	2019	61,571	57,861	58,966
	2020	62,070	56,597	58,138
	2021	62,070	*55,541	57,011
	2022	*62,070	52,791	54,037
Türkiye	2019	*44,067	37,430	37,005
	2020	*44,067	35,657	35,315
	2021	*44,067	38,095	37,795
	2022	*44,067	41,165	40,821
Turkmenistan	2019	13,017	7,863	7,549
	2020	*13,017	7,362	7,067
	2021	*13,017	7,419	7,122
	2022	*13,017	7,680	7,373
United Arab Emirates	2019	56,210	48,511	45,284
	2020	63,441	43,677	39,931
	2021	63,441	48,952	44,741
	2022	61,182	46,305	44,450
Uzbekistan	2019	5,420	3,808	3,611
	2020	5,420	3,616	3,359
	2021	5,420	*3,854	3,488
	2022	*5,420	*3,907	3,785
Viet Nam	2019	*16,484	13,938	12,815
	2020	*16,484	15,508	14,888
	2021	*16,484	15,317	13,938
	2022	*17,242	16,549	15,286
Yemen	2019	8,963	1,769	1,690
	2020	8,963	1,235	1,180
	2021	*8,963	1,082	1,034
	2022	*8,963	1,091	1,043
<b>Europe</b>	<b>2019</b>	<b>1,088,718</b>	<b>961,187</b>	<b>947,072</b>
	<b>2020</b>	<b>1,097,000</b>	<b>866,505</b>	<b>849,668</b>
	<b>2021</b>	<b>1,083,504</b>	<b>894,746</b>	<b>874,469</b>
	<b>2022</b>	<b>1,069,878</b>	<b>916,085</b>	<b>893,291</b>
Albania	2019	1,494	335	323
	2020	1,494	134	131
	2021	1,494	165	158
	2022	1,494	121	117
Austria	2019	9,576	9,642	9,530
	2020	9,576	8,604	8,438
	2021	9,576	8,522	8,366
	2022	9,576	6,286	6,161
Belarus	2019	27,082	17,854	17,607
	2020	*24,000	16,296	16,083
	2021	*22,444	16,296	16,083
	2022	*22,444	14,639	14,423



## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Belgium	2019	38,703	35,478	35,152
	2020	38,703	27,659	27,511
	2021	33,367	30,916	30,722
	2022	31,915	28,933	28,663
Bosnia and Herzegovina	2019	*11,970	83	74
	2020	*11,970	13	13
	2021	*11,970	14	13
	2022	*11,970	16	14
Bulgaria	2019	*9,726	7,347	6,968
	2020	*9,726	5,315	5,061
	2021	*9,776	4,634	4,437
	2022	*9,776	7,617	7,283
Croatia	2019	8,300	2,933	2,908
	2020	8,300	2,615	2,560
	2021	8,300	2,455	2,428
	2022	8,300	2,298	2,248
Czechia	2019	*9,676	8,161	8,089
	2020	8,728	6,361	6,341
	2021	8,728	7,425	7,399
	2022	8,728	7,752	7,717
Denmark	2019	*9,027	8,653	8,635
	2020	*8,900	8,193	8,176
	2021	*8,778	8,287	8,260
	2022	*8,875	8,187	8,075
Finland	2019	13,017	14,927	14,689
	2020	13,017	13,681	13,549
	2021	12,000	10,212	9,783
	2022	12,000	12,050	11,920
France	2019	70,124	51,216	50,842
	2020	70,124	37,187	36,911
	2021	70,124	36,561	36,175
	2022	70,124	42,671	42,224
Germany	2019	*104,400	99,884	97,682
	2020	*104,400	95,400	93,170
	2021	*104,400	95,682	93,398
	2022	*104,400	100,913	98,658
Greece	2019	*26,234	30,138	30,133
	2020	*26,234	28,795	28,766
	2021	*26,234	30,547	30,538
	2022	*26,234	30,556	30,568
Hungary	2019	8,229	7,476	7,398
	2020	8,229	7,363	7,292
	2021	8,227	7,294	7,222
	2022	8,227	6,897	6,830
Ireland	2019	3,741	2,767	2,742
	2020	3,741	2,892	2,892
	2021	3,741	3,058	3,057
	2022	3,741	3,035	3,033
Italy	2019	87,300	74,242	73,437
	2020	87,300	60,871	60,231
	2021	87,300	69,343	68,804
	2022	87,250	73,550	73,017

Table 17

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Lithuania	2019	10,220	9,720	9,605
	2020	10,220	8,000	7,905
	2021	8,000	8,195	8,086
	2022	8,000	8,450	8,339
Netherlands (Kingd. of the)	2019	*64,374	62,099	61,874
	2020	61,300	55,646	55,361
	2021	61,746	59,523	58,948
	2022	61,880	58,997	58,433
North Macedonia	2019	2,494	..	..
	2020	2,494	..	..
	2021	*2,494	..	..
	2022	..	..	..
Norway	2019	*17,955	16,094	15,865
	2020	*17,955	14,735	14,579
	2021	*17,955	13,846	13,826
	2022	11,272	9,967	9,861
Poland	2019	29,250	28,983	28,457
	2020	27,724	27,417	26,988
	2021	28,978	26,769	26,626
	2022	27,731	28,822	28,591
Portugal	2019	16,459	12,813	12,762
	2020	16,459	11,959	11,908
	2021	11,219	11,221	11,186
	2022	11,272	11,893	11,847
Republic of Moldova	2019	19	6	6
	2020	19	5	7
	2021	*19	2	2
	2022	*19	3	3
Romania	2019	*18,853	13,337	13,327
	2020	*18,853	11,737	11,728
	2021	*18,853	11,391	11,118
	2022	*18,853	12,420	12,414
Russian Federation	2019	*287,200	286,916	282,261
	2020	*304,239	274,181	265,576
	2021	*304,239	286,198	274,958
	2022	*304,239	282,962	269,790
Serbia	2019	*10,715	3,514	3,495
	2020	*10,715	3,626	3,607
	2021	*10,715	3,938	3,915
	2022	*10,715	4,431	4,406
Slovakia	2019	*5,736	5,602	5,580
	2020	5,736	6,069	6,045
	2021	*5,736	6,064	6,034
	2022	*5,736	5,878	5,856
Slovenia	2019	673	..	..
	2020	673	..	..
	2021	673	..	..
	2022	..	..	..
Spain	2019	*79,083	66,539	65,221
	2020	*79,083	56,618	55,673
	2021	*79,332	59,047	58,057
	2022	*79,332	63,792	61,997

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Sweden	2019	*21,796	18,933	18,078
	2020	*21,796	19,963	19,720
	2021	*21,796	21,549	21,411
	2022	*21,796	21,317	21,084
Switzerland	2019	*3,392	2,781	2,763
	2020	*3,392	2,864	2,881
	2021	*3,392	2,353	2,372
	2022	*3,392	3,088	3,106
Ukraine	2019	*19,600	3,707	*2,843
	2020	*19,600	4,064	*2,703
	2021	*19,600	4,441	*2,926
	2022	*19,600	*3,647	*2,655
United Kingdom	2019	*62,300	59,007	58,726
	2020	*62,300	48,243	47,862
	2021	*62,300	48,799	48,161
	2022	*60,988	54,897	53,959
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>409,172</b>	<b>232,186</b>	<b>223,468</b>
	<b>2020</b>	<b>406,419</b>	<b>209,787</b>	<b>203,012</b>
	<b>2021</b>	<b>406,068</b>	<b>224,221</b>	<b>215,887</b>
	<b>2022</b>	<b>397,680</b>	<b>235,434</b>	<b>232,191</b>
Argentina	2019	31,621	24,138	23,086
	2020	31,621	21,223	21,892
	2021	31,621	23,962	22,048
	2022	31,621	24,837	22,825
Aruba	2019	*11,463	..	..
	2020	*11,463	..	..
	2021	*11,463	..	..
	2022	*11,463	..	..
Bolivia (Plur. State of)	2019	3,394	2,223	2,020
	2020	3,341	2,089	1,964
	2021	3,341	2,094	1,980
	2022	3,342	1,931	1,807
Brazil	2019	123,396	91,799	91,193
	2020	123,309	96,861	94,945
	2021	*123,309	96,598	95,718
	2022	114,872	100,663	103,361
Chile	2019	11,521	10,978	10,245
	2020	11,521	8,478	8,507
	2021	11,169	9,711	9,416
	2022	11,169	9,241	8,423
Colombia	2019	21,496	19,840	19,254
	2020	18,883	18,099	15,588
	2021	18,883	21,209	18,985
	2022	18,883	20,204	20,008
Cuba	2019	*6,135	*1,791	1,701
	2020	*6,135	*2,160	2,052
	2021	*6,135	*1,538	1,461
	2022	*6,135	*1,409	1,396
Curaçao	2019	*16,708	0	0
	2020	*16,708	..	..
	2021	*16,708	..	..
	2022	*16,708	..	..

Table 17

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Dominican Republic	2019	2,486	1,283	1,141
	2020	2,486	527	479
	2021	2,486	1,248	1,118
	2022	2,486	1,283	1,150
Ecuador	2019	8,865	7,794	7,158
	2020	8,865	6,410	5,949
	2021	8,865	7,912	7,404
	2022	8,865	8,374	7,835
Guatemala	2019	*250	146	146
	2020	*250	110	110
	2021	*250	132	132
	2022	*250	136	136
Jamaica	2019	1,747	1,339	1,291
	2020	1,747	*1,200	1,167
	2021	*1,747	1,149	1,011
	2022	1,796	986	946
Mexico	2019	81,796	33,668	32,418
	2020	81,796	33,103	32,360
	2021	81,796	39,218	38,144
	2022	81,796	44,941	43,836
Nicaragua	2019	998	547	518
	2020	998	546	516
	2021	998	708	670
	2022	998	755	712
Paraguay	2019	370	..	..
	2020	370	..	..
	2021	370	..	..
	2022	370	..	..
Peru	2019	10,468	8,869	7,581
	2020	10,468	4,678	4,748
	2021	10,468	6,233	5,876
	2022	*10,468	6,231	5,768
Suriname	2019	748	690	637
	2020	748	656	618
	2021	748	733	686
	2022	748	692	685
Trinidad and Tobago	2019	*8,379	..	..
	2020	*8,379	..	..
	2021	*8,379	..	..
	2022	*8,379	..	..
Uruguay	2019	2,494	2,054	2,001
	2020	2,494	1,897	1,856
	2021	2,494	2,096	2,051
	2022	2,494	2,084	2,039
Venezuela (Bolivar. Rep.)	2019	64,838	25,026	23,076
	2020	64,838	11,748	10,262
	2021	64,838	9,680	9,187
	2022	64,838	11,666	11,264
<b>Northern America</b>	<b>2019</b>	<b>1,035,189</b>	<b>975,699</b>	<b>938,764</b>
	<b>2020</b>	<b>1,029,476</b>	<b>845,002</b>	<b>809,729</b>
	<b>2021</b>	<b>995,212</b>	<b>892,623</b>	<b>847,603</b>
	<b>2022</b>	<b>988,130</b>	<b>935,913</b>	<b>896,288</b>

## Refinery distillation capacity, throughput and output

Thousand metric tons

Country or area	Year	Capacity	Throughput	Output
Canada	2019	97,134	111,378	106,238
	2020	98,703	99,871	95,382
	2021	92,070	103,960	98,649
	2022	92,219	110,087	104,391
United States	2019	938,055	864,321	832,525
	2020	930,773	745,130	714,347
	2021	903,142	788,664	748,953
	2022	895,910	825,826	791,898
<b>Oceania</b>	<b>2019</b>	<b>31,017</b>	<b>31,276</b>	<b>30,786</b>
	<b>2020</b>	<b>32,045</b>	<b>27,598</b>	<b>27,194</b>
	<b>2021</b>	<b>23,841</b>	<b>23,573</b>	<b>23,007</b>
	<b>2022</b>	<b>20,052</b>	<b>15,307</b>	<b>15,183</b>
Australia	2019	22,688	24,000	23,680
	2020	23,711	21,495	21,217
	2021	15,508	17,906	17,476
	2022	11,718	12,764	12,760
New Zealand	2019	6,733	5,956	5,898
	2020	6,738	4,638	4,568
	2021	6,738	4,415	4,269
	2022	6,738	1,143	1,104
Papua New Guinea	2019	*1,596	1,320	1,208
	2020	*1,596	1,466	1,409
	2021	*1,596	1,253	1,261
	2022	*1,596	*1,400	*1,319



**Production, trade and supply of liquefied petroleum gases (LPG)**

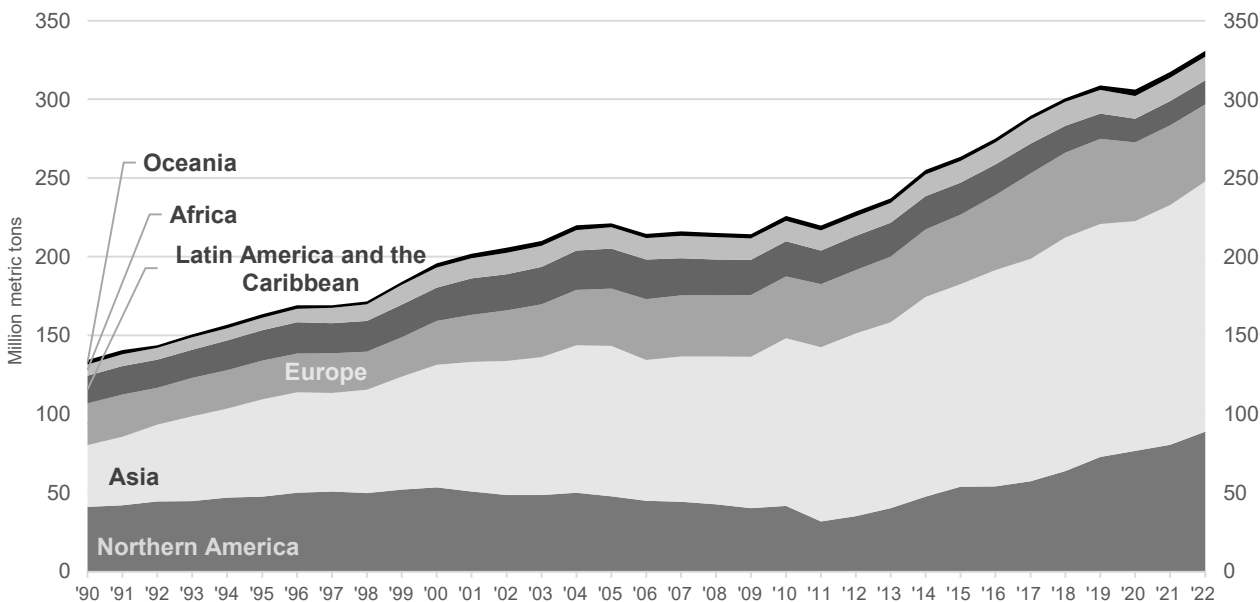
Thousand metric tons and kilograms per capita

**Table Notes**

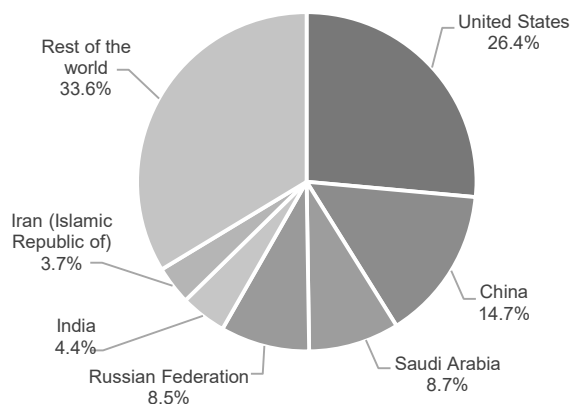
**Production** includes output from refineries and plants.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 48: Production of LPG by region, 1990-2022**



**Figure 49: Major LPG producing countries, 2022**



**Figure 50: Major LPG consuming countries, 2022**

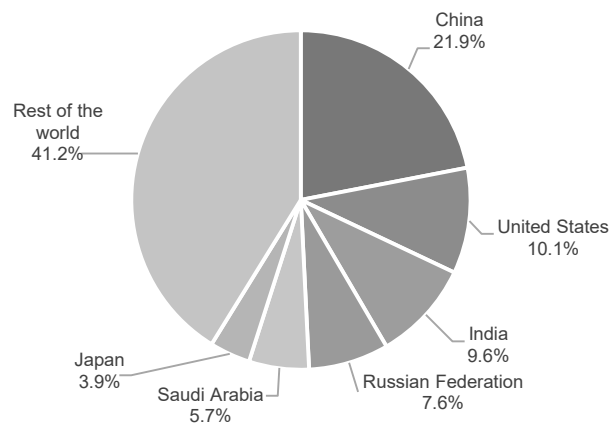


Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
World	2019	308,719	128,025	115,219	1,140	320,385	41
	2020	306,063	127,705	117,567	-1,410	317,610	40
	2021	317,247	134,603	121,672	-1,748	331,927	42
	2022	330,779	142,302	131,460	4,076	337,545	42
Africa	2019	14,988	8,096	9,005	75	14,003	10
	2020	14,475	8,518	8,351	251	14,391	10
	2021	14,933	8,391	8,182	322	14,820	10
	2022	15,039	8,238	8,008	459	14,810	10
Algeria	2019	8,917	..	6,260	-17	2,674	62
	2020	8,413	..	5,574	-33	2,872	65
	2021	8,990	..	5,896	24	3,070	69
	2022	9,455	..	6,104	-12	3,363	74
Angola	2019	2,387	429	1,895	*421	499	15
	2020	2,362	0	2,042	291	28	1
	2021	2,034	0	1,621	332	81	2
	2022	1,763	0	1,289	464	10	0
Benin	2019	..	24	..	-1	24	2
	2020	..	23	..	0	23	2
	2021	..	92	..	61	31	2
	2022	..	..	18	-59	41	3
Botswana	2019	..	14	..	..	14	6
	2020	..	12	..	..	12	5
	2021	..	20	..	..	20	8
	2022	..	21	..	..	21	9
Burkina Faso	2019	..	103	..	-1	104	5
	2020	..	122	..	..	122	6
	2021	..	141	..	..	141	6
	2022	..	*143	..	..	*143	*6
Burundi	2019	..	0	..	..	0	0
	2020	..	1	..	..	1	0
	2021	..	0	..	..	0	0
	2022	..	0	..	..	0	0
Cabo Verde	2019	..	14	..	..	14	26
	2020	..	13	..	..	13	25
	2021	..	15	..	..	15	29
	2022	..	13	..	..	13	25
Cameroon	2019	30	88	..	..	118	5
	2020	25	95	..	..	120	5
	2021	35	89	..	..	124	5
	2022	28	99	..	..	128	5
Central African Rep.	2019	..	2	..	..	2	0
	2020	..	0	..	0	0	0
	2021	..	0	..	0	0	0
	2022	..	0	..	..	0	0
Chad	2019	*35	..	..	..	*35	*2
	2020	*42	..	..	..	*42	*2
	2021	*46	..	..	..	*46	*3
	2022	*45	..	..	..	*45	*2
Comoros	2019	..	*2	..	..	*2	*2
	2020	..	*2	..	..	*2	*2
	2021	..	*2	..	..	*2	*2
	2022	..	*3	..	..	*3	*3



Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Congo	2019	8	..	..	..	8	1
	2020	8	..	..	..	8	1
	2021	8	..	..	..	8	1
	2022	9	..	..	..	9	1
Côte d'Ivoire	2019	28	385	20	..	393	14
	2020	28	419	75	..	372	13
	2021	56	505	60	..	501	17
	2022	15	550	..	..	565	19
Djibouti	2019	..	*15	..	..	*15	*14
	2020	..	13	..	..	13	11
	2021	..	*15	..	..	*15	*14
	2022	..	*14	..	..	*14	*12
Egypt	2019	1,839	1,989	..	..	3,828	36
	2020	1,809	2,382	..	..	4,191	38
	2021	1,834	2,177	..	..	4,011	36
	2022	1,848	1,758	..	..	3,605	32
Equatorial Guinea	2019	528	..	509	*3	16	10
	2020	478	..	473	*-9	14	8
	2021	376	..	393	*-29	12	7
	2022	409	..	*386	*14	10	6
Eritrea	2019	..	6	..	..	6	2
	2020	..	6	..	..	6	2
	2021	..	6	..	..	6	2
	2022	..	6	..	..	6	2
Eswatini	2019	..	4	..	..	4	3
	2020	..	5	..	..	5	4
	2021	..	6	..	..	6	5
	2022	..	3	..	..	3	3
Ethiopia	2019	..	6	..	..	6	0
	2020	..	8	..	..	8	0
	2021	..	7	..	-2	9	0
	2022	..	7	..	-2	9	0
Gabon	2019	5	74	..	..	79	35
	2020	10	48	..	..	58	25
	2021	11	37	..	..	48	20
	2022	14	44	..	..	58	24
Gambia	2019	..	*2	..	..	*2	*1
	2020	..	*2	..	..	*2	*1
	2021	..	*2	..	..	*2	*1
	2022	..	*2	..	..	*2	*1
Ghana	2019	70	275	1	-4	348	11
	2020	85	262	3	3	341	11
	2021	95	263	0	6	351	11
	2022	111	211	0	4	318	10
Guinea-Bissau	2019	..	0	..	..	0	0
	2020	..	0	..	..	0	0
	2021	..	0	..	..	0	0
	2022	..	*1	..	..	*1	0
Kenya	2019	..	304	3	..	301	6
	2020	..	321	1	..	320	6
	2021	..	371	..	..	371	7
	2022	..	334	..	..	334	6

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Lesotho	2019	..	14	..	..	14	6
	2020	..	14	..	..	14	6
	2021	..	14	..	..	14	6
	2022	..	10	..	..	10	4
Liberia	2019	..	*2	..	..	*2	0
	2020	..	*2	..	..	*2	0
	2021	..	*2	..	..	*2	0
	2022	..	*2	..	..	*2	0
Libya	2019	457	..	188	..	269	39
	2020	405	..	133	..	272	39
	2021	446	..	170	..	275	39
	2022	435	..	156	..	278	39
Madagascar	2019	..	17	0	2	15	1
	2020	..	11	0	*1	10	0
	2021	..	17	..	*6	12	0
	2022	..	16	..	..	16	1
Malawi	2019	..	3	..	..	3	0
	2020	..	1	..	..	1	0
	2021	..	2	..	..	2	0
	2022	..	2	..	..	2	0
Mali	2019	..	14	..	..	14	1
	2020	..	17	..	..	17	1
	2021	..	19	..	..	19	1
	2022	..	15	..	..	15	1
Mauritania	2019	..	85	..	*32	53	12
	2020	..	70	..	*12	59	13
	2021	..	*78	..	*17	*61	*13
	2022	..	90	..	*29	61	13
Mauritius	2019	..	175	62	29	84	66
	2020	..	68	..	-8	76	59
	2021	..	77	..	-5	82	64
	2022	..	92	..	3	89	70
Morocco	2019	..	2,729	..	-27	2,756	76
	2020	..	2,821	..	-10	2,831	77
	2021	..	2,796	..	-102	2,898	78
	2022	..	3,012	..	7	3,005	81
Mozambique	2019	..	37	..	..	37	1
	2020	..	28	..	..	28	1
	2021	..	44	..	..	44	1
	2022	..	44	..	..	44	1
Namibia	2019	..	17	1	..	16	6
	2020	..	17	0	..	16	6
	2021	..	16	0	..	16	6
	2022	..	16	0	..	15	5
Niger	2019	61	0	..	..	61	3
	2020	61	5	1	2	64	3
	2021	55	9	0	-1	65	3
	2022	48	32	..	*-6	86	3
Nigeria	2019	3	..	..	-362	365	2
	2020	136	564	..	5	695	3
	2021	406	416	..	14	807	4
	2022	406	321	..	18	709	3

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Rwanda	2019	..	25	..	..	25	2
	2020	..	33	..	..	33	3
	2021	..	30	..	..	30	2
	2022	..	*31	..	..	*31	*2
Sao Tome and Principe	2019	..	0	..	..	0	*1
	2020	..	0	..	..	0	*1
	2021	..	0	..	..	0	*1
	2022	..	0	..	..	0	*1
Senegal	2019	3	176	7	0	172	11
	2020	3	188	7	-1	185	11
	2021	3	188	..	..	191	11
	2022	5	209	..	..	214	12
Seychelles	2019	..	4	..	..	4	34
	2020	..	*4	..	..	*4	*33
	2021	..	*4	..	..	*4	*33
	2022	..	*4	..	..	*4	*33
Sierra Leone	2019	..	4	..	..	4	0
	2020	..	5	..	..	5	1
	2021	..	5	..	..	5	1
	2022	..	3	..	..	3	0
Somalia	2019	..	*10	..	..	*10	*1
	2020	..	*10	..	..	*10	*1
	2021	..	*10	..	..	*10	*1
	2022	..	*11	..	..	*11	*1
South Africa	2019	221	86	60	..	247	4
	2020	199	54	42	..	212	4
	2021	168	20	41	..	146	2
	2022	113	96	56	..	153	2
South Sudan	2019	..	3	..	..	3	0
	2020	..	3	..	..	3	0
	2021	..	3	..	..	3	0
	2022	..	3	..	..	3	0
Sudan	2019	*281	207	..	..	*488	*11
	2020	293	99	..	..	392	8
	2021	250	31	..	..	281	6
	2022	246	66	..	..	312	6
Togo	2019	..	34	..	-1	35	4
	2020	..	37	..	-1	38	4
	2021	..	40	..	..	40	4
	2022	..	45	..	..	45	5
Tunisia	2019	105	495	..	1	599	50
	2020	113	472	..	-1	586	49
	2021	120	485	..	1	604	50
	2022	89	527	..	0	616	51
Uganda	2019	..	19	..	..	19	0
	2020	..	24	..	..	24	1
	2021	..	25	..	..	25	1
	2022	..	33	..	..	33	1
United Rep. of Tanzania	2019	..	166	..	..	166	3
	2020	..	195	..	..	195	3
	2021	..	248	..	..	248	4
	2022	..	250	..	..	250	4

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Zambia	2019	11	1	..	..	12	1
	2020	5	3	..	..	8	0
	2021	0	8	..	..	8	0
	2022	0	8	..	..	8	0
Zimbabwe	2019	..	37	..	..	37	2
	2020	..	39	..	..	39	3
	2021	..	57	..	..	57	4
	2022	..	90	..	-1	90	6
<b>Asia</b>	<b>2019</b>	<b>148,033</b>	<b>74,770</b>	<b>41,259</b>	<b>7</b>	<b>181,536</b>	<b>39</b>
	<b>2020</b>	<b>145,854</b>	<b>75,690</b>	<b>38,230</b>	<b>-812</b>	<b>184,127</b>	<b>39</b>
	<b>2021</b>	<b>152,257</b>	<b>79,939</b>	<b>38,863</b>	<b>-503</b>	<b>193,836</b>	<b>41</b>
	<b>2022</b>	<b>158,974</b>	<b>87,276</b>	<b>45,572</b>	<b>1,451</b>	<b>199,226</b>	<b>42</b>
Afghanistan	2019	..	675	..	..	675	18
	2020	..	680	..	..	680	17
	2021	..	*620	..	..	*620	*15
	2022	..	*605	..	..	*605	*15
Armenia	2019	..	30	..	..	30	10
	2020	..	52	..	..	52	18
	2021	..	74	..	..	74	26
	2022	..	90	..	..	90	31
Azerbaijan	2019	210	1	14	-10	207	20
	2020	201	16	13	-4	209	21
	2021	282	..	5	-2	279	27
	2022	256	..	..	2	254	25
Bahrain	2019	136	..	62	2	72	48
	2020	124	..	45	10	69	47
	2021	110	..	29	13	68	45
	2022	125	..	46	6	73	48
Bangladesh	2019	19	..	..	..	19	0
	2020	14	..	..	..	14	0
	2021	13	..	..	..	13	0
	2022	12	..	..	..	12	0
Bhutan	2019	..	9	..	..	9	12
	2020	..	8	..	..	8	11
	2021	..	8	..	..	8	11
	2022	..	8	..	..	8	10
Brunei Darussalam	2019	93	..	48	28	17	38
	2020	619	..	503	98	18	39
	2021	629	..	609	4	17	37
	2022	555	..	539	0	16	36
Cambodia	2019	..	341	..	..	341	21
	2020	..	322	..	..	322	19
	2021	..	319	..	..	319	19
	2022	..	329	..	..	329	19
China	2019	42,100	21,093	1,409	178	61,606	43
	2020	44,890	20,046	949	177	63,811	45
	2021	47,855	24,778	990	578	71,066	50
	2022	48,498	26,915	869	526	74,018	52
China, Hong Kong SAR	2019	..	347	..	-31	378	50
	2020	..	302	..	-19	321	43
	2021	..	308	..	-9	317	42
	2022	..	286	..	36	250	33

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
China, Macao SAR	2019	..	40	..	1	39	58
	2020	..	34	..	0	34	50
	2021	..	33	..	..	33	48
	2022	..	31	..	2	29	41
Cyprus	2019	..	62	..	0	62	48
	2020	..	54	..	1	53	41
	2021	..	53	..	-3	56	42
	2022	..	62	..	3	59	45
Georgia	2019	..	28	0	0	28	7
	2020	..	29	..	0	29	8
	2021	..	36	..	0	36	9
	2022	..	43	0	1	42	11
India	2019	12,823	14,809	463	..	27,169	20
	2020	12,072	16,476	452	..	28,096	20
	2021	13,887	17,120	513	..	30,494	22
	2022	14,549	18,309	534	..	32,324	23
Indonesia	2019	2,001	5,715	0	-1	7,716	28
	2020	1,874	6,106	0	-1	7,980	29
	2021	1,903	6,336	..	..	8,239	30
	2022	1,958	6,730	..	3	8,685	31
Iran (Islamic Rep. of)	2019	8,920	..	4,931	-179	4,168	48
	2020	8,980	..	4,424	-831	5,387	61
	2021	10,921	..	5,722	-852	6,051	68
	2022	12,144	..	8,324	..	3,821	43
Iraq	2019	1,780	..	163	..	1,618	39
	2020	1,776	..	166	..	1,610	38
	2021	1,853	..	137	..	1,715	40
	2022	1,929	..	137	..	1,792	41
Israel	2019	425	218	137	-4	510	59
	2020	374	219	144	2	446	51
	2021	429	187	130	-2	488	55
	2022	407	234	165	1	475	52
Japan	2019	3,401	10,440	55	142	13,644	108
	2020	2,846	10,099	56	-45	12,934	102
	2021	2,963	10,068	38	6	12,987	103
	2022	2,738	10,545	44	165	13,075	105
Jordan	2019	68	432	..	22	478	45
	2020	54	409	..	..	463	43
	2021	61	377	..	..	438	40
	2022	62	475	..	..	537	48
Kazakhstan	2019	2,587	1	1,866	38	684	36
	2020	2,618	0	1,907	26	685	35
	2021	2,659	0	1,744	9	906	46
	2022	2,990	1	1,384	77	1,530	76
Korea, Republic of	2019	2,882	7,872	477	64	10,213	197
	2020	2,476	8,349	491	82	10,252	198
	2021	2,532	8,029	268	-82	10,376	200
	2022	2,201	8,795	58	32	10,906	211
Kuwait	2019	6,036	..	4,731	..	1,305	294
	2020	6,402	..	4,557	..	1,845	419
	2021	5,257	..	4,710	..	547	125
	2022	6,409	..	5,167	..	1,242	271

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Kyrgyzstan	2019	15	37	1	1	50	8
	2020	7	44	..	12	39	6
	2021	..	107	..	11	96	14
	2022	..	63	..	-4	67	10
Lao People's Dem. Rep.	2019	..	*17	..	..	*17	*2
	2020	..	*19	..	..	*19	*3
	2021	..	*21	..	..	*21	*3
	2022	..	26	..	..	26	3
Lebanon	2019	..	219	..	..	219	38
	2020	..	234	..	..	234	41
	2021	..	208	..	..	208	36
	2022	..	142	..	..	142	25
Malaysia	2019	2,720	419	297	*-128	2,970	89
	2020	2,330	499	478	*-251	2,602	77
	2021	2,728	325	734	-88	2,408	70
	2022	2,279	898	495	..	2,681	77
Maldives	2019	..	17	..	..	17	35
	2020	..	13	..	..	13	26
	2021	..	17	..	..	17	33
	2022	..	18	..	..	18	34
Myanmar	2019	13	18	..	..	31	1
	2020	7	71	..	..	78	1
	2021	6	90	..	..	96	2
	2022	13	87	..	-1	101	2
Nepal	2019	..	416	..	..	416	15
	2020	..	443	..	..	443	15
	2021	..	497	..	..	497	17
	2022	..	536	..	..	536	18
Oman	2019	776	..	556	..	220	48
	2020	667	..	474	..	193	43
	2021	730	..	25	..	706	157
	2022	736	37	204	..	569	120
Other Asia	2019	1,166	1,940	36	-34	3,104	131
	2020	857	1,638	31	0	2,464	104
	2021	1,093	560	2	-40	1,691	72
	2022	1,064	849	..	1	1,911	82
Pakistan	2019	665	675	..	..	1,340	6
	2020	476	974	..	..	1,450	6
	2021	487	871	..	..	1,358	6
	2022	639	1,071	..	..	1,710	7
Philippines	2019	286	1,370	5	-4	1,655	15
	2020	152	1,469	0	-1	1,621	14
	2021	150	1,693	..	-9	1,852	16
	2022	207	1,613	..	28	1,792	16
Qatar	2019	7,611	..	6,577	..	1,034	369
	2020	7,156	..	6,117	..	1,039	371
	2021	7,471	..	6,439	..	1,032	367
	2022	7,671	..	6,587	..	1,084	375
Saudi Arabia	2019	28,179	..	8,802	*-5	19,382	636
	2020	26,409	..	7,432	15	18,962	612
	2021	25,319	..	6,634	*7	18,678	596
	2022	28,633	..	8,749	545	19,338	601

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Singapore	2019	855	570	181	..	1,244	219
	2020	712	232	172	..	773	138
	2021	724	74	114	..	684	123
	2022	811	182	89	..	904	160
Sri Lanka	2019	27	430	..	0	457	20
	2020	25	437	..	-11	473	21
	2021	17	422	..	-18	457	20
	2022	5	394	..	..	399	17
State of Palestine	2019	..	178	..	..	178	36
	2020	..	204	..	..	204	40
	2021	..	206	..	..	206	40
	2022	..	228	..	..	228	43
Syrian Arab Republic	2019	150	285	..	..	434	21
	2020	162	236	..	..	398	19
	2021	160	209	..	..	368	17
	2022	160	237	..	..	396	18
Tajikistan	2019	..	431	..	..	431	45
	2020	..	421	..	..	421	43
	2021	..	411	..	..	411	41
	2022	..	397	..	..	397	39
Thailand	2019	5,980	550	299	..	6,231	87
	2020	5,495	535	233	..	5,797	81
	2021	5,671	550	181	..	6,040	84
	2022	4,974	1,549	181	..	6,342	88
Timor-Leste	2019	..	1	..	..	1	1
	2020	..	1	..	..	1	1
	2021	..	1	..	..	1	1
	2022	..	1	..	..	1	1
Türkiye	2019	1,082	3,108	101	-73	4,162	49
	2020	971	3,005	118	-70	3,927	46
	2021	1,014	3,104	217	-18	3,919	45
	2022	1,100	3,208	410	30	3,868	44
Turkmenistan	2019	1,176	..	..	..	1,176	173
	2020	1,241	..	..	..	1,241	179
	2021	1,255	..	..	..	1,255	177
	2022	1,356	..	..	..	1,356	188
United Arab Emirates	2019	11,691	26	9,774	..	1,942	207
	2020	11,938	26	9,162	..	2,802	297
	2021	12,007	26	9,287	..	2,746	281
	2022	12,016	26	11,271	..	771	75
Uzbekistan	2019	830	..	..	-1	831	25
	2020	741	1	66	-1	678	20
	2021	803	0	45	-6	764	22
	2022	875	1	89	-4	792	23
Viet Nam	2019	887	1,810	272	..	2,425	25
	2020	782	1,810	240	..	2,352	24
	2021	898	1,971	291	..	2,578	26
	2022	1,281	1,965	230	4	3,013	30
Yemen	2019	443	*140	..	..	583	17
	2020	409	*179	..	..	588	16
	2021	372	*230	..	..	602	16
	2022	323	*291	..	..	614	16

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
<b>Europe</b>	<b>2019</b>	<b>53,961</b>	<b>24,568</b>	<b>19,319</b>	<b>-334</b>	<b>59,544</b>	<b>79</b>
	<b>2020</b>	<b>50,152</b>	<b>22,507</b>	<b>16,740</b>	<b>-142</b>	<b>56,061</b>	<b>75</b>
	<b>2021</b>	<b>50,615</b>	<b>23,332</b>	<b>16,912</b>	<b>-61</b>	<b>57,097</b>	<b>76</b>
	<b>2022</b>	<b>48,591</b>	<b>24,761</b>	<b>15,700</b>	<b>305</b>	<b>57,348</b>	<b>77</b>
Albania	2019	..	173	..	2	171	59
	2020	..	167	..	3	164	57
	2021	..	184	..	2	182	64
	2022	..	188	..	5	183	65
Andorra	2019	..	*2	..	..	*2	*31
	2020	..	*2	..	..	*2	*24
	2021	..	*2	..	..	*2	*25
	2022	..	*2	..	..	*2	*26
Austria	2019	137	61	89	9	99	11
	2020	117	64	92	5	85	9
	2021	150	64	110	4	99	11
	2022	106	96	64	-13	151	17
Belarus	2019	390	90	344	2	134	14
	2020	399	18	281	1	135	14
	2021	399	18	281	..	136	15
	2022	402	18	283	..	137	15
Belgium	2019	1,069	2,109	696	9	2,474	215
	2020	1,036	2,090	763	8	2,356	204
	2021	1,061	2,242	921	5	2,376	205
	2022	693	2,546	866	31	2,342	201
Bosnia and Herzegovina	2019	1	80	..	-1	82	25
	2020	..	90	..	-1	91	28
	2021	..	93	..	-1	94	29
	2022	..	84	..	-1	84	26
Bulgaria	2019	131	367	44	-1	455	65
	2020	77	382	30	0	430	62
	2021	64	370	28	-1	407	59
	2022	91	415	37	-1	471	69
Croatia	2019	196	75	135	1	134	34
	2020	184	66	137	-2	115	29
	2021	185	82	145	1	122	31
	2022	151	170	216	1	104	27
Czechia	2019	400	210	145	..	465	44
	2020	312	184	125	-2	373	35
	2021	394	170	131	1	432	41
	2022	355	177	112	-2	422	40
Denmark	2019	127	17	84	-1	61	11
	2020	113	12	66	3	57	10
	2021	92	22	51	-3	66	11
	2022	81	52	48	0	85	14
Estonia	2019	..	41	11	2	28	21
	2020	..	22	1	-4	25	18
	2021	..	19	..	..	19	14
	2022	..	22	..	..	22	16
Finland	2019	289	824	23	-7	1,097	199
	2020	245	838	10	54	1,019	184
	2021	174	880	3	-17	1,068	193
	2022	139	1,074	4	74	1,135	204



Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
France	2019	1,357	3,326	902	-14	3,795	56
	2020	886	3,015	875	-2	3,028	44
	2021	1,029	3,244	919	-8	3,362	49
	2022	1,063	3,090	1,078	18	3,057	45
Germany	2019	3,232	1,224	252	2	4,202	50
	2020	2,885	1,265	241	13	3,896	47
	2021	3,025	1,451	275	-5	4,206	50
	2022	2,768	1,324	299	2	3,791	45
Greece	2019	802	73	284	-3	593	55
	2020	780	62	324	6	513	48
	2021	860	50	332	2	576	54
	2022	845	98	165	5	773	74
Hungary	2019	153	479	93	-4	543	56
	2020	144	453	84	-2	515	53
	2021	147	488	83	2	550	57
	2022	127	376	71	1	431	45
Iceland	2019	..	3	..	0	3	9
	2020	..	3	..	0	3	7
	2021	..	2	..	0	2	7
	2022	..	3	..	0	3	8
Ireland	2019	45	139	21	-3	166	34
	2020	52	128	21	-7	166	33
	2021	42	145	20	6	162	32
	2022	37	154	17	1	173	34
Italy	2019	1,269	2,422	244	41	3,407	57
	2020	1,290	2,057	263	-324	3,409	57
	2021	1,387	2,272	365	-14	3,307	55
	2022	1,340	2,535	315	39	3,521	59
Kosovo	2019	..	30	..	..	30	17
	2020	..	32	..	..	32	18
	2021	..	32	..	..	32	18
	2022	..	23	..	..	23	13
Latvia	2019	..	177	101	1	75	39
	2020	..	144	71	1	72	38
	2021	..	146	80	-2	68	36
	2022	..	202	130	0	72	39
Lithuania	2019	399	77	285	2	188	67
	2020	333	52	221	0	165	59
	2021	341	56	224	-1	173	62
	2022	294	130	216	13	195	69
Luxembourg	2019	..	10	0	..	9	15
	2020	..	7	0	..	7	12
	2021	..	10	0	..	10	16
	2022	..	8	0	..	8	12
Malta	2019	..	25	..	-1	27	53
	2020	..	25	..	1	24	46
	2021	..	23	..	0	24	45
	2022	..	25	..	-1	25	48
Montenegro	2019	..	21	..	3	18	29
	2020	..	13	..	-5	17	28
	2021	..	16	..	-3	19	31
	2022	..	17	..	-2	19	31

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Netherlands (Kingd. of the)	2019	1,566	3,308	2,100	-52	2,827	161
	2020	1,303	3,348	1,868	22	2,761	157
	2021	1,544	3,152	2,281	9	2,405	136
	2022	1,219	3,182	2,020	-14	2,395	134
North Macedonia	2019	..	81	2	-1	81	42
	2020	..	67	2	0	66	35
	2021	..	69	2	0	67	36
	2022	..	68	2	0	66	36
Norway	2019	6,394	228	5,913	-28	737	138
	2020	6,237	216	5,752	-33	734	136
	2021	5,571	209	5,326	42	413	76
	2022	4,413	246	4,109	78	472	87
Poland	2019	630	2,613	479	-1	2,765	72
	2020	657	2,145	355	-4	2,451	64
	2021	649	2,290	358	10	2,570	68
	2022	626	2,561	583	47	2,556	67
Portugal	2019	165	752	82	-27	862	83
	2020	162	759	34	15	872	84
	2021	119	729	36	-15	827	80
	2022	79	764	46	1	796	76
Republic of Moldova	2019	..	66	..	..	66	21
	2020	..	63	..	-1	63	21
	2021	..	61	..	..	61	20
	2022	..	56	0	-2	57	19
Romania	2019	625	186	312	-6	504	26
	2020	514	212	296	-4	434	22
	2021	491	234	273	6	446	23
	2022	562	220	328	-3	457	24
Russian Federation	2019	29,077	122	4,443	-188	24,945	170
	2020	27,624	116	3,110	..	24,630	168
	2021	27,921	94	2,776	..	25,239	173
	2022	28,174	57	2,462	..	25,769	177
Serbia	2019	94	105	32	-1	167	24
	2020	100	82	50	1	131	19
	2021	117	85	42	-2	162	24
	2022	151	58	40	1	168	25
Slovakia	2019	164	48	63	3	146	27
	2020	137	94	64	-1	168	31
	2021	129	47	9	1	166	30
	2022	122	55	13	-1	165	30
Slovenia	2019	..	103	7	2	94	45
	2020	..	88	5	1	82	39
	2021	..	90	8	0	83	39
	2022	..	86	5	1	80	38
Spain	2019	1,167	1,242	553	-15	1,871	39
	2020	920	997	446	-12	1,483	31
	2021	1,240	723	514	21	1,427	30
	2022	1,135	1,029	528	31	1,605	34
Sweden	2019	446	1,233	690	-14	1,003	98
	2020	401	1,110	674	116	722	70
	2021	626	1,055	809	-95	968	93
	2022	566	1,480	1,127	3	917	87

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Switzerland	2019	108	81	20	0	169	20
	2020	97	69	10	0	156	18
	2021	70	91	0	-1	162	19
	2022	77	79	8	1	147	17
Ukraine	2019	409	1,466	59	-35	1,851	41
	2020	305	1,562	3	-3	1,867	42
	2021	306	1,593	0	0	1,899	43
	2022	*306	1,384	..	..	1,690	41
United Kingdom	2019	3,119	882	812	-8	3,197	48
	2020	2,841	389	467	17	2,746	41
	2021	2,484	731	512	-4	2,707	40
	2022	2,669	608	508	-8	2,777	41
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>16,119</b>	<b>14,231</b>	<b>2,433</b>	<b>-106</b>	<b>28,023</b>	<b>44</b>
	<b>2020</b>	<b>14,964</b>	<b>15,971</b>	<b>2,304</b>	<b>26</b>	<b>28,605</b>	<b>44</b>
	<b>2021</b>	<b>15,279</b>	<b>17,541</b>	<b>2,156</b>	<b>-108</b>	<b>30,773</b>	<b>47</b>
	<b>2022</b>	<b>15,524</b>	<b>16,387</b>	<b>2,583</b>	<b>-43</b>	<b>29,371</b>	<b>45</b>
Anguilla	2019	..	8	..	*-1	9	594
	2020	..	6	..	*-3	8	546
	2021	..	8	..	0	8	573
	2022	..	11	..	*2	9	599
Antigua and Barbuda	2019	..	*4	..	..	*4	*40
	2020	..	*4	..	..	*4	*39
	2021	..	*4	..	..	*4	*39
	2022	..	*4	..	..	*4	*40
Argentina	2019	2,768	..	1,224	6	1,538	34
	2020	2,352	..	1,003	-4	1,353	30
	2021	2,648	..	907	10	1,731	38
	2022	2,845	..	1,087	-48	1,807	40
Aruba	2019	..	*11	..	..	*11	*102
	2020	..	*9	..	..	*9	*80
	2021	..	*9	..	..	*9	*87
	2022	..	*9	..	..	*9	*87
Bahamas	2019	..	18	..	..	18	46
	2020	..	12	..	..	12	30
	2021	..	14	..	..	14	36
	2022	..	21	..	..	21	53
Barbados	2019	..	8	..	..	8	28
	2020	..	8	..	..	8	29
	2021	..	8	..	..	8	29
	2022	..	8	..	..	8	29
Belize	2019	1	26	..	..	27	70
	2020	1	26	..	..	27	68
	2021	..	27	..	..	27	67
	2022	..	28	..	..	28	71
Bolivia (Plur. State of)	2019	580	..	126	0	453	39
	2020	540	..	102	0	439	37
	2021	612	..	135	0	478	40
	2022	618	..	133	0	485	40
Bonaire, St Eustatius, Saba	2019	..	*1	..	..	*1	*50
	2020	..	*1	..	..	*1	*45
	2021	..	*1	..	..	*1	*40
	2022	..	*1	..	..	*1	*38

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Brazil	2019	5,214	1,918	0	-17	7,149	34
	2020	5,264	1,973	0	-13	7,250	35
	2021	5,290	2,211	0	58	7,443	36
	2022	5,519	1,931	0	34	7,416	35
Cayman Islands	2019	..	8	..	..	8	124
	2020	..	4	..	..	4	60
	2021	..	4	..	..	4	60
	2022	..	6	..	..	6	84
Chile	2019	543	1,000	131	54	1,358	71
	2020	461	1,129	231	-12	1,371	71
	2021	489	1,257	221	35	1,490	77
	2022	369	1,370	246	7	1,487	76
Colombia	2019	650	108	0	..	758	15
	2020	749	9	..	..	758	15
	2021	853	16	..	..	869	17
	2022	758	137	..	..	895	17
Costa Rica	2019	..	186	..	4	181	36
	2020	..	172	..	-2	173	34
	2021	..	198	..	3	196	39
	2022	..	210	..	-1	211	41
Cuba	2019	22	119	..	..	141	13
	2020	39	112	..	..	151	13
	2021	28	152	..	..	180	16
	2022	13	139	..	..	152	14
Curaçao	2019	0	48	0	..	48	254
	2020	..	47	..	..	47	257
	2021	..	47	..	..	47	251
	2022	..	46	..	..	46	248
Dominica	2019	..	*3	..	..	*3	*44
	2020	..	*2	..	..	*2	*36
	2021	..	*3	..	..	*3	*39
	2022	..	*3	..	..	*3	*42
Dominican Republic	2019	27	1,010	..	-5	1,041	96
	2020	17	900	..	4	913	83
	2021	35	978	..	-2	1,015	91
	2022	27	974	..	-5	1,005	90
Ecuador	2019	179	1,043	..	-2	1,224	71
	2020	178	1,066	..	7	1,237	71
	2021	197	1,100	..	-6	1,303	74
	2022	184	1,181	..	0	1,364	77
El Salvador	2019	..	452	0	..	452	73
	2020	..	470	145	..	325	52
	2021	..	508	186	..	322	51
	2022	..	542	194	..	348	55
Falkland Is. (Malvinas)	2019	..	0	..	..	0	22
	2020	..	0	..	..	0	22
	2021	..	0	..	..	0	20
	2022	..	0	..	..	0	*20
Grenada	2019	..	5	..	..	5	46
	2020	..	5	..	..	5	40
	2021	..	5	..	..	5	41
	2022	..	5	..	..	5	45

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Guatemala	2019	..	576	120	24	431	25
	2020	..	601	127	38	437	25
	2021	..	640	129	8	503	29
	2022	..	655	123	0	532	30
Guyana	2019	..	22	..	0	23	28
	2020	..	23	..	-1	24	30
	2021	..	28	..	-1	29	35
	2022	..	42	..	-1	43	52
Haiti	2019	..	24	..	..	24	2
	2020	..	26	..	..	26	2
	2021	..	31	..	..	31	3
	2022	..	28	..	..	28	2
Honduras	2019	..	682	385	-19	316	32
	2020	..	651	343	-1	309	31
	2021	..	721	340	20	361	35
	2022	..	784	402	-1	383	37
Jamaica	2019	11	90	..	1	100	36
	2020	9	85	..	1	94	33
	2021	4	95	..	0	99	35
	2022	4	108	..	0	112	39
Mexico	2019	3,269	6,132	21	24	9,356	74
	2020	3,045	7,865	25	-14	10,899	86
	2021	2,770	8,723	4	-12	11,501	90
	2022	2,748	7,054	..	-1	9,803	76
Montserrat	2019	..	0	..	..	0	73
	2020	..	0	..	..	0	95
	2021	..	1	..	..	1	170
	2022	..	2	..	..	2	389
Nicaragua	2019	21	103	..	1	123	19
	2020	16	118	..	-2	136	21
	2021	19	122	..	0	142	21
	2022	21	123	1	..	143	21
Panama	2019	..	119	0	8	111	26
	2020	..	121	0	31	90	21
	2021	..	117	0	9	108	25
	2022	..	223	0	-27	250	57
Paraguay	2019	..	92	..	4	88	13
	2020	..	87	..	0	87	13
	2021	..	84	..	2	83	12
	2022	..	71	..	-3	74	11
Peru	2019	1,476	341	0	-186	2,003	62
	2020	1,318	352	41	-3	1,632	50
	2021	1,360	363	..	-227	1,950	59
	2022	1,230	585	..	-1	1,815	54
Saint Barthélemy	2019	..	*1	..	..	*1	*50
	2020	..	*1	..	..	*1	*49
	2021	..	*1	..	..	*1	*49
	2022	..	*1	..	..	*1	*49
Saint Martin (French Part)	2019	..	*2	..	..	*2	*50
	2020	..	*2	..	..	*2	*54
	2021	..	*2	..	..	*2	*57
	2022	..	*2	..	..	*2	*59

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Sint Maarten (Dutch part)	2019	..	*2	..	..	*2	*47
	2020	..	*2	..	..	*2	*46
	2021	..	*2	..	..	*2	*48
	2022	..	*2	..	..	*2	*50
St. Kitts-Nevis	2019	..	*2	..	..	*2	*47
	2020	..	*2	..	..	*2	*45
	2021	..	*2	..	..	*2	*43
	2022	..	*2	..	..	*2	*47
St. Lucia	2019	..	7	..	..	7	40
	2020	..	*7	..	..	*7	*42
	2021	..	*8	..	..	*8	*43
	2022	..	*8	..	..	*8	*44
St. Vincent-Grenadines	2019	..	8	..	..	8	73
	2020	..	9	..	..	9	85
	2021	..	*4	..	..	*4	*38
	2022	..	*6	..	..	*6	*61
Suriname	2019	..	24	..	0	23	39
	2020	..	23	..	1	22	36
	2021	..	22	..	0	22	36
	2022	..	22	..	..	22	36
Trinidad and Tobago	2019	436	..	377	..	59	40
	2020	360	..	283	..	77	52
	2021	303	..	231	..	72	48
	2022	499	..	394	..	105	70
Turks and Caicos Islands	2019	..	*5	..	..	*5	*118
	2020	..	*5	..	..	*5	*113
	2021	..	*5	..	..	*5	*113
	2022	..	*5	..	..	*5	*111
Uruguay	2019	102	25	1	-3	129	38
	2020	96	38	1	-1	134	39
	2021	111	23	3	-2	133	39
	2022	96	40	1	2	134	39
Venezuela (Bolivar. Rep.)	2019	820	..	48	..	772	27
	2020	516	..	4	..	513	18
	2021	560	..	..	..	560	20
	2022	594	..	3	..	591	21
<b>Northern America</b>	<b>2019</b>	<b>72,780</b>	<b>5,832</b>	<b>41,586</b>	<b>1,522</b>	<b>35,503</b>	<b>94</b>
	<b>2020</b>	<b>76,689</b>	<b>4,534</b>	<b>49,141</b>	<b>-743</b>	<b>32,824</b>	<b>87</b>
	<b>2021</b>	<b>80,561</b>	<b>4,953</b>	<b>52,978</b>	<b>-1,404</b>	<b>33,940</b>	<b>90</b>
	<b>2022</b>	<b>88,927</b>	<b>5,141</b>	<b>56,596</b>	<b>1,941</b>	<b>35,531</b>	<b>93</b>
Bermuda	2019	..	14	..	..	14	216
	2020	..	3	..	..	3	47
	2021	..	5	..	..	5	76
	2022	..	*5	..	..	*5	*77
Canada	2019	1,557	..	..	-22	1,579	42
	2020	1,408	..	..	3	1,404	37
	2021	1,478	..	..	4	1,475	38
	2022	1,448	..	..	-8	1,456	38
Greenland	2019	..	0	..	..	0	1
	2020	..	0	..	..	0	1
	2021	..	0	..	..	0	1
	2022	..	0	..	..	0	1

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
United States	2019	71,223	5,818	41,586	1,544	33,910	100
	2020	75,281	4,530	49,141	-746	31,417	93
	2021	79,083	4,948	52,978	-1,407	32,461	95
	2022	87,478	5,136	56,596	1,949	34,070	100
<b>Oceania</b>	<b>2019</b>	<b>2,837</b>	<b>528</b>	<b>1,616</b>	<b>-26</b>	<b>1,775</b>	<b>41</b>
	<b>2020</b>	<b>3,929</b>	<b>485</b>	<b>2,802</b>	<b>10</b>	<b>1,602</b>	<b>36</b>
	<b>2021</b>	<b>3,601</b>	<b>447</b>	<b>2,582</b>	<b>5</b>	<b>1,460</b>	<b>33</b>
	<b>2022</b>	<b>3,724</b>	<b>498</b>	<b>3,002</b>	<b>-38</b>	<b>1,259</b>	<b>28</b>
Australia	2019	2,654	409	1,616	-24	1,471	58
	2020	3,751	395	2,801	11	1,334	52
	2021	3,437	335	2,566	6	1,200	46
	2022	3,554	388	2,972	-38	1,008	38
Fiji	2019	..	32	0	..	32	35
	2020	..	28	1	..	26	29
	2021	..	26	..	..	26	29
	2022	..	*27	..	..	*27	*29
French Polynesia	2019	..	9	..	0	9	33
	2020	..	10	..	1	9	33
	2021	..	9	..	-1	11	38
	2022	..	11	..	0	11	41
Kiribati	2019	..	0	..	..	0	*2
	2020	..	0	..	..	0	*2
	2021	..	0	..	..	0	*2
	2022	..	0	..	..	0	*2
Marshall Islands	2019	..	0	..	..	0	*5
	2020	..	0	..	..	0	*5
	2021	..	0	..	..	0	*5
	2022	..	0	..	..	0	*5
Nauru	2019	..	0	..	..	0	*1
	2020	..	0	..	..	0	*1
	2021	..	0	..	..	0	*1
	2022	..	0	..	..	0	*1
New Caledonia	2019	..	21	..	-2	22	79
	2020	..	14	..	0	14	50
	2021	..	7	..	0	7	24
	2022	..	12	..	0	11	39
New Zealand	2019	163	44	..	0	207	41
	2020	161	28	..	-1	191	38
	2021	151	55	16	0	190	37
	2022	156	48	30	0	174	34
Niue	2019	..	0	..	..	0	*21
	2020	..	0	..	..	0	*19
	2021	..	0	..	..	0	*20
	2022	..	0	..	..	0	*20
Northern Mariana Islands	2019	..	*2	..	..	*2	*47
	2020	..	*2	..	..	*2	*48
	2021	..	*1	..	..	*1	*30
	2022	..	*2	..	..	*2	*40
Papua New Guinea	2019	21	3	..	..	24	2
	2020	17	0	..	..	17	2
	2021	13	4	..	..	17	2
	2022	*15	*3	..	..	*18	*2

Table 18

## Production, trade and supply of liquefied petroleum gases (LPG)

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Samoa	2019	..	2	..	..	2	9
	2020	..	3	..	..	3	15
	2021	..	3	..	..	3	15
	2022	..	3	0	..	3	12
Tonga	2019	..	2	..	..	2	20
	2020	..	2	..	..	2	22
	2021	..	3	..	..	3	27
	2022	..	2	..	..	2	23
Tuvalu	2019	..	0	..	..	0	*12
	2020	..	0	..	..	0	*12
	2021	..	0	..	..	0	*12
	2022	..	0	..	..	0	*13
Vanuatu	2019	..	*2	..	..	*2	*7
	2020	..	*2	..	..	*2	*6
	2021	..	*2	..	..	*2	*6
	2022	..	*2	..	..	*2	*6
Wallis and Futuna Is.	2019	..	0	..	..	0	*22
	2020	..	0	..	..	0	*23
	2021	..	0	..	..	0	*23
	2022	..	0	..	..	0	*21



### Production, trade and supply of motor gasoline

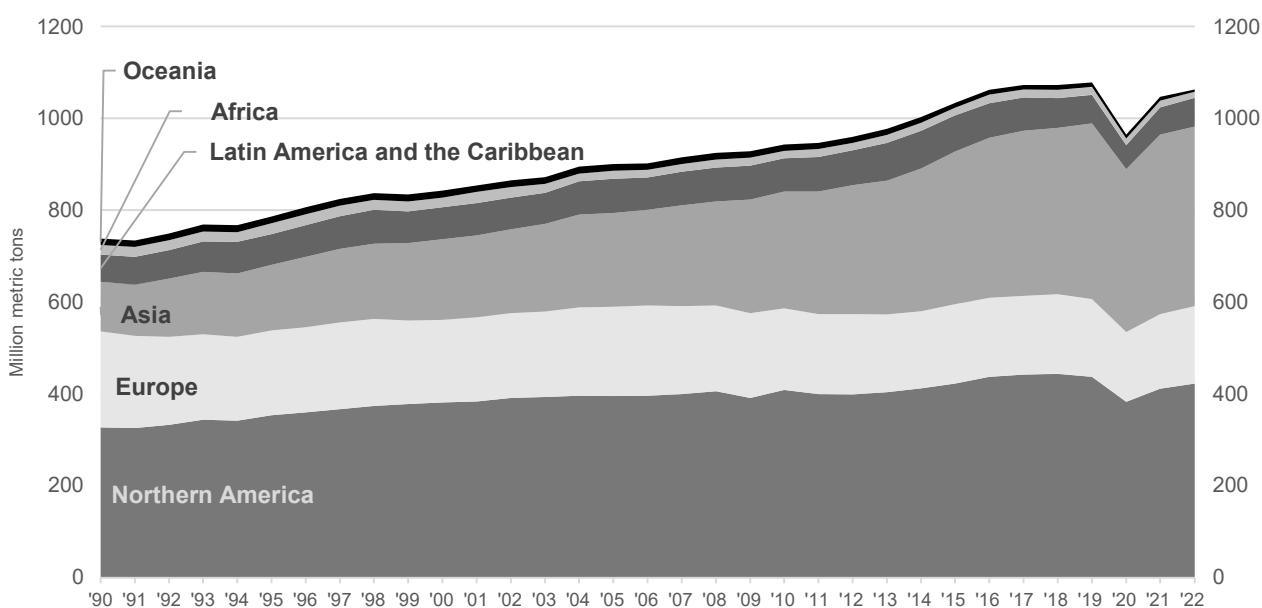
Thousand metric tons and kilograms per capita

#### Table Notes

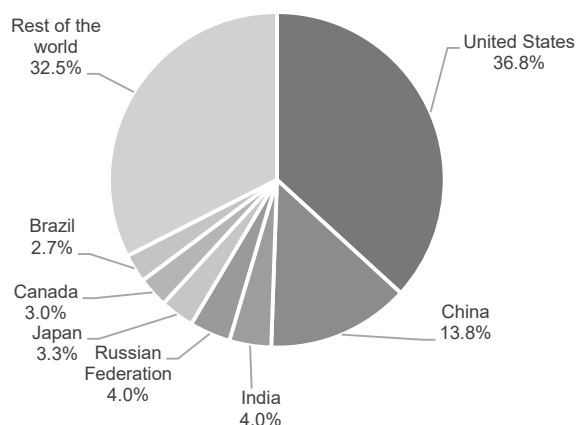
**Production** includes output from refineries and plants, together with quantities from other sources which include any blended biogasoline.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 51: Production of motor gasoline by region, 1990-2022**



**Figure 52: Major motor gasoline producing countries, 2022**



**Figure 53: Major motor gasoline consuming countries, 2022**

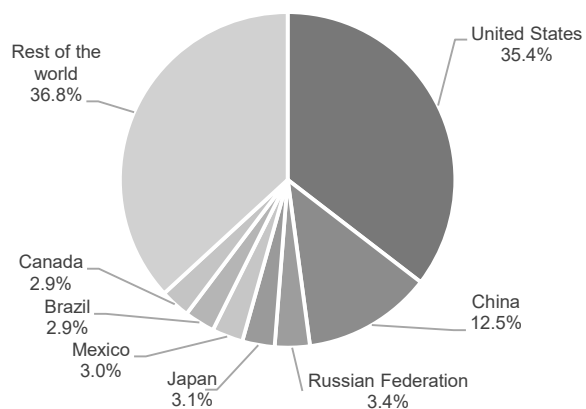


Table 19

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
World	2019	1,077,820	243,976	235,543	-6,312	1,092,565	140
	2020	964,490	217,794	215,524	-632	967,392	123
	2021	1,046,094	241,791	233,667	-58	1,054,276	133
	2022	1,062,554	252,925	242,598	-43	1,072,924	134
Africa	2019	16,906	37,871	1,586	-538	53,730	40
	2020	14,831	38,035	1,392	435	51,039	37
	2021	14,631	41,875	1,202	60	55,244	39
	2022	13,103	44,114	1,285	70	55,862	39
Algeria	2019	3,253	578	0	-32	3,863	89
	2020	3,105	392	93	28	3,376	77
	2021	3,406	0	0	9	3,397	76
	2022	3,431	..	73	-3	3,361	74
Angola	2019	39	1,077	4	..	1,112	34
	2020	11	756	5	..	762	23
	2021	14	1,172	5	..	1,181	34
	2022	84	1,087	6	..	1,166	33
Benin	2019	..	934	..	-10	945	74
	2020	..	955	..	1	955	73
	2021	..	970	..	-8	979	73
	2022	..	1,021	..	4	1,017	74
Botswana	2019	..	622	..	..	622	267
	2020	..	574	..	..	574	243
	2021	..	601	..	..	601	250
	2022	..	548	..	..	548	225
Burkina Faso	2019	..	431	..	3	428	20
	2020	..	441	..	*9	432	20
	2021	..	574	..	*30	544	25
	2022	..	*577	..	..	*577	*26
Burundi	2019	..	96	..	..	96	8
	2020	..	107	..	..	107	9
	2021	..	112	..	..	112	9
	2022	..	115	..	..	115	9
Cabo Verde	2019	..	*11	..	..	*11	*21
	2020	..	*10	..	..	*10	*20
	2021	..	*14	..	..	*14	*28
	2022	..	14	..	..	14	27
Cameroon	2019	113	427	34	..	505	20
	2020	..	508	..	..	508	19
	2021	..	527	..	..	527	20
	2022	..	546	..	..	546	20
Central African Rep.	2019	..	28	..	0	28	6
	2020	..	32	..	*1	31	6
	2021	..	36	..	*2	34	7
	2022	..	*36	..	..	*36	*7
Chad	2019	*171	..	*3	..	*168	*10
	2020	*181	..	*2	..	*179	*10
	2021	*201	..	*3	..	*198	*11
	2022	*216	..	*3	..	*213	*12
Comoros	2019	..	*24	..	..	*24	*30
	2020	..	*29	..	..	*29	*36
	2021	..	*42	..	..	*42	*51
	2022	..	*45	..	..	*45	*54

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Congo	2019	65	89	..	..	154	27
	2020	62	80	..	..	142	25
	2021	64	86	..	..	150	25
	2022	68	89	..	..	157	26
Côte d'Ivoire	2019	844	..	296	..	549	19
	2020	929	..	355	..	574	20
	2021	1,287	..	308	..	979	33
	2022	1,216	..	502	..	714	23
Dem. Rep. of the Congo	2019	..	359	..	..	359	4
	2020	..	368	..	..	368	4
	2021	..	355	..	..	355	4
	2022	..	370	..	..	370	4
Djibouti	2019	..	16	..	..	16	14
	2020	..	16	..	..	16	15
	2021	..	*18	..	..	*18	*16
	2022	..	*16	..	..	*16	*14
Egypt	2019	5,492	1,443	140	..	6,795	63
	2020	5,323	2,036	..	..	7,360	67
	2021	5,906	1,690	..	..	7,596	68
	2022	5,436	1,561	..	..	6,997	62
Equatorial Guinea	2019	..	*70	..	..	*70	*42
	2020	..	*64	..	..	*64	*37
	2021	..	*67	..	..	*67	*38
	2022	..	*72	..	..	*72	*40
Eritrea	2019	..	10	..	..	10	3
	2020	..	9	..	..	9	3
	2021	..	9	..	..	9	3
	2022	..	10	..	..	10	3
Eswatini	2019	..	*135	..	..	*135	*115
	2020	..	123	..	..	123	103
	2021	..	118	..	..	118	98
	2022	..	114	..	..	114	93
Ethiopia	2019	..	550	..	5	545	5
	2020	..	648	..	6	642	5
	2021	..	697	..	-10	707	6
	2022	..	707	..	-10	716	6
Gabon	2019	30	42	..	..	72	32
	2020	54	26	2	..	78	34
	2021	66	22	..	..	88	37
	2022	61	24	2	8	75	31
Gambia	2019	..	*25	..	..	*25	*10
	2020	..	*24	..	..	*24	*9
	2021	..	*25	..	..	*25	*10
	2022	..	*25	..	..	*25	*10
Ghana	2019	125	1,265	108	-97	1,379	44
	2020	66	1,625	5	137	1,549	49
	2021	43	1,769	18	-13	1,808	56
	2022	0	1,552	3	7	1,543	47
Guinea	2019	..	444	..	..	444	34
	2020	..	471	..	..	471	35
	2021	..	496	..	..	496	36
	2022	..	499	..	..	499	35

Table 19

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Guinea-Bissau	2019	..	14	..	..	14	7
	2020	..	15	..	..	15	7
	2021	..	17	..	..	17	8
	2022	..	*17	..	..	*17	*8
Kenya	2019	..	1,941	2	..	1,938	38
	2020	..	1,959	..	..	1,959	38
	2021	..	1,554	..	..	1,554	29
	2022	..	1,561	..	..	1,561	29
Lesotho	2019	..	103	..	..	103	47
	2020	..	87	..	..	87	39
	2021	..	92	..	..	92	41
	2022	..	89	..	..	89	39
Liberia	2019	..	128	..	..	128	25
	2020	..	103	..	35	67	13
	2021	..	34	..	-31	65	12
	2022	..	97	..	..	97	18
Libya	2019	227	3,791	..	..	4,017	578
	2020	160	4,250	..	..	4,410	626
	2021	205	4,226	..	..	4,431	621
	2022	188	4,438	..	..	4,626	640
Madagascar	2019	..	135	..	10	126	4
	2020	..	121	..	*9	112	4
	2021	..	123	..	*-2	124	4
	2022	..	129	..	..	129	4
Malawi	2019	..	183	..	10	173	9
	2020	..	215	..	23	192	10
	2021	..	208	..	..	208	10
	2022	..	188	..	0	188	9
Mali	2019	..	446	..	..	446	21
	2020	..	541	..	..	541	25
	2021	..	627	..	..	627	28
	2022	..	594	..	..	594	26
Mauritania	2019	..	84	..	*33	51	11
	2020	..	76	..	*18	57	12
	2021	..	*65	..	..	*65	*14
	2022	..	102	..	*31	71	15
Mauritius	2019	..	183	..	-10	193	150
	2020	..	142	..	-29	170	133
	2021	..	187	..	20	167	131
	2022	..	181	..	-10	191	150
Morocco	2019	..	672	..	-43	714	20
	2020	..	599	..	-37	636	17
	2021	..	702	..	-43	745	20
	2022	..	678	..	-41	719	19
Mozambique	2019	..	289	..	..	289	10
	2020	..	279	..	..	279	9
	2021	..	359	..	..	359	11
	2022	..	410	17	..	393	12
Namibia	2019	..	314	16	..	298	112
	2020	..	288	14	..	274	100
	2021	..	287	14	..	273	97
	2022	..	258	13	..	246	85

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Niger	2019	252	0	32	..	220	10
	2020	250	46	43	-5	257	11
	2021	190	10	75	-10	134	5
	2022	201	28	34	..	195	8
Nigeria	2019	107	15,745	..	-462	16,314	78
	2020	0	14,629	..	201	14,428	67
	2021	..	16,339	..	141	16,198	74
	2022	..	17,448	..	141	17,307	78
Rwanda	2019	..	170	..	60	110	9
	2020	..	109	..	..	109	8
	2021	..	121	..	..	121	9
	2022	..	*124	..	..	*124	*9
Sao Tome and Principe	2019	..	9	..	..	9	44
	2020	..	*9	..	..	*9	*41
	2021	..	*9	..	..	*9	*41
	2022	..	*9	..	..	*9	*40
Senegal	2019	84	212	..	0	296	18
	2020	64	171	..	-2	237	14
	2021	78	167	..	1	245	14
	2022	87	316	..	-8	411	23
Seychelles	2019	..	37	..	..	37	314
	2020	..	*38	..	..	*38	*316
	2021	..	*39	..	..	*39	*317
	2022	..	*41	..	..	*41	*329
Sierra Leone	2019	..	148	..	*5	143	18
	2020	..	156	..	*4	152	19
	2021	..	178	..	..	178	22
	2022	..	163	..	*1	162	20
Somalia	2019	..	*80	..	..	*80	*5
	2020	..	*82	..	..	*82	*5
	2021	..	*85	..	..	*85	*5
	2022	..	*88	..	..	*88	*5
South Africa	2019	5,030	1,093	873	..	5,250	88
	2020	3,491	1,273	855	..	3,909	65
	2021	2,262	2,966	779	..	4,449	72
	2022	1,135	4,037	632	..	4,540	73
South Sudan	2019	..	52	..	..	52	5
	2020	..	49	..	..	49	5
	2021	..	52	..	..	52	5
	2022	..	49	..	..	49	4
St. Helena and Depend.	2019	..	1	..	..	1	150
	2020	..	1	..	..	1	116
	2021	..	0	..	..	0	75
	2022	..	1	..	..	1	103
Sudan	2019	*937	*353	79	..	*1,211	*27
	2020	1,011	263	18	..	1,256	27
	2021	*817	441	..	..	*1,259	*26
	2022	870	379	..	..	1,249	25
Togo	2019	..	135	..	-5	140	17
	2020	..	235	..	-5	240	28
	2021	..	242	..	-3	245	28
	2022	..	218	..	-2	220	24

Table 19

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Tunisia	2019	..	664	..	-5	668	56
	2020	49	663	..	39	673	56
	2021	78	619	..	-21	718	60
	2022	110	611	..	-46	766	63
Uganda	2019	..	745	..	..	745	17
	2020	..	698	..	..	698	16
	2021	..	794	..	..	794	17
	2022	..	826	..	..	826	17
United Rep. of Tanzania	2019	..	943	..	..	943	16
	2020	..	1,082	..	..	1,082	18
	2021	..	1,182	..	..	1,182	19
	2022	..	1,098	..	..	1,098	17
Zambia	2019	138	191	..	..	329	18
	2020	74	264	..	..	339	18
	2021	14	370	..	..	384	20
	2022	0	428	..	..	428	21
Zimbabwe	2019	..	336	..	..	336	22
	2020	..	298	..	..	298	19
	2021	..	379	..	..	379	24
	2022	..	479	..	-1	480	30
<b>Asia</b>	<b>2019</b>	<b>382,408</b>	<b>83,555</b>	<b>89,063</b>	<b>-6,510</b>	<b>383,411</b>	<b>82</b>
	<b>2020</b>	<b>354,660</b>	<b>79,240</b>	<b>87,692</b>	<b>-1,848</b>	<b>348,056</b>	<b>74</b>
	<b>2021</b>	<b>391,238</b>	<b>81,452</b>	<b>94,649</b>	<b>1,638</b>	<b>376,403</b>	<b>80</b>
	<b>2022</b>	<b>390,701</b>	<b>92,770</b>	<b>102,416</b>	<b>-90</b>	<b>381,145</b>	<b>80</b>
Afghanistan	2019	*44	795	..	..	839	22
	2020	*18	1,008	..	..	1,026	26
	2021	*20	*910	..	..	*930	*23
	2022	*20	*870	..	..	*890	*22
Armenia	2019	..	175	..	..	175	60
	2020	..	221	0	..	221	76
	2021	..	226	0	..	226	79
	2022	..	225	..	..	225	78
Azerbaijan	2019	1,161	170	..	-26	1,357	134
	2020	1,167	116	64	40	1,179	116
	2021	1,266	155	53	-49	1,416	138
	2022	1,292	300	..	5	1,587	154
Bahrain	2019	755	..	..	-107	862	580
	2020	537	..	..	-200	737	497
	2021	472	..	..	-346	818	545
	2022	702	..	..	-223	925	603
Bangladesh	2019	229	116	..	..	344	2
	2020	222	191	..	..	413	2
	2021	126	177	..	..	303	2
	2022	227	453	..	..	680	4
Bhutan	2019	..	38	..	..	38	49
	2020	..	26	..	..	26	33
	2021	..	25	..	..	25	32
	2022	..	37	..	..	37	47
Brunei Darussalam	2019	325	181	226	-5	285	645
	2020	1,505	339	1,358	115	370	828
	2021	1,497	517	1,238	251	524	1,161
	2022	1,876	461	1,650	251	435	956

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Cambodia	2019	..	726	..	..	726	44
	2020	..	758	..	..	758	45
	2021	..	750	..	..	750	44
	2022	..	774	..	..	774	45
China	2019	148,807	333	16,371	-4,133	136,903	96
	2020	142,567	481	16,000	-1,243	128,290	90
	2021	160,673	358	14,542	2,652	143,836	101
	2022	146,346	20	12,572	207	133,587	94
China, Hong Kong SAR	2019	..	453	12	-19	460	61
	2020	..	455	6	-6	455	61
	2021	..	474	8	-2	468	63
	2022	..	440	7	22	411	55
China, Macao SAR	2019	..	79	..	-1	80	119
	2020	..	66	..	-2	68	100
	2021	..	76	..	2	75	107
	2022	..	67	..	0	67	95
Cyprus	2019	..	335	..	1	334	260
	2020	1	307	..	22	286	220
	2021	..	295	..	-5	300	227
	2022	..	312	..	3	309	232
Georgia	2019	1	544	0	-5	550	145
	2020	10	542	1	6	544	143
	2021	9	589	1	1	596	157
	2022	5	624	22	-4	611	161
India	2019	38,616	2,146	12,710	..	28,052	20
	2020	35,779	1,351	11,606	..	25,524	18
	2021	40,238	671	13,482	..	27,427	19
	2022	42,817	1,069	13,118	..	30,768	22
Indonesia	2019	11,310	14,618	86	26	25,816	95
	2020	11,496	11,937	..	..	23,433	85
	2021	10,942	13,336	..	..	24,278	88
	2022	11,600	18,050	122	..	29,527	106
Iran (Islamic Rep. of)	2019	26,036	..	1,902	..	24,134	277
	2020	24,781	..	4,396	..	20,385	232
	2021	25,229	..	1,743	..	23,486	266
	2022	26,443	..	2,991	..	23,452	262
Iraq	2019	2,553	2,715	..	..	5,268	128
	2020	2,063	1,994	..	..	4,056	96
	2021	1,940	3,470	..	..	5,411	126
	2022	2,706	3,692	..	..	6,398	145
Israel	2019	2,946	654	649	-19	2,970	343
	2020	2,491	382	394	103	2,376	270
	2021	2,686	705	570	-110	2,931	328
	2022	2,731	986	461	71	3,185	350
Japan	2019	36,667	1,820	2,298	-5	36,194	286
	2020	32,692	2,221	1,807	-123	33,230	263
	2021	34,161	2,064	2,936	47	33,242	264
	2022	34,832	1,740	3,214	18	33,341	267
Jordan	2019	547	977	..	73	1,451	136
	2020	366	773	..	..	1,139	105
	2021	443	899	..	..	1,342	121
	2022	454	911	..	..	1,365	121

Table 19

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Kazakhstan	2019	4,533	19	54	-65	4,563	238
	2020	4,482	1	516	297	3,670	188
	2021	4,811	1	101	-206	4,918	249
	2022	4,964	3	74	83	4,811	240
Korea, Dem.Ppl's.Rep.	2019	178	17	..	..	195	7
	2020	178	15	..	..	193	7
	2021	178	9	..	..	187	7
	2022	178	10	..	..	188	7
Korea, Republic of	2019	19,722	15	10,285	-152	9,604	186
	2020	16,770	0	8,680	-144	8,234	159
	2021	19,526	35	11,516	30	8,015	155
	2022	19,820	10	11,747	46	8,038	155
Kuwait	2019	2,587	..	339	-1,017	3,265	735
	2020	2,189	..	280	..	1,909	434
	2021	2,613	..	268	..	2,346	538
	2022	2,726	37	112	..	2,651	578
Kyrgyzstan	2019	103	485	17	-6	577	89
	2020	13	550	2	16	545	82
	2021	21	619	1	47	592	87
	2022	24	579	1	70	532	76
Lao People's Dem. Rep.	2019	..	*185	..	..	*185	*26
	2020	..	*181	..	..	*181	*25
	2021	..	*175	..	..	*175	*23
	2022	..	179	..	..	179	24
Lebanon	2019	..	2,075	..	..	2,075	358
	2020	..	1,856	..	..	1,856	325
	2021	..	1,832	..	..	1,832	320
	2022	..	1,674	..	..	1,674	291
Malaysia	2019	5,064	8,364	331	-193	13,289	397
	2020	4,846	6,585	1,689	-857	10,600	313
	2021	6,438	10,603	7,431	-442	10,052	293
	2022	6,470	12,487	8,160	-497	11,295	326
Maldives	2019	..	85	..	..	85	174
	2020	..	59	..	..	59	117
	2021	..	73	..	..	73	140
	2022	..	89	..	..	89	169
Mongolia	2019	..	542	..	..	542	168
	2020	..	586	..	..	586	178
	2021	..	573	..	..	573	171
	2022	..	680	..	..	680	201
Myanmar	2019	52	1,853	..	..	1,905	36
	2020	53	2,064	..	..	2,117	40
	2021	49	1,780	..	-110	1,939	36
	2022	52	1,905	..	-20	1,977	37
Nepal	2019	..	361	..	54	306	11
	2020	..	417	..	3	414	14
	2021	..	518	..	7	512	17
	2022	..	645	..	6	640	22
Oman	2019	3,311	0	550	0	2,761	601
	2020	2,718	..	479	..	2,240	495
	2021	3,110	..	824	..	2,286	508
	2022	3,460	..	647	..	2,812	595



## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Other Asia	2019	9,046	204	3,905	-32	5,377	227
	2020	7,129	203	1,927	13	5,392	228
	2021	8,933	106	3,427	-71	5,684	241
	2022	9,212	169	3,606	3	5,771	246
Pakistan	2019	1,986	6,560	..	..	8,547	37
	2020	2,535	8,559	..	..	11,094	47
	2021	2,496	9,663	..	..	12,160	51
	2022	2,245	6,731	..	..	8,976	37
Philippines	2019	1,689	2,172	46	-54	3,870	35
	2020	936	2,905	128	-85	3,797	34
	2021	833	2,892	98	-2	3,628	32
	2022	1,304	3,597	24	25	4,851	43
Qatar	2019	1,691	58	104	..	1,645	588
	2020	1,602	621	96	..	2,126	758
	2021	1,651	579	102	..	2,129	756
	2022	1,715	823	104	..	2,434	842
Saudi Arabia	2019	23,197	*3,962	*4,267	*-367	23,258	763
	2020	19,990	4,318	6,493	-5	17,819	575
	2021	23,826	*3,560	*6,319	..	21,066	672
	2022	27,028	3,941	9,374	-491	22,086	686
Singapore	2019	8,122	16,901	24,472	-356	906	160
	2020	6,634	16,114	21,639	..	1,108	197
	2021	7,160	13,915	20,571	..	505	91
	2022	7,889	*17,541	*24,303	345	*781	*138
Sri Lanka	2019	186	1,160	..	-31	1,377	61
	2020	164	1,057	..	25	1,196	53
	2021	124	1,187	..	-37	1,347	59
	2022	40	1,121	..	..	1,161	51
State of Palestine	2019	..	226	..	..	226	46
	2020	..	221	..	..	221	44
	2021	..	260	..	..	260	50
	2022	..	315	..	..	315	59
Syrian Arab Republic	2019	506	376	..	..	882	43
	2020	528	277	..	..	805	38
	2021	510	234	..	..	745	34
	2022	510	290	..	..	800	36
Tajikistan	2019	0	171	..	..	171	18
	2020	0	234	..	..	234	24
	2021	0	242	..	..	243	24
	2022	1	320	..	..	320	31
Thailand	2019	9,686	1,662	907	..	10,441	146
	2020	9,393	1,043	970	..	9,466	132
	2021	9,169	0	1,316	..	7,853	109
	2022	9,558	383	1,370	..	8,571	119
Timor-Leste	2019	..	35	..	..	35	27
	2020	..	36	..	..	36	27
	2021	..	36	..	..	36	27
	2022	..	41	..	..	41	30
Türkiye	2019	5,374	..	2,974	-19	2,419	28
	2020	4,220	..	1,867	-17	2,371	28
	2021	4,699	5	1,673	0	3,030	35
	2022	5,243	..	1,970	23	3,250	37

Table 19

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Turkmenistan	2019	2,337	..	1,374	..	963	142
	2020	2,259	..	1,556	..	703	101
	2021	2,288	..	1,568	..	720	101
	2022	2,364	..	1,601	..	764	106
United Arab Emirates	2019	6,412	6,617	4,980	..	8,049	858
	2020	6,011	5,861	5,441	..	6,431	681
	2021	6,546	5,332	4,427	..	7,451	761
	2022	7,078	5,498	4,782	..	7,794	761
Uzbekistan	2019	1,016	4	0	-51	1,072	33
	2020	1,044	249	..	-52	1,345	40
	2021	1,044	121	1	-37	1,201	35
	2022	1,259	162	128	-31	1,324	38
Viet Nam	2019	5,470	2,003	202	..	7,271	75
	2020	5,173	1,511	295	246	6,142	63
	2021	5,420	848	432	16	5,820	59
	2022	5,423	1,944	256	..	7,111	71
Yemen	2019	143	569	..	..	712	20
	2020	100	552	..	..	651	18
	2021	87	557	..	..	645	17
	2022	88	566	..	..	655	17
<b>Europe</b>	<b>2019</b>	<b>169,632</b>	<b>30,181</b>	<b>93,923</b>	<b>93</b>	<b>105,797</b>	<b>141</b>
	<b>2020</b>	<b>151,696</b>	<b>26,656</b>	<b>81,270</b>	<b>1,474</b>	<b>95,609</b>	<b>127</b>
	<b>2021</b>	<b>162,388</b>	<b>29,029</b>	<b>88,128</b>	<b>-550</b>	<b>103,838</b>	<b>138</b>
	<b>2022</b>	<b>168,877</b>	<b>28,881</b>	<b>90,121</b>	<b>589</b>	<b>107,048</b>	<b>143</b>
Albania	2019	1	136	..	27	110	38
	2020	..	110	..	28	82	29
	2021	..	88	..	5	82	29
	2022	..	89	..	5	85	30
Andorra	2019	..	23	..	..	23	295
	2020	..	17	..	..	17	215
	2021	..	21	..	..	21	273
	2022	..	23	..	..	23	295
Austria	2019	2,074	652	978	56	1,692	191
	2020	1,804	549	984	-48	1,417	159
	2021	1,869	552	996	-42	1,468	164
	2022	1,389	805	606	61	1,527	168
Belarus	2019	2,900	4	1,662	-3	1,245	132
	2020	3,009	2	1,815	97	1,099	118
	2021	3,009	2	1,815	..	1,196	129
	2022	2,874	2	1,733	..	1,143	125
Belgium	2019	4,435	1,280	4,726	-52	1,041	91
	2020	3,288	678	3,170	12	783	68
	2021	3,465	875	3,622	40	678	59
	2022	3,270	923	4,271	17	-94	-8
Bosnia and Herzegovina	2019	18	153	10	-15	176	53
	2020	..	143	..	-1	144	44
	2021	..	161	..	-8	169	52
	2022	..	157	..	0	157	49
Bulgaria	2019	1,827	269	1,601	-23	518	74
	2020	1,265	270	1,048	-7	494	71
	2021	1,034	252	746	9	532	77
	2022	1,817	222	1,424	61	554	81

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Croatia	2019	712	155	425	-36	478	120
	2020	626	128	357	-2	399	101
	2021	585	167	328	-21	445	113
	2022	499	186	217	-7	475	122
Czechia	2019	1,624	560	596	-26	1,614	153
	2020	1,310	560	431	-29	1,468	139
	2021	1,585	569	630	9	1,515	144
	2022	1,519	560	473	18	1,588	149
Denmark	2019	2,293	462	1,280	-12	1,487	256
	2020	2,258	443	1,136	65	1,499	257
	2021	2,261	335	1,208	-18	1,406	240
	2022	2,237	344	1,098	12	1,472	249
Estonia	2019	..	414	113	27	274	207
	2020	..	699	462	22	215	162
	2021	..	510	329	-16	197	148
	2022	..	317	109	3	205	152
Faeroe Islands	2019	..	*11	..	..	*11	*215
	2020	..	*11	..	..	*11	*207
	2021	..	*11	..	..	*11	*210
	2022	..	*11	..	..	*11	*201
Finland	2019	4,582	614	3,337	-32	1,891	342
	2020	4,353	616	3,001	57	1,911	346
	2021	3,459	597	2,445	-132	1,743	315
	2022	4,305	633	3,163	20	1,755	315
France	2019	10,277	1,486	2,619	-4	9,148	135
	2020	8,424	1,367	2,188	1	7,601	112
	2021	8,388	2,565	2,093	-72	8,932	131
	2022	8,642	2,957	1,724	-167	10,042	147
Germany	2019	21,427	3,163	4,853	127	19,610	235
	2020	20,739	1,893	5,365	-5	17,272	207
	2021	20,309	2,298	5,949	-118	16,776	200
	2022	21,530	1,827	6,009	151	17,197	205
Gibraltar	2019	..	47	..	..	47	1,318
	2020	..	43	..	..	43	1,200
	2021	..	43	..	..	43	1,173
	2022	..	43	..	..	43	1,150
Greece	2019	5,048	627	4,074	8	1,593	149
	2020	4,736	431	4,614	37	516	48
	2021	5,250	420	4,798	-114	985	93
	2022	5,239	130	3,615	133	1,620	156
Hungary	2019	1,163	795	431	21	1,506	154
	2020	1,199	471	279	14	1,377	141
	2021	1,131	554	201	26	1,458	150
	2022	1,243	436	141	-5	1,543	159
Iceland	2019	..	122	..	0	123	340
	2020	..	101	..	-4	105	286
	2021	..	114	..	3	111	298
	2022	..	113	..	-1	114	299
Ireland	2019	552	519	407	-127	791	160
	2020	563	421	323	91	571	115
	2021	568	202	307	-140	603	120
	2022	561	408	269	-1	702	137

Table 19

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Italy	2019	16,413	405	8,481	63	8,274	138
	2020	12,254	362	6,264	334	6,018	100
	2021	15,452	327	7,599	-200	8,381	140
	2022	16,128	472	7,747	-10	8,863	149
Kosovo	2019	..	59	..	..	59	34
	2020	..	50	..	..	50	29
	2021	..	63	..	..	63	36
	2022	..	58	..	..	58	34
Latvia	2019	11	193	24	0	180	94
	2020	20	185	17	3	186	98
	2021	18	167	19	-3	169	90
	2022	16	183	32	7	159	85
Lithuania	2019	2,489	46	2,326	3	207	74
	2020	2,171	50	2,004	-2	219	78
	2021	2,416	101	2,307	5	205	73
	2022	2,418	43	2,229	13	219	78
Luxembourg	2019	..	359	..	-1	360	581
	2020	..	280	..	3	276	438
	2021	..	334	..	-3	336	525
	2022	..	347	..	3	345	528
Malta	2019	..	76	..	-7	83	165
	2020	..	75	..	5	70	135
	2021	..	79	..	4	76	144
	2022	..	91	..	8	83	157
Montenegro	2019	..	36	2	-3	37	60
	2020	..	28	..	..	28	46
	2021	..	39	..	..	39	65
	2022	..	39	..	..	39	64
Netherlands (Kingd. of the)	2019	4,313	7,225	25,751	-133	-14,079	-803
	2020	4,298	7,513	20,263	361	-8,813	-500
	2021	4,773	8,322	24,510	-345	-11,070	-624
	2022	4,376	7,686	24,506	165	-12,609	-704
North Macedonia	2019	..	120	17	0	103	54
	2020	..	85	9	1	75	40
	2021	..	96	11	0	85	46
	2022	..	103	7	2	94	51
Norway	2019	3,688	513	3,650	44	507	95
	2020	3,587	428	3,127	9	879	163
	2021	4,251	443	3,929	-28	793	147
	2022	3,639	641	3,709	-27	598	110
Poland	2019	4,577	423	246	38	4,715	123
	2020	4,244	368	212	-2	4,402	115
	2021	4,169	844	52	84	4,877	128
	2022	4,350	958	94	1	5,214	136
Portugal	2019	2,408	261	1,585	11	1,073	104
	2020	1,961	193	1,271	-11	894	86
	2021	2,168	202	1,424	-37	984	95
	2022	2,283	230	1,502	-51	1,062	102
Republic of Moldova	2019	..	178	..	2	176	57
	2020	4	163	8	0	159	52
	2021	..	185	..	-3	188	62
	2022	2	292	121	-2	175	58

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Romania	2019	3,637	70	2,187	-20	1,541	79
	2020	3,165	101	1,882	-6	1,390	72
	2021	3,128	101	1,668	20	1,541	80
	2022	3,551	86	2,054	-64	1,646	86
Russian Federation	2019	39,494	1	5,183	107	34,205	233
	2020	37,915	19	5,235	204	32,495	222
	2021	40,285	2	3,866	928	35,494	243
	2022	42,054	0	5,318	513	36,223	249
Serbia	2019	445	77	111	-20	432	62
	2020	451	58	112	1	397	57
	2021	505	69	130	0	443	65
	2022	563	63	144	11	471	69
Slovakia	2019	1,193	217	838	8	564	103
	2020	1,115	189	777	-5	532	98
	2021	1,175	188	813	8	542	100
	2022	1,251	171	868	-17	571	104
Slovenia	2019	..	658	260	-3	401	192
	2020	..	571	232	14	325	154
	2021	..	465	97	1	367	174
	2022	..	561	161	-22	422	199
Spain	2019	9,289	1,438	4,740	288	5,699	120
	2020	7,956	1,066	4,304	-86	4,804	101
	2021	9,844	504	4,565	-115	5,899	124
	2022	10,038	791	4,042	32	6,755	141
Sweden	2019	3,917	612	1,974	-46	2,601	253
	2020	3,800	883	2,618	47	2,017	195
	2021	4,847	845	3,742	-12	1,962	188
	2022	4,888	838	3,696	-14	2,045	195
Switzerland	2019	649	1,690	1	-3	2,341	273
	2020	616	1,499	0	47	2,068	239
	2021	560	1,462	0	-105	2,128	244
	2022	768	1,248	0	-55	2,071	236
Ukraine	2019	*1,034	1,042	0	-30	2,105	47
	2020	*892	1,005	0	-25	1,922	43
	2021	*788	1,263	..	-12	2,063	47
	2022	*612	1,097	..	..	1,709	42
United Kingdom	2019	17,141	2,989	9,434	-139	10,835	161
	2020	13,672	2,532	7,760	252	8,192	122
	2021	15,095	2,589	7,929	-146	9,901	146
	2022	16,818	2,694	9,041	-203	10,674	157
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>62,214</b>	<b>44,173</b>	<b>4,421</b>	<b>-359</b>	<b>102,326</b>	<b>160</b>
	<b>2020</b>	<b>52,292</b>	<b>37,193</b>	<b>4,680</b>	<b>105</b>	<b>84,700</b>	<b>131</b>
	<b>2021</b>	<b>59,230</b>	<b>41,027</b>	<b>3,897</b>	<b>156</b>	<b>96,205</b>	<b>148</b>
	<b>2022</b>	<b>62,902</b>	<b>44,259</b>	<b>2,349</b>	<b>572</b>	<b>104,239</b>	<b>160</b>
Anguilla	2019	..	6	..	*-2	7	499
	2020	..	10	..	*2	7	485
	2021	..	6	..	*-2	7	511
	2022	..	7	..	*-1	7	508
Antigua and Barbuda	2019	..	*53	*3	..	*50	*547
	2020	..	*50	*2	..	*48	*523
	2021	..	*60	*8	..	*52	*563
	2022	..	*60	*8	..	*52	*560

Table 19

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Argentina	2019	6,290	385	..	-29	6,704	149
	2020	6,115	119	118	-63	6,179	137
	2021	5,804	412	54	-58	6,220	137
	2022	5,933	828	0	41	6,720	148
Aruba	2019	..	*61	..	..	*61	*572
	2020	..	*58	..	..	*58	*540
	2021	..	*63	..	..	*63	*588
	2022	..	*65	..	..	*65	*603
Bahamas	2019	..	276	..	..	276	699
	2020	..	182	..	..	182	459
	2021	..	219	..	..	219	554
	2022	..	247	..	..	247	621
Barbados	2019	..	86	..	-3	90	318
	2020	..	76	..	-1	77	273
	2021	..	75	..	3	72	257
	2022	..	85	..	2	83	294
Belize	2019	..	85	..	..	85	220
	2020	..	73	..	..	73	187
	2021	..	74	..	..	74	188
	2022	..	82	..	..	82	203
Bolivia (Plur. State of)	2019	916	486	..	3	1,400	120
	2020	963	130	..	-6	1,100	93
	2021	1,038	439	..	-1	1,477	124
	2022	992	639	..	4	1,628	135
Bonaire, St Eustatius, Saba	2019	..	*2	..	..	*2	*59
	2020	..	*2	..	..	*2	*57
	2021	..	*2	..	..	*2	*56
	2022	..	*2	..	..	*2	*53
Brazil	2019	26,182	3,574	1,491	258	28,007	135
	2020	23,914	3,633	1,754	-59	25,852	124
	2021	27,627	2,040	1,329	187	28,151	134
	2022	29,196	3,070	404	539	31,322	149
British Virgin Islands	2019	..	*12	..	..	*12	*316
	2020	..	*11	..	..	*11	*296
	2021	..	*12	..	..	*12	*304
	2022	..	*12	..	..	*12	*305
Cayman Islands	2019	..	50	..	..	50	744
	2020	..	41	..	..	41	601
	2021	..	45	..	..	45	647
	2022	..	47	..	..	47	652
Chile	2019	3,319	271	69	16	3,505	183
	2020	2,626	335	8	-17	2,969	153
	2021	2,802	785	38	25	3,523	181
	2022	2,360	1,642	25	-6	3,983	204
Colombia	2019	4,853	1,090	31	-8	5,920	119
	2020	3,434	1,368	198	22	4,582	91
	2021	4,507	2,350	8	299	6,551	128
	2022	4,608	2,025	30	..	6,602	128
Costa Rica	2019	..	1,017	..	67	950	190
	2020	..	750	..	-43	794	158
	2021	..	964	..	43	921	182
	2022	..	924	..	-9	933	184

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Cuba	2019	199	236	*203	..	232	21
	2020	291	226	*314	..	204	18
	2021	107	126	..	..	233	21
	2022	103	148	..	..	251	23
Curaçao	2019	0	67	0	..	67	351
	2020	..	64	..	..	64	346
	2021	..	64	..	..	64	343
	2022	..	64	..	..	64	343
Dominica	2019	..	*10	..	0	*11	*155
	2020	..	*9	..	..	*9	*133
	2021	..	*9	..	..	*9	*134
	2022	..	*10	..	..	*10	*148
Dominican Republic	2019	107	940	..	-21	1,068	98
	2020	42	986	..	-22	1,050	95
	2021	108	1,114	..	-3	1,224	110
	2022	107	1,238	..	5	1,340	119
Ecuador	2019	1,353	2,142	4	12	3,480	201
	2020	1,037	1,598	0	13	2,622	149
	2021	1,206	1,882	..	-27	3,114	176
	2022	1,271	1,968	..	-12	3,251	182
El Salvador	2019	..	752	..	..	752	121
	2020	..	653	1	..	652	105
	2021	..	810	0	..	809	129
	2022	..	856	1	..	855	136
Falkland Is. (Malvinas)	2019	..	0	..	..	0	44
	2020	..	0	..	..	0	42
	2021	..	0	..	..	0	43
	2022	..	0	..	..	0	*43
Grenada	2019	..	28	..	1	27	237
	2020	..	24	..	1	24	204
	2021	..	26	..	3	23	197
	2022	..	29	..	3	25	215
Guatemala	2019	..	1,869	39	55	1,776	104
	2020	..	1,639	19	-22	1,642	95
	2021	..	2,026	69	37	1,920	109
	2022	..	1,968	58	21	1,888	106
Guyana	2019	..	184	..	-3	187	232
	2020	..	188	..	0	188	233
	2021	..	225	..	0	225	276
	2022	..	258	..	0	257	313
Haiti	2019	..	273	..	..	273	25
	2020	..	313	..	..	313	28
	2021	..	383	..	..	383	34
	2022	..	298	..	..	298	26
Honduras	2019	..	869	14	..	855	86
	2020	..	774	29	2	743	73
	2021	..	987	1	30	956	93
	2022	..	1,021	1	-4	1,023	98
Jamaica	2019	181	438	..	3	616	218
	2020	138	315	..	3	450	159
	2021	120	401	..	-19	539	190
	2022	105	489	..	-18	612	215

Table 19

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Mexico	2019	8,213	24,028	..	-692	32,933	262
	2020	7,993	19,272	..	290	26,975	213
	2021	9,488	20,660	..	-165	30,313	237
	2022	11,145	21,118	..	2	32,261	251
Montserrat	2019	..	3	..	..	3	639
	2020	..	3	..	..	3	555
	2021	..	2	..	..	2	447
	2022	..	2	..	..	2	472
Nicaragua	2019	108	233	..	0	341	53
	2020	111	207	..	-17	335	51
	2021	134	236	..	5	366	55
	2022	128	238	..	-6	372	55
Panama	2019	..	794	..	-9	803	190
	2020	..	486	..	93	394	92
	2021	..	716	..	-26	742	171
	2022	..	929	..	-67	996	226
Paraguay	2019	287	756	..	-29	1,071	164
	2020	239	621	..	14	845	128
	2021	290	710	..	-14	1,014	152
	2022	279	685	..	70	894	132
Peru	2019	2,840	770	1,808	46	1,757	54
	2020	2,469	1,024	1,546	-10	1,958	60
	2021	3,076	1,394	1,783	-29	2,716	82
	2022	2,769	1,305	1,428	-36	2,682	80
Saint Barthélemy	2019	..	5	..	..	5	442
	2020	..	4	..	..	4	401
	2021	..	4	..	..	4	415
	2022	..	*5	..	..	*5	*421
Saint Martin (French Part)	2019	..	*11	..	..	*11	*308
	2020	..	*11	..	..	*11	*331
	2021	..	*10	..	..	*10	*349
	2022	..	*10	..	..	*10	*361
Sint Maarten (Dutch part)	2019	..	*14	..	..	*14	*337
	2020	..	*13	..	..	*13	*317
	2021	..	*14	..	..	*14	*325
	2022	..	*14	..	..	*14	*327
St. Kitts-Nevis	2019	..	*19	..	..	*19	*394
	2020	..	*17	..	..	*17	*369
	2021	..	*17	..	..	*17	*366
	2022	..	*19	..	..	*19	*398
St. Lucia	2019	..	47	..	..	47	262
	2020	..	*44	..	..	*44	*248
	2021	..	*45	..	..	*45	*253
	2022	..	*46	..	..	*46	*257
St. Vincent-Grenadines	2019	..	27	..	..	27	255
	2020	..	31	..	..	31	298
	2021	..	*35	..	..	*35	*335
	2022	..	*33	..	..	*33	*325
Suriname	2019	61	112	..	..	173	286
	2020	59	144	..	..	203	332
	2021	71	113	..	..	184	297
	2022	76	114	..	..	191	306



## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Trinidad and Tobago	2019	408	813	754	..	466	314
	2020	350	750	685	-77	493	333
	2021	305	684	590	-115	515	346
	2022	390	738	394	18	716	478
Turks and Caicos Islands	2019	..	*36	..	..	*36	*839
	2020	..	*36	..	..	*36	*802
	2021	..	*37	..	..	*37	*807
	2022	..	*36	..	..	*36	*792
Uruguay	2019	611	0	6	-24	629	185
	2020	573	17	6	3	582	171
	2021	623	0	17	-17	622	183
	2022	*633	24	0	24	*634	*187
Venezuela (Bolivar. Rep.)	2019	6,286	1,245	..	..	7,531	260
	2020	1,937	886	..	..	2,824	99
	2021	1,928	752	..	..	2,680	95
	2022	2,808	866	..	..	3,673	130
<b>Northern America</b>	<b>2019</b>	<b>436,791</b>	<b>42,263</b>	<b>46,369</b>	<b>976</b>	<b>431,709</b>	<b>1,149</b>
	<b>2020</b>	<b>382,452</b>	<b>30,744</b>	<b>40,417</b>	<b>-717</b>	<b>373,496</b>	<b>989</b>
	<b>2021</b>	<b>410,774</b>	<b>41,194</b>	<b>45,711</b>	<b>-1,500</b>	<b>407,758</b>	<b>1,077</b>
	<b>2022</b>	<b>422,151</b>	<b>34,073</b>	<b>46,198</b>	<b>-1,077</b>	<b>411,104</b>	<b>1,080</b>
Bermuda	2019	..	14	..	*-4	18	278
	2020	..	16	..	..	16	251
	2021	..	19	..	..	19	296
	2022	..	*20	..	..	*20	*309
Canada	2019	33,492	6,342	7,607	-20	32,247	853
	2020	30,715	4,118	6,489	110	28,234	740
	2021	31,641	5,115	6,562	-142	30,336	789
	2022	31,372	4,921	5,294	-76	31,075	800
Greenland	2019	..	16	..	*-3	19	343
	2020	..	19	..	0	19	342
	2021	..	21	..	*1	20	354
	2022	..	19	..	*-1	20	348
St. Pierre-Miquelon	2019	..	*4	..	..	*4	*630
	2020	..	*3	..	..	*3	*549
	2021	..	*3	..	..	*3	*485
	2022	..	*3	..	..	*3	*454
United States	2019	403,298	35,888	38,762	1,003	399,421	1,182
	2020	351,737	26,588	33,928	-827	345,223	1,017
	2021	379,133	36,037	39,149	-1,360	377,381	1,109
	2022	390,779	29,111	40,904	-1,001	379,987	1,113
<b>Oceania</b>	<b>2019</b>	<b>9,868</b>	<b>5,932</b>	<b>182</b>	<b>26</b>	<b>15,592</b>	<b>358</b>
	<b>2020</b>	<b>8,560</b>	<b>5,926</b>	<b>74</b>	<b>-80</b>	<b>14,492</b>	<b>329</b>
	<b>2021</b>	<b>7,833</b>	<b>7,213</b>	<b>80</b>	<b>138</b>	<b>14,828</b>	<b>333</b>
	<b>2022</b>	<b>4,819</b>	<b>8,828</b>	<b>229</b>	<b>-107</b>	<b>13,526</b>	<b>300</b>
American Samoa	2019	..	*13	..	..	*13	*267
	2020	..	*13	..	..	*13	*269
	2021	..	*13	..	..	*13	*260
	2022	..	*15	..	..	*15	*306
Australia	2019	8,370	4,434	153	33	12,619	495
	2020	7,326	4,317	74	-110	11,678	454
	2021	6,542	5,642	8	105	12,071	465
	2022	4,464	6,453	110	-92	10,899	416

Table 19

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Cook Islands	2019	..	*6	..	..	*6	*386
	2020	..	*6	..	..	*6	*387
	2021	..	*6	..	..	*6	*415
	2022	..	*7	..	..	*7	*441
Fiji	2019	..	137	29	..	108	118
	2020	..	122	0	..	122	134
	2021	..	112	30	..	82	89
	2022	..	128	26	..	103	112
French Polynesia	2019	..	53	..	-2	55	196
	2020	..	50	..	0	50	180
	2021	..	55	..	0	54	194
	2022	..	57	..	0	57	204
Kiribati	2019	..	*7	..	..	*7	*58
	2020	..	*7	..	..	*7	*56
	2021	..	*7	..	..	*7	*55
	2022	..	*7	..	..	*7	*55
Marshall Islands	2019	..	*12	..	..	*12	*273
	2020	..	*12	..	..	*12	*276
	2021	..	*12	..	..	*12	*278
	2022	..	*12	..	..	*12	*292
Micronesia (Fed. States of)	2019	..	*18	..	..	*18	*167
	2020	..	*18	..	..	*18	*162
	2021	..	*18	..	..	*18	*159
	2022	..	*18	..	..	*18	*161
Nauru	2019	..	*3	..	..	*3	*246
	2020	..	*3	..	..	*3	*247
	2021	..	*3	..	..	*3	*253
	2022	..	*3	..	..	*3	*254
New Caledonia	2019	..	66	..	-6	71	251
	2020	..	76	..	7	69	243
	2021	..	60	..	-7	67	235
	2022	..	73	..	1	72	249
New Zealand	2019	1,498	981	..	-1	2,480	497
	2020	1,234	1,135	..	22	2,347	463
	2021	1,255	1,146	41	39	2,321	454
	2022	319	1,923	93	-17	2,166	422
Niue	2019	..	*1	..	..	*1	*418
	2020	..	*1	..	..	*1	*428
	2021	..	*1	..	..	*1	*425
	2022	..	*1	..	..	*1	*428
Northern Mariana Islands	2019	..	*10	..	..	*10	*208
	2020	..	*6	..	..	*6	*130
	2021	..	*8	..	..	*8	*178
	2022	..	*8	..	..	*8	*164
Palau	2019	..	*9	..	..	*9	*506
	2020	..	*8	..	..	*8	*450
	2021	..	*8	..	..	*8	*450
	2022	..	*8	..	..	*8	*462
Papua New Guinea	2019	..	95	..	0	95	10
	2020	..	72	..	0	72	7
	2021	36	34	..	..	70	7
	2022	*36	*39	..	..	*75	*7

## Production, trade and supply of motor gasoline

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Samoa	2019	..	33	0	*2	30	144
	2020	..	29	0	..	29	134
	2021	..	35	0	..	35	161
	2022	..	27	1	..	27	125
Solomon Islands	2019	..	*22	..	..	*22	*30
	2020	..	*22	..	..	*22	*30
	2021	..	*22	..	..	*22	*29
	2022	..	*21	..	..	*21	*27
Tonga	2019	..	25	..	..	25	235
	2020	..	18	..	..	18	169
	2021	..	19	..	..	19	178
	2022	..	19	..	..	19	177
Tuvalu	2019	..	*1	..	..	*1	*64
	2020	..	*1	..	..	*1	*61
	2021	..	*1	..	..	*1	*64
	2022	..	*1	..	..	*1	*65
Vanuatu	2019	..	6	..	..	6	20
	2020	..	9	..	..	9	31
	2021	..	10	..	..	10	34
	2022	..	9	..	..	9	28
Wallis and Futuna Is.	2019	..	*1	..	..	*1	*102
	2020	..	*1	..	..	*1	*108
	2021	..	*1	..	..	*1	*105
	2022	..	*1	..	..	*1	*112



### Production, trade and supply of other kerosene

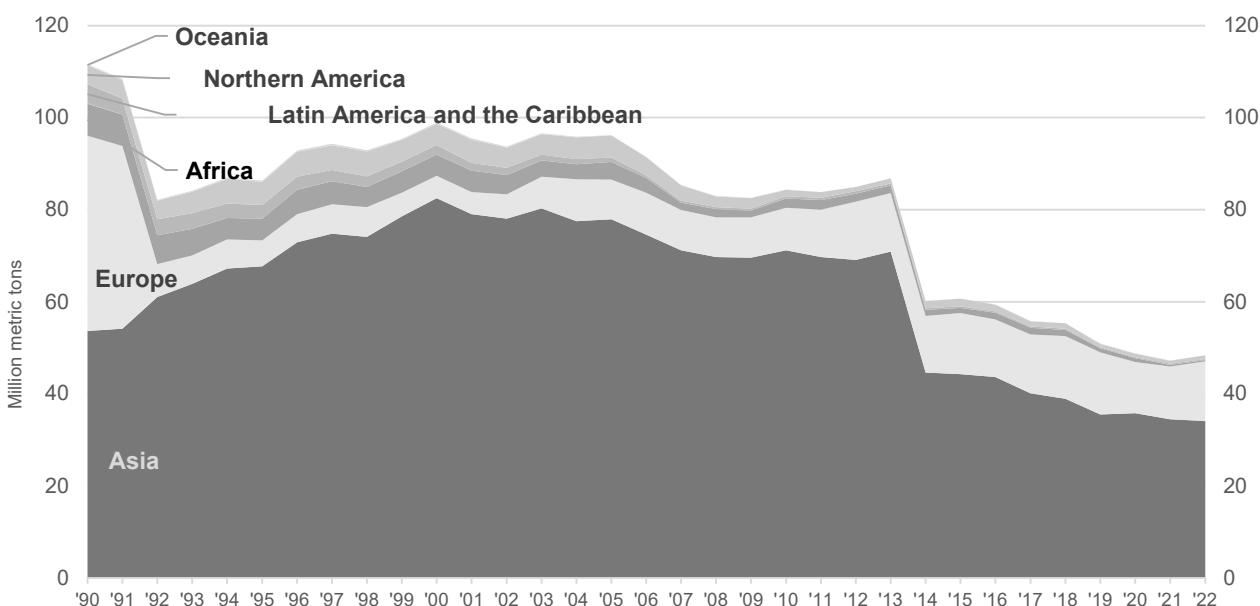
Thousand metric tons and kilograms per capita

#### Table Notes

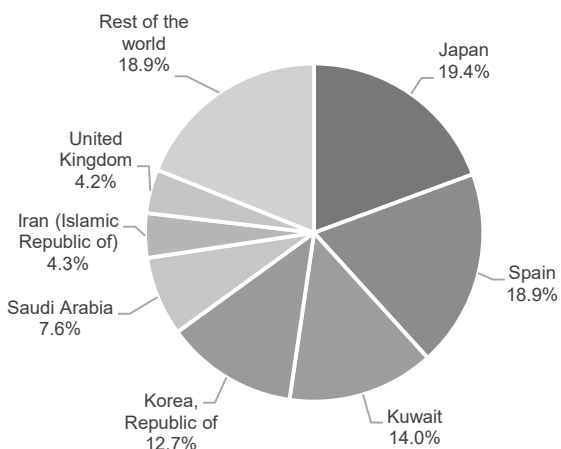
**Production** includes output from refineries and plants.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 54: Production of other kerosene by region, 1990-2022**



**Figure 55: Major other kerosene producing countries, 2022**



**Figure 56: Major other kerosene consuming countries, 2022**

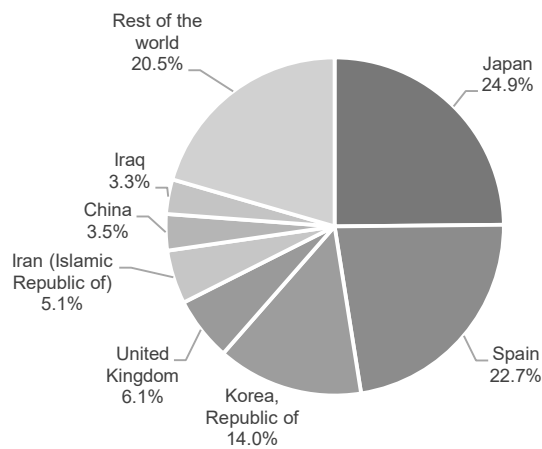


Table 20

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
World	2019	50,946	7,274	14,266	966	42,988	6
	2020	48,811	7,997	12,689	528	43,590	6
	2021	47,233	7,163	12,293	-129	42,233	5
	2022	48,415	7,061	14,505	753	40,219	5
Africa	2019	882	1,270	108	9	2,035	2
	2020	812	1,320	229	-29	1,932	1
	2021	312	2,190	150	14	2,339	2
	2022	286	2,209	94	42	2,360	2
Algeria	2019	*16	..	..	..	*16	0
	2020	22	..	..	..	22	0
	2021	11	..	..	..	11	0
	2022	26	..	..	..	26	1
Angola	2019	24	..	..	..	24	1
	2020	143	..	144	*-24	23	1
	2021	121	..	*71	*25	25	1
	2022	*93	..	*30	*39	*24	*1
Benin	2019	..	24	..	0	24	2
	2020	..	23	..	0	23	2
	2021	..	23	..	0	22	2
	2022	..	24	..	-1	24	2
Botswana	2019	..	3	..	..	3	1
	2020	..	3	..	..	3	1
	2021	..	3	..	..	3	1
	2022	..	3	..	..	3	1
Burkina Faso	2019	..	9	..	*2	7	0
	2020	..	5	..	0	5	0
	2021	..	5	..	0	5	0
	2022	..	*5	..	0	*5	0
Burundi	2019	..	0	..	0	0	0
	2020	..	1	..	..	1	0
	2021	..	0	..	..	0	0
	2022	..	0	..	..	0	0
Cabo Verde	2019	..	0	..	..	0	*1
	2020	..	0	..	..	0	*1
	2021	..	0	..	..	0	*1
	2022	..	0	..	..	0	*1
Cameroon	2019	47	60	2	..	104	4
	2020	..	107	..	..	107	4
	2021	..	110	..	..	110	4
	2022	..	113	..	..	113	4
Central African Rep.	2019	..	2	..	*1	1	0
	2020	..	1	..	0	1	0
	2021	..	1	..	0	2	0
	2022	..	*1	..	..	*1	0
Chad	2019	*4	..	*2	..	*2	0
	2020	*3	..	*1	..	*2	0
	2021	*4	..	*1	..	*2	0
	2022	*4	..	*1	..	*2	0
Comoros	2019	..	*13	..	..	*13	*16
	2020	..	*13	..	..	*13	*16
	2021	..	*14	..	..	*14	*17
	2022	..	*14	..	..	*14	*17

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Congo	2019	7	..	..	..	7	1
	2020	4	..	..	..	4	1
	2021	5	..	..	..	5	1
	2022	5	..	..	..	5	1
Dem. Rep. of the Congo	2019	..	3	..	..	3	0
	2020	..	13	..	..	13	0
	2021	..	6	..	..	6	0
	2022	..	7	..	..	7	0
Djibouti	2019	..	7	..	..	7	6
	2020	..	7	..	..	7	6
	2021	..	*7	..	..	*7	*6
	2022	..	*7	..	..	*7	*6
Egypt	2019	51	..	45	..	6	0
	2020	35	..	33	..	2	0
	2021	31	..	18	..	12	0
	2022	29	..	17	..	13	0
Equatorial Guinea	2019	..	*12	..	..	*12	*7
	2020	..	*11	..	..	*11	*6
	2021	..	*12	..	..	*12	*7
	2022	..	*17	..	..	*17	*10
Eritrea	2019	..	8	..	..	8	2
	2020	..	8	..	..	8	2
	2021	..	8	..	..	8	2
	2022	..	8	..	..	8	2
Eswatini	2019	..	*4	..	..	*4	*3
	2020	..	4	..	..	4	3
	2021	..	3	..	..	3	3
	2022	..	3	..	..	3	3
Ethiopia	2019	..	68	..	..	68	1
	2020	..	70	..	-3	73	1
	2021	..	20	..	-6	26	0
	2022	..	27	..	..	27	0
Gabon	2019	22	23	18	..	27	12
	2020	23	..	17	..	6	3
	2021	17	3	10	..	10	4
	2022	23	24	19	..	29	12
Ghana	2019	12	..	..	11	1	0
	2020	35	..	..	-3	38	1
	2021	24	..	..	-4	27	1
	2022	..	..	..	-5	5	0
Guinea	2019	..	1	..	..	1	0
	2020	..	0	..	..	0	0
	2021	..	0	..	..	0	0
	2022	..	0	..	..	0	0
Kenya	2019	..	21	..	..	21	0
	2020	..	16	0	..	16	0
	2021	..	111	..	..	111	2
	2022	..	89	..	..	89	2
Lesotho	2019	..	21	..	..	21	10
	2020	..	35	..	..	35	16
	2021	..	33	..	..	33	15
	2022	..	96	..	..	96	42

Table 20

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Libya	2019	10	83	..	..	93	13
	2020	11	57	..	..	68	10
	2021	19	51	..	..	70	10
	2022	24	48	..	..	73	10
Madagascar	2019	..	20	..	-4	24	1
	2020	..	29	..	*1	28	1
	2021	..	32	..	*-3	35	1
	2022	..	40	..	*1	39	1
Malawi	2019	..	0	..	..	0	0
	2020	..	2	..	..	2	0
	2021	..	4	..	*3	1	0
	2022	..	6	..	*5	0	0
Mali	2019	..	1	..	..	1	0
	2020	..	1	..	..	1	0
	2021	..	*1	..	..	*1	0
	2022	..	*1	..	..	*1	0
Mauritius	2019	..	13	..	10	4	3
	2020	..	1	..	0	0	0
	2021	..	2	..	1	1	0
	2022	..	4	..	3	1	1
Namibia	2019	..	2	..	..	2	1
	2020	..	2	..	..	2	1
	2021	..	2	..	..	2	1
	2022	..	2	..	..	2	1
Niger	2019	..	1	..	..	1	0
	2020	..	2	..	..	2	0
	2021	..	1	..	..	1	0
	2022	..	2	..	..	2	0
Nigeria	2019	60	655	..	..	715	3
	2020	0	725	..	..	725	3
	2021	*21	732	..	..	753	3
	2022	24	732	..	..	756	3
Rwanda	2019	..	4	..	..	4	0
	2020	..	4	..	..	4	0
	2021	..	4	..	..	4	0
	2022	..	*4	..	..	*4	0
Sao Tome and Principe	2019	..	*4	..	..	*4	*20
	2020	..	*4	..	..	*4	*20
	2021	..	*4	..	..	*4	*19
	2022	..	*4	..	..	*4	*19
Senegal	2019	2	..	..	..	2	0
	2020	..	..	..	..	..	..
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..
Seychelles	2019	..	*1	..	..	*1	*8
	2020	..	*1	..	..	*1	*7
	2021	..	*1	..	..	*1	*7
	2022	..	*1	..	..	*1	*7
Sierra Leone	2019	..	0	..	..	0	0
	2020	..	0	..	..	0	0
	2021	..	*1	..	..	*1	0
	2022	..	*1	..	..	*1	0



## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Somalia	2019	..	*50	..	..	*50	*3
	2020	..	*52	..	..	*52	*3
	2021	..	*53	..	..	*53	*3
	2022	..	*81	..	..	*81	*5
South Africa	2019	596	0	40	..	556	9
	2020	504	0	34	..	470	8
	2021	29	810	49	..	791	13
	2022	31	780	27	..	784	13
South Sudan	2019	..	2	..	..	2	0
	2020	..	2	..	..	2	0
	2021	..	2	..	..	2	0
	2022	..	2	..	..	2	0
Sudan	2019	*10	..	..	..	*10	0
	2020	*2	..	..	..	*2	0
	2021	*10	..	..	..	*10	0
	2022	12	..	..	..	12	0
Togo	2019	..	22	..	-1	23	3
	2020	..	21	..	-1	22	3
	2021	..	8	..	-1	8	1
	2022	..	8	..	-1	9	1
Tunisia	2019	11	..	..	-9	20	2
	2020	20	..	..	0	20	2
	2021	18	..	..	-2	21	2
	2022	16	..	..	0	16	1
Uganda	2019	..	44	..	..	44	1
	2020	..	37	..	..	37	1
	2021	..	43	..	..	43	1
	2022	..	41	..	..	41	1
United Rep. of Tanzania	2019	..	29	..	..	29	0
	2020	..	28	..	..	28	0
	2021	..	16	..	..	16	0
	2022	..	12	..	..	12	0
Zambia	2019	13	..	2	..	11	1
	2020	9	..	..	..	9	0
	2021	2	3	..	..	5	0
	2022	0	1	..	..	1	0
Zimbabwe	2019	..	59	..	..	59	4
	2020	..	34	..	..	34	2
	2021	..	61	..	..	61	4
	2022	..	1	..	0	1	0
<b>Asia</b>	<b>2019</b>	<b>35,514</b>	<b>2,728</b>	<b>12,136</b>	<b>952</b>	<b>25,154</b>	<b>5</b>
	<b>2020</b>	<b>35,798</b>	<b>2,923</b>	<b>10,302</b>	<b>501</b>	<b>27,918</b>	<b>6</b>
	<b>2021</b>	<b>34,470</b>	<b>1,848</b>	<b>10,232</b>	<b>387</b>	<b>25,698</b>	<b>5</b>
	<b>2022</b>	<b>34,129</b>	<b>2,316</b>	<b>12,112</b>	<b>764</b>	<b>23,569</b>	<b>5</b>
Afghanistan	2019	..	*19	..	*-2	*21	*1
	2020	..	*21	..	*1	*20	*1
	2021	..	*18	..	*2	*16	0
	2022	..	*17	..	..	*17	0
Armenia	2019	..	1	..	..	1	0
	2020	..	1	..	..	1	0
	2021	..	..	..	..	..	..
	2022	..	..	..	..	..	..

Table 20

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Azerbaijan	2019	..	4	..	..	4	0
	2020	..	17	..	..	17	2
	2021	..	0	..	..	0	0
	2022	..	4	..	..	4	0
Bahrain	2019	0	..	0	-16	16	11
	2020	..	..	..	-15	15	10
	2021	..	..	..	-14	14	9
	2022	..	..	..	-14	14	9
Bangladesh	2019	95	..	..	..	95	1
	2020	83	..	..	..	83	1
	2021	73	..	..	..	73	0
	2022	65	..	..	..	65	0
Bhutan	2019	..	2	..	..	2	3
	2020	..	1	..	..	1	2
	2021	..	1	..	..	1	2
	2022	..	1	..	..	1	1
Brunei Darussalam	2019	3	..	..	..	3	7
	2020	5	..	..	..	5	11
	2021	5	..	..	..	5	11
	2022	4	..	..	..	4	8
China	2019	1,715	842	5	100	2,452	2
	2020	*2,531	..	..	..	*2,531	*2
	2021	*1,303	..	..	..	*1,303	*1
	2022	1,389	..	..	..	1,389	1
China, Macao SAR	2019	..	2	..	..	2	3
	2020	..	1	..	..	1	1
	2021	..	1	..	..	1	2
	2022	..	1	..	..	1	1
Cyprus	2019	..	12	..	0	12	9
	2020	..	18	..	3	15	11
	2021	..	12	..	-1	13	10
	2022	..	15	..	0	15	11
India	2019	3,141	..	176	..	2,965	2
	2020	2,393	3	15	..	2,381	2
	2021	1,916	..	14	..	1,902	1
	2022	948	..	11	..	937	1
Indonesia	2019	896	37	0	..	933	3
	2020	614	..	..	..	614	2
	2021	*415	..	..	..	*415	*2
	2022	333	0	..	-81	414	1
Iran (Islamic Rep. of)	2019	2,107	..	..	..	2,107	24
	2020	2,212	..	..	..	2,212	25
	2021	1,944	..	..	..	1,944	22
	2022	2,065	..	..	..	2,065	23
Iraq	2019	1,521	222	..	..	1,743	42
	2020	1,312	225	..	..	1,537	36
	2021	1,382	223	11	..	1,593	37
	2022	1,163	197	32	..	1,328	30
Israel	2019	..	165	300	-12	-123	-14
	2020	..	253	103	16	134	15
	2021	..	146	165	-5	-14	-2
	2022	..	274	273	2	0	0

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Japan	2019	10,777	1,276	811	78	11,164	88
	2020	10,655	2,213	1,058	32	11,778	93
	2021	9,837	1,239	313	-282	11,045	88
	2022	9,388	1,629	914	110	9,993	80
Jordan	2019	*35	60	..	..	95	9
	2020	78	5	..	..	83	8
	2021	54	23	..	..	77	7
	2022	61	25	..	..	86	8
Kazakhstan	2019	5	..	0	-12	17	1
	2020	3	1	..	-5	9	0
	2021	9	0	..	4	5	0
	2022	8	..	..	..	8	0
Korea, Dem.Ppl's.Rep.	2019	37	1	..	..	38	1
	2020	37	1	..	..	38	1
	2021	37	1	..	..	38	1
	2022	37	1	..	..	38	1
Korea, Republic of	2019	2,781	5	539	31	2,216	43
	2020	5,745	10	826	-131	5,060	98
	2021	6,925	28	1,018	56	5,879	113
	2022	6,125	5	648	-132	5,614	108
Kuwait	2019	3,965	..	3,832	..	133	30
	2020	3,348	..	3,261	..	87	20
	2021	4,831	..	4,708	..	124	28
	2022	6,800	..	6,658	..	142	31
Lao People's Dem. Rep.	2019	..	*6	..	..	*6	*1
	2020	..	*6	..	..	*6	*1
	2021	..	*5	..	..	*5	*1
	2022	..	*5	..	..	*5	*1
Malaysia	2019	8	0	47	-6	-33	-1
	2020	12	1	38	-8	-19	-1
	2021	10	3	41	-8	-20	-1
	2022	7	3	36	..	-25	-1
Nepal	2019	..	15	..	0	15	1
	2020	..	18	..	0	18	1
	2021	..	13	..	0	13	0
	2022	..	14	..	0	13	0
Oman	2019	2	..	..	..	2	0
	2020	1	..	..	..	1	0
	2021	1	..	..	..	1	0
	2022	2	..	..	..	2	0
Other Asia	2019	2	..	..	0	2	0
	2020	5	..	..	0	5	0
	2021	5	..	..	0	5	0
	2022	4	..	..	0	5	0
Pakistan	2019	87	2	41	..	48	0
	2020	95	2	16	..	81	0
	2021	95	2	0	..	97	0
	2022	90	21	0	..	110	0
Philippines	2019	33	17	..	-4	54	0
	2020	24	39	..	-4	67	1
	2021	22	51	..	7	66	1
	2022	25	25	..	-4	54	0

Table 20

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Saudi Arabia	2019	6,077	..	*6,120	*-121	*78	*3
	2020	4,890	..	*4,851	*-104	*143	*5
	2021	3,858	..	*3,807	*-41	92	3
	2022	3,676	..	3,310	86	280	9
Singapore	2019	256	7	263	..	0	0
	2020	83	43	126	..	0	0
	2021	84	21	105	..	0	0
	2022	146	16	164	..	-2	0
Sri Lanka	2019	38	..	..	1	37	2
	2020	109	..	..	-5	114	5
	2021	98	..	..	1	98	4
	2022	26	..	..	..	26	1
State of Palestine	2019	..	1	..	..	1	0
	2020	..	2	..	..	2	0
	2021	..	1	..	..	1	0
	2022	..	2	..	..	2	0
Syrian Arab Republic	2019	3	..	..	..	3	0
	2020	3	..	..	..	3	0
	2021	3	..	..	..	3	0
	2022	3	..	..	..	3	0
Thailand	2019	1,619	..	2	916	701	10
	2020	1,309	..	6	724	579	8
	2021	1,329	..	28	666	635	9
	2022	1,521	..	17	798	706	10
Türkiye	2019	10	..	..	1	9	0
	2020	6	..	..	-2	8	0
	2021	2	..	..	0	2	0
	2022	2	..	..	0	2	0
Turkmenistan	2019	134	..	..	..	134	20
	2020	130	..	..	..	130	19
	2021	132	..	..	..	132	19
	2022	136	..	..	..	136	19
Uzbekistan	2019	6	..	..	0	6	0
	2020	4	..	..	..	4	0
	2021	4	21	22	2	0	0
	2022	7	42	49	0	0	0
Viet Nam	2019	..	32	..	..	32	0
	2020	..	43	1	..	42	0
	2021	..	38	1	..	37	0
	2022	..	20	..	..	20	0
Yemen	2019	160	..	..	..	160	5
	2020	112	..	..	..	112	3
	2021	98	..	..	..	98	3
	2022	99	..	..	..	99	3
<b>Europe</b>	<b>2019</b>	<b>13,482</b>	<b>2,465</b>	<b>1,791</b>	<b>-41</b>	<b>14,198</b>	<b>19</b>
	<b>2020</b>	<b>11,126</b>	<b>3,126</b>	<b>1,870</b>	<b>108</b>	<b>12,274</b>	<b>16</b>
	<b>2021</b>	<b>11,513</b>	<b>2,514</b>	<b>1,667</b>	<b>-526</b>	<b>12,885</b>	<b>17</b>
	<b>2022</b>	<b>12,908</b>	<b>1,929</b>	<b>1,933</b>	<b>3</b>	<b>12,901</b>	<b>17</b>
Austria	2019	15	1	0	0	15	2
	2020	13	0	0	0	14	2
	2021	9	1	0	0	10	1
	2022	27	1	0	0	27	3

Table 20

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Belarus	2019	14	..	5	7	2	0
	2020	10	..	..	8	2	0
	2021	10	..	..	..	10	1
	2022	2	..	..	..	2	0
Belgium	2019	25	63	313	-11	-213	-19
	2020	26	55	195	-3	-112	-10
	2021	35	29	24	1	39	3
	2022	31	18	3	1	46	4
Croatia	2019	..	2	..	..	2	0
	2020	..	2	..	..	2	0
	2021	..	2	..	..	2	0
	2022	..	1	..	..	1	0
Czechia	2019	..	2	..	..	2	0
	2020	..	2	..	..	2	0
	2021	..	2	..	..	2	0
	2022	..	2	..	..	2	0
Finland	2019	..	493	110	..	383	69
	2020	..	607	104	..	503	91
	2021	..	499	104	..	395	71
	2022	..	382	162	..	220	40
France	2019	..	210	72	0	138	2
	2020	..	195	181	0	14	0
	2021	..	203	119	..	84	1
	2022	..	186	91	-1	95	1
Germany	2019	4	19	..	-2	25	0
	2020	..	20	..	-1	21	0
	2021	13	23	6	2	28	0
	2022	33	8	25	-1	17	0
Greece	2019	..	1	..	0	1	0
	2020	..	1	..	0	1	0
	2021	..	1	1	0	1	0
	2022	..	3	7	0	-4	0
Ireland	2019	307	330	70	-2	569	115
	2020	277	357	10	-3	628	126
	2021	255	347	..	9	593	118
	2022	279	303	68	-8	522	102
Italy	2019	471	265	312	-11	434	7
	2020	333	529	555	40	267	4
	2021	88	369	520	-440	378	6
	2022	457	143	225	17	359	6
Luxembourg	2019	..	1	..	0	1	1
	2020	..	1	..	0	1	1
	2021	..	1	..	..	1	1
	2022	..	1	..	0	1	1
Malta	2019	..	1	0	0	1	1
	2020	..	1	..	0	0	1
	2021	..	0	..	0	0	1
	2022	..	0	..	0	0	1
Netherlands (Kingd. of the)	2019	305	401	412	-12	307	17
	2020	260	312	242	64	266	15
	2021	540	309	407	-59	499	28
	2022	433	266	645	24	29	2

Table 20

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Norway	2019	40	58	52	0	45	8
	2020	13	44	15	0	42	8
	2021	0	22	..	0	22	4
	2022	0	7	..	0	7	1
Poland	2019	0	0	..	0	0	0
	2020	0	0	0	0	0	0
	2021	0	2	1	0	1	0
	2022	0	0	0	0	0	0
Portugal	2019	0	0	..	0	0	0
	2020	0	0	..	0	1	0
	2021	0	0	..	-1	1	0
	2022	..	0	..	0	1	0
Romania	2019	1	1	0	0	1	0
	2020	0	1	0	0	1	0
	2021	..	1	0	0	1	0
	2022	..	1	0	..	1	0
Russian Federation	2019	*428	..	428	..	0	0
	2020	*450	..	*450	..	0	0
	2021	*450	..	*450	..	0	0
	2022	*450	..	*450	..	0	0
Spain	2019	9,816	..	..	-10	9,826	207
	2020	7,839	..	..	-46	7,885	165
	2021	8,379	..	0	11	8,368	175
	2022	9,154	..	0	41	9,113	191
Switzerland	2019	..	2	0	0	2	0
	2020	..	2	0	..	2	0
	2021	..	3	0	..	2	0
	2022	..	2	0	..	2	0
United Kingdom	2019	2,057	617	16	..	2,658	40
	2020	1,903	998	117	49	2,735	41
	2021	1,734	701	35	-48	2,448	36
	2022	2,042	605	257	-70	2,460	36
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>239</b>	<b>274</b>	<b>4</b>	<b>3</b>	<b>506</b>	<b>1</b>
	<b>2020</b>	<b>222</b>	<b>252</b>	<b>3</b>	<b>3</b>	<b>468</b>	<b>1</b>
	<b>2021</b>	<b>247</b>	<b>246</b>	<b>2</b>	<b>16</b>	<b>475</b>	<b>1</b>
	<b>2022</b>	<b>255</b>	<b>426</b>	<b>5</b>	<b>-11</b>	<b>686</b>	<b>1</b>
Argentina	2019	8	..	..	-1	9	0
	2020	9	..	..	..	9	0
	2021	7	..	..	..	7	0
	2022	6	..	..	..	6	0
Bahamas	2019	..	*3	..	..	*3	*8
	2020	..	*3	..	..	*3	*8
	2021	..	*3	..	..	*3	*8
	2022	..	*3	..	..	*3	*8
Barbados	2019	..	81	..	-1	83	294
	2020	..	79	..	-1	79	282
	2021	..	73	..	13	60	212
	2022	..	51	..	-10	60	214
Belize	2019	..	*17	..	..	*17	*45
	2020	..	*19	..	..	*19	*49
	2021	..	*21	..	..	*21	*53
	2022	..	23	..	..	23	57

Table 20

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Bolivia (Plur. State of)	2019	20	..	..	0	20	2
	2020	14	..	..	0	14	1
	2021	17	..	..	0	17	1
	2022	13	..	..	-1	13	1
Brazil	2019	5	..	..	..	5	0
	2020	4	..	..	..	4	0
	2021	4	..	..	..	4	0
	2022	7	..	..	..	7	0
British Virgin Islands	2019	..	*3	..	..	*3	*85
	2020	..	*3	..	..	*3	*81
	2021	..	*3	..	..	*3	*79
	2022	..	*3	..	..	*3	*78
Chile	2019	161	..	..	3	159	8
	2020	153	..	..	-2	156	8
	2021	177	..	..	6	172	9
	2022	157	..	..	3	154	8
Colombia	2019	5	..	..	..	5	0
	2020	1	..	..	..	1	0
	2021	7	..	..	..	7	0
	2022	..	208	..	..	208	4
Cuba	2019	1	..	..	..	1	0
	2020	4	..	..	..	4	0
	2021	4	..	..	..	4	0
	2022	4	..	..	..	4	0
Dominica	2019	..	0	..	0	0	*6
	2020	..	0	..	0	0	*3
	2021	..	0	..	0	0	*3
	2022	..	0	..	0	0	*3
Dominican Republic	2019	2	..	..	..	2	0
	2020	7	..	..	..	7	1
	2021	7	..	..	..	7	1
	2022	11	..	..	..	11	1
El Salvador	2019	..	22	..	..	22	4
	2020	..	3	..	..	3	0
	2021	..	2	..	..	2	0
	2022	..	12	..	..	12	2
Falkland Is. (Malvinas)	2019	..	3	..	..	3	900
	2020	..	3	..	..	3	879
	2021	..	3	..	..	3	778
	2022	..	*3	..	..	*3	*788
Grenada	2019	..	0	..	..	0	1
	2020	..	0	..	..	0	0
	2021	..	0	..	..	0	1
	2022	..	0	..	..	0	1
Guatemala	2019	..	10	4	2	4	0
	2020	..	8	3	4	0	0
	2021	..	1	2	-2	0	0
	2022	..	0	*4	-4	0	0
Guyana	2019	..	16	..	3	13	16
	2020	..	10	..	-1	11	14
	2021	..	11	..	..	11	14
	2022	..	12	..	..	12	14

Table 20

## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Haiti	2019	..	73	..	..	73	7
	2020	..	82	..	..	82	7
	2021	..	79	..	..	79	7
	2022	..	70	..	..	70	6
Honduras	2019	..	22	..	..	22	2
	2020	..	19	..	2	17	2
	2021	..	28	0	0	28	3
	2022	..	18	1	1	16	2
Montserrat	2019	..	0	..	..	0	*88
	2020	..	0	..	..	0	*89
	2021	..	0	..	..	0	*89
	2022	..	0	..	..	0	*90
Nicaragua	2019	5	..	..	..	5	1
	2020	4	..	..	..	4	1
	2021	4	..	..	..	4	1
	2022	4	..	..	..	4	1
Panama	2019	..	1	..	..	1	0
	2020	..	1	..	..	1	0
	2021	..	1	..	..	1	0
	2022	..	0	..	..	0	0
St. Kitts-Nevis	2019	..	*6	..	..	*6	*121
	2020	..	*5	..	..	*5	*113
	2021	..	*5	..	..	*5	*113
	2022	..	*6	..	..	*6	*124
St. Lucia	2019	..	*2	..	..	*2	*9
	2020	..	*2	..	..	*2	*10
	2021	..	*2	..	..	*2	*10
	2022	..	*2	..	..	*2	*10
Suriname	2019	..	0	..	..	0	1
	2020	..	0	..	..	0	1
	2021	..	0	..	..	0	1
	2022	..	0	..	..	0	1
Trinidad and Tobago	2019	..	14	..	..	14	9
	2020	..	13	..	..	13	9
	2021	..	11	..	..	11	8
	2022	..	14	..	..	14	9
Uruguay	2019	4	..	..	-1	5	1
	2020	6	..	..	1	5	1
	2021	4	..	..	-1	4	1
	2022	4	..	..	1	4	1
Venezuela (Bolivar. Rep.)	2019	28	..	..	..	28	1
	2020	20	..	..	..	20	1
	2021	16	..	..	..	16	1
	2022	50	..	..	..	50	2
<b>Northern America</b>	<b>2019</b>	<b>715</b>	<b>511</b>	<b>228</b>	<b>33</b>	<b>966</b>	<b>3</b>
	<b>2020</b>	<b>789</b>	<b>361</b>	<b>285</b>	<b>-50</b>	<b>914</b>	<b>2</b>
	<b>2021</b>	<b>637</b>	<b>344</b>	<b>242</b>	<b>-23</b>	<b>761</b>	<b>2</b>
	<b>2022</b>	<b>783</b>	<b>159</b>	<b>361</b>	<b>-46</b>	<b>627</b>	<b>2</b>
Bermuda	2019	..	26	..	..	26	403
	2020	..	12	..	..	12	187
	2021	..	9	..	..	9	135
	2022	..	*9	..	..	*9	*131



## Production, trade and supply of other kerosene

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Canada	2019	242	394	..	-1	636	17
	2020	218	301	..	-3	523	14
	2021	194	297	..	-2	493	13
	2022	164	135	..	0	298	8
United States	2019	473	92	228	34	303	1
	2020	571	47	285	-47	380	1
	2021	442	38	242	-20	259	1
	2022	619	16	361	-46	320	1
<b>Oceania</b>	<b>2019</b>	<b>114</b>	<b>25</b>	<b>0</b>	<b>9</b>	<b>130</b>	<b>3</b>
	<b>2020</b>	<b>64</b>	<b>16</b>	<b>0</b>	<b>-5</b>	<b>85</b>	<b>2</b>
	<b>2021</b>	<b>55</b>	<b>22</b>	<b>0</b>	<b>2</b>	<b>74</b>	<b>2</b>
	<b>2022</b>	<b>55</b>	<b>22</b>	<b>0</b>	<b>1</b>	<b>76</b>	<b>2</b>
Australia	2019	..	2	..	-2	4	0
	2020	..	6	..	..	6	0
	2021	..	5	..	..	5	0
	2022	..	5	..	..	5	0
Fiji	2019	..	0	..	..	0	0
	2020	..	0	..	..	0	0
	2021	..	0	..	..	0	0
	2022	..	*1	..	..	*1	*1
French Polynesia	2019	..	1	..	0	1	3
	2020	..	1	..	0	1	3
	2021	..	1	..	0	1	3
	2022	..	1	..	0	1	3
Kiribati	2019	..	*2	..	..	*2	*15
	2020	..	*2	..	..	*2	*15
	2021	..	*2	..	..	*2	*15
	2022	..	*2	..	..	*2	*13
New Caledonia	2019	..	2	..	..	2	6
	2020	..	1	..	..	1	4
	2021	..	7	..	..	7	23
	2022	..	5	..	..	5	17
Palau	2019	..	*2	..	..	*2	*118
	2020	..	*2	..	..	*2	*112
	2021	..	*2	..	..	*2	*112
	2022	..	*2	..	..	*2	*113
Papua New Guinea	2019	114	..	..	*9	105	11
	2020	64	..	..	-5	68	7
	2021	55	..	..	..	55	5
	2022	*55	..	..	..	*55	*5
Samoa	2019	..	15	0	*2	13	61
	2020	..	4	0	*-1	4	19
	2021	..	5	0	*2	3	15
	2022	..	5	0	*1	4	19
Tonga	2019	..	0	..	..	0	1
	2020	..	0	..	..	0	2
	2021	..	0	..	..	0	1
	2022	..	0	..	..	0	2
Tuvalu	2019	..	0	..	..	0	*4
	2020	..	0	..	..	0	*4
	2021	..	0	..	..	0	*4
	2022	..	0	..	..	0	*4

**Table 20****Production, trade and supply of other kerosene**

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Changes in stocks	Supply	
						Total	Per capita
Vanuatu	2019	..	2	..	..	2	5
	2020	..	0	..	..	0	0
	2021	..	0	..	..	0	0
	2022	..	2	..	..	2	5





### Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

#### Table Notes

Data refer to aviation gasoline, gasoline-type jet fuel and kerosene-type jet fuel.

**Production** includes output from refineries and plants.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

Figure 57: Production of jet fuels by region, 1990-2022

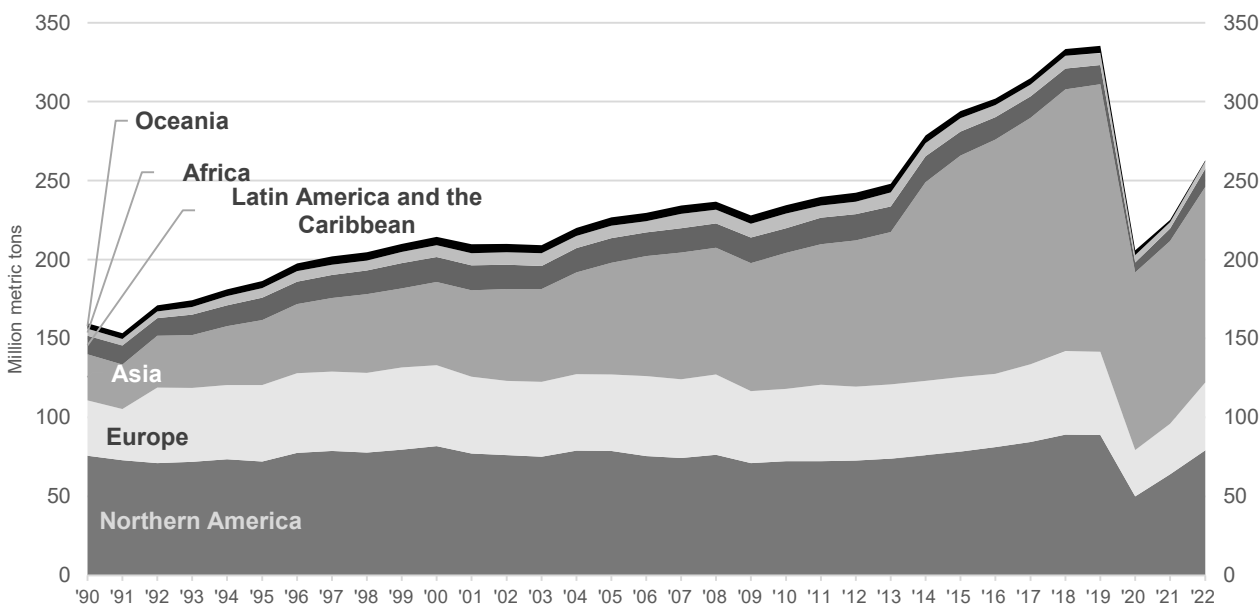


Figure 58: Major jet fuels producing countries, 2022

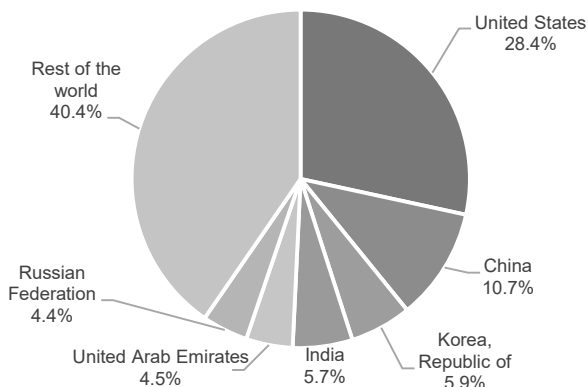
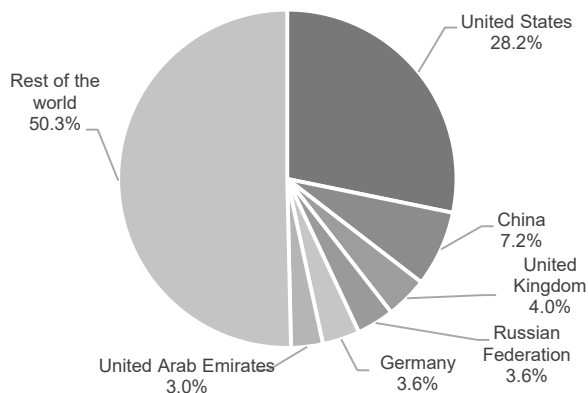


Figure 59: Major jet fuels consuming countries\*, 2022



\*Consumption includes bunkers

Table 21

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
World	2019	335,471	90,874	97,749	197,699	722	130,174	17
	2020	205,781	57,232	70,660	94,931	2,323	95,100	12
	2021	224,979	55,013	68,039	105,804	-2,817	108,967	14
	2022	262,850	70,643	77,468	146,038	354	109,632	14
Africa	2019	7,661	5,897	3,166	8,415	20	1,958	1
	2020	4,546	3,749	2,785	4,209	-92	1,393	1
	2021	4,013	4,708	1,785	5,238	-3	1,703	1
	2022	4,624	6,142	2,006	6,501	60	2,198	2
Algeria	2019	1,221	..	682	*354	-1	186	4
	2020	992	..	683	*217	-10	102	2
	2021	849	..	434	*223	-19	211	5
	2022	1,013	0	281	362	-67	436	10
Angola	2019	329	..	*23	292	..	14	0
	2020	294	..	27	76	..	191	6
	2021	225	..	42	58	..	126	4
	2022	261	..	42	*60	..	159	4
Benin	2019	..	27	..	21	6	0	0
	2020	..	12	..	16	-8	4	0
	2021	..	22	..	17	4	1	0
	2022	..	28	..	31	-3	1	0
Botswana	2019	..	18	..	16	..	2	1
	2020	..	5	..	4	..	1	1
	2021	..	7	..	6	..	1	1
	2022	..	11	..	10	..	1	0
Burkina Faso	2019	..	27	..	30	*-4	0	0
	2020	..	18	..	18	0	0	0
	2021	..	29	..	29	0	0	0
	2022	..	*29	..	*29	0	0	0
Burundi	2019	..	5	..	5	..	0	0
	2020	..	2	..	2	..	0	0
	2021	..	3	..	3	..	0	0
	2022	..	5	..	5	..	0	0
Cabo Verde	2019	..	*68	..	*46	..	*22	*44
	2020	..	*28	..	*20	..	*8	*15
	2021	..	*22	..	*19	..	*3	*5
	2022	..	*30	..	*20	..	*10	*19
Cameroon	2019	41	16	32	16	..	8	0
	2020	..	11	..	7	..	3	0
	2021	..	18	..	11	..	7	0
	2022	..	21	..	15	..	6	0
Central African Rep.	2019	..	17	..	7	..	10	2
	2020	..	15	..	4	..	11	2
	2021	..	16	..	4	..	12	2
	2022	..	*16	..	*4	..	*12	*2
Chad	2019	*37	*3	*3	27	..	*10	*1
	2020	*39	*2	*3	*27	..	*11	*1
	2021	*39	*2	*3	*27	..	*11	*1
	2022	*36	*3	*3	*25	..	*10	*1
Comoros	2019	..	*7	..	*2	..	*6	*7
	2020	..	*9	..	*2	..	*7	*9
	2021	..	*10	..	*3	..	*8	*9
	2022	..	*12	..	*3	..	*9	*10

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Congo	2019	38	9	..	32	..	15	3
	2020	33	8	..	28	..	13	2
	2021	34	8	..	29	..	13	2
	2022	37	8	..	31	..	14	2
Côte d'Ivoire	2019	552	..	366	172	..	14	0
	2020	236	..	162	60	..	14	0
	2021	268	..	145	104	..	19	1
	2022	332	..	174	142	..	16	1
Dem. Rep. of the Congo	2019	..	133	..	133	..	0	0
	2020	..	99	..	99	..	0	0
	2021	..	121	..	121	..	0	0
	2022	..	80	..	80	..	0	0
Djibouti	2019	..	*81	..	*81	..	0	0
	2020	..	76	..	*76	..	0	0
	2021	..	*94	..	*94	..	0	0
	2022	..	*84	..	*84	..	0	0
Egypt	2019	2,618	..	1,397	641	..	580	5
	2020	1,795	..	1,111	306	..	379	3
	2021	1,570	..	618	267	..	685	6
	2022	1,499	..	590	255	..	654	6
Equatorial Guinea	2019	..	*46	..	46	..	0	0
	2020	..	*31	..	31	..	0	0
	2021	..	*28	..	28	..	0	0
	2022	..	*35	..	35	..	0	0
Eritrea	2019	..	11	..	9	..	2	1
	2020	..	4	..	3	..	1	0
	2021	..	6	..	5	..	1	0
	2022	..	16	..	13	..	3	1
Eswatini	2019	..	2	..	2	..	0	0
	2020	..	1	..	1	..	0	0
	2021	..	0	..	0	..	0	0
	2022	..	1	..	1	..	0	0
Ethiopia	2019	..	813	..	820	-13	6	0
	2020	..	380	..	379	-3	3	0
	2021	..	830	..	825	..	5	0
	2022	..	953	..	945	..	8	0
Gabon	2019	36	43	23	42	..	14	6
	2020	39	19	17	31	..	10	4
	2021	28	22	10	31	..	9	4
	2022	38	20	17	33	7	2	1
Gambia	2019	..	21	*1	*20	..	0	0
	2020	..	*19	*1	*18	..	0	0
	2021	..	*20	*1	*19	..	0	0
	2022	..	*21	*1	*20	..	0	0
Ghana	2019	80	188	..	212	34	21	1
	2020	28	87	..	120	-20	14	0
	2021	1	195	0	191	-9	14	0
	2022	..	212	5	191	9	7	0
Guinea	2019	..	47	..	*42	..	5	0
	2020	..	30	..	*26	..	3	0
	2021	..	46	..	*42	..	5	0
	2022	..	49	..	*44	..	5	0

Table 21

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Guinea-Bissau	2019	..	0	..	0	..	0	0
	2020	..	0	..	0	..	0	0
	2021	..	0	..	0	..	0	0
	2022	..	*1	..	*1	..	0	0
Kenya	2019	..	487	0	705	..	-218	-4
	2020	..	682	0	392	..	289	6
	2021	..	508	..	480	..	28	1
	2022	..	593	..	545	..	48	1
Lesotho	2019	..	0	..	0	0	0	0
	2020	..	0	..	0	..	0	0
	2021	..	0	..	0	0	0	0
	2022	..	1	..	0	*1	0	0
Liberia	2019	..	*13	..	*6	..	*8	*1
	2020	..	*10	..	*4	..	*6	*1
	2021	..	*11	..	*5	..	*7	*1
	2022	..	*12	..	*5	..	*7	*1
Libya	2019	421	..	369	49	..	2	0
	2020	297	..	278	17	..	2	0
	2021	499	..	449	42	..	8	1
	2022	617	..	552	59	..	6	1
Madagascar	2019	..	57	..	48	-4	12	0
	2020	..	20	..	18	*-1	3	0
	2021	..	13	..	12	*-3	3	0
	2022	..	43	..	26	*10	7	0
Malawi	2019	..	5	..	*4	..	1	0
	2020	..	3	..	3	..	1	0
	2021	..	8	..	7	..	0	0
	2022	..	11	..	11	..	1	0
Mali	2019	..	68	..	68	..	0	0
	2020	..	52	..	52	..	0	0
	2021	..	85	..	85	..	0	0
	2022	..	63	..	63	..	0	0
Mauritania	2019	..	39	..	20	*17	1	0
	2020	..	24	..	12	*11	1	0
	2021	..	*32	..	17	*14	*1	0
	2022	..	59	..	18	*40	1	0
Mauritius	2019	..	287	..	147	-6	147	114
	2020	..	71	..	56	-41	56	44
	2021	..	69	..	31	6	31	24
	2022	..	211	..	102	-12	121	95
Morocco	2019	..	818	..	775	11	32	1
	2020	..	276	..	278	-14	12	0
	2021	..	398	..	375	7	16	0
	2022	..	731	..	630	75	26	1
Mozambique	2019	..	62	..	26	..	36	1
	2020	..	24	..	14	..	10	0
	2021	..	53	..	18	..	35	1
	2022	..	81	28	15	..	37	1
Namibia	2019	..	87	..	82	..	5	2
	2020	..	91	..	84	..	7	3
	2021	..	96	..	94	..	2	1
	2022	..	101	..	98	..	2	1



## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Niger	2019	0	46	..	*46	..	0	0
	2020	0	48	..	*48	..	0	0
	2021	..	51	..	*51	..	0	0
	2022	..	72	..	*72	..	0	0
Nigeria	2019	5	706	..	652	..	59	0
	2020	0	340	..	303	..	36	0
	2021	1	499	..	456	..	44	0
	2022	4	632	..	561	..	74	0
Rwanda	2019	..	46	..	*24	..	22	2
	2020	..	30	..	*16	..	14	1
	2021	..	46	..	*24	..	22	2
	2022	..	*48	..	*25	..	*23	*2
Sao Tome and Principe	2019	..	*5	..	*3	..	*1	*6
	2020	..	*5	..	*4	..	*1	*5
	2021	..	*5	..	*4	..	*1	*5
	2022	..	*5	..	*4	..	*1	*5
Senegal	2019	..	192	..	192	*-8	8	1
	2020	..	143	..	138	..	5	0
	2021	..	155	..	150	..	4	0
	2022	..	163	..	152	-1	13	1
Seychelles	2019	..	50	..	*43	..	6	54
	2020	..	*41	..	36	..	*5	*43
	2021	..	*42	..	*36	..	*6	*49
	2022	..	*45	..	*39	..	*6	*51
Sierra Leone	2019	..	*3	..	4	..	-1	0
	2020	..	*2	..	2	..	*1	0
	2021	..	*3	..	3	..	0	0
	2022	..	*6	..	6	..	0	0
Somalia	2019	..	*86	..	*86	..	0	0
	2020	..	*89	..	*89	..	0	0
	2021	..	*92	..	*92	..	0	0
	2022	..	*95	..	*95	..	0	0
South Africa	2019	2,211	387	270	1,452	..	876	15
	2020	777	485	503	623	..	136	2
	2021	480	370	82	469	..	300	5
	2022	763	662	313	700	..	412	7
South Sudan	2019	..	79	..	73	..	5	1
	2020	..	59	..	49	..	10	1
	2021	..	79	..	73	..	5	0
	2022	..	79	..	73	..	5	0
Sudan	2019	71	*79	..	*150	..	0	0
	2020	16	*80	..	*96	..	0	0
	2021	19	*109	..	*128	..	0	0
	2022	24	*115	..	*139	..	0	0
Togo	2019	..	58	..	56	-1	3	0
	2020	..	57	..	54	-1	4	1
	2021	..	78	..	79	-2	1	0
	2022	..	90	..	91	-2	0	0
Tunisia	2019	..	302	..	300	-12	15	1
	2020	..	91	..	101	-5	-5	0
	2021	..	135	..	128	-1	8	1
	2022	..	221	..	212	6	3	0

Table 21

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Uganda	2019	..	106	..	106	..	0	0
	2020	..	56	..	56	..	0	0
	2021	..	84	..	84	..	0	0
	2022	..	124	..	124	..	0	0
United Rep. of Tanzania	2019	..	173	..	149	..	23	0
	2020	..	94	..	59	..	35	1
	2021	..	129	..	80	..	49	1
	2022	..	150	..	107	..	43	1
Zambia	2019	2	26	..	29	..	-2	0
	2020	0	5	..	17	..	-12	-1
	2021	..	23	..	23	..	0	0
	2022	..	34	..	32	..	1	0
Zimbabwe	2019	..	51	..	51	..	0	0
	2020	..	18	..	18	..	0	0
	2021	..	40	..	37	..	2	0
	2022	..	64	..	58	-2	8	0
<b>Asia</b>	<b>2019</b>	<b>169,567</b>	<b>20,250</b>	<b>60,340</b>	<b>80,247</b>	<b>360</b>	<b>48,869</b>	<b>11</b>
	<b>2020</b>	<b>112,357</b>	<b>12,547</b>	<b>47,046</b>	<b>35,357</b>	<b>1,403</b>	<b>41,099</b>	<b>9</b>
	<b>2021</b>	<b>115,728</b>	<b>9,143</b>	<b>43,700</b>	<b>37,237</b>	<b>327</b>	<b>43,608</b>	<b>9</b>
	<b>2022</b>	<b>123,938</b>	<b>10,427</b>	<b>46,814</b>	<b>50,043</b>	<b>43</b>	<b>37,464</b>	<b>8</b>
Afghanistan	2019	..	53	..	*10	..	44	1
	2020	..	64	..	*12	..	53	1
	2021	..	*54	..	*13	..	*41	*1
	2022	..	*39	..	*6	..	*33	*1
Armenia	2019	..	69	..	69	..	0	0
	2020	..	37	..	37	..	0	0
	2021	..	52	0	*52	..	0	0
	2022	..	98	..	98	..	0	0
Azerbaijan	2019	667	67	120	313	1	300	30
	2020	519	..	49	336	2	132	13
	2021	492	9	12	419	-26	95	9
	2022	571	36	3	432	20	152	15
Bahrain	2019	3,097	..	2,533	508	33	23	15
	2020	2,326	..	2,068	287	-71	42	28
	2021	1,932	..	1,532	322	39	39	26
	2022	2,318	..	1,727	519	34	38	25
Bangladesh	2019	..	430	..	410	..	21	0
	2020	1	344	..	321	..	24	0
	2021	238	..	..	218	..	20	0
	2022	210	..	..	190	..	20	0
Bhutan	2019	..	4	..	4	..	0	0
	2020	..	1	..	1	..	0	0
	2021	..	1	..	1	..	0	0
	2022	..	2	..	2	..	0	1
Brunei Darussalam	2019	248	55	144	108	51	0	0
	2020	334	118	313	38	25	76	171
	2021	94	..	77	18	-1	0	0
	2022	49	37	16	37	26	7	16
Cambodia	2019	..	225	..	156	..	69	4
	2020	..	58	..	43	..	14	1
	2021	..	22	..	21	..	1	0
	2022	..	42	..	38	..	4	0

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
China	2019	51,511	2,826	17,610	10,590	..	26,137	18
	2020	*38,764	2,657	9,975	4,771	48	*26,627	*19
	2021	*39,136	1,573	8,575	4,379	-211	*27,966	*20
	2022	28,240	1,143	10,949	422	-76	18,089	13
China, Hong Kong SAR	2019	..	6,080	..	6,187	-113	6	1
	2020	..	3,297	..	3,379	-88	6	1
	2021	..	2,991	..	3,060	-74	5	1
	2022	..	2,562	..	2,662	-110	9	1
Cyprus	2019	..	298	..	295	-5	8	6
	2020	..	98	..	90	3	5	3
	2021	..	152	..	150	1	1	1
	2022	..	256	17	251	-7	-6	-5
Georgia	2019	..	102	..	101	0	1	0
	2020	..	57	..	55	1	0	0
	2021	..	96	..	94	1	1	0
	2022	..	130	..	132	-3	0	0
India	2019	*15,212	*65	*6,906	*3,979	71	*4,321	*3
	2020	*7,077	..	*3,544	*1,277	211	*2,045	*1
	2021	*10,261	..	*5,186	1,751	-70	*3,394	*2
	2022	15,000	..	7,264	*3,089	..	4,647	3
Indonesia	2019	3,389	227	102	916	0	2,598	10
	2020	2,446	29	363	442	..	1,670	6
	2021	1,924	*1	133	183	..	1,609	6
	2022	2,156	374	20	207	15	2,288	8
Iran (Islamic Rep. of)	2019	1,461	*1	..	661	..	801	9
	2020	806	0	..	289	..	518	6
	2021	1,167	0	..	466	..	701	8
	2022	1,242	*1	..	698	..	545	6
Iraq	2019	235	16	22	215	..	15	0
	2020	106	..	46	57	..	3	0
	2021	176	..	61	108	..	6	0
	2022	167	..	18	142	..	7	0
Israel	2019	1,420	..	..	1,122	..	298	34
	2020	557	..	..	408	..	149	17
	2021	694	..	..	517	..	177	20
	2022	1,110	..	..	879	..	231	25
Japan	2019	12,238	1,170	2,451	6,866	7	4,085	32
	2020	5,045	552	748	2,704	-101	2,246	18
	2021	6,711	709	1,320	3,766	39	2,296	18
	2022	8,598	708	1,686	4,597	-81	3,104	25
Jordan	2019	163	305	..	*86	..	382	36
	2020	143	0	..	*43	..	100	9
	2021	201	16	..	*56	..	161	15
	2022	146	74	..	*55	..	165	15
Kazakhstan	2019	629	40	26	461	24	158	8
	2020	444	21	6	206	-9	261	13
	2021	606	73	17	484	-15	193	10
	2022	671	154	13	439	2	371	19
Korea, Republic of	2019	21,544	0	14,480	5,300	104	1,660	32
	2020	14,199	1	10,118	2,832	-320	1,569	30
	2021	12,255	1	7,949	2,497	-145	1,954	38
	2022	15,492	0	10,815	3,134	7	1,537	30

Table 21

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Kuwait	2019	1,573	..	635	938	..	0	0
	2020	1,328	..	902	426	..	0	0
	2021	1,917	..	1,477	440	..	0	0
	2022	2,565	..	1,679	886	..	0	0
Kyrgyzstan	2019	..	63	55	*5	-3	6	1
	2020	..	66	57	*2	6	1	0
	2021	..	68	48	*4	1	15	2
	2022	..	101	86	..	-8	23	3
Lao People's Dem. Rep.	2019	..	*49	..	*36	..	*13	*2
	2020	..	*21	..	*11	..	*10	*1
	2021	..	*11	..	*4	..	*7	*1
	2022	..	*11	..	4	..	*7	*1
Lebanon	2019	..	270	..	270	..	0	0
	2020	..	97	..	97	..	0	0
	2021	..	130	..	130	..	0	0
	2022	..	227	..	227	..	0	0
Malaysia	2019	3,363	560	644	2,421	135	723	22
	2020	2,383	738	1,130	899	808	284	8
	2021	2,312	421	1,489	728	215	301	9
	2022	2,080	414	1,303	818	..	373	11
Maldives	2019	..	43	..	*21	..	22	44
	2020	..	22	..	*10	..	12	24
	2021	..	30	..	*15	..	15	29
	2022	..	50	..	*26	..	24	46
Mongolia	2019	..	47	..	43	..	3	1
	2020	..	19	..	18	..	1	0
	2021	..	28	..	26	..	2	1
	2022	..	74	..	*70	..	4	1
Myanmar	2019	12	201	..	72	..	141	3
	2020	8	85	..	16	..	77	1
	2021	12	64	..	10	..	66	1
	2022	15	60	..	21	..	54	1
Nepal	2019	..	93	..	80	-1	14	0
	2020	..	49	..	39	1	9	0
	2021	..	106	..	86	1	19	1
	2022	..	122	..	102	2	18	1
Oman	2019	1,804	..	1,053	605	..	146	32
	2020	898	..	649	152	..	98	22
	2021	764	..	570	136	..	58	13
	2022	1,027	..	662	287	..	77	16
Other Asia	2019	4,568	40	1,036	3,340	-94	326	14
	2020	3,584	82	878	2,072	-6	721	30
	2021	3,260	39	411	2,024	50	814	35
	2022	3,732	81	987	2,008	-48	867	37
Pakistan	2019	590	184	0	*195	..	579	3
	2020	494	55	..	161	..	389	2
	2021	629	73	..	240	..	462	2
	2022	671	61	..	*250	..	483	2
Philippines	2019	810	1,506	..	1,640	-20	695	6
	2020	343	439	..	575	-45	252	2
	2021	270	428	..	542	7	149	1
	2022	683	917	..	1,222	57	321	3

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Qatar	2019	3,299	..	1,004	2,237	58	0	0
	2020	3,399	..	934	1,480	986	0	0
	2021	3,489	..	983	1,769	738	0	0
	2022	3,510	..	1,005	2,214	291	0	0
Saudi Arabia	2019	4,848	..	*222	*3,372	..	1,254	41
	2020	1,984	..	*150	*1,090	..	744	24
	2021	2,072	..	*110	*1,062	..	900	29
	2022	3,564	..	139	2,665	..	760	24
Singapore	2019	11,347	2,005	4,688	8,429	..	235	41
	2020	9,641	1,988	9,292	1,953	..	384	68
	2021	9,410	928	8,345	1,993	..	0	0
	2022	9,551	432	3,286	6,735	..	-38	-7
Sri Lanka	2019	259	398	..	473	-4	187	8
	2020	157	101	..	187	11	61	3
	2021	131	178	..	222	-4	91	4
	2022	55	215	..	351	-83	2	0
Syrian Arab Republic	2019	184	..	82	10	..	92	5
	2020	192	..	97	9	..	86	4
	2021	186	..	105	8	..	73	3
	2022	186	..	84	10	..	92	4
Tajikistan	2019	..	40	..	40	..	0	0
	2020	..	24	..	24	..	0	0
	2021	..	16	..	16	..	0	0
	2022	..	61	..	61	..	0	0
Thailand	2019	6,168	309	675	*4,498	..	1,303	18
	2020	2,640	117	555	*1,489	..	713	10
	2021	1,698	12	270	*1,010	..	430	6
	2022	3,025	46	684	*1,838	..	549	8
Timor-Leste	2019	..	3	..	*3	..	0	0
	2020	..	3	..	*3	..	0	0
	2021	..	4	..	*4	..	0	0
	2022	..	4	..	*4	..	0	0
Türkiye	2019	5,964	353	706	4,289	149	1,173	14
	2020	2,926	122	599	1,832	-62	678	8
	2021	3,306	207	46	2,610	-38	895	10
	2022	4,716	445	257	3,866	-31	1,069	12
Turkmenistan	2019	326	..	..	287	..	39	6
	2020	87	..	..	64	..	23	3
	2021	54	..	..	27	..	27	4
	2022	75	..	..	70	..	5	1
United Arab Emirates	2019	11,829	..	4,292	7,173	..	364	39
	2020	8,636	..	3,889	4,438	..	309	33
	2021	9,852	..	4,497	4,997	..	359	37
	2022	11,768	..	3,977	7,416	..	375	37
Uzbekistan	2019	157	3	51	*133	-4	-19	-1
	2020	124	3	17	*111	..	-1	0
	2021	118	..	..	92	3	24	1
	2022	181	..	..	156	-33	58	2
Viet Nam	2019	559	2,051	716	1,277	-30	647	7
	2020	699	1,179	605	567	..	706	7
	2021	303	652	434	464	-184	241	2
	2022	506	1,449	86	701	71	1,097	11

Table 21

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Yemen	2019	94	..	88	6	..	0	0
	2020	66	..	60	5	..	0	0
	2021	57	..	52	5	..	0	0
	2022	58	..	53	5	..	0	0
<b>Europe</b>	<b>2019</b>	<b>52,767</b>	<b>40,078</b>	<b>21,497</b>	<b>60,458</b>	<b>525</b>	<b>10,365</b>	<b>14</b>
	<b>2020</b>	<b>29,513</b>	<b>24,516</b>	<b>15,097</b>	<b>27,911</b>	<b>1,368</b>	<b>9,654</b>	<b>13</b>
	<b>2021</b>	<b>31,965</b>	<b>24,654</b>	<b>16,217</b>	<b>32,342</b>	<b>-2,601</b>	<b>10,661</b>	<b>14</b>
	<b>2022</b>	<b>42,836</b>	<b>34,583</b>	<b>18,027</b>	<b>49,518</b>	<b>112</b>	<b>9,762</b>	<b>13</b>
Albania	2019	..	32	..	21	11	0	0
	2020	..	28	..	16	12	0	0
	2021	..	32	..	16	16	0	0
	2022	..	50	..	37	13	0	0
Austria	2019	894	52	29	928	-37	25	3
	2020	363	55	9	308	56	46	5
	2021	344	40	5	390	-26	16	2
	2022	405	218	2	594	10	18	2
Belarus	2019	463	23	297	186	-12	15	2
	2020	225	20	123	106	1	15	2
	2021	225	20	123	123	..	-1	0
	2022	214	19	117	117	..	-1	0
Belgium	2019	2,195	1,427	2,126	1,660	58	-221	-19
	2020	830	957	1,101	1,138	113	-565	-49
	2021	712	1,062	640	1,436	-134	-167	-14
	2022	1,638	875	730	1,663	78	41	4
Bosnia and Herzegovina	2019	..	9	..	9	..	0	0
	2020	..	4	..	4	0	0	0
	2021	..	14	..	14	1	0	0
	2022	..	29	..	29	0	0	0
Bulgaria	2019	232	34	8	231	7	20	3
	2020	138	15	4	134	-2	16	2
	2021	177	6	16	159	-7	15	2
	2022	242	8	25	213	2	10	1
Croatia	2019	158	48	16	190	-10	10	3
	2020	58	1	2	51	0	5	1
	2021	80	13	2	94	-10	7	2
	2022	150	37	2	177	-1	8	2
Czechia	2019	216	257	8	405	14	46	4
	2020	48	101	..	110	-6	45	4
	2021	65	98	2	148	-7	20	2
	2022	117	171	..	256	12	20	2
Denmark	2019	121	1,012	12	1,006	64	50	9
	2020	79	533	83	320	151	57	10
	2021	92	324	191	411	-235	48	8
	2022	144	663	1	706	53	47	8
Estonia	2019	..	68	..	67	..	1	1
	2020	..	25	..	23	..	1	1
	2021	..	45	..	42	1	2	1
	2022	..	56	..	56	-1	2	1
Finland	2019	725	259	1	812	-8	179	32
	2020	258	196	1	274	18	161	29
	2021	318	85	1	268	-37	171	31
	2022	692	105	30	514	17	236	42

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
France	2019	3,889	6,053	1,745	6,048	-89	2,238	33
	2020	1,481	4,044	1,489	2,594	-9	1,452	21
	2021	1,105	4,998	1,708	2,626	43	1,728	25
	2022	2,526	5,507	1,280	4,644	-59	2,169	32
Germany	2019	5,077	6,797	1,401	9,532	120	821	10
	2020	2,519	3,033	687	4,408	19	438	5
	2021	2,892	4,007	960	5,887	-224	276	3
	2022	4,463	6,336	1,678	8,749	-9	381	5
Gibraltar	2019	..	8	..	8	..	0	0
	2020	..	4	..	4	..	0	0
	2021	..	6	..	6	..	0	0
	2022	..	8	..	8	..	0	0
Greece	2019	2,813	150	1,559	1,101	-63	367	34
	2020	1,638	267	1,178	346	7	374	35
	2021	1,902	507	1,420	678	-52	362	34
	2022	2,895	82	1,369	1,126	42	440	42
Hungary	2019	300	18	39	270	-1	10	1
	2020	123	1	..	98	15	11	1
	2021	141	1	5	119	-1	19	2
	2022	219	54	6	250	5	12	1
Iceland	2019	..	290	..	303	-22	9	24
	2020	..	84	..	83	-4	5	12
	2021	..	139	..	131	1	7	20
	2022	..	281	..	265	7	9	22
Ireland	2019	..	1,491	60	1,054	76	300	61
	2020	..	976	..	374	214	388	78
	2021	..	717	134	418	-128	294	58
	2022	..	1,149	..	954	-26	221	43
Italy	2019	2,706	2,563	333	3,864	62	1,010	17
	2020	1,289	793	55	1,456	-46	618	10
	2021	1,422	692	29	1,589	-70	566	9
	2022	2,208	1,587	31	2,769	39	955	16
Kosovo	2019	..	2	..	2	..	0	0
	2020	..	2	..	2	..	0	0
	2021	..	2	..	2	..	0	0
	2022	..	4	..	4	..	0	0
Latvia	2019	..	154	..	152	0	2	1
	2020	..	59	..	56	2	1	0
	2021	..	75	..	76	-2	1	1
	2022	..	208	5	138	61	4	2
Lithuania	2019	996	45	264	119	3	655	234
	2020	878	0	103	52	-9	732	262
	2021	770	1	138	60	9	564	202
	2022	857	4	77	98	-4	690	245
Luxembourg	2019	..	582	..	583	-2	0	0
	2020	..	531	..	531	0	0	0
	2021	..	606	..	606	0	0	0
	2022	..	629	..	629	0	0	0
Malta	2019	..	174	..	160	13	1	1
	2020	..	51	..	58	-7	1	1
	2021	..	73	..	75	-3	1	1
	2022	..	125	..	123	2	1	1

Table 21

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Montenegro	2019	..	49	28	21	..	0	0
	2020	..	14	10	5	-1	0	0
	2021	..	27	15	12	..	0	0
	2022	..	22	5	18	..	0	0
Netherlands (Kingd. of the)	2019	8,810	3,445	8,159	3,823	197	76	4
	2020	4,521	4,028	5,983	2,132	10	424	24
	2021	4,381	4,457	5,537	2,345	-230	1,187	67
	2022	7,127	3,820	7,776	3,048	-98	222	12
North Macedonia	2019	..	57	30	27	1	0	0
	2020	..	31	15	15	0	0	0
	2021	..	31	15	16	-1	0	0
	2022	..	52	25	26	0	0	0
Norway	2019	655	250	11	534	5	355	66
	2020	371	228	66	168	8	356	66
	2021	465	201	232	164	-50	321	59
	2022	419	380	42	429	-3	332	61
Poland	2019	1,355	24	284	1,048	14	33	1
	2020	616	0	179	445	-26	18	0
	2021	758	3	177	549	5	30	1
	2022	1,153	1	166	952	5	30	1
Portugal	2019	1,346	253	16	1,420	-37	200	19
	2020	588	3	1	509	-39	120	12
	2021	662	150	2	648	43	119	11
	2022	1,156	353	1	1,354	-13	168	16
Republic of Moldova	2019	..	49	..	48	1	0	0
	2020	..	16	..	17	-1	0	0
	2021	..	41	..	40	0	0	0
	2022	..	45	..	45	0	0	0
Romania	2019	512	39	370	131	-6	56	3
	2020	204	33	162	41	-2	35	2
	2021	231	66	195	72	-10	40	2
	2022	410	66	324	79	4	69	4
Russian Federation	2019	13,176	30	2,405	5,702	..	5,099	35
	2020	10,934	29	1,972	4,674	..	4,317	29
	2021	12,886	29	2,384	5,558	..	4,973	34
	2022	11,474	..	2,321	4,891	..	4,262	29
Serbia	2019	155	21	39	138	-1	0	0
	2020	88	1	15	77	-2	0	0
	2021	120	5	17	109	-2	0	0
	2022	166	6	20	146	7	0	0
Slovakia	2019	72	5	33	44	..	0	0
	2020	33	6	11	28	..	0	0
	2021	37	2	17	22	..	0	0
	2022	75	8	50	33	..	0	0
Slovenia	2019	..	310	265	26	18	0	0
	2020	..	125	93	10	23	0	0
	2021	..	31	61	10	-41	0	0
	2022	..	339	321	21	-4	1	0
Spain	2019	454	1,680	401	4,643	-45	-2,865	-60
	2020	155	1,231	519	1,496	338	-967	-20
	2021	316	702	789	1,754	-451	-1,074	-22
	2022	427	1,549	401	3,480	99	-2,005	-42



## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Sweden	2019	259	985	147	867	26	204	20
	2020	122	655	42	333	209	192	19
	2021	16	169	232	348	-404	9	1
	2022	78	700	99	609	-9	79	8
Switzerland	2019	3	1,937	..	1,813	45	83	10
	2020	9	803	..	665	94	54	6
	2021	..	733	0	751	-45	27	3
	2022	3	1,255	0	1,341	-123	41	5
United Kingdom	2019	5,185	9,397	1,414	11,461	122	1,585	24
	2020	1,943	5,536	1,193	4,751	234	1,301	19
	2021	1,849	4,444	1,172	4,573	-550	1,098	16
	2022	3,577	7,785	1,125	8,928	6	1,303	19
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>12,134</b>	<b>8,414</b>	<b>1,135</b>	<b>13,571</b>	<b>-320</b>	<b>6,161</b>	<b>10</b>
	<b>2020</b>	<b>6,348</b>	<b>3,843</b>	<b>515</b>	<b>6,209</b>	<b>-114</b>	<b>3,582</b>	<b>6</b>
	<b>2021</b>	<b>8,073</b>	<b>5,462</b>	<b>327</b>	<b>8,378</b>	<b>-29</b>	<b>4,859</b>	<b>7</b>
	<b>2022</b>	<b>11,608</b>	<b>7,809</b>	<b>1,822</b>	<b>12,489</b>	<b>240</b>	<b>4,866</b>	<b>7</b>
Anguilla	2019	..	*6	..	*6	..	0	0
	2020	..	*2	..	*2	..	0	0
	2021	..	*7	..	*7	..	0	0
	2022	..	*8	..	*8	..	0	0
Antigua and Barbuda	2019	..	*50	..	48	..	*2	*20
	2020	..	*48	..	*46	..	*2	*19
	2021	..	*49	..	*47	..	*2	*18
	2022	..	*49	..	47	..	*2	*19
Argentina	2019	1,466	221	5	882	-11	811	18
	2020	520	25	2	377	-24	190	4
	2021	592	0	12	380	-3	204	4
	2022	1,163	11	24	736	5	409	9
Aruba	2019	..	*83	..	*83	..	0	0
	2020	..	*79	..	*79	..	0	0
	2021	..	*86	..	*86	..	0	0
	2022	..	*87	..	*87	..	0	0
Bahamas	2019	..	302	..	*273	..	30	75
	2020	..	268	..	*257	..	11	27
	2021	..	399	..	*379	..	20	51
	2022	..	299	..	*272	..	27	69
Barbados	2019	..	126	..	126	..	0	0
	2020	..	62	..	62	..	0	0
	2021	..	53	..	53	..	0	0
	2022	..	107	..	107	..	0	0
Belize	2019	..	*24	..	*20	..	*4	*10
	2020	..	*25	..	*21	..	*4	*10
	2021	..	*26	..	*22	..	*4	*11
	2022	..	27	..	23	..	4	11
Bolivia (Plur. State of)	2019	177	..	..	64	6	108	9
	2020	85	..	..	26	2	56	5
	2021	111	..	..	29	-5	87	7
	2022	150	..	..	52	-1	99	8
Bonaire, St Eustatius, Saba	2019	..	*3	..	*3	..	0	0
	2020	..	*2	..	*2	..	0	0
	2021	..	*2	..	*2	..	0	0
	2022	..	*3	..	*3	..	0	0

Table 21

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Brazil	2019	4,916	883	88	2,317	90	3,304	16
	2020	2,703	290	144	976	-31	1,904	9
	2021	3,260	295	0	1,047	57	2,452	12
	2022	3,876	1,023	..	1,704	150	3,045	14
Cayman Islands	2019	..	35	..	34	..	2	26
	2020	..	16	..	15	..	1	11
	2021	..	8	..	8	..	0	6
	2022	..	27	..	26	..	1	19
Chile	2019	880	472	..	721	10	619	32
	2020	491	213	..	386	-20	338	17
	2021	365	463	..	429	-2	401	21
	2022	528	463	..	652	40	299	15
Colombia	2019	1,144	66	..	1,326	..	-116	-2
	2020	876	35	..	590	..	320	6
	2021	1,174	17	..	847	..	343	7
	2022	2,689	371	1,300	1,601	..	159	3
Costa Rica	2019	..	248	..	224	6	19	4
	2020	..	119	..	97	6	16	3
	2021	..	181	..	172	-2	11	2
	2022	..	246	..	239	-12	20	4
Cuba	2019	83	369	*293	82	..	77	7
	2020	37	240	*80	122	..	75	7
	2021	37	177	*67	87	..	60	5
	2022	34	162	*120	18	..	58	5
Curaçao	2019	0	91	0	91	..	0	0
	2020	..	34	..	34	..	0	0
	2021	..	52	..	52	..	0	0
	2022	..	92	..	92	..	0	0
Dominica	2019	..	*1	..	*1	..	0	0
	2020	..	*1	..	*1	..	0	0
	2021	..	*1	..	*1	..	0	0
	2022	..	*1	..	*1	..	0	0
Dominican Republic	2019	193	331	..	506	4	14	1
	2020	83	148	..	207	-7	30	3
	2021	158	227	..	355	-1	31	3
	2022	193	359	..	500	4	49	4
Ecuador	2019	360	..	..	258	-10	112	6
	2020	192	..	..	131	5	56	3
	2021	277	..	..	180	0	96	5
	2022	370	..	..	218	2	151	8
El Salvador	2019	..	178	3	175	..	0	0
	2020	..	69	0	68	..	0	0
	2021	..	129	1	127	..	0	0
	2022	..	150	2	148	..	1	0
Falkland Is. (Malvinas)	2019	..	0	..	..	..	0	56
	2020	..	0	..	..	..	0	38
	2021	..	0	..	..	..	0	56
	2022	..	0	..	..	..	0	*57
Grenada	2019	..	9	..	9	..	0	0
	2020	..	8	..	8	..	0	0
	2021	..	9	..	9	..	0	0
	2022	..	10	..	10	..	0	0

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Guatemala	2019	..	105	4	101	..	0	0
	2020	..	53	*4	49	..	0	0
	2021	..	86	*4	82	..	0	0
	2022	..	110	*5	105	..	0	0
Guyana	2019	..	34	..	17	..	18	22
	2020	..	28	12	5	..	12	14
	2021	..	34	14	8	..	12	15
	2022	..	32	14	9	..	8	10
Haiti	2019	..	27	..	22	..	5	0
	2020	..	15	..	10	..	5	0
	2021	..	16	..	11	..	5	0
	2022	..	26	..	21	..	5	0
Honduras	2019	..	62	..	..	..	62	6
	2020	..	27	0	..	1	26	3
	2021	..	48	..	..	-1	49	5
	2022	..	64	0	..	0	64	6
Jamaica	2019	65	162	..	228	-5	4	1
	2020	41	39	..	75	0	4	2
	2021	33	79	..	105	4	4	1
	2022	31	190	..	190	6	25	9
Mexico	2019	1,234	2,649	..	3,962	-323	244	2
	2020	796	1,217	..	1,769	13	231	2
	2021	1,297	2,037	..	2,807	29	498	4
	2022	1,509	2,493	..	4,028	-21	-5	0
Nicaragua	2019	17	1	..	16	0	2	0
	2020	8	1	..	6	0	3	0
	2021	11	1	..	9	0	2	0
	2022	22	0	..	15	7	0	0
Panama	2019	..	831	..	597	-50	285	67
	2020	..	244	..	208	-31	67	16
	2021	..	510	..	329	-93	274	63
	2022	..	713	..	634	27	52	12
Paraguay	2019	..	74	..	71	0	4	1
	2020	..	28	..	25	0	3	0
	2021	..	37	..	34	..	3	1
	2022	..	48	..	45	..	3	0
Peru	2019	686	396	..	706	-7	382	12
	2020	210	163	..	257	-24	141	4
	2021	391	135	..	310	-13	229	7
	2022	431	369	..	458	27	316	9
Saint Barthélemy	2019	..	*5	..	*5	..	0	0
	2020	..	*5	..	*5	..	0	0
	2021	..	*5	..	*5	..	0	0
	2022	..	*5	..	*5	..	0	0
Saint Martin (French Part)	2019	..	*11	..	*11	..	0	0
	2020	..	*6	..	*6	..	0	0
	2021	..	*7	..	*7	..	0	0
	2022	..	*10	..	*10	..	0	0
Sint Maarten (Dutch part)	2019	..	*26	..	*26	..	0	0
	2020	..	*11	..	*11	..	0	0
	2021	..	*21	..	*21	..	0	0
	2022	..	*36	..	*36	..	0	0

Table 21

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
St. Lucia	2019	..	*30	..	*29	..	*2	*8
	2020	..	*26	..	*24	..	*2	*11
	2021	..	*27	..	*25	..	*2	*11
	2022	..	*28	..	*26	..	*2	*12
Suriname	2019	..	44	..	*39	..	5	7
	2020	..	37	..	*33	..	4	7
	2021	..	42	..	37	..	5	8
	2022	..	43	..	*38	..	5	8
Trinidad and Tobago	2019	..	358	101	170	-27	113	76
	2020	..	176	50	81	..	45	30
	2021	..	138	50	72	..	16	10
	2022	..	122	77	*65	..	-19	-13
Turks and Caicos Islands	2019	..	*25	..	*25	..	0	0
	2020	..	*24	..	*24	..	0	0
	2021	..	*25	..	*25	..	0	0
	2022	..	*25	..	*25	..	0	0
Uruguay	2019	100	1	..	97	-1	5	2
	2020	42	2	..	42	-4	5	1
	2021	45	3	..	42	1	4	1
	2022	84	2	..	74	7	5	1
Venezuela (Bolivar. Rep.)	2019	814	73	641	199	..	46	2
	2020	264	58	222	69	..	30	1
	2021	322	32	178	133	..	43	2
	2022	528	..	281	166	..	81	3
<b>Northern America</b>	<b>2019</b>	<b>88,736</b>	<b>11,138</b>	<b>11,545</b>	<b>28,772</b>	<b>-47</b>	<b>59,605</b>	<b>159</b>
	<b>2020</b>	<b>49,987</b>	<b>8,419</b>	<b>5,089</b>	<b>16,936</b>	<b>-80</b>	<b>36,461</b>	<b>97</b>
	<b>2021</b>	<b>63,935</b>	<b>8,661</b>	<b>5,962</b>	<b>20,973</b>	<b>-460</b>	<b>46,122</b>	<b>122</b>
	<b>2022</b>	<b>79,153</b>	<b>7,758</b>	<b>8,775</b>	<b>25,085</b>	<b>-54</b>	<b>53,106</b>	<b>140</b>
Bermuda	2019	..	*16	..	*16	..	0	0
	2020	..	*14	..	*14	..	0	0
	2021	..	*15	..	*15	..	0	0
	2022	..	*15	..	*15	..	0	0
Canada	2019	5,560	3,146	1,074	4,716	-15	2,931	78
	2020	2,617	1,095	430	2,046	-42	1,277	33
	2021	3,117	905	412	2,055	2	1,553	40
	2022	4,449	1,870	351	3,556	-31	2,444	63
Greenland	2019	..	19	..	..	..	19	334
	2020	..	6	..	..	*-5	11	191
	2021	..	12	..	..	..	12	211
	2022	..	20	..	..	..	20	361
United States	2019	83,176	7,958	10,470	24,040	-32	56,655	168
	2020	47,370	7,304	4,659	14,875	-34	35,173	104
	2021	60,818	7,730	5,550	18,903	-463	44,558	131
	2022	74,703	5,853	8,424	21,514	-23	50,642	148
<b>Oceania</b>	<b>2019</b>	<b>4,606</b>	<b>5,097</b>	<b>67</b>	<b>6,236</b>	<b>184</b>	<b>3,216</b>	<b>74</b>
	<b>2020</b>	<b>3,030</b>	<b>4,157</b>	<b>128</b>	<b>4,309</b>	<b>-162</b>	<b>2,912</b>	<b>66</b>
	<b>2021</b>	<b>1,264</b>	<b>2,384</b>	<b>49</b>	<b>1,635</b>	<b>-50</b>	<b>2,014</b>	<b>45</b>
	<b>2022</b>	<b>692</b>	<b>3,924</b>	<b>25</b>	<b>2,402</b>	<b>-47</b>	<b>2,236</b>	<b>50</b>
American Samoa	2019	..	*20	..	*17	..	*3	*60
	2020	..	*18	..	*15	..	*3	*60
	2021	..	*18	..	*15	..	*3	*61
	2022	..	18	..	*15	..	3	62

Table 21

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Australia	2019	3,162	4,618	16	4,750	183	2,832	111
	2020	2,326	3,840	124	3,641	-181	2,582	100
	2021	668	2,123	1	1,189	-18	1,619	62
	2022	498	3,008	1	1,666	-60	1,899	72
Cook Islands	2019	..	*9	..	*8	..	*2	*119
	2020	..	*3	..	*2	..	*2	*102
	2021	..	*3	..	*1	..	*2	*121
	2022	..	*6	..	*5	..	*2	*129
Fiji	2019	..	154	28	117	*-8	17	19
	2020	..	58	5	46	..	8	9
	2021	..	39	4	21	..	13	14
	2022	..	94	7	81	..	6	6
French Polynesia	2019	..	21	..	..	5	16	58
	2020	..	11	..	..	0	11	38
	2021	..	16	..	..	2	14	50
	2022	..	15	..	..	0	15	54
Kiribati	2019	..	*1	..	*1	..	*1	*7
	2020	..	*1	..	*1	..	*1	*6
	2021	..	*1	..	*1	..	*1	*6
	2022	..	*1	..	*1	..	*1	*6
Marshall Islands	2019	..	*2	..	*2	..	0	0
	2020	..	*2	..	*2	..	0	0
	2021	..	*2	..	*2	..	0	0
	2022	..	*2	..	*2	..	0	0
Micronesia (Fed. States of)	2019	..	*8	..	*7	..	*1	*10
	2020	..	*8	..	*7	..	*1	*10
	2021	..	*8	..	*7	..	*1	*10
	2022	..	*8	..	*7	..	*1	*10
Nauru	2019	..	*4	..	*4	..	0	0
	2020	..	*3	..	*3	..	0	0
	2021	..	*4	..	*4	..	0	0
	2022	..	*4	..	*4	..	0	0
New Caledonia	2019	..	30	..	27	-3	5	19
	2020	..	18	..	12	0	5	17
	2021	..	13	..	10	-2	5	16
	2022	..	22	..	17	0	5	17
New Zealand	2019	1,330	200	..	1,222	6	302	60
	2020	638	115	..	497	18	237	47
	2021	531	78	44	304	-33	293	57
	2022	128	636	17	520	13	213	41
Niue	2019	..	*1	..	0	..	0	*15
	2020	..	*1	..	0	..	0	*14
	2021	..	*1	..	*1	..	0	*14
	2022	..	*1	..	*1	..	0	*15
Northern Mariana Islands	2019	..	*5	..	*3	..	*1	*26
	2020	..	*3	..	*2	..	*1	*13
	2021	..	*3	..	*3	..	*1	*14
	2022	..	*4	..	*3	..	*1	*27
Palau	2019	..	*7	..	*7	..	0	0
	2020	..	*6	..	*6	..	0	0
	2021	..	*6	..	*6	..	0	0
	2022	..	*6	..	*6	..	0	0

Table 21

## Production, trade and supply of jet fuels

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Papua New Guinea	2019	113	0	23	*56	..	35	4
	2020	66	54	..	*60	..	60	6
	2021	66	54	..	*58	..	62	6
	2022	*66	*84	..	*61	..	*89	*9
Solomon Islands	2019	..	*5	..	*4	..	*1	*1
	2020	..	*4	..	*3	..	*1	*1
	2021	..	*4	..	*3	..	*1	*1
	2022	..	*4	..	*3	..	*1	*1
Tonga	2019	..	0	..	0	..	0	1
	2020	..	1	..	0	..	0	3
	2021	..	0	..	0	..	0	2
	2022	..	0	..	0	..	0	2
Vanuatu	2019	..	*11	..	*11	..	0	0
	2020	..	*10	..	*10	..	0	0
	2021	..	*10	..	*10	..	0	0
	2022	..	*11	..	*11	..	0	0
Wallis and Futuna Is.	2019	..	*1	..	1	..	0	0
	2020	..	*1	..	1	..	0	0
	2021	..	*1	..	1	..	0	0
	2022	..	*1	..	1	..	0	0

## Production, trade and supply of gas oil/diesel oil

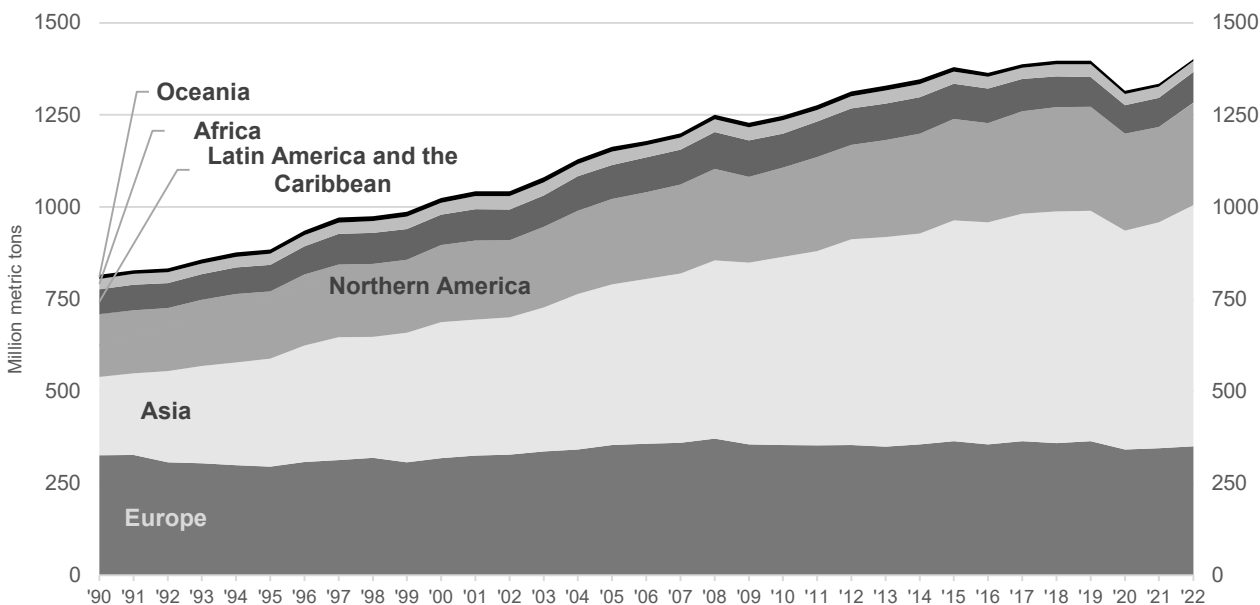
Thousand metric tons and kilograms per capita

### Table Notes

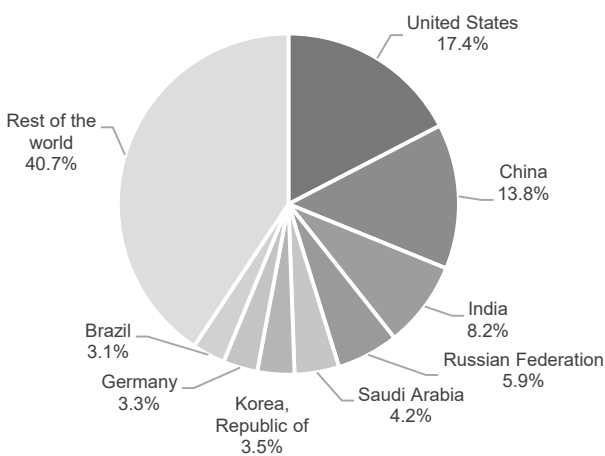
**Production** includes output from refineries and plants, together with quantities from other sources which include any blended biodiesel.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/ classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 60: Production of gas oil/diesel oil by region, 1990-2022**



**Figure 61: Major gas oil/diesel oil producing countries, 2022**



**Figure 62: Major gas oil/diesel oil consuming countries, 2022**

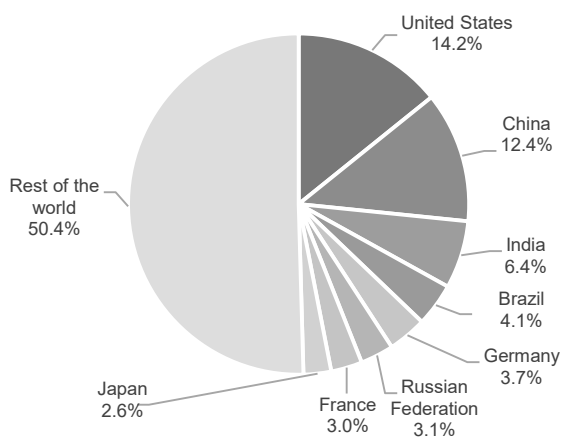


Table 22

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
World	2019	1,397,326	385,731	417,728	46,951	-3,648	1,322,027	169
	2020	1,315,508	355,879	390,172	38,261	11,290	1,231,664	156
	2021	1,334,626	377,174	400,075	38,123	-17,590	1,291,192	162
	2022	1,401,552	384,104	392,681	38,832	12,752	1,341,390	167
Africa	2019	34,334	51,308	3,194	2,629	-279	80,098	59
	2020	30,246	47,323	1,899	2,471	-251	73,451	53
	2021	29,778	53,532	1,427	2,504	-123	79,502	56
	2022	28,800	55,244	1,529	2,499	-347	80,362	56
Algeria	2019	9,590	913	0	10	-23	10,516	243
	2020	9,503	285	620	41	-45	9,172	208
	2021	9,730	0	0	48	167	9,515	213
	2022	9,767	..	..	35	-235	9,967	219
Angola	2019	615	2,042	11	..	1	2,644	82
	2020	548	1,147	18	..	1	1,677	50
	2021	*491	1,707	13	..	..	2,185	63
	2022	*549	2,003	24	..	..	2,528	71
Benin	2019	..	407	..	0	-10	417	33
	2020	..	403	..	1	0	402	31
	2021	..	393	..	0	-30	423	32
	2022	..	464	..	1	2	460	33
Botswana	2019	..	529	..	..	..	529	227
	2020	..	462	..	..	..	462	195
	2021	..	469	..	..	..	469	195
	2022	..	405	..	..	..	405	166
Burkina Faso	2019	..	605	..	..	-6	611	29
	2020	..	*587	..	..	-6	*593	*28
	2021	..	*616	..	..	*-1	*617	*28
	2022	..	*622	..	..	..	*622	*28
Burundi	2019	..	*81	..	..	..	*81	*7
	2020	..	*99	..	..	..	*99	*8
	2021	..	*94	..	..	..	*94	*7
	2022	..	*123	..	..	..	*123	*9
Cabo Verde	2019	..	*116	..	*32	..	*84	*163
	2020	..	*95	..	*25	..	*70	*137
	2021	..	*112	..	*25	..	*87	*169
	2022	..	*104	..	*27	..	*77	*149
Cameroon	2019	221	648	51	..	..	817	32
	2020	..	785	..	..	..	785	30
	2021	..	804	..	..	..	804	30
	2022	..	835	..	..	..	835	30
Central African Rep.	2019	..	60	..	..	*1	58	12
	2020	..	64	..	..	*1	63	12
	2021	..	70	..	..	*1	69	13
	2022	..	*71	..	..	0	*71	*14
Chad	2019	*353	..	..	..	..	*353	*21
	2020	*368	..	..	..	..	*368	*21
	2021	*407	..	..	..	..	*407	*23
	2022	*394	..	..	..	..	*394	*21
Comoros	2019	..	*55	..	..	..	*55	*70
	2020	..	*67	..	..	..	*67	*84
	2021	..	*89	..	..	..	*89	*109
	2022	..	*95	..	..	..	*95	*114



## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Congo	2019	221	80	..	..	..	301	54
	2020	210	60	..	..	..	270	47
	2021	218	64	..	..	..	282	48
	2022	230	69	..	..	..	299	50
Côte d'Ivoire	2019	1,411	..	256	79	..	1,076	38
	2020	1,342	..	257	80	..	1,005	35
	2021	1,648	..	425	84	..	1,139	38
	2022	1,914	..	489	90	..	1,335	44
Dem. Rep. of the Congo	2019	..	668	..	..	..	668	7
	2020	..	707	..	..	..	707	7
	2021	..	683	..	..	..	683	7
	2022	..	1,123	..	..	..	1,123	11
Djibouti	2019	..	89	..	*10	..	79	72
	2020	..	70	..	*10	..	60	55
	2021	..	*77	..	*11	..	*66	*59
	2022	..	*69	..	*11	..	*58	*51
Egypt	2019	9,742	3,322	500	163	..	12,401	115
	2020	9,300	3,388	69	159	..	12,461	114
	2021	9,251	4,981	..	158	..	14,075	127
	2022	9,228	4,587	..	157	..	13,658	121
Equatorial Guinea	2019	..	*165	..	..	..	*165	*99
	2020	..	*132	..	..	..	*132	*77
	2021	..	*130	..	..	..	*130	*74
	2022	..	*115	..	..	..	*115	*64
Eritrea	2019	..	99	..	..	..	99	31
	2020	..	98	..	..	..	98	30
	2021	..	101	..	..	..	101	30
	2022	..	106	..	..	..	106	31
Eswatini	2019	..	*157	..	..	..	*157	*133
	2020	..	145	..	..	..	145	122
	2021	..	143	..	..	..	143	118
	2022	..	154	..	..	..	154	127
Ethiopia	2019	..	3,000	..	..	..	3,000	26
	2020	..	2,535	..	..	-9	2,544	21
	2021	..	2,684	..	..	-37	2,721	22
	2022	..	2,547	..	..	-37	2,584	21
Gabon	2019	203	231	10	74	..	349	154
	2020	241	172	12	70	..	332	143
	2021	304	170	16	64	..	394	166
	2022	248	178	16	72	92	246	101
Gambia	2019	..	*124	*1	..	..	*123	*50
	2020	..	*121	*1	..	..	*120	*48
	2021	..	*127	*1	..	..	*126	*49
	2022	..	*143	*1	..	..	*142	*54
Ghana	2019	198	1,742	117	7	31	1,784	57
	2020	150	1,937	5	5	93	1,983	62
	2021	70	1,820	4	7	-175	2,055	63
	2022	14	2,041	5	2	-8	2,056	62
Guinea	2019	..	680	..	..	..	680	52
	2020	..	714	..	..	..	714	53
	2021	..	711	..	..	..	711	52
	2022	..	701	..	..	..	701	50

Table 22

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Guinea-Bissau	2019	..	47	..	..	..	47	24
	2020	..	*60	..	..	..	*60	*30
	2021	..	*65	..	..	..	*65	*32
	2022	..	*63	..	..	..	*63	*30
Kenya	2019	..	2,548	..	*3	..	2,545	50
	2020	..	2,433	..	*3	..	2,430	47
	2021	..	2,569	..	4	..	2,565	48
	2022	..	2,220	..	4	..	2,216	41
Lesotho	2019	..	99	..	..	..	99	45
	2020	..	74	..	..	..	74	33
	2021	..	92	..	..	..	92	41
	2022	..	105	..	..	..	105	46
Liberia	2019	..	156	..	*4	29	122	24
	2020	..	92	..	*5	-38	125	24
	2021	..	28	..	*5	-91	114	22
	2022	..	80	..	*5	*-39	114	21
Libya	2019	1,116	2,336	..	..	..	3,452	497
	2020	787	1,453	..	..	..	2,240	318
	2021	1,011	1,303	..	..	..	2,313	324
	2022	927	1,460	..	..	..	2,387	330
Madagascar	2019	..	550	..	2	..	548	19
	2020	..	453	..	*2	*-17	469	16
	2021	..	533	..	*3	*-19	550	19
	2022	..	587	..	*3	..	584	19
Malawi	2019	..	223	..	..	-38	262	14
	2020	..	262	..	..	..	262	13
	2021	..	208	..	..	..	208	10
	2022	..	257	..	..	0	257	12
Mali	2019	..	945	..	..	0	945	45
	2020	..	1,079	..	..	0	1,079	50
	2021	..	1,331	..	..	0	1,331	59
	2022	..	1,117	..	..	..	1,117	48
Mauritania	2019	..	1,097	..	..	..	1,097	245
	2020	..	1,066	..	..	..	1,066	232
	2021	..	*1,022	..	..	..	*1,022	*216
	2022	..	1,207	..	..	..	1,207	248
Mauritius	2019	..	334	..	141	-29	222	172
	2020	..	258	..	121	-48	184	143
	2021	..	313	..	111	12	190	148
	2022	..	312	..	106	-7	212	166
Morocco	2019	..	6,056	..	23	-280	6,313	174
	2020	..	5,316	..	23	-243	5,536	151
	2021	..	6,203	..	23	-12	6,192	168
	2022	..	5,892	..	23	57	5,812	156
Mozambique	2019	..	1,011	..	9	..	1,002	34
	2020	..	816	..	5	..	811	26
	2021	..	1,118	..	5	..	1,113	35
	2022	..	1,293	107	7	..	1,179	36
Namibia	2019	..	664	33	..	..	631	238
	2020	..	600	30	..	..	570	209
	2021	..	657	33	..	..	624	222
	2022	..	670	33	..	..	636	220

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Niger	2019	473	5	69	..	..	409	18
	2020	455	23	92	..	-10	395	17
	2021	425	33	123	..	*36	299	12
	2022	414	20	45	..	..	389	15
Nigeria	2019	81	4,186	..	106	..	4,160	20
	2020	0	4,787	..	80	..	4,707	22
	2021	*92	3,786	..	66	..	3,812	17
	2022	90	3,389	..	59	..	3,420	15
Rwanda	2019	..	262	..	..	*100	162	13
	2020	..	178	..	..	..	178	14
	2021	..	224	..	..	..	224	17
	2022	..	*229	..	..	..	*229	*17
Sao Tome and Principe	2019	..	32	..	..	..	32	151
	2020	..	*32	..	..	..	*32	*146
	2021	..	*32	..	..	..	*32	*144
	2022	..	*29	..	..	..	*29	*128
Senegal	2019	522	1,279	*590	194	-21	1,038	63
	2020	472	506	..	233	-4	749	45
	2021	520	643	..	184	0	978	57
	2022	352	962	..	156	-8	1,166	66
Seychelles	2019	..	183	..	*110	0	73	622
	2020	..	*160	..	*80	*20	*60	*499
	2021	..	*178	..	*70	*35	*73	*594
	2022	..	*192	..	*85	*25	*82	*653
Sierra Leone	2019	..	155	..	..	*-1	156	20
	2020	..	174	..	..	*4	170	21
	2021	..	192	..	..	..	192	24
	2022	..	224	..	..	..	224	27
Somalia	2019	..	*176	..	*16	..	*160	*10
	2020	..	*182	..	*6	..	*176	*11
	2021	..	*188	..	*14	..	*174	*10
	2022	..	*194	..	*14	..	*180	*10
South Africa	2019	7,535	5,096	1,554	1,604	..	9,473	159
	2020	4,676	5,929	795	1,508	..	8,302	137
	2021	3,596	8,492	777	1,579	..	9,732	158
	2022	2,065	10,365	774	1,609	..	10,046	161
South Sudan	2019	..	435	..	..	..	435	42
	2020	..	416	..	..	..	416	39
	2021	33	398	..	..	..	431	40
	2022	44	359	..	..	..	403	37
St. Helena and Depend.	2019	..	4	..	..	..	4	668
	2020	..	3	..	..	..	3	524
	2021	..	3	..	..	..	3	470
	2022	..	3	..	..	..	3	538
Sudan	2019	*1,717	1,556	..	*28	..	*3,245	*71
	2020	1,611	1,368	..	*5	..	2,975	64
	2021	1,309	1,785	36	17	..	3,041	63
	2022	1,971	1,045	35	16	..	2,965	60
Togo	2019	..	183	..	2	-3	184	22
	2020	..	131	..	2	-2	130	15
	2021	..	167	..	15	-1	153	17
	2022	..	193	..	7	-1	187	21

Table 22

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Tunisia	2019	41	1,914	..	10	-31	1,976	166
	2020	421	1,462	..	7	46	1,831	153
	2021	657	1,360	..	11	-8	2,015	167
	2022	592	1,204	..	8	-189	1,977	163
Uganda	2019	..	896	..	..	..	896	21
	2020	..	864	..	..	5	859	19
	2021	..	929	..	..	..	929	20
	2022	..	850	..	..	..	850	18
United Rep. of Tanzania	2019	..	1,704	..	..	..	1,704	29
	2020	..	1,623	..	..	..	1,623	27
	2021	..	1,811	..	..	..	1,811	29
	2022	..	2,077	..	..	..	2,077	32
Zambia	2019	294	575	..	..	..	869	47
	2020	161	829	..	..	..	990	52
	2021	18	1,107	..	..	..	1,125	57
	2022	0	1,160	..	..	..	1,160	58
Zimbabwe	2019	..	790	..	..	..	790	52
	2020	..	621	..	..	..	621	40
	2021	..	716	..	..	..	716	45
	2022	..	934	..	..	..	934	58
<b>Asia</b>	<b>2019</b>	<b>625,285</b>	<b>96,598</b>	<b>192,520</b>	<b>11,434</b>	<b>-1,883</b>	<b>519,812</b>	<b>112</b>
	<b>2020</b>	<b>594,658</b>	<b>84,499</b>	<b>177,634</b>	<b>10,433</b>	<b>3,430</b>	<b>487,661</b>	<b>104</b>
	<b>2021</b>	<b>613,808</b>	<b>89,172</b>	<b>190,481</b>	<b>9,454</b>	<b>-6,129</b>	<b>509,174</b>	<b>108</b>
	<b>2022</b>	<b>654,990</b>	<b>84,980</b>	<b>180,431</b>	<b>8,980</b>	<b>14,490</b>	<b>536,068</b>	<b>113</b>
Afghanistan	2019	*44	761	..	..	*177	628	17
	2020	*18	531	..	..	*-25	574	15
	2021	*19	*510	..	..	*-30	*559	*14
	2022	*19	517	..	..	*-17	553	14
Armenia	2019	..	134	0	..	..	134	46
	2020	..	201	1	..	..	200	69
	2021	..	197	0	..	..	196	68
	2022	..	181	..	..	..	181	63
Azerbaijan	2019	2,243	1	761	31	-4	1,456	144
	2020	2,181	0	848	32	16	1,286	126
	2021	2,482	..	1,101	28	-10	1,364	133
	2022	2,193	42	556	8	-1	1,671	162
Bahrain	2019	4,210	..	3,872	..	17	321	216
	2020	3,947	..	3,668	..	28	251	169
	2021	4,440	..	4,253	..	-107	294	196
	2022	4,524	..	4,244	..	-9	289	188
Bangladesh	2019	682	3,411	..	..	..	4,093	25
	2020	488	3,536	..	..	..	4,024	24
	2021	728	4,046	..	..	..	4,774	28
	2022	654	4,264	..	..	..	4,918	29
Bhutan	2019	..	135	..	..	..	135	176
	2020	..	95	..	..	..	95	123
	2021	..	99	..	..	..	99	127
	2022	..	108	..	..	..	108	138
Brunei Darussalam	2019	422	196	235	..	89	294	663
	2020	2,682	67	2,525	..	75	149	334
	2021	2,540	..	2,347	..	-7	200	443
	2022	3,021	..	2,789	..	0	232	509

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Cambodia	2019	..	1,661	..	..	..	1,661	101
	2020	..	1,770	..	..	..	1,770	106
	2021	..	1,752	..	..	..	1,752	103
	2022	..	1,806	..	..	..	1,806	105
China	2019	173,083	1,190	21,383	763	-959	153,087	108
	2020	165,299	1,191	19,760	536	1,965	144,229	101
	2021	168,470	762	17,205	632	-1,978	153,373	108
	2022	192,901	438	10,930	46	15,843	166,519	117
China, Hong Kong SAR	2019	..	6,461	88	3,356	354	2,663	356
	2020	..	4,712	49	1,879	222	2,562	342
	2021	..	3,393	49	1,117	69	2,158	288
	2022	..	2,528	65	801	229	1,433	192
China, Macao SAR	2019	..	140	..	44	1	95	142
	2020	..	77	..	4	1	72	105
	2021	..	86	..	3	2	81	117
	2022	..	81	..	2	1	78	111
Cyprus	2019	4	818	..	124	-6	704	547
	2020	13	928	..	119	34	789	606
	2021	13	848	33	113	-28	743	564
	2022	10	928	..	123	26	789	593
Georgia	2019	15	553	0	2	-21	586	154
	2020	12	568	4	4	18	554	146
	2021	18	561	4	3	-12	584	154
	2022	15	547	6	3	-14	566	149
India	2019	111,841	2,796	31,653	..	..	82,984	60
	2020	101,170	648	30,576	..	..	71,242	51
	2021	107,980	75	32,407	..	..	75,648	53
	2022	114,421	328	28,536	..	..	86,213	60
Indonesia	2019	17,307	3,818	223	216	127	20,559	75
	2020	16,769	2,714	93	*200	..	19,190	70
	2021	17,883	*2,707	..	*130	..	20,461	74
	2022	16,461	4,398	256	301	2	20,300	73
Iran (Islamic Rep. of)	2019	33,156	..	2,126	251	..	30,779	354
	2020	31,915	..	2,097	251	..	29,567	337
	2021	32,369	..	2,489	251	..	29,628	335
	2022	33,705	..	2,864	251	..	30,591	342
Iraq	2019	5,825	1,515	..	..	..	7,340	178
	2020	5,239	1,413	..	..	..	6,652	158
	2021	5,942	1,067	..	..	..	7,009	163
	2022	6,700	1,223	..	..	..	7,923	180
Israel	2019	5,389	204	2,586	61	116	2,830	327
	2020	4,973	213	2,771	57	24	2,334	265
	2021	5,186	108	2,893	70	-24	2,355	263
	2022	5,342	244	2,610	105	-14	2,886	317
Japan	2019	44,301	780	9,050	124	-109	36,016	284
	2020	37,099	1,323	3,478	59	-75	34,959	277
	2021	39,283	1,573	5,340	50	-86	35,552	283
	2022	41,691	413	6,866	21	22	35,196	282
Jordan	2019	759	963	..	4	..	1,718	161
	2020	614	910	..	4	..	1,520	140
	2021	650	914	..	4	..	1,560	141
	2022	536	1,098	..	1	..	1,634	145

Table 22

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Kazakhstan	2019	5,033	249	45	3	64	5,170	269
	2020	4,674	668	130	0	913	4,298	221
	2021	4,980	337	201	0	-805	5,920	300
	2022	5,425	182	127	3	92	5,385	269
Korea, Dem.Ppl's.Rep.	2019	191	70	..	..	..	261	10
	2020	191	64	..	..	..	255	10
	2021	191	38	..	..	..	229	9
	2022	191	43	..	..	..	234	9
Korea, Republic of	2019	50,065	235	26,201	1,461	-91	22,729	439
	2020	47,829	124	26,763	1,492	-318	20,016	386
	2021	45,938	64	24,290	1,777	70	19,865	383
	2022	49,196	40	27,284	2,079	-237	20,111	388
Kuwait	2019	8,168	..	5,742	80	..	2,347	528
	2020	8,866	..	6,018	87	..	2,761	627
	2021	9,300	..	6,608	80	..	2,612	599
	2022	11,544	..	8,708	95	..	2,741	597
Kyrgyzstan	2019	83	535	17	..	-40	641	99
	2020	58	533	17	..	55	519	78
	2021	97	536	1	..	12	620	91
	2022	115	491	1	..	-19	624	90
Lao People's Dem. Rep.	2019	..	645	..	..	..	645	89
	2020	..	640	..	..	..	640	87
	2021	..	654	..	..	..	654	88
	2022	..	665	..	..	..	665	88
Lebanon	2019	..	3,590	..	..	..	3,590	619
	2020	..	4,107	..	..	..	4,107	720
	2021	..	3,183	..	..	..	3,183	557
	2022	..	2,793	..	..	..	2,793	486
Malaysia	2019	9,895	6,124	*5,801	133	-1,396	11,482	343
	2020	10,100	2,770	*4,148	129	-569	9,163	270
	2021	7,205	5,620	*5,531	104	-2,389	9,578	279
	2022	8,397	5,721	*6,881	114	-2,389	9,513	274
Maldives	2019	..	579	..	*42	..	537	1,101
	2020	..	516	..	*46	..	470	937
	2021	..	599	..	*45	..	554	1,073
	2022	..	649	..	*50	..	599	1,142
Mongolia	2019	..	1,080	..	..	..	1,080	334
	2020	..	1,027	..	..	..	1,027	312
	2021	..	989	..	..	..	989	296
	2022	..	982	..	..	..	982	290
Myanmar	2019	103	4,184	..	1	..	4,286	81
	2020	94	3,337	..	..	..	3,431	65
	2021	74	2,428	..	..	..	2,502	47
	2022	77	2,896	..	..	65	2,908	54
Nepal	2019	..	1,200	..	..	304	896	32
	2020	..	1,381	..	..	-2	1,383	48
	2021	..	1,403	..	..	31	1,372	47
	2022	..	1,424	..	..	32	1,392	47
Oman	2019	3,463	243	1,278	..	..	2,429	529
	2020	3,870	249	2,044	..	..	2,076	459
	2021	4,593	354	2,985	..	..	1,961	436
	2022	4,462	679	2,688	..	..	2,453	519

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Other Asia	2019	16,497	..	11,035	232	-142	5,372	227
	2020	12,614	..	7,265	155	-186	5,380	227
	2021	13,198	39	7,419	178	159	5,481	233
	2022	14,745	44	9,441	151	-116	5,313	227
Pakistan	2019	3,965	3,086	0	..	..	7,051	31
	2020	4,901	3,823	6	2	..	8,716	37
	2021	4,713	5,389	2	2	..	10,099	42
	2022	3,909	2,599	5	2	..	6,501	27
Philippines	2019	3,227	6,841	75	14	136	9,844	89
	2020	2,061	5,806	152	20	-311	8,006	71
	2021	1,717	7,006	0	37	-65	8,752	77
	2022	2,391	7,051	..	82	77	9,283	81
Qatar	2019	2,316	10	3,959	..	..	-1,634	-584
	2020	2,399	102	4,275	..	..	-1,774	-633
	2021	2,462	95	4,259	..	..	-1,702	-604
	2022	2,471	135	3,311	..	..	-704	-244
Saudi Arabia	2019	52,588	*987	*29,851	..	*-329	24,053	789
	2020	49,260	442	24,834	..	500	24,368	786
	2021	55,489	*4,419	33,403	..	-283	26,788	855
	2022	59,189	3,112	32,799	..	1,486	28,016	871
Singapore	2019	10,512	17,557	21,021	3,883	*-77	3,242	572
	2020	8,757	19,046	19,740	4,695	*595	2,773	493
	2021	8,902	15,351	18,300	4,082	*-888	2,758	497
	2022	9,971	*13,948	16,278	3,753	-26	3,914	693
Sri Lanka	2019	624	1,587	..	79	18	2,116	94
	2020	538	1,192	..	13	-5	1,722	76
	2021	371	1,780	..	64	-77	2,164	95
	2022	130	1,667	..	12	..	1,785	78
State of Palestine	2019	..	655	..	..	..	655	132
	2020	..	653	..	..	..	653	129
	2021	..	715	..	..	..	715	138
	2022	..	977	..	..	..	977	184
Syrian Arab Republic	2019	1,920	2,200	..	259	..	3,861	190
	2020	2,002	1,932	..	258	..	3,675	175
	2021	1,936	1,968	..	262	..	3,642	168
	2022	1,936	1,909	..	264	..	3,580	159
Tajikistan	2019	13	250	..	..	..	262	28
	2020	6	298	..	..	..	304	31
	2021	8	345	..	..	..	353	35
	2022	4	387	..	..	..	391	38
Thailand	2019	22,433	2,066	3,286	..	..	21,213	297
	2020	26,208	48	5,010	..	..	21,246	297
	2021	25,587	207	5,627	..	..	20,167	281
	2022	21,008	917	2,982	..	..	18,943	264
Timor-Leste	2019	..	161	..	..	..	161	124
	2020	..	155	..	..	..	155	117
	2021	..	150	..	..	..	150	111
	2022	..	155	..	..	..	155	113
Türkiye	2019	13,938	11,183	1,382	145	-106	23,700	278
	2020	17,160	8,842	2,619	272	135	22,975	267
	2021	17,453	10,945	2,417	301	-214	25,894	299
	2022	17,786	10,703	2,403	419	-500	26,167	301

Table 22

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Turkmenistan	2019	2,480	..	617	..	..	1,862	274
	2020	2,396	..	609	..	..	1,788	257
	2021	2,428	..	616	..	..	1,811	255
	2022	2,509	..	637	..	..	1,872	259
United Arab Emirates	2019	11,343	158	9,753	81	..	1,667	178
	2020	10,660	158	7,510	76	..	3,231	342
	2021	11,941	158	10,060	80	..	1,959	200
	2022	9,820	158	6,608	87	..	3,283	321
Uzbekistan	2019	1,030	71	..	..	-3	1,104	34
	2020	954	416	..	..	-3	1,373	41
	2021	799	374	0	..	153	1,021	30
	2022	894	235	20	..	-71	1,180	34
Viet Nam	2019	5,647	5,014	478	..	..	10,183	105
	2020	6,315	4,814	624	..	345	10,160	104
	2021	6,138	4,874	640	..	379	9,994	101
	2022	6,337	4,811	537	165	27	10,420	105
Yemen	2019	469	502	..	47	..	924	26
	2020	328	459	..	43	..	744	21
	2021	287	455	..	42	..	699	19
	2022	290	461	..	43	..	708	19
<b>Europe</b>	<b>2019</b>	<b>364,066</b>	<b>149,620</b>	<b>146,369</b>	<b>19,796</b>	<b>2,210</b>	<b>345,311</b>	<b>459</b>
	<b>2020</b>	<b>340,999</b>	<b>140,696</b>	<b>139,733</b>	<b>17,537</b>	<b>5,491</b>	<b>318,934</b>	<b>424</b>
	<b>2021</b>	<b>344,481</b>	<b>140,521</b>	<b>144,172</b>	<b>18,059</b>	<b>-7,157</b>	<b>329,928</b>	<b>439</b>
	<b>2022</b>	<b>350,235</b>	<b>142,256</b>	<b>135,912</b>	<b>18,989</b>	<b>-431</b>	<b>338,022</b>	<b>451</b>
Albania	2019	211	681	28	31	22	811	281
	2020	125	667	10	31	26	725	252
	2021	120	612	..	29	24	679	238
	2022	146	595	..	29	28	684	242
Andorra	2019	..	133	..	..	..	133	1,738
	2020	..	103	..	..	..	103	1,326
	2021	..	109	..	..	..	109	1,387
	2022	..	109	..	..	..	109	1,371
Austria	2019	4,179	5,176	1,077	14	160	8,104	912
	2020	3,794	4,923	1,017	13	261	7,425	832
	2021	3,716	4,827	1,263	19	-414	7,674	856
	2022	2,144	5,423	644	19	-243	7,148	789
Belarus	2019	7,019	0	3,900	..	112	3,007	319
	2020	6,112	7	3,283	..	33	2,803	300
	2021	6,112	7	3,283	..	..	2,836	307
	2022	5,310	7	2,574	..	..	2,743	299
Belgium	2019	15,091	8,197	10,982	1,160	396	10,750	936
	2020	13,410	8,197	9,141	1,346	525	10,595	918
	2021	15,230	6,806	11,032	1,498	-692	10,198	881
	2022	13,598	7,689	9,818	1,426	-88	10,131	870
Bosnia and Herzegovina	2019	9	1,176	2	..	-12	1,195	357
	2020	..	1,106	..	..	2	1,104	335
	2021	..	1,227	12	..	-43	1,259	388
	2022	..	1,214	..	..	-12	1,225	382
Bulgaria	2019	3,359	893	1,571	59	-54	2,676	384
	2020	2,657	927	1,025	68	5	2,485	358
	2021	2,298	941	537	59	-59	2,702	393
	2022	3,514	829	1,455	48	97	2,743	402



## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Croatia	2019	1,274	1,963	1,123	20	109	1,985	498
	2020	1,232	1,501	844	16	24	1,848	467
	2021	1,186	1,743	927	19	15	1,967	501
	2022	977	2,074	894	12	74	2,071	530
Czechia	2019	3,648	2,226	843	..	-2	5,033	477
	2020	3,067	2,542	794	..	19	4,796	455
	2021	3,523	2,654	1,032	..	14	5,131	487
	2022	3,585	2,319	748	..	-26	5,182	486
Denmark	2019	4,455	2,706	1,965	365	285	4,545	782
	2020	4,267	2,280	1,715	338	239	4,254	730
	2021	4,307	1,720	1,716	358	-248	4,200	717
	2022	4,015	1,792	1,503	328	-396	4,372	741
Estonia	2019	..	834	41	63	51	679	512
	2020	..	833	37	114	-2	684	514
	2021	..	812	49	113	-33	683	513
	2022	..	894	47	98	44	705	522
Faeroe Islands	2019	..	*177	..	19	..	*158	*3,044
	2020	..	*187	..	25	..	*162	*3,082
	2021	..	*199	..	26	..	*173	*3,250
	2022	..	*185	..	25	..	*161	*2,975
Finland	2019	6,655	1,592	3,773	71	-103	4,506	816
	2020	6,216	1,920	3,382	72	354	4,328	783
	2021	4,575	1,534	2,276	100	-183	3,916	707
	2022	4,729	1,854	2,196	137	192	4,058	729
France	2019	23,927	24,359	2,566	163	-81	45,638	672
	2020	18,107	24,519	1,494	171	304	40,657	597
	2021	17,924	24,536	1,512	206	-551	41,293	604
	2022	19,624	21,654	1,360	158	-164	39,925	583
Germany	2019	44,045	19,896	7,480	706	200	55,555	665
	2020	44,650	17,764	8,249	532	-236	53,869	644
	2021	41,886	16,541	9,238	708	-401	48,882	584
	2022	45,632	15,627	11,035	742	143	49,339	587
Gibraltar	2019	..	607	..	471	..	136	3,828
	2020	..	605	..	479	..	126	3,486
	2021	..	592	..	467	..	126	3,408
	2022	..	647	..	521	..	126	3,341
Greece	2019	10,453	1,508	7,060	384	-70	4,587	428
	2020	11,700	1,320	8,368	342	146	4,164	389
	2021	11,543	1,336	8,532	384	-95	4,059	384
	2022	10,368	1,425	6,736	490	17	4,550	437
Hungary	2019	3,245	2,119	1,450	..	48	3,866	396
	2020	3,212	1,601	1,294	..	7	3,512	360
	2021	3,133	1,889	1,189	..	-48	3,881	400
	2022	2,843	2,071	975	..	-161	4,100	423
Iceland	2019	12	393	..	45	-10	370	1,025
	2020	4	387	..	24	-15	381	1,040
	2021	..	471	..	35	21	414	1,112
	2022	..	521	..	82	5	433	1,139
Ireland	2019	1,145	3,069	159	128	-39	3,967	804
	2020	1,178	2,577	243	140	-175	3,548	712
	2021	1,209	2,865	74	160	171	3,670	730
	2022	1,290	2,830	122	120	-22	3,900	763

Table 22

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Italy	2019	32,879	5,196	9,618	512	123	27,821	462
	2020	27,204	4,579	7,702	565	53	23,464	391
	2021	31,867	4,769	8,027	699	-11	27,921	467
	2022	33,734	5,041	9,576	612	-116	28,702	481
Kosovo	2019	..	494	..	..	..	494	281
	2020	..	498	..	..	..	498	285
	2021	..	602	..	..	..	602	346
	2022	..	562	..	..	..	562	327
Latvia	2019	32	1,595	318	248	9	1,052	550
	2020	40	1,457	146	201	111	1,039	547
	2021	41	1,344	171	194	-73	1,093	580
	2022	9	1,461	344	85	-21	1,062	565
Lithuania	2019	3,329	527	2,620	79	-23	1,180	422
	2020	2,693	562	2,006	75	89	1,086	389
	2021	2,711	650	1,963	104	5	1,289	461
	2022	2,814	721	2,340	75	2	1,119	397
Luxembourg	2019	..	2,069	3	..	14	2,052	3,308
	2020	..	1,666	2	..	-4	1,669	2,646
	2021	..	1,696	..	..	-1	1,697	2,651
	2022	..	1,428	..	..	-10	1,438	2,201
Malta	2019	11	728	136	378	29	195	387
	2020	14	645	106	394	-31	189	364
	2021	11	578	42	379	-13	180	344
	2022	13	666	28	420	8	223	423
Montenegro	2019	..	256	..	..	-15	272	444
	2020	..	230	..	..	-9	239	394
	2021	..	288	..	..	..	288	477
	2022	..	288	..	..	-5	293	477
Netherlands (Kingd. of the)	2019	21,223	12,822	24,590	2,016	700	6,739	384
	2020	21,233	11,670	23,526	2,087	1,114	6,176	350
	2021	23,680	8,878	27,267	2,109	-1,656	4,837	273
	2022	20,998	12,671	23,830	2,340	410	7,090	396
North Macedonia	2019	0	751	63	..	21	667	352
	2020	0	656	51	..	18	587	313
	2021	0	751	87	..	-1	666	360
	2022	0	746	71	..	11	663	360
Norway	2019	7,019	2,079	4,096	238	-114	4,878	912
	2020	6,219	2,441	3,262	224	150	5,024	934
	2021	5,352	2,623	3,439	233	-119	4,422	818
	2022	3,680	3,812	2,338	260	-58	4,953	908
Poland	2019	13,709	4,549	59	192	53	17,954	470
	2020	13,795	4,309	325	212	-11	17,579	461
	2021	13,960	5,466	96	280	239	18,810	494
	2022	14,885	5,354	1,185	230	21	18,804	490
Portugal	2019	4,915	1,258	900	153	7	5,113	494
	2020	5,048	929	1,303	140	62	4,473	431
	2021	4,687	1,500	1,377	141	-93	4,762	458
	2022	4,583	1,316	622	165	186	4,926	473
Republic of Moldova	2019	0	622	9	..	-2	615	198
	2020	..	608	..	..	10	598	195
	2021	..	645	..	..	-11	656	217
	2022	1	699	54	..	-14	660	217

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Romania	2019	6,447	1,227	1,531	34	-8	6,117	314
	2020	6,097	1,280	1,172	42	102	6,061	313
	2021	5,499	1,916	890	33	2	6,490	337
	2022	6,034	2,111	1,072	17	89	6,968	364
Russian Federation	2019	81,560	62	40,501	8,545	408	32,168	220
	2020	79,113	400	40,096	5,383	..	34,034	233
	2021	80,557	52	38,144	4,811	..	37,655	258
	2022	82,461	185	35,068	5,432	..	42,147	290
Serbia	2019	1,458	675	250	16	-39	1,905	274
	2020	1,594	549	274	16	31	1,823	264
	2021	1,795	614	348	13	-24	2,071	303
	2022	2,116	453	221	7	107	2,235	329
Slovakia	2019	2,714	973	1,653	..	-3	2,037	374
	2020	2,924	849	1,891	..	-2	1,884	345
	2021	2,887	860	1,785	..	-10	1,972	362
	2022	2,808	909	1,605	..	65	2,047	374
Slovenia	2019	102	3,280	1,608	28	18	1,727	829
	2020	96	2,600	1,243	9	-47	1,490	709
	2021	106	2,770	1,205	12	33	1,627	770
	2022	82	3,456	1,794	..	-11	1,754	829
Spain	2019	28,669	5,026	5,983	1,594	144	25,974	548
	2020	25,651	5,817	7,148	2,464	441	21,415	449
	2021	25,579	6,641	6,377	2,736	-1,001	24,107	505
	2022	27,422	5,002	4,966	2,964	-318	24,812	519
Sweden	2019	6,690	2,591	3,887	476	-276	5,194	505
	2020	7,080	3,344	4,423	684	1,687	3,629	351
	2021	7,589	2,657	6,653	798	-1,189	3,984	383
	2022	7,085	2,963	5,606	858	89	3,496	333
Switzerland	2019	1,744	4,004	16	3	165	5,564	649
	2020	1,835	3,525	18	2	56	5,285	612
	2021	1,488	3,385	8	3	-160	5,022	577
	2022	1,842	2,783	55	3	-320	4,887	556
Ukraine	2019	*813	6,257	264	..	38	6,768	151
	2020	*850	6,089	..	..	12	6,927	155
	2021	*850	6,506	0	..	-30	7,385	167
	2022	*724	5,654	..	..	..	6,377	155
United Kingdom	2019	22,027	14,876	4,243	1,586	-50	31,124	464
	2020	19,783	12,027	4,143	1,327	142	26,198	389
	2021	19,061	13,910	3,621	1,332	-522	28,540	422
	2022	21,170	14,214	5,030	1,289	-35	29,100	427
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>81,010</b>	<b>55,190</b>	<b>3,351</b>	<b>2,512</b>	<b>-1,309</b>	<b>131,646</b>	<b>205</b>
	<b>2020</b>	<b>76,995</b>	<b>48,169</b>	<b>4,163</b>	<b>1,941</b>	<b>-287</b>	<b>119,347</b>	<b>185</b>
	<b>2021</b>	<b>78,899</b>	<b>55,442</b>	<b>3,189</b>	<b>2,179</b>	<b>105</b>	<b>128,868</b>	<b>198</b>
	<b>2022</b>	<b>83,953</b>	<b>63,443</b>	<b>8,354</b>	<b>2,220</b>	<b>225</b>	<b>136,597</b>	<b>209</b>
Anguilla	2019	..	34	..	*5	*-2	31	2,078
	2020	..	25	..	*5	*-9	29	1,967
	2021	..	33	..	*5	*-2	30	2,073
	2022	..	33	..	*5	*-2	30	2,144
Antigua and Barbuda	2019	..	*41	*1	..	..	*40	*436
	2020	..	*39	*1	..	..	*38	*413
	2021	..	*40	*1	..	..	*39	*419
	2022	..	*40	*1	..	..	*39	*422

Table 22

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Argentina	2019	10,616	1,951	29	80	-157	12,615	280
	2020	9,726	1,380	44	122	-247	11,187	248
	2021	9,686	3,283	27	110	-198	13,030	288
	2022	11,082	4,161	1,256	149	-54	13,891	306
Aruba	2019	..	*22	..	..	..	*22	*207
	2020	..	*21	..	..	..	*21	*195
	2021	..	*23	..	..	..	*23	*212
	2022	..	*24	..	..	..	*24	*219
Bahamas	2019	..	499	..	..	*32	467	1,182
	2020	..	372	..	..	*-47	419	1,059
	2021	..	663	..	..	*140	524	1,321
	2022	..	407	..	..	*-135	542	1,364
Barbados	2019	..	64	..	..	-7	70	250
	2020	..	71	..	..	1	70	250
	2021	..	64	..	..	1	62	220
	2022	..	65	..	..	0	65	232
Belize	2019	..	88	..	..	..	88	229
	2020	..	67	..	..	..	67	171
	2021	..	67	..	..	..	67	169
	2022	..	70	..	..	..	70	173
Bolivia (Plur. State of)	2019	582	1,261	..	..	11	1,832	157
	2020	623	877	..	..	-2	1,502	127
	2021	543	1,299	..	..	-13	1,855	155
	2022	416	1,630	..	..	5	2,042	169
Bonaire, St Eustatius, Saba	2019	..	*12	..	*4	*-4	*12	*474
	2020	..	*12	..	*2	0	*10	*369
	2021	..	*9	..	*3	*-4	*10	*378
	2022	..	*11	..	*3	*-2	*11	*370
Brazil	2019	40,713	11,304	48	473	196	51,300	247
	2020	42,347	10,424	285	541	-26	51,971	249
	2021	41,933	12,121	31	465	23	53,536	255
	2022	43,735	12,077	78	464	518	54,752	260
British Virgin Islands	2019	..	*45	..	..	..	*45	*1,225
	2020	..	*44	..	..	..	*44	*1,188
	2021	..	*45	..	..	..	*45	*1,185
	2022	..	*46	..	..	..	*46	*1,187
Cayman Islands	2019	..	164	..	..	..	164	2,434
	2020	..	157	..	..	..	157	2,288
	2021	..	156	..	..	..	156	2,231
	2022	..	156	..	..	..	156	2,184
Chile	2019	3,077	5,506	17	..	0	8,566	446
	2020	2,529	5,831	16	..	0	8,343	431
	2021	3,053	5,870	231	..	-139	8,830	454
	2022	2,597	7,259	482	..	62	9,312	476
Colombia	2019	7,009	1,228	2,062	111	-571	6,635	133
	2020	6,816	1,223	2,350	113	..	5,576	110
	2021	8,012	1,174	1,880	127	268	6,911	135
	2022	8,102	2,727	4,933	..	..	5,896	114
Costa Rica	2019	..	1,017	..	..	-12	1,030	206
	2020	..	885	..	..	8	877	174
	2021	..	1,024	..	..	35	989	195
	2022	..	993	..	..	-32	1,025	202

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Cuba	2019	447	730	..	*32	..	1,145	102
	2020	541	539	..	*28	..	1,052	94
	2021	382	957	..	*30	..	1,309	118
	2022	369	994	..	30	..	1,333	121
Curaçao	2019	0	702	0	246	..	455	2,403
	2020	..	585	..	201	..	385	2,078
	2021	..	626	..	209	..	417	2,249
	2022	..	662	..	222	..	440	2,375
Dominica	2019	..	*29	..	..	..	*29	*426
	2020	..	*27	..	..	..	*27	*397
	2021	..	*27	..	..	..	*27	*405
	2022	..	*28	..	..	..	*28	*412
Dominican Republic	2019	328	1,215	..	..	-7	1,550	142
	2020	129	1,023	..	..	-16	1,169	106
	2021	292	1,002	..	..	-7	1,301	117
	2022	328	1,131	..	..	-7	1,467	131
Ecuador	2019	1,741	2,856	..	50	26	4,521	261
	2020	1,310	2,485	..	22	-14	3,787	216
	2021	1,679	3,140	..	15	28	4,775	270
	2022	1,738	3,773	..	30	10	5,471	307
El Salvador	2019	..	754	3	..	..	751	121
	2020	..	646	..	..	..	646	104
	2021	..	779	1	..	..	778	124
	2022	..	812	1	..	..	812	129
Falkland Is. (Malvinas)	2019	..	8	..	..	..	8	2,287
	2020	..	9	..	..	..	9	2,513
	2021	..	9	..	..	..	9	2,498
	2022	..	*9	..	..	..	*9	*2,521
Grenada	2019	..	76	..	..	..	76	655
	2020	..	66	..	..	0	66	563
	2021	..	73	..	..	0	73	628
	2022	..	81	..	..	..	81	689
Guatemala	2019	..	1,883	9	423	33	1,418	83
	2020	..	1,665	7	389	-35	1,304	75
	2021	..	2,040	20	471	-28	1,577	90
	2022	..	1,983	11	455	-10	1,526	86
Guyana	2019	..	419	5	..	4	410	507
	2020	..	438	20	..	3	415	514
	2021	..	457	*25	..	2	430	527
	2022	..	742	..	..	*3	739	900
Haiti	2019	..	481	..	..	..	481	43
	2020	..	482	..	..	..	482	43
	2021	..	491	..	..	..	491	43
	2022	..	378	..	..	..	378	33
Honduras	2019	..	933	20	..	..	912	92
	2020	..	818	30	..	20	768	76
	2021	..	950	4	..	0	947	92
	2022	..	923	4	..	23	896	86
Jamaica	2019	128	347	..	63	-3	416	147
	2020	183	287	..	74	3	394	139
	2021	162	303	..	63	5	399	141
	2022	143	349	..	61	7	425	150

Table 22

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Mexico	2019	6,972	12,167	601	705	-422	18,255	145
	2020	6,427	9,384	777	135	-11	14,910	118
	2021	5,960	9,618	270	364	88	14,856	116
	2022	8,005	12,478	848	512	-30	19,153	149
Montserrat	2019	..	5	..	*1	..	4	947
	2020	..	5	..	*1	..	4	976
	2021	..	*5	..	*1	..	*5	*1,027
	2022	..	4	..	*1	..	4	831
Nicaragua	2019	233	351	0	..	7	576	89
	2020	267	281	..	..	-23	571	87
	2021	368	295	..	..	-11	673	101
	2022	404	254	6	..	-10	663	99
Panama	2019	..	1,056	..	..	-160	1,216	287
	2020	..	561	..	..	167	394	92
	2021	..	800	..	..	-118	918	211
	2022	..	1,041	..	..	-160	1,201	273
Paraguay	2019	..	1,646	..	..	27	1,618	248
	2020	..	1,598	..	..	28	1,570	238
	2021	..	1,615	..	..	-70	1,685	252
	2022	..	1,508	..	..	-65	1,573	233
Peru	2019	2,949	3,497	265	19	-255	6,417	198
	2020	2,864	3,555	331	9	-88	6,167	188
	2021	3,093	4,408	296	1	66	7,139	215
	2022	2,940	4,842	189	5	76	7,511	224
Saint Barthélemy	2019	..	4	..	..	..	4	431
	2020	..	4	..	..	..	4	381
	2021	..	5	..	..	..	5	420
	2022	..	*5	..	..	..	*5	*421
Saint Martin (French Part)	2019	..	*138	..	*55	..	*83	*2,424
	2020	..	*137	..	*55	..	*82	*2,587
	2021	..	*136	..	*54	..	*81	*2,717
	2022	..	*134	..	*54	..	*81	*2,791
Sint Maarten (Dutch part)	2019	..	*159	..	*62	..	*97	*2,404
	2020	..	*150	..	*56	..	*94	*2,292
	2021	..	*156	..	*59	..	*97	*2,325
	2022	..	*159	..	*61	..	*98	*2,333
St. Kitts-Nevis	2019	..	*63	..	..	..	*63	*1,350
	2020	..	*59	..	..	..	*59	*1,257
	2021	..	*58	..	..	..	*58	*1,230
	2022	..	*60	..	..	..	*60	*1,287
St. Lucia	2019	..	110	..	*1	..	109	612
	2020	..	*106	..	*1	..	*105	*591
	2021	..	*111	..	*1	..	*110	*618
	2022	..	*113	..	*1	..	*112	*628
St. Vincent-Grenadines	2019	..	30	..	..	*-8	38	366
	2020	..	31	..	..	*-7	38	364
	2021	..	*32	..	..	*-6	*38	*372
	2022	..	*42	..	..	*2	*41	*398
Suriname	2019	311	108	67	*6	..	347	572
	2020	292	89	5	*6	..	369	603
	2021	333	86	32	*8	..	379	614
	2022	325	87	32	*8	..	372	596

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Trinidad and Tobago	2019	..	783	223	58	-4	506	341
	2020	..	862	297	77	-4	492	332
	2021	..	959	371	97	69	422	284
	2022	..	834	323	*63	3	445	297
Turks and Caicos Islands	2019	..	*77	..	..	..	*77	*1,791
	2020	..	*76	..	..	..	*76	*1,712
	2021	..	*78	..	..	..	*78	*1,713
	2022	..	*77	..	..	..	*77	*1,682
Uruguay	2019	892	0	..	88	-34	838	247
	2020	886	127	..	83	12	917	270
	2021	997	289	..	75	-26	1,236	364
	2022	966	239	..	74	25	1,107	326
Venezuela (Bolivar. Rep.)	2019	5,011	1,326	..	30	..	6,308	218
	2020	2,055	649	..	21	..	2,683	94
	2021	2,404	67	..	21	..	2,449	87
	2022	2,803	..	189	23	..	2,591	92
<b>Northern America</b>	<b>2019</b>	<b>282,585</b>	<b>12,345</b>	<b>72,108</b>	<b>10,361</b>	<b>-2,655</b>	<b>215,116</b>	<b>573</b>
	<b>2020</b>	<b>263,249</b>	<b>13,284</b>	<b>66,619</b>	<b>5,568</b>	<b>3,075</b>	<b>201,271</b>	<b>533</b>
	<b>2021</b>	<b>259,171</b>	<b>15,911</b>	<b>60,725</b>	<b>5,723</b>	<b>-4,255</b>	<b>212,890</b>	<b>562</b>
	<b>2022</b>	<b>277,811</b>	<b>10,875</b>	<b>66,388</b>	<b>5,854</b>	<b>-1,430</b>	<b>217,873</b>	<b>573</b>
Bermuda	2019	..	29	..	..	0	29	449
	2020	..	21	..	..	..	21	323
	2021	..	9	..	..	-9	18	272
	2022	..	*10	..	..	*-8	*18	*278
Canada	2019	32,978	1,202	7,704	110	-45	26,411	699
	2020	32,326	816	7,496	124	80	25,442	667
	2021	32,269	1,042	7,434	55	-139	25,962	675
	2022	33,890	932	7,730	35	-11	27,069	697
Greenland	2019	..	149	..	18	*6	125	2,238
	2020	..	162	..	20	*7	135	2,407
	2021	..	159	..	12	..	146	2,610
	2022	..	158	..	22	*-22	158	2,824
St. Pierre-Miquelon	2019	..	*23	..	*5	..	*18	*2,995
	2020	..	*20	..	*3	..	*17	*2,900
	2021	..	*17	..	*2	..	*15	*2,630
	2022	..	*16	..	*1	..	*15	*2,565
United States	2019	249,607	10,942	64,404	10,227	-2,616	188,534	558
	2020	230,923	12,266	59,123	5,422	2,988	175,656	517
	2021	226,902	14,685	53,291	5,654	-4,107	186,749	549
	2022	243,921	9,758	58,658	5,796	-1,389	190,613	558
<b>Oceania</b>	<b>2019</b>	<b>10,046</b>	<b>20,670</b>	<b>186</b>	<b>220</b>	<b>267</b>	<b>30,043</b>	<b>691</b>
	<b>2020</b>	<b>9,361</b>	<b>21,908</b>	<b>125</b>	<b>312</b>	<b>-168</b>	<b>31,000</b>	<b>703</b>
	<b>2021</b>	<b>8,489</b>	<b>22,596</b>	<b>82</b>	<b>204</b>	<b>-31</b>	<b>30,830</b>	<b>692</b>
	<b>2022</b>	<b>5,764</b>	<b>27,306</b>	<b>67</b>	<b>290</b>	<b>245</b>	<b>32,469</b>	<b>721</b>
American Samoa	2019	..	*121	..	*8	..	*113	*2,241
	2020	..	*118	..	*8	..	*110	*2,219
	2021	..	*119	..	*8	..	*111	*2,255
	2022	..	*119	..	*8	..	*111	*2,296
Australia	2019	7,596	17,352	95	77	258	24,519	962
	2020	7,022	18,523	69	100	-165	25,541	992
	2021	6,157	19,163	22	42	41	25,215	971
	2022	4,862	22,282	16	58	170	26,900	1,027

Table 22

## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Cook Islands	2019	..	*15	..	..	..	*15	*951
	2020	..	*12	..	..	..	*12	*787
	2021	..	*13	..	..	..	*13	*880
	2022	..	*14	..	..	..	*14	*977
Fiji	2019	..	353	60	54	..	240	262
	2020	..	322	55	60	..	207	226
	2021	..	272	55	47	..	171	186
	2022	..	323	8	96	..	219	238
French Polynesia	2019	..	135	..	..	-3	138	496
	2020	..	139	..	..	6	133	477
	2021	..	208	..	..	7	200	716
	2022	..	214	..	..	10	204	729
Kiribati	2019	..	*13	..	..	..	*13	*106
	2020	..	*13	..	..	..	*13	*103
	2021	..	*13	..	..	..	*13	*101
	2022	..	*13	..	..	..	*13	*102
Marshall Islands	2019	..	*36	..	..	..	*36	*818
	2020	..	*36	..	..	..	*36	*834
	2021	..	*36	..	..	..	*36	*863
	2022	..	*36	..	..	..	*36	*903
Micronesia (Fed. States of)	2019	..	*30	..	*3	..	*27	*240
	2020	..	*30	..	*3	..	*27	*239
	2021	..	*29	..	*3	..	*26	*235
	2022	..	*30	..	*3	..	*27	*238
Nauru	2019	..	*10	..	..	..	*10	*841
	2020	..	*10	..	..	..	*10	*850
	2021	..	*10	..	..	..	*10	*872
	2022	..	*11	..	..	..	*11	*958
New Caledonia	2019	..	311	..	9	-5	307	1,081
	2020	..	309	..	8	16	285	1,002
	2021	..	300	..	13	-18	305	1,068
	2022	..	355	..	17	7	331	1,154
New Zealand	2019	2,029	1,270	31	45	27	3,196	640
	2020	1,804	1,580	..	117	0	3,267	644
	2021	1,913	1,435	5	75	-62	3,330	652
	2022	437	2,922	43	91	58	3,167	617
Niue	2019	..	*1	..	..	..	*1	*695
	2020	..	*1	..	..	..	*1	*676
	2021	..	*1	..	..	..	*1	*687
	2022	..	*1	..	..	..	*1	*711
Northern Mariana Islands	2019	..	*127	0	18	..	*109	*2,257
	2020	..	*88	0	10	..	*77	*1,630
	2021	..	*100	0	12	..	*88	*1,871
	2022	..	*99	0	12	..	*87	*1,889
Palau	2019	..	*27	..	..	..	*27	*1,536
	2020	..	*28	..	..	..	*28	*1,546
	2021	..	*28	..	..	..	*28	*1,575
	2022	..	*29	..	..	..	*29	*1,610
Papua New Guinea	2019	422	655	..	..	-11	1,088	113
	2020	535	488	..	..	-23	1,047	107
	2021	419	651	..	..	..	1,070	107
	2022	*465	*651	..	..	..	*1,116	*109



## Production, trade and supply of gas oil/diesel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Samoa	2019	..	53	*1	..	..	53	251
	2020	..	45	0	..	..	45	210
	2021	..	49	..	..	..	49	229
	2022	..	46	..	..	..	46	215
Solomon Islands	2019	..	*80	..	*6	..	*74	*102
	2020	..	*77	..	*5	..	*73	*97
	2021	..	*77	..	*5	..	*72	*94
	2022	..	*74	..	*5	..	*70	*89
Tonga	2019	..	*26	..	..	..	*26	*242
	2020	..	25	..	..	..	25	236
	2021	..	24	..	..	..	24	228
	2022	..	26	..	..	..	26	250
Tuvalu	2019	..	*2	..	..	..	*2	*227
	2020	..	*2	..	..	..	*2	*212
	2021	..	*2	..	..	..	*2	*220
	2022	..	*2	..	..	..	*2	*225
Vanuatu	2019	..	44	..	..	..	44	151
	2020	..	55	..	..	..	55	185
	2021	..	58	..	..	..	58	191
	2022	..	49	..	..	..	49	157
Wallis and Futuna Is.	2019	..	7	..	..	..	7	600
	2020	..	*7	..	..	..	*7	*642
	2021	..	*8	..	..	..	*8	*663
	2022	..	*8	..	..	..	*8	*717



### Production, trade and supply of fuel oil

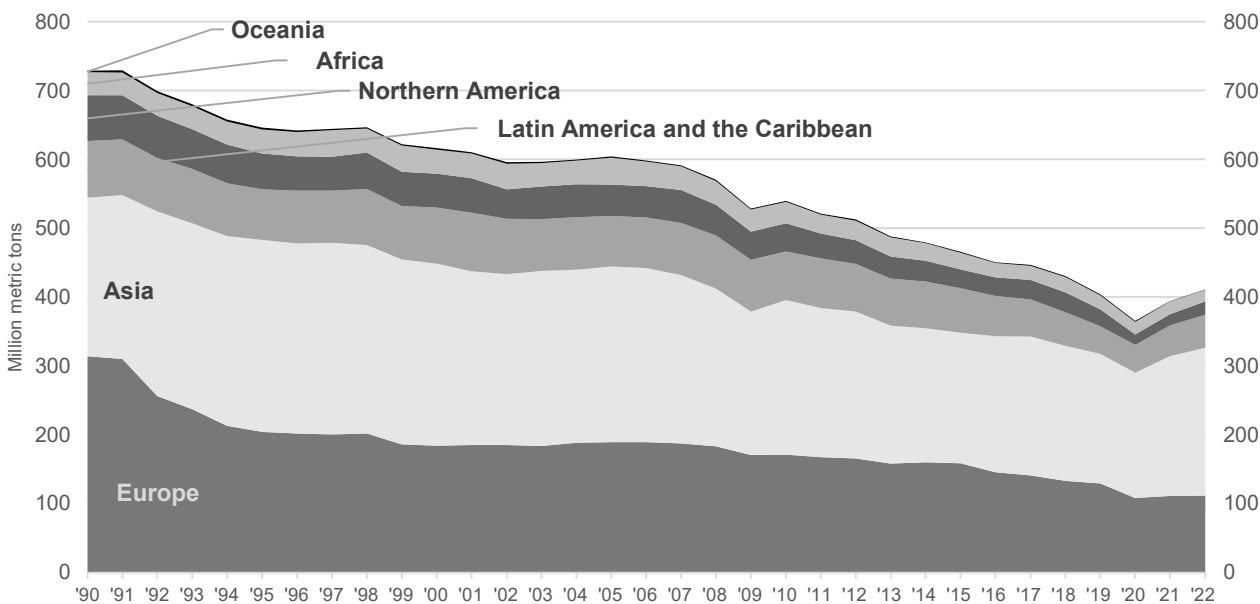
Thousand metric tons and kilograms per capita

#### Table Notes

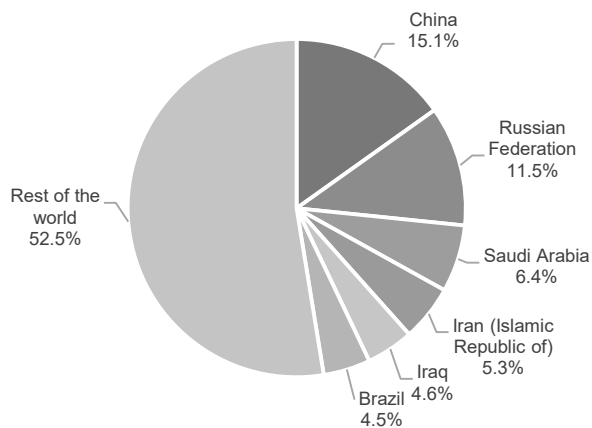
**Production** includes output from refineries and plants.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 63: Production of fuel oil by region, 1990-2022**



**Figure 64: Major fuel oil producing countries, 2022**



**Figure 65: Major fuel oil consuming countries, 2022**

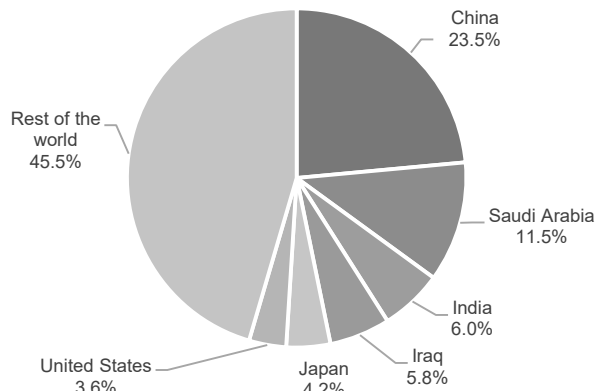


Table 23

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
World	2019	403,935	212,715	241,844	165,729	976	208,100	27
	2020	365,323	205,419	222,519	156,526	3,687	188,011	24
	2021	394,395	217,775	241,421	162,768	-4,402	212,384	27
	2022	410,957	217,548	237,001	152,663	1,920	236,920	30
Africa	2019	20,518	6,146	12,443	3,283	164	10,774	8
	2020	18,577	5,923	13,855	2,983	-924	8,587	6
	2021	18,456	6,228	10,295	2,735	-1,379	13,034	9
	2022	16,902	8,387	7,294	2,488	-886	16,393	11
Algeria	2019	5,915	79	5,687	17	129	161	4
	2020	5,920	0	5,793	189	-52	-10	0
	2021	5,447	0	5,414	179	-92	-54	-1
	2022	5,811	..	5,554	149	13	95	2
Angola	2019	1,072	..	409	273	399	-8	0
	2020	574	..	556	182	-253	91	3
	2021	569	..	462	204	-343	246	7
	2022	*696	..	329	329	*-367	*404	*11
Benin	2019	..	39	..	..	5	34	3
	2020	..	48	..	..	5	43	3
	2021	..	33	..	..	-12	45	3
	2022	..	38	..	3	1	34	2
Botswana	2019	..	12	..	..	..	12	5
	2020	..	11	..	..	..	11	5
	2021	..	12	..	..	..	12	5
	2022	..	13	..	..	..	13	5
Burkina Faso	2019	..	262	..	..	..	262	12
	2020	..	*254	..	..	..	*254	*12
	2021	..	*305	..	..	..	*305	*14
	2022	..	*311	..	..	..	*311	*14
Burundi	2019	..	*32	..	..	..	*32	*3
	2020	..	*23	..	..	..	*23	*2
	2021	..	*31	..	..	..	*31	*2
	2022	..	*31	..	..	..	*31	*2
Cabo Verde	2019	..	*115	..	*40	..	*75	*145
	2020	..	*102	..	*34	..	*68	*131
	2021	..	*108	..	*35	..	*73	*141
	2022	..	*115	..	*36	..	*79	*151
Cameroon	2019	104	47	37	..	..	115	4
	2020	..	98	..	..	..	98	4
	2021	..	99	..	..	..	99	4
	2022	..	103	..	..	..	103	4
Central African Rep.	2019	..	*2	..	..	..	*2	0
	2020	..	*3	..	..	..	*3	*1
	2021	..	*3	..	..	..	*3	*1
	2022	..	*3	..	..	..	*3	*1
Chad	2019	*26	..	*20	..	..	*6	0
	2020	*20	..	*19	..	..	*1	0
	2021	*26	..	*20	..	..	*6	0
	2022	*28	..	*20	..	..	*8	0
Comoros	2019	..	*5	..	*5	*-3	*3	*3
	2020	..	*7	..	*4	*-1	*3	*4
	2021	..	*18	..	*4	*6	*8	*10
	2022	..	*18	..	*5	*6	*7	*9

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Congo	2019	368	16	352	..	..	32	6
	2020	367	16	255	..	..	129	22
	2021	380	16	258	..	..	139	24
	2022	406	16	276	..	..	146	24
Côte d'Ivoire	2019	704	..	691	7	..	5	0
	2020	632	..	619	7	..	6	0
	2021	701	..	599	8	..	94	3
	2022	457	..	337	8	..	111	4
Dem. Rep. of the Congo	2019	..	1	..	..	..	1	0
	2020	..	1	..	..	..	1	0
	2021	..	1	..	..	..	1	0
	2022	..	0	..	..	..	0	0
Djibouti	2019	..	29	..	*9	..	20	19
	2020	..	24	..	*7	..	17	16
	2021	..	*26	..	*7	..	*19	*17
	2022	..	*24	..	*8	..	*16	*14
Egypt	2019	7,544	..	4,558	239	..	2,747	26
	2020	7,019	..	5,646	221	..	1,152	11
	2021	7,599	..	2,364	239	..	4,995	45
	2022	6,491	691	..	205	..	6,977	62
Eritrea	2019	..	85	..	22	..	62	19
	2020	..	84	..	17	..	67	20
	2021	..	87	..	13	..	74	22
	2022	..	91	..	12	..	79	23
Ethiopia	2019	..	60	..	..	2	58	1
	2020	..	61	..	..	2	60	1
	2021	..	81	..	..	-1	82	1
	2022	..	65	..	..	..	65	1
Gabon	2019	313	..	157	87	1	68	30
	2020	438	..	426	82	-140	71	30
	2021	492	..	505	75	-157	69	29
	2022	484	..	232	96	75	81	33
Gambia	2019	..	*82	..	..	..	*82	*33
	2020	..	*82	..	..	..	*82	*33
	2021	..	*84	..	..	..	*84	*32
	2022	..	*93	..	..	..	*93	*35
Ghana	2019	205	0	66	..	13	126	4
	2020	216	0	173	..	3	40	1
	2021	145	85	75	..	-4	160	5
	2022	27	26	..	..	2	51	2
Guinea	2019	..	229	..	..	*20	209	16
	2020	..	209	..	..	-47	256	19
	2021	..	160	..	..	46	114	8
	2022	..	161	..	..	*44	118	8
Guinea-Bissau	2019	..	22	..	..	..	22	11
	2020	..	25	..	..	..	25	13
	2021	..	28	..	..	..	28	14
	2022	..	*30	..	..	..	*30	*14
Kenya	2019	..	432	1	*10	..	420	8
	2020	..	309	0	*3	..	306	6
	2021	..	340	..	48	..	293	5
	2022	..	337	..	..	..	337	6

Table 23

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Libya	2019	1,263	141	..	291	..	1,113	160
	2020	891	117	..	97	..	911	129
	2021	1,143	131	..	304	..	970	136
	2022	1,049	193	..	256	..	985	136
Madagascar	2019	..	219	..	..	15	204	7
	2020	..	185	..	..	*-8	193	7
	2021	..	205	..	..	*-24	228	8
	2022	..	169	..	..	*-18	187	6
Malawi	2019	..	*2	..	..	..	*2	0
	2020	..	*2	..	..	..	*2	0
	2021	..	*2	..	..	..	*2	0
	2022	..	*2	..	..	..	*2	0
Mali	2019	..	291	..	..	..	291	14
	2020	..	236	..	..	..	236	11
	2021	..	217	..	..	..	217	10
	2022	..	322	..	..	..	322	14
Mauritania	2019	..	391	..	..	*88	303	68
	2020	..	460	..	..	*84	376	82
	2021	..	*400	..	..	*81	*319	*67
	2022	..	397	..	..	*30	367	75
Mauritius	2019	..	850	..	520	13	317	246
	2020	..	713	..	519	-52	246	192
	2021	..	749	..	508	-17	258	202
	2022	..	757	..	386	24	347	272
Morocco	2019	..	836	..	114	-48	770	21
	2020	..	903	..	114	80	708	19
	2021	..	723	..	114	-362	971	26
	2022	..	1,570	..	114	-220	1,676	45
Mozambique	2019	..	30	..	..	..	30	1
	2020	..	30	..	..	..	30	1
	2021	..	30	..	..	..	30	1
	2022	..	27	..	..	..	27	1
Namibia	2019	..	45	2	..	..	43	16
	2020	..	47	2	..	..	45	16
	2021	..	49	2	..	..	47	17
	2022	..	52	3	..	..	49	17
Niger	2019	17	0	..	..	..	17	1
	2020	14	17	..	..	7	24	1
	2021	16	42	..	..	17	41	2
	2022	*18	4	..	..	..	*22	*1
Nigeria	2019	224	32	..	237	-482	501	2
	2020	0	65	..	177	-570	458	2
	2021	*97	32	..	147	-543	525	2
	2022	117	14	..	131	-490	490	2
Rwanda	2019	..	39	..	..	..	39	3
	2020	..	24	..	..	..	24	2
	2021	..	31	..	..	..	31	2
	2022	..	*32	..	..	..	*32	*2
Senegal	2019	191	746	..	..	1	936	57
	2020	179	758	..	..	-9	946	56
	2021	187	791	..	..	15	964	56
	2022	140	931	..	..	2	1,070	61

Table 23

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Seychelles	2019	..	72	..	*1	..	71	606
	2020	..	*70	..	*1	*-18	*87	*723
	2021	..	*88	..	*1	*11	*76	*618
	2022	..	*96	..	*1	*26	*69	*550
Sierra Leone	2019	..	86	..	..	*23	63	8
	2020	..	100	..	..	*40	60	8
	2021	..	107	..	..	..	107	13
	2022	..	80	..	..	..	80	10
Somalia	2019	..	*56	..	*6	..	*50	*3
	2020	..	*58	..	*6	..	*52	*3
	2021	..	*60	..	*6	..	*54	*3
	2022	..	*62	..	*7	..	*55	*3
South Africa	2019	2,062	136	426	1,382	..	390	7
	2020	1,570	207	16	1,300	..	462	8
	2021	751	544	10	819	..	467	8
	2022	309	976	9	711	..	564	9
South Sudan	2019	..	..	..	..	..	..	..
	2020	..	..	..	..	..	..	..
	2021	86	..	86	..	..	0	0
	2022	115	..	115	..	..	0	0
Sudan	2019	285	280	..	..	..	565	12
	2020	262	205	..	..	..	467	10
	2021	*263	*228	..	..	..	*491	*10
	2022	*307	*255	..	..	..	*562	*11
Togo	2019	..	43	..	..	-1	44	5
	2020	..	133	..	..	-2	135	16
	2021	..	13	..	..	-2	15	2
	2022	..	10	..	..	-5	15	2
Tunisia	2019	52	223	35	..	-11	250	21
	2020	394	159	350	..	8	195	16
	2021	537	188	500	..	0	224	19
	2022	448	170	419	..	-9	208	17
Uganda	2019	..	24	..	..	..	24	1
	2020	..	16	..	..	..	16	0
	2021	..	14	..	..	..	14	0
	2022	..	*23	..	..	..	*23	0
United Rep. of Tanzania	2019	..	55	..	22	..	33	1
	2020	..	48	..	22	..	26	0
	2021	..	52	..	24	..	28	0
	2022	..	64	..	29	..	35	1
Zambia	2019	172	..	..	..	..	172	9
	2020	80	12	..	..	..	92	5
	2021	17	14	..	..	..	31	2
	2022	0	15	..	..	..	15	1
<b>Asia</b>	<b>2019</b>	<b>188,021</b>	<b>135,658</b>	<b>90,237</b>	<b>99,627</b>	<b>439</b>	<b>133,376</b>	<b>29</b>
	<b>2020</b>	<b>181,756</b>	<b>127,804</b>	<b>73,286</b>	<b>101,128</b>	<b>2,917</b>	<b>132,229</b>	<b>28</b>
	<b>2021</b>	<b>203,089</b>	<b>134,534</b>	<b>86,670</b>	<b>105,599</b>	<b>101</b>	<b>145,253</b>	<b>31</b>
	<b>2022</b>	<b>214,453</b>	<b>129,989</b>	<b>86,197</b>	<b>94,577</b>	<b>1,788</b>	<b>161,880</b>	<b>34</b>
Afghanistan	2019	*12	*1	..	..	..	*13	0
	2020	*5	*5	..	..	..	*10	0
	2021	*5	*5	..	..	..	*10	0
	2022	*5	*5	..	..	..	*10	0

Table 23

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Azerbaijan	2019	127	..	0	..	49	77	8
	2020	62	..	0	..	3	59	6
	2021	106	..	2	..	-67	171	17
	2022	78	94	68	..	97	8	1
Bahrain	2019	2,662	..	2,690	..	-28	0	0
	2020	1,948	..	1,958	..	-10	0	0
	2021	2,250	..	2,225	..	25	0	0
	2022	2,771	..	2,711	..	60	0	0
Bangladesh	2019	344	3,278	..	142	..	3,480	21
	2020	275	2,744	..	147	..	2,872	17
	2021	416	*1,851	..	165	..	*2,102	*13
	2022	368	*2,053	..	168	..	*2,253	*13
Bhutan	2019	..	4	..	..	..	4	5
	2020	..	2	..	..	..	2	2
	2021	..	1	..	..	..	1	1
	2022	..	1	..	..	..	1	2
Brunei Darussalam	2019	..	..	..	..	..	..	..
	2020	5	..	..	5	..	0	0
	2021	..	..	..	..	..	..	..
	2022	..	..	..	..	..	..	..
Cambodia	2019	..	180	..	..	..	180	11
	2020	..	136	..	..	..	136	8
	2021	..	164	..	..	..	164	10
	2022	..	122	..	..	..	122	7
China	2019	45,061	14,855	11,177	9,738	1,350	37,651	26
	2020	57,807	12,535	15,833	10,564	651	43,294	30
	2021	60,407	13,811	19,613	11,726	-557	43,435	30
	2022	62,247	13,039	18,663	336	559	55,729	39
China, Hong Kong SAR	2019	..	6,749	186	6,439	123	1	0
	2020	..	5,973	98	5,359	516	0	0
	2021	..	5,694	3	5,348	343	0	0
	2022	..	4,995	6	5,009	-20	0	0
China, Macao SAR	2019	..	21	..	..	-13	34	51
	2020	..	41	..	..	8	33	48
	2021	..	0	..	..	-8	8	12
	2022	..	4	..	..	-2	6	9
Cyprus	2019	..	968	..	156	4	807	627
	2020	..	772	..	158	-14	628	482
	2021	..	850	..	141	6	703	534
	2022	..	850	..	165	-11	695	522
Georgia	2019	16	0	15	..	0	0	0
	2020	12	0	9	..	2	1	0
	2021	18	0	18	..	0	1	0
	2022	19	0	19	..	-1	0	0
India	2019	8,609	4,583	1,527	*1,725	..	9,940	7
	2020	*6,882	*6,454	*1,177	*1,478	*413	*10,268	*7
	2021	8,237	9,024	1,716	*1,638	*7	13,900	10
	2022	9,242	8,563	1,841	*1,784	..	14,180	10
Indonesia	2019	1,168	198	0	2	0	1,363	5
	2020	*1,273	204	..	*150	..	*1,327	*5
	2021	*3,928	165	737	163	..	*3,194	*12
	2022	3,404	85	..	..	591	2,897	10



Table 23

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Iran (Islamic Rep. of)	2019	22,312	..	16,688	900	..	4,725	54
	2020	19,926	..	16,457	701	..	2,768	32
	2021	22,538	..	19,536	1,267	..	1,735	20
	2022	21,903	..	19,536	1,267	..	1,099	12
Iraq	2019	16,880	..	3,883	299	..	12,699	308
	2020	14,169	..	3,541	259	..	10,369	246
	2021	16,676	..	4,064	248	..	12,364	287
	2022	18,732	..	4,734	267	..	13,731	312
Israel	2019	2,425	..	2,011	281	-54	187	22
	2020	1,531	..	1,160	341	-12	43	5
	2021	1,637	..	1,199	347	11	81	9
	2022	2,274	..	1,647	456	-38	209	23
Japan	2019	14,321	479	2,978	4,275	-240	7,786	61
	2020	12,589	546	1,354	4,730	15	7,035	56
	2021	14,219	1,210	2,013	4,713	-109	8,812	70
	2022	15,856	1,822	2,968	4,645	148	9,916	79
Jordan	2019	369	..	..	32	..	337	32
	2020	342	..	..	39	..	304	28
	2021	356	..	..	46	..	310	28
	2022	209	..	..	38	..	171	15
Kazakhstan	2019	2,875	1	2,622	..	7	247	13
	2020	2,255	2	1,593	..	-9	673	35
	2021	2,842	..	2,086	..	-5	761	39
	2022	3,387	..	2,392	..	-12	1,007	50
Korea, Dem.Ppl's.Rep.	2019	109	415	..	..	..	524	20
	2020	109	382	..	..	..	491	19
	2021	109	227	..	..	..	336	13
	2022	109	256	..	..	..	365	14
Korea, Republic of	2019	8,526	4,753	2,649	6,715	-298	4,214	81
	2020	11,204	4,447	1,987	8,300	-2	5,366	103
	2021	11,300	5,503	1,275	8,578	77	6,875	133
	2022	13,803	3,123	1,914	9,306	-106	5,813	112
Kuwait	2019	8,357	193	3,261	924	-591	4,956	1,116
	2020	5,122	278	1,761	867	..	2,772	630
	2021	6,367	1,759	1,237	883	..	6,007	1,377
	2022	5,061	1,636	934	911	..	4,853	1,057
Kyrgyzstan	2019	115	58	44	..	3	126	19
	2020	84	76	31	..	67	62	9
	2021	151	0	128	..	-20	43	6
	2022	164	..	124	..	-5	45	6
Lao People's Dem. Rep.	2019	..	*11	..	..	..	*11	*2
	2020	..	*8	..	..	..	*8	*1
	2021	..	*8	..	..	..	*8	*1
	2022	..	7	..	..	..	7	1
Lebanon	2019	..	1,852	..	*30	..	1,822	314
	2020	..	1,339	..	*30	*75	1,234	216
	2021	..	846	..	*30	..	816	143
	2022	..	84	..	*30	..	54	9
Malaysia	2019	1,400	80	407	272	215	587	18
	2020	1,214	218	446	419	185	383	11
	2021	1,510	26	593	554	-19	409	12
	2022	1,420	232	761	603	..	288	8

Table 23

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Maldives	2019	..	1	..	*1	..	0	0
	2020	..	4	..	*1	*4	0	0
	2021	..	0	..	0	..	0	0
	2022	..	1	..	*1	..	0	0
Mongolia	2019	..	3	..	..	..	3	1
	2020	..	3	..	..	..	3	1
	2021	..	2	..	..	..	2	1
	2022	..	3	..	..	..	3	1
Myanmar	2019	23	..	..	..	..	23	0
	2020	35	..	..	..	..	35	1
	2021	34	..	..	..	..	34	1
	2022	27	..	..	..	..	27	1
Nepal	2019	..	8	..	..	..	8	0
	2020	..	77	..	..	..	77	3
	2021	..	41	..	..	..	41	1
	2022	..	44	..	..	..	44	1
Oman	2019	336	..	228	*97	..	11	2
	2020	204	..	..	*204	..	0	0
	2021	60	..	..	*60	..	0	0
	2022	338	..	130	*208	..	0	0
Other Asia	2019	4,100	1,370	1,956	1,199	-256	2,571	109
	2020	4,941	611	1,755	1,163	52	2,583	109
	2021	4,743	903	2,063	1,461	40	2,082	88
	2022	3,907	918	1,721	1,393	36	1,676	72
Pakistan	2019	2,251	38	0	30	..	2,259	10
	2020	2,580	722	0	11	..	3,291	14
	2021	2,408	2,330	0	2	..	4,737	20
	2022	2,055	2,258	54	1	..	4,258	17
Philippines	2019	702	765	287	42	-25	1,162	10
	2020	356	979	253	85	-66	1,063	9
	2021	30	1,072	..	37	51	1,014	9
	2022	7	1,077	32	29	-85	1,109	10
Qatar	2019	1,045	..	1,045	..	..	0	0
	2020	1,099	..	1,099	..	..	0	0
	2021	1,127	..	1,127	..	..	0	0
	2022	1,125	..	287	..	..	839	290
Saudi Arabia	2019	22,605	*11,102	*4,456	*3,358	*-77	25,970	852
	2020	18,501	*11,576	*3,540	*2,741	*307	23,489	758
	2021	22,536	*9,725	*4,712	*2,972	*378	24,199	772
	2022	26,388	10,491	6,131	3,514	..	27,235	846
Singapore	2019	4,853	64,699	23,171	43,581	41	2,759	487
	2020	4,043	58,938	15,402	45,138	222	2,219	395
	2021	4,110	60,539	16,907	45,907	-443	2,279	411
	2022	4,602	*57,617	14,284	44,144	207	3,585	635
Sri Lanka	2019	483	504	..	551	-52	488	22
	2020	469	487	..	349	-20	627	28
	2021	359	359	31	471	-133	349	15
	2022	189	520	10	385	-118	432	19
State of Palestine	2019	..	4	..	..	..	4	1
	2020	..	4	..	..	..	4	1
	2021	..	3	..	..	..	3	1
	2022	..	3	..	..	..	3	0

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Syrian Arab Republic	2019	2,511	..	..	1	..	2,510	123
	2020	2,618	..	..	1	..	2,617	124
	2021	2,531	..	..	0	..	2,531	117
	2022	2,531	..	..	0	..	2,531	113
Tajikistan	2019	15	23	..	..	..	38	4
	2020	8	9	..	..	..	17	2
	2021	10	0	..	..	..	10	1
	2022	5	..	..	..	..	5	1
Thailand	2019	5,152	23	3,021	1,170	287	697	10
	2020	4,663	23	2,588	1,036	350	712	10
	2021	5,260	64	2,960	1,182	315	866	12
	2022	5,418	25	2,768	1,559	..	1,117	16
Türkiye	2019	3,114	2,047	2,126	768	-3	2,270	27
	2020	459	2,024	217	262	124	1,881	22
	2021	1,602	1,615	1,272	282	217	1,446	17
	2022	1,943	2,312	1,540	220	447	2,048	24
Turkmenistan	2019	1,513	..	680	..	..	834	123
	2020	1,463	..	657	..	..	806	116
	2021	1,482	..	665	..	..	816	115
	2022	1,531	..	687	..	..	844	117
United Arab Emirates	2019	2,958	15,182	2,799	16,665	..	-1,324	-141
	2020	2,695	15,157	..	16,401	..	1,451	154
	2021	3,024	15,704	..	17,205	..	1,523	156
	2022	2,629	16,581	..	17,649	..	1,561	152
Uzbekistan	2019	211	124	..	..	-3	338	10
	2020	170	94	..	..	-3	267	8
	2021	308	*55	..	..	-8	371	11
	2022	128	286	0	..	-24	438	13
Viet Nam	2019	178	833	332	183	..	496	5
	2020	440	676	369	146	60	541	6
	2021	218	732	488	128	..	334	3
	2022	401	614	236	440	67	272	3
Yemen	2019	286	255	..	52	..	488	14
	2020	199	257	..	47	..	409	11
	2021	175	243	..	47	..	371	10
	2022	176	268	..	48	..	397	10
<b>Europe</b>	<b>2019</b>	<b>129,442</b>	<b>45,448</b>	<b>103,796</b>	<b>41,496</b>	<b>163</b>	<b>29,435</b>	<b>39</b>
	<b>2020</b>	<b>108,454</b>	<b>48,370</b>	<b>101,586</b>	<b>34,908</b>	<b>1,237</b>	<b>19,093</b>	<b>25</b>
	<b>2021</b>	<b>111,256</b>	<b>55,762</b>	<b>111,407</b>	<b>35,283</b>	<b>-2,009</b>	<b>22,336</b>	<b>30</b>
	<b>2022</b>	<b>112,037</b>	<b>55,947</b>	<b>104,337</b>	<b>37,007</b>	<b>1,253</b>	<b>25,387</b>	<b>34</b>
Albania	2019	..	3	..	..	..	3	1
	2020	..	3	..	..	..	3	1
	2021	..	5	..	..	..	5	2
	2022	..	3	..	..	..	3	1
Austria	2019	735	44	455	..	-56	380	43
	2020	737	67	471	..	-24	356	40
	2021	645	32	370	..	-33	340	38
	2022	778	38	266	..	40	510	56
Belarus	2019	4,382	..	4,062	..	-1	321	34
	2020	3,515	..	2,719	..	37	759	81
	2021	3,515	..	2,719	..	..	796	86
	2022	3,174	..	2,451	..	..	723	79

Table 23

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Belgium	2019	4,585	5,733	4,296	7,336	76	-1,389	-121
	2020	2,582	4,302	3,349	5,173	-54	-1,584	-137
	2021	2,472	5,733	3,093	6,250	-171	-967	-84
	2022	2,285	4,966	2,474	6,402	-33	-1,592	-137
Bosnia and Herzegovina	2019	25	31	15	..	-4	45	13
	2020	..	41	4	..	0	38	11
	2021	..	32	2	..	-4	34	10
	2022	..	51	7	..	3	41	13
Bulgaria	2019	581	35	544	17	13	43	6
	2020	259	60	278	16	2	22	3
	2021	209	109	242	26	9	41	6
	2022	552	112	504	20	53	86	13
Croatia	2019	397	41	350	5	-5	88	22
	2020	267	6	239	4	-6	37	9
	2021	291	3	247	4	4	38	10
	2022	274	4	200	7	-2	74	19
Czechia	2019	139	..	119	..	-8	28	3
	2020	93	14	51	..	7	49	5
	2021	82	17	29	..	6	64	6
	2022	111	10	56	..	6	59	6
Denmark	2019	1,592	2,432	2,946	377	391	310	53
	2020	1,469	3,253	4,004	216	340	163	28
	2021	1,505	1,861	3,898	111	-644	2	0
	2022	1,578	2,587	3,325	201	410	229	39
Estonia	2019	..	437	337	106	-20	15	11
	2020	..	526	295	167	63	1	1
	2021	..	561	424	175	-38	0	0
	2022	..	317	157	166	-10	4	3
Faeroe Islands	2019	..	*98	..	26	..	*72	*1,391
	2020	..	*103	..	29	..	*75	*1,417
	2021	..	*102	..	31	..	*71	*1,341
	2022	..	*97	..	35	..	*63	*1,161
Finland	2019	1,412	601	1,175	272	-122	688	125
	2020	1,549	457	1,181	242	-23	606	110
	2021	1,179	643	962	183	45	632	114
	2022	1,689	971	1,431	202	-51	1,078	194
France	2019	6,176	2,883	3,852	1,617	87	3,502	52
	2020	4,066	2,026	2,626	836	-22	2,652	39
	2021	4,124	1,525	2,716	900	-207	2,239	33
	2022	6,196	1,703	3,659	1,041	137	3,063	45
Germany	2019	7,034	1,628	2,736	668	-122	5,380	64
	2020	6,220	1,368	2,792	809	-69	4,056	49
	2021	7,421	1,290	3,613	705	285	4,108	49
	2022	6,945	1,131	3,435	740	58	3,843	46
Gibraltar	2019	..	3,835	..	3,800	..	35	984
	2020	..	3,862	..	3,862	..	0	0
	2021	..	3,766	..	3,766	..	0	0
	2022	..	4,206	..	4,206	..	0	0
Greece	2019	5,172	2,331	2,737	2,220	123	2,423	226
	2020	3,467	1,578	1,392	1,331	61	2,261	211
	2021	4,977	1,808	3,199	1,480	-223	2,328	220
	2022	5,241	1,893	3,059	1,519	46	2,510	241

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Hungary	2019	21	11	3	..	-2	31	3
	2020	23	9	13	..	-3	22	2
	2021	61	0	29	..	7	25	3
	2022	45	8	13	..	3	37	4
Iceland	2019	..	57	..	19	-12	50	139
	2020	..	0	..	..	-1	1	2
	2021	..	4	..	3	5	-4	-12
	2022	..	9	..	8	-2	4	11
Ireland	2019	725	114	724	10	1	103	21
	2020	824	172	817	11	38	130	26
	2021	971	371	962	7	15	359	71
	2022	860	253	859	1	7	245	48
Italy	2019	6,709	1,008	3,718	2,201	57	1,741	29
	2020	5,628	1,239	3,327	1,925	38	1,577	26
	2021	7,431	1,219	5,087	1,866	-619	2,316	39
	2022	6,676	1,389	3,432	1,911	228	2,494	42
Kosovo	2019	..	20	..	..	..	20	11
	2020	..	22	..	..	..	22	13
	2021	..	21	..	..	..	21	12
	2022	..	14	..	..	..	14	8
Latvia	2019	..	44	..	43	-1	2	1
	2020	..	4	..	3	-1	2	1
	2021	..	13	..	11	0	2	1
	2022	..	28	..	25	0	3	1
Lithuania	2019	1,539	123	1,549	120	-26	19	7
	2020	1,105	111	1,028	111	20	57	20
	2021	1,145	88	1,076	86	26	46	16
	2022	1,107	127	1,072	82	-18	97	34
Luxembourg	2019	..	2	0	..	..	2	3
	2020	..	1	0	..	..	1	2
	2021	..	1	0	..	..	1	2
	2022	..	1	..	..	..	1	1
Malta	2019	..	2,115	246	1,962	-100	6	12
	2020	..	1,974	89	1,864	14	7	14
	2021	..	1,657	65	1,623	-39	8	16
	2022	..	1,791	7	1,773	3	8	15
Montenegro	2019	..	3	0	..	1	2	3
	2020	..	1	..	..	-2	2	3
	2021	..	3	..	..	..	3	6
	2022	..	0	..	..	-3	3	5
Netherlands (Kingd. of the)	2019	8,909	11,709	9,682	9,396	86	1,454	83
	2020	9,023	19,865	18,532	9,742	848	-234	-13
	2021	7,743	27,794	24,299	9,232	11	1,995	113
	2022	9,900	24,929	24,214	9,202	89	1,323	74
North Macedonia	2019	..	81	5	..	2	74	39
	2020	..	81	2	..	-4	83	44
	2021	..	93	3	..	4	86	47
	2022	..	211	3	..	20	188	102
Norway	2019	1,806	1,012	1,661	36	-31	1,153	216
	2020	1,494	847	1,601	22	22	695	129
	2021	669	890	810	21	-40	768	142
	2022	147	1,281	147	22	-9	1,267	232

Table 23

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Poland	2019	3,115	16	2,283	81	-27	794	21
	2020	2,011	31	1,114	86	19	822	22
	2021	1,919	30	986	64	-15	914	24
	2022	2,220	56	1,108	39	15	1,114	29
Portugal	2019	2,114	189	1,113	831	-191	549	53
	2020	2,416	258	1,600	568	-6	512	49
	2021	2,474	157	1,604	538	86	403	39
	2022	2,582	174	1,760	557	-116	556	53
Republic of Moldova	2019	4	6	..	..	5	5	2
	2020	2	5	2	..	4	1	0
	2021	2	2	2	..	-16	18	6
	2022	1	88	1	..	7	81	27
Romania	2019	193	5	139	..	0	59	3
	2020	153	..	85	..	-2	71	4
	2021	182	..	146	..	-34	70	4
	2022	141	..	92	..	-5	55	3
Russian Federation	2019	58,417	108	50,103	2,212	-230	6,440	44
	2020	50,823	119	44,592	1,394	..	4,957	34
	2021	51,575	61	46,348	1,204	..	4,083	28
	2022	47,270	81	42,099	1,147	..	4,106	28
Serbia	2019	257	9	7	..	-1	260	37
	2020	203	26	31	..	-19	218	32
	2021	100	127	3	..	-6	229	34
	2022	188	154	1	..	64	277	41
Slovakia	2019	535	44	344	..	13	222	41
	2020	618	26	418	..	10	216	40
	2021	540	61	396	..	-17	222	41
	2022	482	86	299	..	5	264	48
Slovenia	2019	..	302	137	165	..	0	0
	2020	..	426	315	110	..	0	0
	2021	..	274	197	76	..	0	0
	2022	..	4	4	..	..	0	0
Spain	2019	5,056	6,843	2,701	5,713	25	3,460	73
	2020	2,443	3,974	2,505	3,965	11	-64	-1
	2021	2,645	4,129	2,194	4,577	-239	242	5
	2022	3,643	6,198	2,035	5,778	329	1,700	36
Sweden	2019	4,413	842	3,186	1,573	285	211	21
	2020	3,860	772	2,965	1,877	-74	-137	-13
	2021	3,936	612	2,732	1,747	-157	226	22
	2022	4,032	460	2,987	1,260	-26	271	26
Switzerland	2019	311	1	327	..	-14	0	0
	2020	364	0	362	..	1	1	0
	2021	294	0	275	..	8	11	1
	2022	429	0	435	..	-11	6	1
Ukraine	2019	74	1	13	..	-31	93	2
	2020	75	..	..	..	18	57	1
	2021	82	5	68	..	-21	40	1
	2022	*82	3	*68	..	*-21	*38	*1
United Kingdom	2019	3,016	651	2,232	691	1	743	11
	2020	3,168	740	2,789	546	-9	582	9
	2021	3,068	663	2,612	597	5	517	8
	2022	3,409	513	2,676	666	39	541	8

Table 23

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>39,835</b>	<b>12,790</b>	<b>20,300</b>	<b>7,149</b>	<b>-67</b>	<b>25,243</b>	<b>39</b>
	<b>2020</b>	<b>40,581</b>	<b>9,124</b>	<b>24,596</b>	<b>6,156</b>	<b>549</b>	<b>18,405</b>	<b>29</b>
	<b>2021</b>	<b>44,684</b>	<b>8,519</b>	<b>25,728</b>	<b>6,407</b>	<b>-194</b>	<b>21,263</b>	<b>33</b>
	<b>2022</b>	<b>47,607</b>	<b>9,419</b>	<b>32,167</b>	<b>6,998</b>	<b>-1,056</b>	<b>18,917</b>	<b>29</b>
Antigua and Barbuda	2019	..	*187	..	*74	..	*113	*1,237
	2020	..	*181	..	*71	..	*110	*1,198
	2021	..	*185	..	*74	..	*111	*1,202
	2022	..	*185	..	*74	..	*111	*1,199
Argentina	2019	2,138	*200	863	377	-48	1,146	25
	2020	2,683	0	513	224	17	1,929	43
	2021	2,059	355	67	29	-40	2,358	52
	2022	2,209	869	855	373	68	1,782	39
Aruba	2019	..	*188	..	*12	..	*176	*1,647
	2020	..	*192	..	*12	..	*180	*1,678
	2021	..	*197	..	*12	..	*185	*1,724
	2022	..	204	..	*14	..	190	1,762
Bahamas	2019	..	186	..	160	..	26	66
	2020	..	192	..	151	..	41	104
	2021	..	329	..	222	..	107	270
	2022	..	278	..	160	..	118	297
Barbados	2019	..	150	..	..	-3	154	546
	2020	..	146	..	..	8	138	489
	2021	..	141	..	..	-1	142	502
	2022	..	173	..	..	7	165	585
Belize	2019	..	22	..	..	..	22	57
	2020	..	3	..	..	..	3	8
	2021	..	10	..	..	..	10	25
	2022	..	4	..	..	..	4	10
Bonaire, St Eustatius, Saba	2019	..	*42	..	*13	*-1	*31	*1,197
	2020	..	*40	..	*9	..	*31	*1,176
	2021	..	*40	..	*10	*-3	*33	*1,197
	2022	..	*42	..	*10	*-2	*34	*1,195
Brazil	2019	11,626	53	5,801	2,972	34	2,872	14
	2020	16,643	37	10,490	3,295	65	2,830	14
	2021	16,352	591	9,593	2,551	438	4,362	21
	2022	18,482	211	12,384	2,832	591	2,885	14
Chile	2019	993	14	179	102	55	671	35
	2020	997	13	236	32	3	740	38
	2021	1,087	38	344	74	-3	710	36
	2022	720	38	344	74	-57	397	20
Colombia	2019	3,036	0	1,661	19	..	1,356	27
	2020	1,656	0	1,258	5	..	393	8
	2021	2,716	..	1,422	6	..	1,289	25
	2022	1,588	..	1,422	..	..	166	3
Costa Rica	2019	..	133	..	..	25	107	21
	2020	..	91	..	..	-11	102	20
	2021	..	104	..	..	-7	112	22
	2022	..	95	..	..	-15	110	22
Cuba	2019	766	1,343	..	*380	..	1,729	154
	2020	903	1,935	..	*330	..	2,508	224
	2021	664	1,125	..	*370	..	1,418	128
	2022	640	1,518	..	*310	..	1,848	167

Table 23

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Curaçao	2019	0	1,946	0	1,735	..	211	1,111
	2020	..	1,574	..	1,415	..	159	858
	2021	..	1,646	..	1,475	..	170	919
	2022	..	1,732	..	1,562	..	170	917
Dominica	2019	..	*15	..	*1	..	*14	*201
	2020	..	*14	..	*1	..	*13	*192
	2021	..	*14	..	*1	..	*13	*193
	2022	..	*14	..	*1	..	*13	*195
Dominican Republic	2019	329	1,550	..	..	-1	1,880	173
	2020	136	979	..	..	-1	1,116	101
	2021	366	835	..	..	-2	1,202	108
	2022	329	1,007	..	..	-5	1,341	119
Ecuador	2019	2,866	662	2,223	523	-2	783	45
	2020	2,607	462	2,209	132	-3	732	42
	2021	3,380	359	2,307	886	1	547	31
	2022	3,534	..	2,152	957	1	425	24
El Salvador	2019	..	362	0	..	..	362	58
	2020	..	257	0	..	..	257	41
	2021	..	236	1	..	..	236	38
	2022	..	285	0	..	..	285	45
Guatemala	2019	..	264	17	..	2	245	14
	2020	..	219	2	..	-2	219	13
	2021	..	227	0	..	-7	234	13
	2022	..	252	0	..	17	235	13
Guyana	2019	..	207	..	..	-4	212	262
	2020	..	215	..	..	27	188	233
	2021	..	223	..	..	57	167	204
	2022	..	270	..	..	6	264	322
Haiti	2019	..	126	..	..	..	126	11
	2020	..	121	..	..	..	121	11
	2021	..	119	..	..	..	119	10
	2022	..	117	..	..	..	117	10
Honduras	2019	..	750	1	..	..	748	75
	2020	..	708	0	..	-14	721	71
	2021	..	646	8	..	-3	640	62
	2022	..	690	5	..	8	678	65
Jamaica	2019	887	891	313	..	0	1,465	519
	2020	785	489	630	..	0	644	227
	2021	680	354	502	..	49	483	170
	2022	653	388	374	..	-25	692	244
Mexico	2019	8,472	2,358	4,005	74	-67	6,818	54
	2020	10,019	485	6,224	19	408	3,853	30
	2021	13,874	..	8,957	53	-206	5,070	40
	2022	14,689	..	9,862	60	24	4,743	37
Nicaragua	2019	96	443	30	..	57	453	70
	2020	77	276	71	..	-27	309	47
	2021	95	278	91	..	-38	321	48
	2022	93	358	80	..	44	327	49
Panama	2019	..	198	..	..	74	124	29
	2020	..	57	..	..	48	9	2
	2021	..	30	..	..	7	23	5
	2022	..	181	..	..	33	147	33



Table 23

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Paraguay	2019	..	5	..	..	0	5	1
	2020	..	2	..	..	0	2	0
	2021	..	0	..	..	-1	1	0
	2022	..	1	..	..	0	1	0
Peru	2019	2,316	30	1,511	391	-175	618	19
	2020	570	29	293	225	-66	147	4
	2021	574	30	384	401	-482	301	9
	2022	1,417	15	629	253	-107	656	20
Saint Barthélemy	2019	..	*31	..	*5	..	*26	*2,500
	2020	..	*32	..	*5	..	*27	*2,544
	2021	..	*32	..	*5	..	*27	*2,475
	2022	..	*35	..	*5	..	*30	*2,704
Saint Martin (French Part)	2019	..	*53	..	*15	..	*37	*1,089
	2020	..	*53	..	*15	..	*38	*1,195
	2021	..	*54	..	*15	..	*39	*1,305
	2022	..	*55	..	*15	..	*39	*1,365
Sint Maarten (Dutch part)	2019	..	*235	..	*124	..	*111	*2,758
	2020	..	*224	..	*120	..	*104	*2,536
	2021	..	*235	..	*125	..	*110	*2,656
	2022	..	*240	..	*128	..	*112	*2,658
St. Lucia	2019	..	*1	..	*1	..	0	0
	2020	..	*1	..	*1	..	0	0
	2021	..	*1	..	*1	..	0	0
	2022	..	*1	..	*1	..	0	0
Suriname	2019	255	2	*212	*32	..	13	21
	2020	262	1	*189	*30	..	44	72
	2021	278	0	*214	*32	..	32	52
	2022	273	25	93	*35	..	169	272
Trinidad and Tobago	2019	..	105	21	3	..	80	54
	2020	..	95	9	1	94	-10	-7
	2021	..	85	21	3	60	0	0
	2022	..	114	50	*61	3	0	0
Uruguay	2019	225	40	..	68	-13	210	62
	2020	214	0	..	15	2	198	58
	2021	237	0	..	14	-14	237	70
	2022	226	23	..	21	22	206	61
Venezuela (Bolivar. Rep.)	2019	5,831	..	3,464	68	..	2,300	79
	2020	3,028	..	2,473	47	..	507	18
	2021	2,322	..	1,818	48	..	456	16
	2022	2,755	..	3,917	52	-1,670	456	16
<b>Northern America</b>	<b>2019</b>	<b>24,709</b>	<b>10,691</b>	<b>14,770</b>	<b>13,188</b>	<b>263</b>	<b>7,179</b>	<b>19</b>
	<b>2020</b>	<b>15,034</b>	<b>12,501</b>	<b>8,934</b>	<b>10,706</b>	<b>7</b>	<b>7,888</b>	<b>21</b>
	<b>2021</b>	<b>16,250</b>	<b>11,506</b>	<b>6,836</b>	<b>12,329</b>	<b>-874</b>	<b>9,465</b>	<b>25</b>
	<b>2022</b>	<b>19,500</b>	<b>12,327</b>	<b>6,783</b>	<b>10,992</b>	<b>826</b>	<b>13,225</b>	<b>35</b>
Bermuda	2019	..	115	..	*9	..	106	1,660
	2020	..	96	..	*7	..	89	1,385
	2021	..	126	..	*9	..	117	1,815
	2022	..	*129	..	*9	..	*120	*1,848
Canada	2019	4,994	803	1,878	168	-20	3,771	100
	2020	3,637	539	829	168	1	3,178	83
	2021	3,784	385	1,344	168	-40	2,697	70
	2022	5,657	366	1,130	168	52	4,673	120

Table 23

## Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Greenland	2019	..	19	..	2	*-4	21	371
	2020	..	0	..	0	*-12	*11	*203
	2021	..	0	..	0	0	0	*1
	2022	..	0	..	0	0	0	0
United States	2019	19,715	9,754	12,892	13,009	286	3,281	10
	2020	11,398	11,866	8,105	10,531	18	4,610	14
	2021	12,466	10,995	5,491	12,152	-834	6,651	20
	2022	13,843	11,832	5,654	10,815	774	8,432	25
<b>Oceania</b>	<b>2019</b>	<b>1,410</b>	<b>1,981</b>	<b>298</b>	<b>986</b>	<b>15</b>	<b>2,093</b>	<b>48</b>
	<b>2020</b>	<b>921</b>	<b>1,697</b>	<b>262</b>	<b>647</b>	<b>-99</b>	<b>1,808</b>	<b>41</b>
	<b>2021</b>	<b>660</b>	<b>1,226</b>	<b>485</b>	<b>415</b>	<b>-47</b>	<b>1,033</b>	<b>23</b>
	<b>2022</b>	<b>459</b>	<b>1,479</b>	<b>224</b>	<b>601</b>	<b>-4</b>	<b>1,118</b>	<b>25</b>
American Samoa	2019	..	0	..	..	..	0	*2
	2020	..	0	..	..	..	0	*2
	2021	..	0	..	..	..	0	*2
	2022	..	0	..	..	..	0	*2
Australia	2019	909	703	203	677	0	732	29
	2020	740	603	262	574	-97	604	23
	2021	438	295	389	360	4	-20	-1
	2022	280	419	147	533	-2	21	1
Cook Islands	2019	..	*5	..	*2	..	*2	*149
	2020	..	*3	..	*1	..	*2	*128
	2021	..	*3	..	*1	..	*2	*158
	2022	..	*4	..	*1	..	*2	*163
Fiji	2019	..	109	0	15	..	94	103
	2020	..	82	0	0	..	82	90
	2021	..	64	0	0	..	64	69
	2022	..	100	0	2	..	98	107
French Polynesia	2019	..	73	..	..	2	71	254
	2020	..	65	..	..	-2	67	240
	2021	..	5	..	..	1	3	12
	2022	..	0	..	..	0	0	0
Nauru	2019	..	*9	..	*4	..	*5	*397
	2020	..	*8	..	*4	..	*5	*395
	2021	..	*9	..	*4	..	*5	*440
	2022	..	*9	..	*4	..	*5	*407
New Caledonia	2019	..	458	..	..	19	439	1,548
	2020	..	407	..	..	11	396	1,393
	2021	..	281	..	..	-48	329	1,154
	2022	..	329	..	..	0	329	1,145
New Zealand	2019	422	23	94	276	3	72	14
	2020	80	22	..	57	-21	66	13
	2021	155	39	96	37	-4	65	13
	2022	107	90	77	48	-2	75	15
Palau	2019	..	*32	..	..	..	*32	*1,787
	2020	..	*31	..	..	..	*31	*1,742
	2021	..	*31	..	..	..	*31	*1,743
	2022	..	*32	..	..	..	*32	*1,779
Papua New Guinea	2019	80	565	..	7	-9	647	67
	2020	101	471	..	6	10	556	57
	2021	67	495	..	7	..	554	55
	2022	*72	*492	..	*7	..	*557	*55

### Production, trade and supply of fuel oil

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Vanuatu	2019	..	*6	..	*6	..	0	0
	2020	..	*5	..	*5	..	0	0
	2021	..	*6	..	*6	..	0	0
	2022	..	*6	..	*6	..	0	0



## Production of minor oil products from refineries - by type

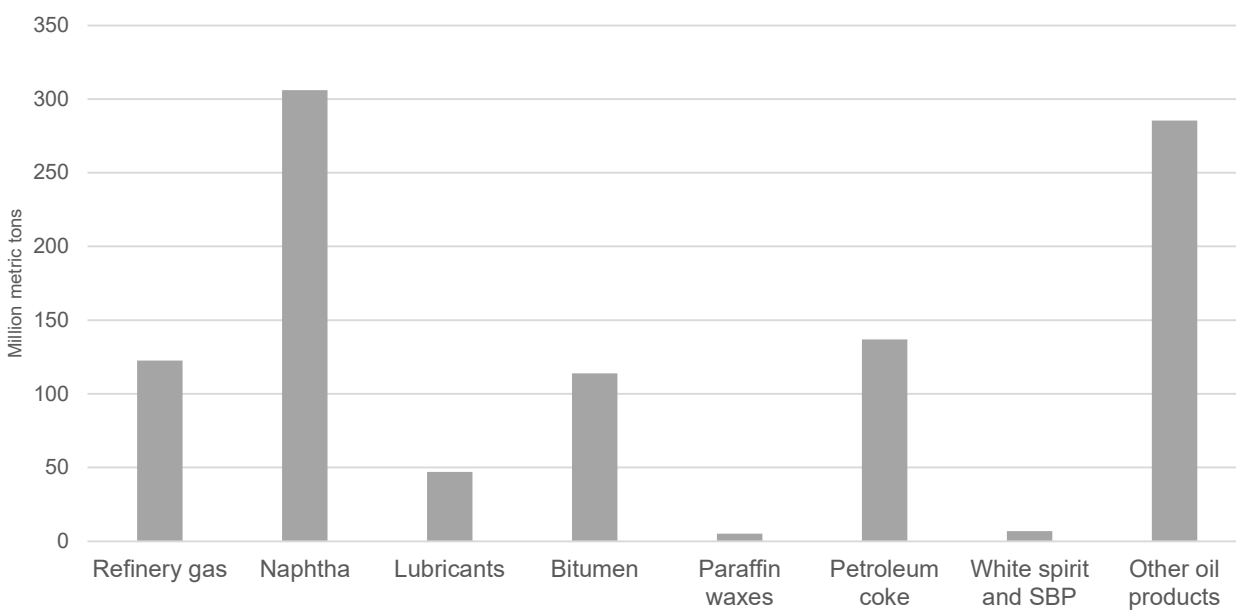
Thousand metric tons

### Table Notes

Data refer to production from refineries of refinery gas, ethane, naphtha, lubricants, bitumen, paraffin waxes, petroleum coke, white spirit, and other oil products (which for this table includes refinery output of feedstocks).

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 66: Production of minor oil products from refineries\*, 2022**



\*Ethane is included with other oil products

Table 24

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
World	2019	115,133	2,021	297,094	47,051	116,958	4,730	140,712	5,732	265,479
	2020	107,228	2,048	293,001	45,917	119,374	4,079	130,820	6,179	308,040
	2021	114,076	2,042	312,564	49,571	119,041	4,769	145,629	6,451	306,226
	2022	122,442	2,135	306,161	46,970	113,776	5,035	136,763	6,867	283,257
Africa	2019	1,575	..	10,575	580	1,412	12	629	19	709
	2020	1,167	..	10,332	545	1,353	11	757	76	515
	2021	1,025	..	11,363	567	1,144	7	751	136	760
	2022	884	..	11,291	658	1,227	4	741	137	598
Algeria	2019	347	..	7,568	65	152	..	..	..	118
	2020	339	..	7,631	52	177	..	..	..	31
	2021	347	..	7,866	36	3	..	..	..	226
	2022	354	..	8,545	151	144	..	..	..	82
Angola	2019	74	..	333	5	23	..	..	..	20
	2020	25	..	348	5	11	..	..	..	11
	2021	25	..	356	4	14	..	..	..	25
	2022	*25	..	300	6	*38	..	..	..	44
Cameroon	2019	26	..	..	..	..	..	..	..	60
	2020	..	..	..	..	..	..	..	..	..
	2021	..	..	..	..	..	..	..	..	..
	2022	..	..	..	..	..	..	..	..	..
Chad	2019	..	..	..	*1	*1	..	*37	..	*15
	2020	..	..	..	*1	*1	..	*36	..	*14
	2021	..	..	..	*1	*1	..	*36	..	*14
	2022	..	..	..	*1	*1	..	*37	..	*15
Congo	2019	..	..	10	..	..	..	..	..	19
	2020	..	..	9	..	..	..	..	..	19
	2021	..	..	9	..	..	..	..	..	19
	2022	..	..	10	..	..	..	..	..	20
Côte d'Ivoire	2019	23	..	..	20	136	..	..	..	..
	2020	21	..	..	20	129	..	..	..	..
	2021	24	..	..	21	149	..	..	..	..
	2022	22	..	..	22	131	..	..	..	..
Egypt	2019	153	..	1,460	336	744	..	292	..	423
	2020	146	..	1,405	319	706	..	277	..	401
	2021	159	..	2,019	349	773	..	303	..	440
	2022	146	..	1,489	319	707	..	277	..	402
Gabon	2019	..	..	..	8	2	..	..	..	..
	2020	..	..	..	11	2	..	..	..	..
	2021	..	..	..	12	2	..	..	..	..
	2022	..	..	..	12	2	..	..	..	..
Libya	2019	82	..	842	..	21	..	..	..	4
	2020	58	..	594	..	15	..	..	..	3
	2021	77	..	762	..	20	..	..	..	4
	2022	74	..	700	..	19	..	..	..	4
Niger	2019	15	..	..	..	..	..	..	..	..
	2020	11	..	..	..	..	..	..	..	..
	2021	*12	..	..	..	..	..	..	..	..
	2022	*9	..	..	..	..	..	..	..	..
Nigeria	2019	12	..	36	..	..	..	1	..	0
	2020	0	..	0	..	..	..	0	..	0
	2021	..	..	..	..	..	..	..	..	..
	2022	..	..	..	..	..	..	..	..	..

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Senegal	2019	12	..	71	..	..	..	..	..	..
	2020	10	..	30	..	..	..	..	..	..
	2021	11	..	68	..	..	..	..	..	..
	2022	8	..	11	..	..	..	..	..	..
South Africa	2019	801	..	214	146	332	12	..	17	36
	2020	532	..	123	138	312	11	..	69	29
	2021	349	..	21	144	182	7	..	128	31
	2022	220	..	16	147	185	4	..	131	31
Sudan	2019	15	..	*9	..	..	..	*299	..	..
	2020	12	..	*1	..	..	..	*445	..	..
	2021	11	..	*1	..	..	..	*412	..	..
	2022	10	..	1	..	..	..	*427	..	..
Tunisia	2019	..	..	33	..	..	..	..	2	..
	2020	6	..	191	..	..	..	..	6	..
	2021	9	..	260	..	..	..	..	7	..
	2022	16	..	219	..	..	..	..	6	..
Zambia	2019	14	..	..	..	..	..	..	..	14
	2020	7	..	..	..	..	..	..	..	7
	2021	1	..	..	..	..	..	..	..	1
	2022	..	..	..	..	..	..	..	..	..
<b>Asia</b>	<b>2019</b>	<b>62,958</b>	..	<b>197,606</b>	<b>15,242</b>	<b>60,480</b>	<b>3,410</b>	<b>55,373</b>	<b>1,995</b>	<b>194,141</b>
	<b>2020</b>	<b>60,576</b>	..	<b>196,820</b>	<b>15,160</b>	<b>62,534</b>	<b>2,819</b>	<b>52,225</b>	<b>1,805</b>	<b>240,968</b>
	<b>2021</b>	<b>65,185</b>	..	<b>216,182</b>	<b>16,848</b>	<b>60,683</b>	<b>3,257</b>	<b>67,630</b>	<b>1,639</b>	<b>236,982</b>
	<b>2022</b>	<b>69,692</b>	..	<b>213,864</b>	<b>16,874</b>	<b>58,041</b>	<b>3,857</b>	<b>53,699</b>	<b>1,806</b>	<b>211,037</b>
Afghanistan	2019	..	..	..	..	*12	..	..	..	..
	2020	..	..	..	..	*5	..	..	..	..
	2021	..	..	..	..	*6	..	..	..	..
	2022	..	..	..	..	*6	..	..	..	..
Azerbaijan	2019	242	..	247	36	260	..	238	..	626
	2020	228	..	217	36	375	..	197	..	626
	2021	246	..	378	58	362	..	256	..	656
	2022	188	..	276	45	343	..	211	..	687
Bahrain	2019	..	..	1,706	..	331	..	..	..	489
	2020	..	..	1,562	..	345	..	..	..	411
	2021	..	..	1,635	..	190	..	..	..	488
	2022	..	..	1,640	..	141	..	..	..	407
Bangladesh	2019	15	..	101	23	70	..	..	3	11
	2020	12	..	77	21	31	..	..	0	13
	2021	17	..	144	21	53	..	..	..	9
	2022	14	..	127	20	55	..	..	..	10
Brunei Darussalam	2019	14	..	..	..	..	..	..	..	243
	2020	84	..	687	..	..	..	..	..	2,320
	2021	83	..	1,050	..	..	..	..	..	2,090
	2022	86	..	770	..	..	..	..	..	1,956
China	2019	21,879	..	66,201	2,324	29,704	3,089	28,388	824	149,225
	2020	23,486	..	71,907	2,634	33,215	2,494	29,146	400	193,339
	2021	24,797	..	83,808	2,443	33,530	2,921	30,411	624	186,437
	2022	24,573	..	84,840	2,014	28,793	3,540	30,155	805	160,760
Georgia	2019	..	..	4	..	..	..	..	..	..
	2020	..	..	3	..	1	..	..	..	..
	2021	..	..	4	..	1	..	..	..	..
	2022	..	..	3	..	1	..	..	..	..

Table 24

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
India	2019	*15,470	..	*19,399	932	5,244	*96	15,528	..	18,384
	2020	*13,552	..	*18,421	1,069	5,245	*97	*12,655	..	*17,103
	2021	*14,746	..	19,994	1,173	5,111	*101	*15,508	..	*18,772
	2022	*17,356	..	17,036	1,301	5,144	*101	16,044	..	*16,916
Indonesia	2019	694	..	1,619	326	100	19	550	19	3,155
	2020	628	..	1,883	330	97	*19	*550	20	3,778
	2021	566	..	27	305	147	*19	*550	*20	3,083
	2022	609	..	121	290	86	21	290	17	3,342
Iran (Islamic Rep. of)	2019	2,303	..	2,594	1,800	4,872	..	..	317	779
	2020	2,376	..	3,904	1,842	4,666	..	..	439	733
	2021	2,592	..	4,947	1,991	4,848	..	..	294	774
	2022	2,548	..	5,185	2,214	5,391	..	..	327	812
Iraq	2019	204	..	1,797	67	181	3	..	..	145
	2020	176	..	1,936	72	195	4	..	..	156
	2021	203	..	2,456	91	247	5	..	..	198
	2022	225	..	2,329	87	234	4	..	..	188
Israel	2019	615	..	1,383	..	264	..	..	..	401
	2020	706	..	1,392	..	310	..	..	..	497
	2021	496	..	1,402	..	290	..	..	..	592
	2022	545	..	1,208	..	306	..	..	..	280
Japan	2019	5,833	..	12,546	2,013	2,744	71	1,075	62	2,038
	2020	4,988	..	9,086	1,808	2,277	80	1,021	45	1,768
	2021	5,362	..	9,868	1,755	2,247	81	1,246	49	1,859
	2022	5,486	..	10,311	1,829	2,250	57	1,272	41	1,999
Jordan	2019	*40	..	..	14	*176	..	..	..	*3
	2020	*35	..	..	12	*135	..	..	..	*2
	2021	..	..	..	12	..	..	..	..	..
	2022	*18	..	..	13	*64	..	..	..	*1
Kazakhstan	2019	264	..	..	32	989	..	507	9	..
	2020	343	..	..	52	1,090	..	526	10	..
	2021	930	..	..	49	1,006	..	552	9	..
	2022	1,265	..	10	68	961	..	538	14	622
Korea, Republic of	2019	4,729	..	36,758	2,567	5,043	19	634	472	2,708
	2020	4,370	..	33,734	2,797	4,131	22	584	669	3,224
	2021	4,061	..	33,600	4,443	2,535	27	639	420	4,002
	2022	4,057	..	35,366	4,137	2,791	31	508	352	4,544
Kuwait	2019	288	..	5,561	..	241	..	828	..	421
	2020	265	..	5,528	..	277	..	1,008	..	402
	2021	315	..	7,319	..	296	..	1,137	..	461
	2022	995	..	7,010	..	110	..	1,193	..	662
Kyrgyzstan	2019	..	..	..	..	2	..	..	..	..
	2020	..	..	..	..	0	..	..	..	..
	2021	..	..	..	..	..	..	..	..	..
	2022	..	..	..	..	..	..	..	..	..
Malaysia	2019	135	..	*1,506	*231	*335	*27	17	..	..
	2020	144	..	*2,818	*279	*405	*32	*20	..	..
	2021	142	..	*1,995	*190	*274	*25	*15	..	..
	2022	128	..	*1,794	*171	*246	*22	*14	..	..
Myanmar	2019	..	..	..	..	..	0	11	..	0
	2020	..	..	..	..	..	..	13	..	27
	2021	..	..	..	..	..	..	9	..	1
	2022	..	..	..	..	..	..	9	..	1



## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Oman	2019	136	..	1,374	68	..	..	..	..	1,043
	2020	116	..	1,409	58	..	..	..	..	803
	2021	137	..	1,535	68	..	..	..	..	728
	2022	155	..	1,471	77	..	..	..	..	1,232
Other Asia	2019	2,590	..	9,541	737	738	..	1,365	40	1,060
	2020	2,345	..	8,533	644	686	..	1,065	31	854
	2021	2,421	..	9,198	584	588	..	1,230	40	1,200
	2022	2,348	..	9,256	656	639	..	1,204	43	992
Pakistan	2019	*32	..	396	140	*164	2	..	..	*21
	2020	*37	..	380	155	164	2	..	..	*23
	2021	*36	..	335	167	207	10	..	..	101
	2022	30	..	218	147	202	6	..	..	100
Philippines	2019	..	..	161	..	47	..	..	..	782
	2020	..	..	86	..	3	..	..	..	565
	2021	..	..	0	..	0	..	..	..	722
	2022	..	..	68	..	..	..	..	..	978
Qatar	2019	58	..	5,553	..	..	..	..	..	907
	2020	55	..	5,862	..	..	..	..	..	900
	2021	57	..	6,012	..	..	..	..	..	926
	2022	59	..	5,992	..	..	..	..	..	945
Saudi Arabia	2019	*2,204	..	6,072	..	2,340	..	4,805	..	*3,503
	2020	*2,013	..	5,340	..	2,095	..	3,713	..	*3,403
	2021	*3,327	..	7,570	..	2,501	..	*14,130	..	*3,645
	2022	3,617	..	6,156	..	2,924	..	*289	..	3,008
Singapore	2019	2,916	..	4,296	3,184	2,689	75	182	206	350
	2020	2,345	..	3,605	2,653	2,240	67	151	168	292
	2021	2,335	..	3,519	2,697	2,277	66	154	171	297
	2022	2,679	..	3,941	3,020	3,089	72	173	192	332
Sri Lanka	2019	27	..	162	..	17	..	..	2	..
	2020	27	..	164	..	14	..	..	1	..
	2021	10	..	107	..	..	..	..	3	..
	2022	4	..	31	..	..	..	..	3	..
Syrian Arab Republic	2019	80	..	502	22	278	..	..	..	15
	2020	84	..	524	23	290	..	..	..	15
	2021	81	..	506	22	281	..	..	..	15
	2022	81	..	506	22	281	..	..	..	15
Tajikistan	2019	..	..	..	..	3	..	..	..	..
	2020	..	..	..	..	3	..	..	..	..
	2021	..	..	..	..	3	..	..	..	..
	2022	..	..	..	..	3	..	..	..	..
Thailand	2019	511	..	9,454	..	1,257	..	..	..	1,023
	2020	502	..	9,279	..	1,376	..	..	..	1,003
	2021	497	..	9,129	..	1,510	..	..	..	993
	2022	520	..	8,680	..	1,406	..	..	..	1,040
Türkiye	2019	1,084	..	1,138	125	2,248	..	1,213	11	1,901
	2020	1,134	..	1,504	75	2,765	..	1,536	14	2,673
	2021	1,158	..	1,895	139	2,039	..	1,751	2	2,883
	2022	1,536	..	1,904	86	2,466	..	1,753	4	2,454
Turkmenistan	2019	104	..	..	..	..	..	..	..	331
	2020	101	..	..	..	..	..	..	..	320
	2021	99	..	..	..	..	..	..	..	324
	2022	97	..	..	..	..	..	..	..	335

Table 24

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
United Arab Emirates	2019	377	..	7,123	541	..	..	..	..	4,114
	2020	333	..	6,694	508	..	..	..	..	3,866
	2021	380	..	7,499	570	..	..	..	..	4,331
	2022	375	..	7,362	559	..	..	..	..	4,252
Uzbekistan	2019	*114	..	..	60	117	8	32	30	..
	2020	91	..	..	92	89	2	41	8	..
	2021	91	..	..	70	126	2	41	8	75
	2022	98	..	..	117	102	2	48	8	66
Viet Nam	2019	..	..	..	..	..	..	..	..	465
	2020	..	..	..	..	..	..	..	..	1,852
	2021	..	..	..	..	..	..	..	..	1,322
	2022	..	..	..	..	..	..	..	..	2,101
Yemen	2019	..	..	410	..	13	..	..	..	..
	2020	..	..	286	..	9	..	..	..	..
	2021	..	..	251	..	8	..	..	..	..
	2022	..	..	253	..	8	..	..	..	..
<b>Europe</b>	<b>2019</b>	<b>22,210</b>	<b>1,914</b>	<b>70,275</b>	<b>20,800</b>	<b>26,703</b>	<b>1,029</b>	<b>16,476</b>	<b>1,920</b>	<b>30,467</b>
	<b>2020</b>	<b>19,751</b>	<b>1,918</b>	<b>67,025</b>	<b>20,429</b>	<b>26,300</b>	<b>999</b>	<b>15,921</b>	<b>2,423</b>	<b>31,049</b>
	<b>2021</b>	<b>20,322</b>	<b>1,952</b>	<b>67,664</b>	<b>21,929</b>	<b>26,407</b>	<b>1,217</b>	<b>15,881</b>	<b>2,775</b>	<b>31,824</b>
	<b>2022</b>	<b>22,440</b>	<b>2,000</b>	<b>64,553</b>	<b>19,760</b>	<b>23,544</b>	<b>854</b>	<b>17,803</b>	<b>2,991</b>	<b>32,659</b>
Albania	2019	7	..	23	..	105	..	54	..	58
	2020	3	..	18	..	75	..	10	..	15
	2021	3	..	22	..	106	..	..	..	27
	2022	2	..	16	..	69	..	..	..	30
Austria	2019	316	..	1,006	0	395	..	67	..	23
	2020	284	..	1,051	0	424	..	73	..	45
	2021	296	..	1,087	..	440	..	74	..	46
	2022	389	..	822	..	236	..	56	..	26
Belarus	2019	713	..	..	..	819	..	..	..	1,021
	2020	644	..	..	..	979	..	..	..	1,293
	2021	644	..	..	..	979	..	..	..	1,293
	2022	575	..	..	..	760	..	..	..	1,216
Belgium	2019	685	..	2,769	..	..	..	1,047	..	3,830
	2020	499	..	2,481	..	143	..	825	..	3,171
	2021	610	..	2,552	..	..	..	1,033	..	4,422
	2022	681	..	2,260	..	..	..	972	..	4,139
Bosnia and Herzegovina	2019	..	..	1	16	4	..	..	..	..
	2020	..	..	..	13	..	..	..	..	..
	2021	..	..	..	13	..	..	..	..	..
	2022	..	..	..	14	..	..	..	..	..
Bulgaria	2019	374	..	487	..	105	..	85	3	2
	2020	324	..	372	..	115	..	58	3	1
	2021	290	..	338	..	157	..	45	3	26
	2022	426	..	543	..	180	..	84	2	53
Croatia	2019	129	..	14	10	..	..	67	..	25
	2020	114	..	36	10	..	..	22	..	86
	2021	99	..	9	9	..	..	24	..	57
	2022	88	..	5	9	..	..	20	..	118
Czechia	2019	148	..	911	92	547	9	99	..	636
	2020	112	..	707	82	451	9	77	..	553
	2021	135	..	888	78	438	10	90	..	594
	2022	129	..	917	28	576	4	82	..	747

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Denmark	2019	320	..	..	..	..	..	..	..	..
	2020	308	..	..	..	..	..	..	..	..
	2021	326	..	..	..	..	..	..	..	..
	2022	318	..	..	..	..	..	..	..	..
Finland	2019	538	..	133	299	218	..	109	155	46
	2020	495	..	91	250	271	..	104	152	6
	2021	359	..	32	230	28	..	81	102	0
	2022	471	..	41	245	..	..	103	85	69
France	2019	1,178	9	4,267	555	1,976	63	387	68	821
	2020	905	8	3,324	491	1,560	54	336	35	732
	2021	754	2	3,508	534	1,637	48	282	55	640
	2022	1,113	0	4,255	409	1,496	48	304	67	573
Germany	2019	3,835	..	6,662	2,282	3,915	306	1,705	414	1,337
	2020	3,538	..	6,820	2,400	3,755	311	1,682	537	1,227
	2021	3,481	..	7,382	2,651	4,108	313	1,727	626	1,335
	2022	3,790	..	7,465	2,017	3,672	269	1,844	640	1,433
Greece	2019	776	..	1,618	251	1,549	..	505	..	1,389
	2020	660	..	2,259	236	1,753	..	489	..	1,345
	2021	738	..	2,094	231	1,475	..	496	..	1,284
	2022	729	..	1,521	200	1,505	..	454	..	1,881
Hungary	2019	206	..	880	124	407	31	317	16	783
	2020	203	..	983	127	410	34	337	19	736
	2021	180	..	1,018	122	413	32	288	28	788
	2022	191	..	881	110	372	30	298	22	721
Ireland	2019	62	..	42	..	..	..	..	..	..
	2020	69	..	89	..	..	..	..	..	..
	2021	70	..	89	..	..	..	..	..	..
	2022	84	..	120	..	..	..	..	..	..
Italy	2019	2,733	..	4,965	755	2,750	83	769	3	2,379
	2020	2,322	..	3,919	1,013	3,083	96	588	3	2,640
	2021	2,364	..	3,396	1,012	3,017	82	811	2	2,075
	2022	2,625	..	4,181	585	2,520	63	813	8	3,253
Lithuania	2019	302	..	..	86	372	..	122	..	86
	2020	247	..	..	88	357	..	102	..	71
	2021	278	..	..	100	288	..	111	..	73
	2022	301	..	114	104	290	..	105	..	65
Netherlands (Kingd. of the)	2019	2,310	..	11,445	561	252	55	443	82	2,591
	2020	1,950	..	10,800	643	637	39	420	467	1,016
	2021	2,190	..	10,555	1,212	739	224	429	405	1,677
	2022	2,329	..	10,085	937	700	..	433	536	1,255
Norway	2019	426	..	1,329	..	..	..	363	..	..
	2020	406	..	1,417	..	..	..	368	..	..
	2021	424	..	1,395	..	..	..	484	..	..
	2022	328	..	754	..	..	..	415	..	..
Poland	2019	702	..	2,020	415	1,485	87	30	107	1,340
	2020	777	..	2,138	393	1,529	84	293	140	1,476
	2021	851	..	1,857	429	1,401	88	292	129	1,292
	2022	614	..	2,248	474	1,351	51	402	267	1,197
Portugal	2019	13	..	1,091	103	171	8	..	8	729
	2020	16	..	953	137	190	6	..	12	688
	2021	36	..	689	54	66	3	..	4	572
	2022	23	..	677	6	..	..	..	..	793

Table 24

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Republic of Moldova	2019	..	..	..	..	0	..	..	..	1
	2020	..	..	..	..	..	..	..	..	0
	2021	..	..	..	0	..	..	..	..	..
	2022	..	..	..	..	..	..	..	..	..
Romania	2019	842	..	181	..	120	..	846	138	247
	2020	726	..	150	..	123	..	768	111	246
	2021	696	..	166	..	93	..	746	107	285
	2022	738	..	185	..	100	..	872	127	232
Russian Federation	2019	..	*1,905	25,783	14,144	7,069	243	3,971	717	6,275
	2020	..	*1,910	25,010	13,598	6,797	233	4,328	809	6,033
	2021	..	*1,950	26,043	14,156	7,075	243	4,369	1,169	6,279
	2022	..	*2,000	23,076	13,519	6,757	232	5,210	1,116	5,997
Serbia	2019	62	..	398	14	398	..	12	..	203
	2020	63	..	456	9	398	..	49	..	197
	2021	70	..	540	9	390	..	104	..	166
	2022	98	..	516	10	213	..	195	..	189
Slovakia	2019	494	..	430	..	..	..	38	..	148
	2020	504	..	534	..	..	..	49	..	351
	2021	556	..	584	..	..	..	54	..	300
	2022	530	..	440	..	..	..	58	..	335
Spain	2019	2,113	..	1,438	354	2,373	78	3,604	202	2,474
	2020	1,907	..	1,309	317	1,908	72	3,529	129	3,083
	2021	1,953	..	1,444	308	2,191	76	2,887	144	2,621
	2022	2,705	..	1,679	341	1,716	79	3,434	120	1,662
Sweden	2019	489	..	293	297	760	..	42	..	1,728
	2020	570	..	248	227	654	..	11	..	4,094
	2021	929	..	358	311	576	..	71	..	3,608
	2022	847	..	228	334	449	..	60	..	4,070
Switzerland	2019	119	..	19	..	..	..	..	..	30
	2020	121	..	15	..	..	..	..	..	28
	2021	102	..	21	..	..	..	..	..	27
	2022	130	..	13	..	..	..	..	..	51
Ukraine	2019	41	..	..	150	23	..	..	..	432
	2020	50	..	..	108	52	..	..	..	448
	2021	55	..	..	130	62	..	..	..	730
	2022	*55	..	..	*130	*62	..	..	..	*730
United Kingdom	2019	2,277	..	2,072	293	892	68	1,793	8	1,835
	2020	1,933	..	1,844	286	638	60	1,401	7	1,469
	2021	1,836	..	1,599	342	727	100	1,382	2	1,608
	2022	2,134	..	1,511	287	520	78	1,590	1	1,825
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>9,087</b>	<b>..</b>	<b>8,801</b>	<b>1,333</b>	<b>3,779</b>	<b>77</b>	<b>10,604</b>	<b>433</b>	<b>7,024</b>
	<b>2020</b>	<b>8,263</b>	<b>..</b>	<b>9,997</b>	<b>1,390</b>	<b>4,284</b>	<b>77</b>	<b>9,450</b>	<b>440</b>	<b>5,281</b>
	<b>2021</b>	<b>9,442</b>	<b>..</b>	<b>8,515</b>	<b>1,143</b>	<b>3,939</b>	<b>76</b>	<b>9,077</b>	<b>545</b>	<b>4,794</b>
	<b>2022</b>	<b>9,788</b>	<b>..</b>	<b>9,144</b>	<b>1,299</b>	<b>4,220</b>	<b>73</b>	<b>9,425</b>	<b>515</b>	<b>6,379</b>
Argentina	2019	925	..	640	218	328	8	1,462	196	..
	2020	876	..	1,157	178	233	8	*1,249	204	..
	2021	897	..	1,097	203	336	10	1,301	200	..
	2022	832	..	1,146	156	223	9	1,279	199	..
Bolivia (Plur. State of)	2019	89	..	0	21	1	0	..	..	101
	2020	95	..	0	16	1	1	..	..	59
	2021	92	..	0	18	2	0	..	..	53
	2022	89	..	0	17	1	1	..	..	26

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Brazil	2019	4,022	..	3,250	784	1,722	..	5,029	224	2,448
	2020	4,058	..	4,486	806	2,318	..	4,938	225	2,038
	2021	4,430	..	3,347	534	1,943	..	4,529	333	2,214
	2022	4,456	..	4,201	711	2,485	..	4,669	305	2,201
Chile	2019	242	..	137	..	..	..	464	..	431
	2020	175	..	60	..	..	..	325	..	690
	2021	192	..	233	..	..	..	410	..	611
	2022	177	..	209	..	..	..	383	..	923
Colombia	2019	253	..	942	139	198	37	891	..	1,493
	2020	254	..	1,509	139	80	37	692	..	657
	2021	541	..	1,509	139	94	37	808	..	..
	2022	*545	..	1,509	139	*97	37	1,008	..	*397
Cuba	2019	5	..	105	33	38	..	1	..	..
	2020	14	..	148	36	34	..	4	..	..
	2021	8	..	172	31	29	..	..	..	..
	2022	8	..	*140	57	28	..	..	..	..
Dominican Republic	2019	11	..	144	..	..	..	..	..	..
	2020	5	..	59	..	..	..	..	..	..
	2021	11	..	140	..	..	..	..	..	..
	2022	11	..	144	..	..	..	..	..	..
Ecuador	2019	50	..	..	..	..	..	..	..	824
	2020	40	..	..	..	..	..	..	..	757
	2021	48	..	..	..	..	..	..	..	829
	2022	57	..	..	..	..	..	..	..	854
Guatemala	2019	..	..	..	..	146	..	..	..	..
	2020	..	..	..	..	110	..	..	..	..
	2021	..	..	..	..	132	..	..	..	..
	2022	..	..	..	..	136	..	..	..	..
Jamaica	2019	..	..	..	..	*20	..	..	..	..
	2020	..	..	..	..	11	..	..	..	..
	2021	..	..	..	..	11	..	..	..	..
	2022	..	..	..	..	10	..	..	..	..
Mexico	2019	2,319	..	2,201	56	792	24	1,819	..	94
	2020	2,162	..	1,747	157	1,187	26	1,579	..	95
	2021	2,709	..	1,554	160	1,206	26	1,490	..	113
	2022	2,979	..	1,636	156	1,176	25	1,510	..	673
Nicaragua	2019	24	..	..	..	4	..	..	10	..
	2020	24	..	..	..	..	..	..	9	..
	2021	30	..	..	..	..	..	..	10	..
	2022	31	..	..	..	..	..	..	9	..
Peru	2019	149	..	..	..	..	..	..	..	248
	2020	50	..	..	..	..	..	..	..	266
	2021	56	..	..	..	..	..	..	..	323
	2022	99	..	..	..	..	..	..	..	233
Suriname	2019	..	..	..	..	10	..	..	..	..
	2020	..	..	..	..	5	..	..	..	..
	2021	..	..	..	..	*4	..	..	..	..
	2022	..	..	..	..	11	..	..	..	..
Uruguay	2019	*64	..	..	..	75	..	31	2	..
	2020	*73	..	..	..	39	..	30	2	..
	2021	*67	..	..	..	34	..	35	2	..
	2022	*68	..	..	..	1	..	31	2	..

Table 24

## Production of minor oil products from refineries - by type

Thousand metric tons

Country or area	Year	Refinery gas	Ethane	Naphtha	Lubricants	Bitumen	Paraffin waxes	Petroleum coke	White spirit and SBP	Other oil products
Venezuela (Bolivar. Rep.)	2019	934	..	1,381	81	445	8	907	..	1,386
	2020	439	..	830	57	268	5	633	..	719
	2021	361	..	464	58	150	3	504	..	651
	2022	435	..	159	62	51	1	547	..	1,072
<b>Northern America</b>	<b>2019</b>	<b>18,238</b>	<b>107</b>	<b>9,405</b>	<b>9,096</b>	<b>24,452</b>	<b>203</b>	<b>57,392</b>	<b>1,365</b>	<b>30,614</b>
	<b>2020</b>	<b>16,574</b>	<b>130</b>	<b>8,222</b>	<b>8,394</b>	<b>24,776</b>	<b>175</b>	<b>52,290</b>	<b>1,435</b>	<b>27,146</b>
	<b>2021</b>	<b>17,355</b>	<b>89</b>	<b>8,233</b>	<b>9,084</b>	<b>26,865</b>	<b>211</b>	<b>52,203</b>	<b>1,356</b>	<b>28,989</b>
	<b>2022</b>	<b>19,059</b>	<b>135</b>	<b>6,700</b>	<b>8,379</b>	<b>26,737</b>	<b>247</b>	<b>54,999</b>	<b>1,417</b>	<b>30,529</b>
Canada	2019	3,411	..	1,166	473	5,415	..	1,486	13	18,516
	2020	2,991	..	963	519	5,514	..	1,325	66	15,884
	2021	3,081	..	900	419	6,361	..	1,546	14	16,846
	2022	3,181	..	1,315	211	6,274	..	1,536	21	18,439
United States	2019	14,827	107	8,239	8,623	19,037	203	55,906	1,352	12,098
	2020	13,583	130	7,258	7,875	19,262	175	50,965	1,370	11,262
	2021	14,274	89	7,333	8,665	20,504	211	50,657	1,342	12,143
	2022	15,878	135	5,385	8,169	20,462	247	53,464	1,397	12,091
<b>Oceania</b>	<b>2019</b>	<b>1,065</b>	<b>..</b>	<b>433</b>	<b>..</b>	<b>132</b>	<b>..</b>	<b>238</b>	<b>..</b>	<b>2,524</b>
	<b>2020</b>	<b>897</b>	<b>..</b>	<b>606</b>	<b>..</b>	<b>126</b>	<b>..</b>	<b>177</b>	<b>..</b>	<b>3,081</b>
	<b>2021</b>	<b>749</b>	<b>..</b>	<b>607</b>	<b>..</b>	<b>3</b>	<b>..</b>	<b>88</b>	<b>..</b>	<b>2,877</b>
	<b>2022</b>	<b>578</b>	<b>..</b>	<b>610</b>	<b>..</b>	<b>8</b>	<b>..</b>	<b>96</b>	<b>..</b>	<b>2,055</b>
Australia	2019	807	..	..	..	..	..	238	..	2,265
	2020	713	..	..	..	..	..	177	..	2,552
	2021	627	..	..	..	..	..	88	..	2,581
	2022	532	..	..	..	..	..	96	..	1,991
New Zealand	2019	258	..	..	..	132	..	..	..	234
	2020	184	..	..	..	126	..	..	..	509
	2021	122	..	..	..	3	..	..	..	296
	2022	47	..	..	..	8	..	..	..	64
Papua New Guinea	2019	..	..	433	..	..	..	..	..	25
	2020	..	..	606	..	..	..	..	..	20
	2021	..	..	607	..	..	..	..	..	..
	2022	..	..	*610	..	..	..	..	..	..







### Production of oil products from refineries – by type

Thousand metric tons

#### Table Notes

**Production** comprises all refinery output of all oil products.

The **Jet fuels** column comprises aviation gasoline, gasoline-type jet fuel and kerosene-type jet fuel.

The **Other products** column includes bitumen, ethane, feedstocks, lubricants, petroleum coke, paraffin waxes, white spirit, and other oil products.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 67: Production of selected oil products from refineries, 1990-2022**

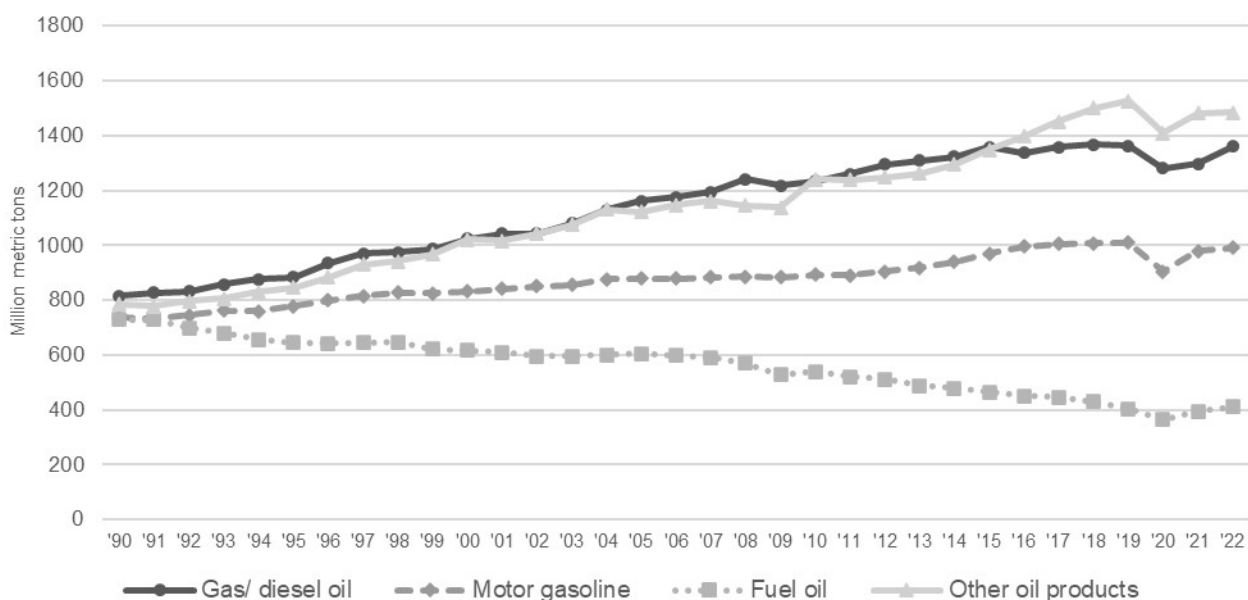


Table 25

## Production of oil products from refineries - by type

Thousand metric tons

Country or area	Year	Total	Gas/ diesel oil	Motor gasoline	Fuel oil	Naphtha	Jet fuels	Refinery gas	LPG	Other kerosene	Other products
<b>World</b>	<b>2019</b>	<b>4,303,280</b>	<b>1,363,682</b>	<b>1,010,004</b>	<b>403,935</b>	<b>297,094</b>	<b>335,471</b>	<b>115,133</b>	<b>144,332</b>	<b>50,946</b>	<b>582,684</b>
	<b>2020</b>	<b>3,961,460</b>	<b>1,281,892</b>	<b>904,089</b>	<b>365,323</b>	<b>293,001</b>	<b>205,781</b>	<b>107,228</b>	<b>138,876</b>	<b>48,811</b>	<b>616,458</b>
	<b>2021</b>	<b>4,154,134</b>	<b>1,298,053</b>	<b>979,391</b>	<b>394,395</b>	<b>312,564</b>	<b>224,964</b>	<b>114,076</b>	<b>149,729</b>	<b>47,233</b>	<b>633,727</b>
	<b>2022</b>	<b>4,246,710</b>	<b>1,360,664</b>	<b>991,428</b>	<b>410,957</b>	<b>306,161</b>	<b>262,763</b>	<b>122,442</b>	<b>149,078</b>	<b>48,415</b>	<b>594,803</b>
<b>Africa</b>	<b>2019</b>	<b>97,879</b>	<b>34,334</b>	<b>16,906</b>	<b>20,518</b>	<b>10,575</b>	<b>7,661</b>	<b>1,575</b>	<b>2,069</b>	<b>882</b>	<b>3,360</b>
	<b>2020</b>	<b>85,788</b>	<b>30,246</b>	<b>14,831</b>	<b>18,577</b>	<b>10,332</b>	<b>4,546</b>	<b>1,167</b>	<b>2,020</b>	<b>812</b>	<b>3,257</b>
	<b>2021</b>	<b>84,946</b>	<b>29,778</b>	<b>14,631</b>	<b>18,456</b>	<b>11,363</b>	<b>4,013</b>	<b>1,025</b>	<b>2,003</b>	<b>312</b>	<b>3,365</b>
	<b>2022</b>	<b>81,239</b>	<b>28,800</b>	<b>13,103</b>	<b>16,902</b>	<b>11,291</b>	<b>4,624</b>	<b>884</b>	<b>1,984</b>	<b>286</b>	<b>3,365</b>
Algeria	2019	28,903	9,590	3,253	5,915	7,568	1,221	347	658	*16	335
	2020	28,444	9,503	3,105	5,920	7,631	992	339	672	22	260
	2021	28,626	9,730	3,406	5,447	7,866	849	347	705	11	265
	2022	30,050	9,767	3,431	5,811	8,545	1,013	354	727	26	377
Angola	2019	2,563	615	39	1,072	333	329	74	28	24	49
	2020	1,995	548	11	574	348	294	25	25	143	27
	2021	1,869	*491	14	569	356	225	25	25	121	44
	2022	*2,122	*549	84	*696	300	261	*25	25	*93	88
Cameroon	2019	616	221	113	104	..	41	26	5	47	60
	2020	..	..	..	..	..	..	..	..	..	..
	2021	..	..	..	..	..	..	..	..	..	..
	2022	..	..	..	..	..	..	..	..	..	..
Chad	2019	*680	*353	*171	*26	..	*37	..	*35	*4	*54
	2020	*705	*368	*181	*20	..	*39	..	*42	*3	*52
	2021	*773	*407	*201	*26	..	*39	..	*46	*4	*53
	2022	*776	*394	*216	*28	..	*36	..	*45	*4	*53
Congo	2019	735	221	65	368	10	38	..	8	7	19
	2020	713	210	62	367	9	33	..	8	4	19
	2021	738	218	64	380	9	34	..	8	5	19
	2022	784	230	68	406	10	37	..	9	5	20
Côte d'Ivoire	2019	3,711	1,411	844	704	..	552	23	22	..	155
	2020	3,329	1,342	929	632	..	236	21	22	..	149
	2021	4,111	1,648	1,287	701	..	268	24	13	..	170
	2022	4,106	1,914	1,216	457	..	332	22	12	..	153
Egypt	2019	29,540	9,742	5,492	7,544	1,460	2,618	153	686	51	1,795
	2020	27,361	9,300	5,323	7,019	1,405	1,795	146	635	35	1,703
	2021	29,059	9,251	5,906	7,599	2,019	1,570	159	660	31	1,864
	2022	26,696	9,228	5,436	6,491	1,489	1,499	146	673	29	1,705
Gabon	2019	619	203	30	313	..	36	..	5	22	9
	2020	818	241	54	438	..	39	..	10	23	13
	2021	932	304	66	492	..	28	..	11	17	14
	2022	882	248	61	484	..	38	..	14	23	14
Ghana	2019	624	198	125	205	..	80	..	4	12	..
	2020	496	150	66	216	..	28	..	1	35	..
	2021	285	70	43	145	..	1	..	2	24	..
	2022	40	14	0	27	..	..	..	0	..	..
Libya	2019	4,020	1,116	227	1,263	842	421	82	34	10	25
	2020	2,839	787	160	891	594	297	58	24	11	18
	2021	3,772	1,011	205	1,143	762	499	77	30	19	24
	2022	3,630	927	188	1,049	700	617	74	28	24	23
Niger	2019	818	473	252	17	..	0	15	61	..	..
	2020	791	455	250	14	..	0	11	61	..	..
	2021	698	425	190	16	..	..	*12	55	..	..
	2022	690	414	201	*18	..	..	*9	48	..	..

Table 25

## Production of oil products from refineries - by type

Thousand metric tons

Country or area	Year	Total	Gas/ diesel oil	Motor gasoline	Fuel oil	Naphtha	Jet fuels	Refinery gas	LPG	Other kerosene	Other products
Nigeria	2019	528	81	107	224	36	5	12	3	60	1
	2020	0	0	0	0	0	0	0	0	0	0
	2021	*211	*92	..	*97	..	1	..	..	*21	..
	2022	235	90	..	117	..	4	..	..	24	..
Senegal	2019	886	522	84	191	71	..	12	3	2	..
	2020	757	472	64	179	30	..	10	3	..	..
	2021	868	520	78	187	68	..	11	3	..	..
	2022	604	352	87	140	11	..	8	5	..	..
South Africa	2019	19,212	7,535	5,030	2,062	214	2,211	801	221	596	543
	2020	12,434	4,676	3,491	1,570	123	777	532	199	504	559
	2021	8,148	3,596	2,262	751	21	480	349	168	29	492
	2022	5,150	2,065	1,135	309	16	763	220	113	31	498
South Sudan	2019	..	..	..	..	..	..	..	..	..	..
	2020	..	..	..	..	..	..	..	..	..	..
	2021	119	33	..	86	..	..	..	..	..	..
	2022	159	44	..	115	..	..	..	..	..	..
Sudan	2019	*3,625	*1,717	*937	285	*9	71	15	*281	*10	*299
	2020	3,653	1,611	1,011	262	*1	16	12	293	*2	*445
	2021	3,091	1,309	*817	*263	*1	19	11	250	*10	*412
	2022	3,869	1,971	870	*307	1	24	10	246	12	*427
Tunisia	2019	141	41	..	52	33	..	..	3	11	2
	2020	1,108	421	49	394	191	..	6	20	20	6
	2021	1,593	657	78	537	260	..	9	27	18	7
	2022	1,445	592	110	448	219	..	16	39	16	6
Zambia	2019	658	294	138	172	..	2	14	11	13	14
	2020	344	161	74	80	..	0	7	5	9	7
	2021	54	18	14	17	..	..	1	0	2	1
	2022	0	0	0	0	..	..	..	0	0	..
<b>Asia</b>	<b>2019</b>	<b>2,065,312</b>	<b>622,926</b>	<b>381,551</b>	<b>188,021</b>	<b>197,606</b>	<b>169,567</b>	<b>62,958</b>	<b>76,527</b>	<b>35,514</b>	<b>330,641</b>
	<b>2020</b>	<b>1,986,069</b>	<b>592,836</b>	<b>353,774</b>	<b>181,756</b>	<b>196,820</b>	<b>112,357</b>	<b>60,576</b>	<b>76,641</b>	<b>35,798</b>	<b>375,511</b>
	<b>2021</b>	<b>2,108,222</b>	<b>611,923</b>	<b>390,393</b>	<b>203,089</b>	<b>216,182</b>	<b>115,728</b>	<b>65,185</b>	<b>84,215</b>	<b>34,470</b>	<b>387,038</b>
	<b>2022</b>	<b>2,128,517</b>	<b>653,019</b>	<b>389,792</b>	<b>214,453</b>	<b>213,864</b>	<b>123,938</b>	<b>69,692</b>	<b>84,318</b>	<b>34,129</b>	<b>345,313</b>
Afghanistan	2019	*112	*44	*44	*12	..	..	..	..	..	*12
	2020	*46	*18	*18	*5	..	..	..	..	..	*5
	2021	*50	*19	*20	*5	..	..	..	..	..	*6
	2022	*50	*19	*20	*5	..	..	..	..	..	*6
Azerbaijan	2019	6,045	2,243	1,161	127	247	667	242	198	..	1,161
	2020	5,795	2,181	1,167	62	217	519	228	187	..	1,234
	2021	6,572	2,482	1,266	106	378	492	246	270	..	1,332
	2022	6,127	2,193	1,292	78	276	571	188	245	..	1,286
Bahrain	2019	13,386	4,210	755	2,662	1,706	3,097	..	136	0	820
	2020	11,200	3,947	537	1,948	1,562	2,326	..	124	..	756
	2021	11,517	4,440	472	2,250	1,635	1,932	..	110	..	678
	2022	12,628	4,524	702	2,771	1,640	2,318	..	125	..	548
Bangladesh	2019	1,408	638	95	344	101	..	15	13	95	107
	2020	1,058	451	84	275	77	1	12	9	83	65
	2021	1,777	720	75	416	144	238	17	12	73	82
	2022	1,582	637	66	368	127	210	14	11	65	85
Brunei Darussalam	2019	1,330	422	325	..	..	248	14	75	3	243
	2020	8,223	2,682	1,505	5	687	334	84	601	5	2,320
	2021	7,972	2,540	1,497	..	1,050	94	83	613	5	2,090
	2022	8,300	3,021	1,876	..	770	49	86	539	4	1,956

Table 25

## Production of oil products from refineries - by type

Thousand metric tons

Country or area	Year	Total	Gas/ diesel oil	Motor gasoline	Fuel oil	Naphtha	Jet fuels	Refinery gas	LPG	Other kerosene	Other products
China	2019	763,910	173,083	148,807	45,061	66,201	51,511	21,879	42,100	1,715	213,554
	2020	808,477	165,299	142,567	57,807	71,907	*38,764	23,486	44,890	*2,531	261,227
	2021	842,814	168,470	160,673	60,407	83,808	*39,136	24,797	47,855	*1,303	256,366
	2022	815,100	192,901	146,346	62,247	84,840	28,240	24,573	48,498	1,389	226,067
Georgia	2019	37	15	1	16	4	..	..	..	..	..
	2020	37	12	10	12	3	..	..	..	..	1
	2021	50	18	9	18	4	..	..	..	..	1
	2022	43	15	5	19	3	..	..	..	..	1
India	2019	263,195	111,841	38,616	8,609	*19,399	*15,212	*15,470	10,723	3,141	40,184
	2020	231,656	101,170	35,779	*6,882	*18,421	*7,077	*13,552	10,213	2,393	*36,169
	2021	256,275	107,980	40,238	8,237	19,994	*10,261	*14,746	12,238	1,916	*40,665
	2022	269,158	114,421	42,817	9,242	17,036	15,000	*17,356	12,832	948	39,506
Indonesia	2019	41,413	17,307	11,310	1,168	1,619	3,389	694	861	896	4,170
	2020	40,752	16,769	11,496	*1,273	1,883	2,446	628	850	614	4,794
	2021	40,674	17,883	10,942	*3,928	27	1,924	566	864	*415	4,124
	2022	39,603	16,461	11,600	3,404	121	2,156	609	873	333	4,047
Iran (Islamic Rep. of)	2019	100,133	33,156	26,036	22,312	2,594	1,461	2,303	2,396	2,107	7,768
	2020	95,861	31,915	24,781	19,926	3,904	806	2,376	2,262	2,212	7,679
	2021	100,865	32,369	25,229	22,538	4,947	1,167	2,592	2,171	1,944	7,907
	2022	104,248	33,705	26,443	21,903	5,185	1,242	2,548	2,415	2,065	8,743
Iraq	2019	29,619	5,825	2,553	16,880	1,797	235	204	208	1,521	396
	2020	25,664	5,239	2,063	14,169	1,936	106	176	237	1,312	426
	2021	29,551	5,942	1,940	16,676	2,456	176	203	236	1,382	541
	2022	32,775	6,700	2,706	18,732	2,329	167	225	239	1,163	513
Israel	2019	15,268	5,389	2,946	2,425	1,383	1,420	615	425	..	665
	2020	12,832	4,973	2,491	1,531	1,392	557	706	374	..	807
	2021	13,411	5,186	2,686	1,637	1,402	694	496	429	..	883
	2022	14,202	5,342	2,731	2,274	1,208	1,110	545	407	..	586
Japan	2019	147,427	44,287	36,020	14,321	12,546	12,238	5,833	3,401	10,777	8,004
	2020	121,293	37,088	31,997	12,589	9,086	5,045	4,988	2,846	10,655	6,999
	2021	128,925	39,274	33,455	14,219	9,868	6,711	5,362	2,963	9,837	7,236
	2022	135,661	41,682	34,154	15,856	10,311	8,598	5,486	2,738	9,388	7,448
Jordan	2019	2,174	759	547	369	..	163	*40	68	*35	*193
	2020	1,780	614	366	342	..	143	*35	54	78	*149
	2021	1,777	650	443	356	..	201	..	61	54	12
	2022	1,565	536	454	209	..	146	*18	62	61	*78
Kazakhstan	2019	15,910	5,033	4,533	2,875	..	629	264	1,035	5	1,536
	2020	14,925	4,674	4,482	2,255	..	444	343	1,047	3	1,678
	2021	17,257	4,980	4,811	2,842	..	606	930	1,464	9	1,616
	2022	19,090	5,425	4,964	3,387	10	671	1,265	1,158	8	2,202
Korea, Dem.Ppl's.Rep.	2019	515	191	178	109	..	..	..	..	37	..
	2020	515	191	178	109	..	..	..	..	37	..
	2021	515	191	178	109	..	..	..	..	37	..
	2022	515	191	178	109	..	..	..	..	37	..
Korea, Republic of	2019	157,811	49,425	19,722	8,526	36,758	21,544	4,729	2,882	2,781	11,444
	2020	147,105	47,180	16,770	11,204	33,734	14,199	4,370	2,476	5,745	11,427
	2021	147,548	45,283	19,526	11,300	33,600	12,255	4,061	2,532	6,925	12,066
	2022	157,730	48,502	19,820	13,803	35,366	15,492	4,057	2,201	6,125	12,363
Kuwait	2019	32,155	8,168	2,587	8,357	5,561	1,573	288	166	3,965	1,490
	2020	28,487	8,866	2,189	5,122	5,528	1,328	265	154	3,348	1,686
	2021	34,708	9,300	2,613	6,367	7,319	1,917	315	151	4,831	1,894
	2022	38,872	11,544	2,726	5,061	7,010	2,565	995	206	6,800	1,966

Table 25

## Production of oil products from refineries - by type

Thousand metric tons

Country or area	Year	Total	Gas/ diesel oil	Motor gasoline	Fuel oil	Naphtha	Jet fuels	Refinery gas	LPG	Other kerosene	Other products
Kyrgyzstan	2019	318	83	103	115	..	..	..	15	..	2
	2020	162	58	13	84	..	..	..	7	..	0
	2021	269	97	21	151	..	..	..	..	..	..
	2022	303	115	24	164	..	..	..	..	..	..
Malaysia	2019	21,227	8,359	5,064	1,400	*1,506	3,363	135	783	8	*610
	2020	21,710	9,063	4,846	1,214	*2,818	2,383	144	493	12	*736
	2021	20,591	6,066	6,438	1,510	*1,995	2,312	142	1,613	10	*504
	2022	20,260	7,258	6,470	1,420	*1,794	2,080	128	649	7	*453
Myanmar	2019	207	103	52	23	..	12	..	6	0	11
	2020	237	94	53	35	..	8	..	7	0	40
	2021	185	74	49	34	..	12	..	6	..	10
	2022	194	77	52	27	..	15	..	13	..	10
Oman	2019	12,031	3,463	3,311	336	1,374	1,804	136	495	2	1,111
	2020	10,528	3,870	2,718	204	1,409	898	116	451	1	861
	2021	11,511	4,593	3,110	60	1,535	764	137	515	1	796
	2022	12,760	4,462	3,460	338	1,471	1,027	155	536	2	1,309
Other Asia	2019	51,450	16,497	9,046	4,100	9,541	4,568	2,590	1,166	2	3,940
	2020	43,288	12,614	7,129	4,941	8,533	3,584	2,345	857	5	3,281
	2021	46,493	13,198	8,933	4,743	9,198	3,260	2,421	1,093	5	3,641
	2022	47,803	14,745	9,212	3,907	9,256	3,732	2,348	1,064	4	3,534
Pakistan	2019	10,044	3,965	1,986	2,251	396	590	*32	410	87	*326
	2020	11,566	4,901	2,535	2,580	380	494	*37	199	95	345
	2021	11,401	4,713	2,496	2,408	335	629	*36	203	95	485
	2022	9,873	3,909	2,245	2,055	218	671	30	198	90	455
Philippines	2019	7,735	3,227	1,689	702	161	810	..	286	33	828
	2020	4,525	2,061	936	356	86	343	..	152	24	568
	2021	3,743	1,717	833	30	0	270	..	150	22	722
	2022	5,661	2,391	1,304	7	68	683	..	207	25	978
Qatar	2019	16,201	2,316	1,691	1,045	5,553	3,299	58	1,333	..	907
	2020	16,715	2,399	1,602	1,099	5,862	3,399	55	1,399	..	900
	2021	17,159	2,462	1,651	1,127	6,012	3,489	57	1,435	..	926
	2022	17,250	2,471	1,715	1,125	5,992	3,510	59	1,433	..	945
Saudi Arabia	2019	129,546	52,588	23,197	22,605	6,072	4,848	*2,204	1,307	6,077	10,648
	2020	112,331	49,260	19,990	18,501	5,340	1,984	*2,013	1,142	4,890	9,211
	2021	140,201	55,489	23,826	22,536	7,570	2,072	*3,327	1,248	3,858	*20,276
	2022	137,270	59,189	27,028	26,388	6,156	3,564	3,617	1,430	3,676	6,220
Singapore	2019	49,843	10,512	8,122	4,853	4,296	11,347	2,916	855	256	6,686
	2020	41,391	8,757	6,634	4,043	3,605	9,641	2,345	712	83	5,571
	2021	41,906	8,902	7,160	4,110	3,519	9,410	2,335	724	84	5,662
	2022	46,469	9,971	7,889	4,602	3,941	9,551	2,679	811	146	6,878
Sri Lanka	2019	1,825	624	186	483	162	259	27	27	38	19
	2020	1,669	538	164	469	164	157	27	25	109	15
	2021	1,219	371	124	359	107	131	10	17	98	3
	2022	483	130	40	189	31	55	4	5	26	3
Syrian Arab Republic	2019	6,086	1,920	506	2,511	502	184	80	64	3	315
	2020	6,345	2,002	528	2,618	524	192	84	67	3	329
	2021	6,135	1,936	510	2,531	506	186	81	65	3	318
	2022	6,135	1,936	510	2,531	506	186	81	65	3	318
Tajikistan	2019	30	13	0	15	..	..	..	..	..	3
	2020	16	6	0	8	..	..	..	..	..	3
	2021	22	8	0	10	..	..	..	..	..	3
	2022	13	4	1	5	..	..	..	..	..	3

Table 25

## Production of oil products from refineries - by type

Thousand metric tons

Country or area	Year	Total	Gas/ diesel oil	Motor gasoline	Fuel oil	Naphtha	Jet fuels	Refinery gas	LPG	Other kerosene	Other products
Thailand	2019	58,966	22,433	9,686	5,152	9,454	6,168	511	1,663	1,619	2,280
	2020	58,138	26,208	9,393	4,663	9,279	2,640	502	1,765	1,309	2,379
	2021	57,011	25,587	9,169	5,260	9,129	1,698	497	1,840	1,329	2,503
	2022	54,037	21,008	9,558	5,418	8,680	3,025	520	1,861	1,521	2,446
Türkiye	2019	37,005	13,817	5,298	3,114	1,138	5,964	1,084	1,082	10	5,498
	2020	35,315	17,085	4,168	459	1,504	2,926	1,134	971	6	7,062
	2021	37,795	17,391	4,612	1,602	1,895	3,306	1,158	1,014	2	6,815
	2022	40,821	17,684	5,173	1,943	1,904	4,716	1,536	1,100	2	6,763
Turkmenistan	2019	7,549	2,480	2,337	1,513	..	326	104	322	134	331
	2020	7,067	2,396	2,259	1,463	..	87	101	312	130	320
	2021	7,122	2,428	2,288	1,482	..	54	99	316	132	324
	2022	7,373	2,509	2,364	1,531	..	75	97	326	136	335
United Arab Emirates	2019	45,284	11,343	6,412	2,958	7,123	11,829	377	587	..	4,655
	2020	39,931	10,660	6,011	2,695	6,694	8,636	333	529	..	4,374
	2021	44,741	11,941	6,546	3,024	7,499	9,852	380	598	..	4,900
	2022	44,450	9,820	7,078	2,629	7,362	11,768	375	607	..	4,811
Uzbekistan	2019	3,611	1,030	1,016	211	..	157	*114	830	6	247
	2020	3,359	954	1,044	170	..	124	91	741	4	231
	2021	3,488	799	1,044	308	..	118	91	803	4	321
	2022	3,785	894	1,259	128	..	181	98	875	7	343
Viet Nam	2019	12,815	5,647	5,470	178	..	559	..	496	..	465
	2020	14,888	6,315	5,173	440	..	699	..	410	..	1,852
	2021	13,938	6,138	5,420	218	..	303	..	538	..	1,322
	2022	15,286	6,337	5,423	401	..	506	..	518	..	2,101
Yemen	2019	1,690	469	143	286	410	94	..	115	160	13
	2020	1,180	328	100	199	286	66	..	80	112	9
	2021	1,034	287	87	175	251	57	..	70	98	8
	2022	1,043	290	88	176	253	58	..	71	99	8
<b>Europe</b>	<b>2019</b>	<b>947,072</b>	<b>347,605</b>	<b>164,415</b>	<b>129,442</b>	<b>70,275</b>	<b>52,767</b>	<b>22,210</b>	<b>47,566</b>	<b>13,482</b>	<b>99,310</b>
	<b>2020</b>	<b>849,668</b>	<b>324,245</b>	<b>146,699</b>	<b>108,454</b>	<b>67,025</b>	<b>29,513</b>	<b>19,751</b>	<b>43,816</b>	<b>11,126</b>	<b>99,039</b>
	<b>2021</b>	<b>874,469</b>	<b>327,846</b>	<b>156,606</b>	<b>111,256</b>	<b>67,664</b>	<b>31,950</b>	<b>20,322</b>	<b>45,325</b>	<b>11,513</b>	<b>101,986</b>
	<b>2022</b>	<b>893,291</b>	<b>332,809</b>	<b>162,262</b>	<b>112,037</b>	<b>64,553</b>	<b>42,749</b>	<b>22,440</b>	<b>43,922</b>	<b>12,908</b>	<b>99,611</b>
Albania	2019	323	76	1	..	23	..	7	..	..	217
	2020	131	10	..	..	18	..	3	..	..	100
	2021	158	..	..	..	22	..	3	..	..	133
	2022	117	..	..	..	16	..	2	..	..	99
Austria	2019	9,530	3,972	1,971	735	1,006	894	316	137	15	485
	2020	8,438	3,617	1,714	737	1,051	363	284	117	13	542
	2021	8,366	3,510	1,766	645	1,087	344	296	150	9	560
	2022	6,161	2,008	1,310	778	822	405	389	106	27	317
Belarus	2019	17,607	7,003	2,900	4,382	..	463	713	292	14	1,840
	2020	16,083	6,112	3,009	3,515	..	225	644	296	10	2,272
	2021	16,083	6,112	3,009	3,515	..	225	644	296	10	2,272
	2022	14,423	5,310	2,874	3,174	..	214	575	299	2	1,976
Belgium	2019	35,151	14,695	4,253	4,585	2,769	2,195	685	1,069	25	4,876
	2020	27,511	12,807	3,111	2,582	2,481	830	499	1,036	26	4,140
	2021	30,722	14,582	3,244	2,472	2,552	712	610	1,061	35	5,455
	2022	28,663	12,930	3,035	2,285	2,260	1,638	681	693	31	5,111
Bosnia and Herzegovina	2019	74	9	18	25	1	..	..	1	..	20
	2020	13	..	..	..	..	..	..	..	..	13
	2021	13	..	..	..	..	..	..	..	..	13
	2022	14	..	..	..	..	..	..	..	..	14

## Production of oil products from refineries - by type

Thousand metric tons

Country or area	Year	Total	Gas/ diesel oil	Motor gasoline	Fuel oil	Naphtha	Jet fuels	Refinery gas	LPG	Other kerosene	Other products
Bulgaria	2019	6,968	3,191	1,778	581	487	232	374	131	..	195
	2020	5,061	2,491	1,224	259	372	138	324	77	..	177
	2021	4,437	2,127	1,002	209	338	177	290	64	..	232
	2022	7,283	3,326	1,784	552	543	242	426	91	..	319
Croatia	2019	2,908	1,239	712	397	14	158	129	156	..	102
	2020	2,560	1,190	626	267	36	58	114	151	..	117
	2021	2,428	1,122	585	291	9	80	99	153	..	90
	2022	2,247	965	499	274	5	150	88	121	..	147
Czechia	2019	8,089	3,409	1,483	139	911	216	148	400	..	1,383
	2020	6,341	2,713	1,184	93	707	48	112	312	..	1,172
	2021	7,399	3,169	1,456	82	888	65	135	394	..	1,210
	2022	7,717	3,253	1,398	111	917	117	129	355	..	1,437
Denmark	2019	8,635	4,251	2,225	1,592	..	121	320	127	..	..
	2020	8,176	4,075	2,133	1,469	..	79	308	113	..	..
	2021	8,260	4,111	2,133	1,505	..	92	326	92	..	..
	2022	8,075	3,843	2,112	1,578	..	144	318	81	..	..
Finland	2019	14,689	6,324	4,441	1,412	133	725	538	289	..	827
	2020	13,549	5,919	4,209	1,549	91	258	495	245	..	783
	2021	9,783	3,988	3,292	1,179	32	318	359	174	..	441
	2022	11,920	4,254	4,132	1,689	41	692	471	139	..	502
France	2019	50,842	20,799	9,298	6,176	4,267	3,889	1,178	1,357	..	3,878
	2020	36,911	15,469	7,565	4,066	3,324	1,481	905	886	..	3,216
	2021	36,175	15,158	7,299	4,124	3,508	1,105	754	1,029	..	3,198
	2022	42,224	16,834	7,340	6,196	4,255	2,526	1,113	1,063	..	2,897
Germany	2019	97,682	41,610	20,269	7,034	6,662	5,077	3,835	3,232	4	9,959
	2020	93,170	41,655	19,621	6,220	6,820	2,519	3,538	2,885	..	9,912
	2021	93,398	39,285	19,139	7,421	7,382	2,892	3,481	3,025	13	10,760
	2022	98,658	43,023	20,296	6,945	7,465	4,463	3,790	2,768	33	9,875
Greece	2019	30,133	10,252	5,007	5,172	1,618	2,813	776	802	..	3,694
	2020	28,766	11,523	4,613	3,467	2,259	1,638	660	780	..	3,824
	2021	30,538	11,352	5,131	4,977	2,094	1,902	738	860	..	3,486
	2022	30,568	10,177	5,120	5,241	1,521	2,895	729	845	..	4,040
Hungary	2019	7,398	3,114	1,089	21	880	300	206	110	..	1,678
	2020	7,292	3,081	1,107	23	983	123	203	109	..	1,663
	2021	7,222	3,002	1,041	61	1,018	141	180	108	..	1,671
	2022	6,830	2,694	1,148	45	881	219	191	99	..	1,553
Ireland	2019	2,742	1,044	518	725	42	..	62	45	307	..
	2020	2,892	1,043	537	824	89	..	69	52	277	..
	2021	3,057	1,086	544	971	89	..	70	42	255	..
	2022	3,033	1,117	535	860	120	..	84	37	279	..
Italy	2019	73,437	31,469	16,377	6,709	4,965	2,706	2,733	1,269	471	6,738
	2020	60,231	25,795	12,231	5,628	3,919	1,289	2,322	1,290	333	7,423
	2021	68,804	30,296	15,421	7,431	3,396	1,422	2,364	1,387	88	6,999
	2022	73,017	32,202	16,087	6,676	4,181	2,208	2,625	1,340	457	7,243
Lithuania	2019	9,605	3,240	2,465	1,539	..	996	302	399	..	665
	2020	7,905	2,588	2,136	1,105	..	878	247	333	..	618
	2021	8,086	2,595	2,385	1,145	..	770	278	341	..	572
	2022	8,339	2,714	2,389	1,107	114	857	301	294	..	563
Netherlands (Kingd. of the)	2019	61,874	20,550	3,997	8,909	11,445	8,810	2,310	1,566	305	3,983
	2020	55,361	20,419	3,861	9,023	10,800	4,521	1,950	1,303	260	3,223
	2021	58,948	22,967	4,346	7,743	10,555	4,381	2,190	1,544	540	4,684
	2022	58,433	19,736	3,743	9,900	10,085	7,127	2,329	1,219	433	3,861

Table 25

## Production of oil products from refineries - by type

Thousand metric tons

Country or area	Year	Total	Gas/ diesel oil	Motor gasoline	Fuel oil	Naphtha	Jet fuels	Refinery gas	LPG	Other kerosene	Other products
Norway	2019	15,865	6,545	3,616	1,806	1,329	655	426	1,085	40	363
	2020	14,579	5,823	3,522	1,494	1,417	371	406	1,165	13	368
	2021	13,826	5,010	4,147	669	1,395	465	424	1,231	0	484
	2022	9,861	3,339	3,566	147	754	419	328	892	0	415
Poland	2019	28,457	12,859	4,312	3,115	2,020	1,355	702	630	0	3,464
	2020	26,988	12,893	3,982	2,011	2,138	616	777	657	0	3,914
	2021	26,626	13,066	3,897	1,919	1,857	758	851	649	0	3,630
	2022	28,591	13,942	4,048	2,220	2,248	1,153	614	626	0	3,742
Portugal	2019	12,762	4,614	2,401	2,114	1,091	1,346	13	165	0	1,018
	2020	11,908	4,783	1,956	2,416	953	588	16	162	0	1,033
	2021	11,186	4,361	2,146	2,474	689	662	36	119	0	698
	2022	11,847	4,285	2,247	2,582	677	1,156	23	79	..	798
Republic of Moldova	2019	6	0	..	4	..	..	..	..	..	1
	2020	7	..	4	2	..	..	..	..	..	0
	2021	2	..	..	2	..	..	..	..	..	0
	2022	3	1	2	1	..	..	..	..	..	..
Romania	2019	13,327	6,139	3,485	193	181	512	842	625	1	1,351
	2020	11,728	5,711	3,022	153	150	204	726	514	0	1,247
	2021	11,118	5,182	2,939	182	166	231	696	491	..	1,231
	2022	12,414	5,720	3,326	141	185	410	738	562	..	1,331
Russian Federation	2019	282,261	81,560	39,494	58,417	25,783	13,176	..	29,077	*428	34,325
	2020	265,576	79,113	37,915	50,823	25,010	10,934	..	27,624	*450	33,708
	2021	274,958	80,557	40,285	51,575	26,043	12,886	..	27,921	*450	35,240
	2022	269,790	82,461	42,054	47,270	23,076	11,474	..	28,174	*450	34,832
Serbia	2019	3,495	1,458	445	257	398	155	62	94	..	626
	2020	3,607	1,594	451	203	456	88	63	100	..	653
	2021	3,915	1,795	505	100	540	120	70	117	..	669
	2022	4,406	2,116	563	188	516	166	98	151	..	607
Slovakia	2019	5,580	2,562	1,137	535	430	72	494	164	..	186
	2020	6,045	2,769	1,050	618	534	33	504	137	..	400
	2021	6,034	2,731	1,103	540	584	37	556	129	..	354
	2022	5,856	2,643	1,171	482	440	75	530	122	..	393
Spain	2019	65,221	27,005	9,087	5,056	1,438	454	2,113	1,167	9,816	9,085
	2020	55,673	24,240	7,822	2,443	1,309	155	1,907	920	7,839	9,038
	2021	58,057	24,186	9,668	2,645	1,444	316	1,953	1,240	8,379	8,227
	2022	61,997	26,023	9,879	3,643	1,679	427	2,705	1,135	9,154	7,352
Sweden	2019	18,078	5,698	3,653	4,413	293	259	489	446	..	2,827
	2020	19,720	5,975	3,558	3,860	248	122	570	401	..	4,986
	2021	21,411	6,418	4,561	3,936	358	16	929	626	..	4,566
	2022	21,084	5,826	4,594	4,032	228	78	847	566	..	4,912
Switzerland	2019	2,763	1,577	596	311	19	3	119	108	..	30
	2020	2,881	1,681	566	364	15	9	121	97	..	28
	2021	2,372	1,360	499	294	21	..	102	70	..	27
	2022	3,106	1,716	685	429	13	3	130	77	..	51
Ukraine	2019	*2,843	*813	*901	74	..	..	41	409	..	605
	2020	*2,703	*850	*815	75	..	..	50	305	..	608
	2021	*2,926	*850	*711	82	..	..	55	306	..	923
	2022	*2,655	*724	*565	*82	..	..	*55	*306	..	*923
United Kingdom	2019	58,726	20,528	16,488	3,016	2,072	5,185	2,277	2,214	2,057	4,889
	2020	47,862	18,306	13,155	3,168	1,844	1,943	1,933	1,749	1,903	3,861
	2021	48,161	17,868	14,353	3,068	1,599	1,834	1,836	1,708	1,734	4,161
	2022	53,959	19,628	15,762	3,409	1,511	3,490	2,134	1,682	2,042	4,301



Table 25

## Production of oil products from refineries - by type

Thousand metric tons

Country or area	Year	Total	Gas/ diesel oil	Motor gasoline	Fuel oil	Naphtha	Jet fuels	Refinery gas	LPG	Other kerosene	Other products
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>223,468</b>	<b>73,740</b>	<b>50,003</b>	<b>39,835</b>	<b>8,801</b>	<b>12,134</b>	<b>9,087</b>	<b>6,380</b>	<b>239</b>	<b>23,251</b>
	<b>2020</b>	<b>203,012</b>	<b>69,840</b>	<b>40,835</b>	<b>40,581</b>	<b>9,997</b>	<b>6,348</b>	<b>8,263</b>	<b>6,004</b>	<b>222</b>	<b>20,921</b>
	<b>2021</b>	<b>215,887</b>	<b>71,528</b>	<b>47,474</b>	<b>44,684</b>	<b>8,515</b>	<b>8,073</b>	<b>9,442</b>	<b>6,351</b>	<b>247</b>	<b>19,573</b>
	<b>2022</b>	<b>232,191</b>	<b>75,292</b>	<b>50,145</b>	<b>47,607</b>	<b>9,144</b>	<b>11,608</b>	<b>9,788</b>	<b>6,441</b>	<b>255</b>	<b>21,911</b>
Argentina	2019	23,086	9,484	5,440	2,138	640	1,466	925	773	8	2,212
	2020	21,892	9,159	4,986	2,683	1,157	520	876	629	9	*1,872
	2021	22,048	9,305	5,321	2,059	1,097	592	897	721	7	2,050
	2022	22,825	9,427	5,437	2,209	1,146	1,163	832	738	6	1,866
Bolivia (Plur. State of)	2019	2,020	582	916	..	0	177	89	111	20	123
	2020	1,964	623	963	..	0	85	95	108	14	76
	2021	1,980	543	1,038	..	0	111	92	106	17	73
	2022	1,807	416	992	..	0	150	89	102	13	45
Brazil	2019	91,193	35,557	17,684	11,626	3,250	4,916	4,022	3,926	5	10,207
	2020	94,945	36,687	16,068	16,643	4,486	2,703	4,058	3,971	4	10,325
	2021	95,718	35,980	18,808	16,352	3,347	3,260	4,430	3,984	4	9,553
	2022	103,361	38,227	19,504	18,482	4,201	3,876	4,456	4,236	7	10,372
Chile	2019	10,245	3,077	3,319	993	137	880	242	543	161	894
	2020	8,507	2,529	2,626	997	60	491	175	461	153	1,015
	2021	9,416	3,053	2,802	1,087	233	365	192	489	177	1,021
	2022	8,423	2,597	2,360	720	209	528	177	369	157	1,306
Colombia	2019	19,254	6,458	4,384	3,036	942	1,144	253	274	5	2,759
	2020	15,588	6,295	3,085	1,656	1,509	876	254	307	1	1,605
	2021	18,985	7,365	4,190	2,716	1,509	1,174	541	406	7	1,078
	2022	20,008	7,416	4,284	1,588	1,509	2,689	*545	300	..	1,678
Cuba	2019	1,701	447	199	766	105	83	5	22	1	73
	2020	2,052	541	291	903	148	37	14	39	4	74
	2021	1,461	382	107	664	172	37	8	28	4	59
	2022	1,396	369	103	640	*140	34	8	13	4	85
Dominican Republic	2019	1,141	328	107	329	144	193	11	27	2	..
	2020	479	129	42	136	59	83	5	17	7	..
	2021	1,118	292	108	366	140	158	11	35	7	..
	2022	1,150	328	107	329	144	193	11	27	11	..
Ecuador	2019	7,158	1,741	1,230	2,866	..	360	50	88	..	824
	2020	5,949	1,310	943	2,607	..	192	40	100	..	757
	2021	7,404	1,679	1,089	3,380	..	277	48	102	..	829
	2022	7,835	1,738	1,162	3,534	..	370	57	119	..	854
Guatemala	2019	146	..	..	..	..	..	..	..	..	146
	2020	110	..	..	..	..	..	..	..	..	110
	2021	132	..	..	..	..	..	..	..	..	132
	2022	136	..	..	..	..	..	..	..	..	136
Jamaica	2019	1,291	128	181	887	..	65	..	11	..	*20
	2020	1,167	183	138	785	..	41	..	9	..	11
	2021	1,011	162	120	680	..	33	..	4	..	11
	2022	946	143	105	653	..	31	..	4	..	10
Mexico	2019	32,418	6,972	8,213	8,472	2,201	1,234	2,319	222	..	2,785
	2020	32,360	6,427	7,993	10,019	1,747	796	2,162	172	..	3,044
	2021	38,144	5,960	9,488	13,874	1,554	1,297	2,709	267	..	2,995
	2022	43,836	8,005	11,145	14,689	1,636	1,509	2,979	333	..	3,540
Nicaragua	2019	518	233	108	96	..	17	24	21	5	14
	2020	516	267	111	77	..	8	24	16	4	9
	2021	670	368	134	95	..	11	30	19	4	10
	2022	712	404	128	93	..	22	31	21	4	9

Table 25

## Production of oil products from refineries - by type

Thousand metric tons

Country or area	Year	Total	Gas/ diesel oil	Motor gasoline	Fuel oil	Naphtha	Jet fuels	Refinery gas	LPG	Other kerosene	Other products
Peru	2019	7,581	2,560	1,409	2,316	..	686	149	214	..	248
	2020	4,748	2,499	1,107	570	..	210	50	46	..	266
	2021	5,876	2,742	1,743	574	..	391	56	47	..	323
	2022	5,768	2,134	1,403	1,417	..	431	99	50	..	233
Suriname	2019	637	311	61	255	..	..	..	..	..	10
	2020	618	292	59	262	..	..	..	..	..	5
	2021	686	333	71	278	..	..	..	..	..	*4
	2022	685	325	76	273	..	..	..	..	..	11
Uruguay	2019	2,001	850	549	225	..	100	*64	102	4	108
	2020	1,856	845	511	214	..	42	*73	96	6	70
	2021	2,051	960	556	237	..	45	*67	111	4	72
	2022	2,039	961	*567	226	..	84	*68	96	4	33
Venezuela (Bolivar. Rep.)	2019	23,076	5,011	6,203	5,831	1,381	814	934	45	28	2,828
	2020	10,262	2,055	1,912	3,028	830	264	439	33	20	1,681
	2021	9,187	2,404	1,902	2,322	464	322	361	31	16	1,365
	2022	11,264	2,803	2,771	2,755	159	528	435	32	50	1,733
<b>Northern America</b>	<b>2019</b>	<b>938,764</b>	<b>275,033</b>	<b>387,464</b>	<b>24,709</b>	<b>9,405</b>	<b>88,736</b>	<b>18,238</b>	<b>11,235</b>	<b>715</b>	<b>123,228</b>
	<b>2020</b>	<b>809,729</b>	<b>255,366</b>	<b>339,558</b>	<b>15,034</b>	<b>8,222</b>	<b>49,987</b>	<b>16,574</b>	<b>9,853</b>	<b>789</b>	<b>114,346</b>
	<b>2021</b>	<b>847,603</b>	<b>248,491</b>	<b>362,594</b>	<b>16,250</b>	<b>8,233</b>	<b>63,935</b>	<b>17,355</b>	<b>11,311</b>	<b>637</b>	<b>118,796</b>
	<b>2022</b>	<b>896,288</b>	<b>264,981</b>	<b>371,458</b>	<b>19,500</b>	<b>6,700</b>	<b>79,153</b>	<b>19,059</b>	<b>12,212</b>	<b>783</b>	<b>122,444</b>
Canada	2019	106,238	32,356	31,050	4,994	1,166	5,560	3,411	1,557	242	25,902
	2020	95,382	31,655	28,584	3,637	963	2,617	2,991	1,408	218	23,309
	2021	98,649	31,572	29,336	3,784	900	3,117	3,081	1,478	194	25,186
	2022	104,391	32,965	28,731	5,657	1,315	4,449	3,181	1,448	164	26,480
United States	2019	832,525	242,678	356,414	19,715	8,239	83,176	14,827	9,679	473	97,326
	2020	714,347	223,712	310,974	11,398	7,258	47,370	13,583	8,446	571	91,037
	2021	748,953	216,919	333,258	12,466	7,333	60,818	14,274	9,833	442	93,611
	2022	791,898	232,015	342,727	13,843	5,385	74,703	15,878	10,764	619	95,964
<b>Oceania</b>	<b>2019</b>	<b>30,786</b>	<b>10,044</b>	<b>9,665</b>	<b>1,410</b>	<b>433</b>	<b>4,606</b>	<b>1,065</b>	<b>555</b>	<b>114</b>	<b>2,894</b>
	<b>2020</b>	<b>27,194</b>	<b>9,358</b>	<b>8,392</b>	<b>921</b>	<b>606</b>	<b>3,030</b>	<b>897</b>	<b>542</b>	<b>64</b>	<b>3,384</b>
	<b>2021</b>	<b>23,007</b>	<b>8,487</b>	<b>7,693</b>	<b>660</b>	<b>607</b>	<b>1,264</b>	<b>749</b>	<b>524</b>	<b>55</b>	<b>2,969</b>
	<b>2022</b>	<b>15,183</b>	<b>5,763</b>	<b>4,667</b>	<b>459</b>	<b>610</b>	<b>692</b>	<b>578</b>	<b>201</b>	<b>55</b>	<b>2,159</b>
Australia	2019	23,680	7,595	8,171	909	..	3,162	807	534	..	2,503
	2020	21,217	7,020	7,164	740	..	2,326	713	525	..	2,729
	2021	17,476	6,156	6,407	438	..	668	627	511	..	2,669
	2022	12,760	4,861	4,316	280	..	498	532	186	..	2,087
New Zealand	2019	5,898	2,028	1,494	422	..	1,330	258	..	..	367
	2020	4,568	1,803	1,229	80	..	638	184	..	..	635
	2021	4,269	1,913	1,250	155	..	531	122	..	..	300
	2022	1,104	437	314	107	..	128	47	..	..	72
Papua New Guinea	2019	1,208	422	..	80	433	113	..	21	114	25
	2020	1,409	535	..	101	606	66	..	17	64	20
	2021	1,261	419	36	67	607	66	..	13	55	..
	2022	*1,319	*465	*36	*72	*610	*66	..	*15	*55	..





### Production, trade and supply of oil products

Thousand metric tons

#### Table Notes

**Production** refers to the production from refineries and plants of all oil products, together with quantities from other sources which include any blended biofuels.

**Imports, Exports, Bunkers and Changes in stocks** refer to all oil products.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 68: Production of oil products by region, 1990-2022**

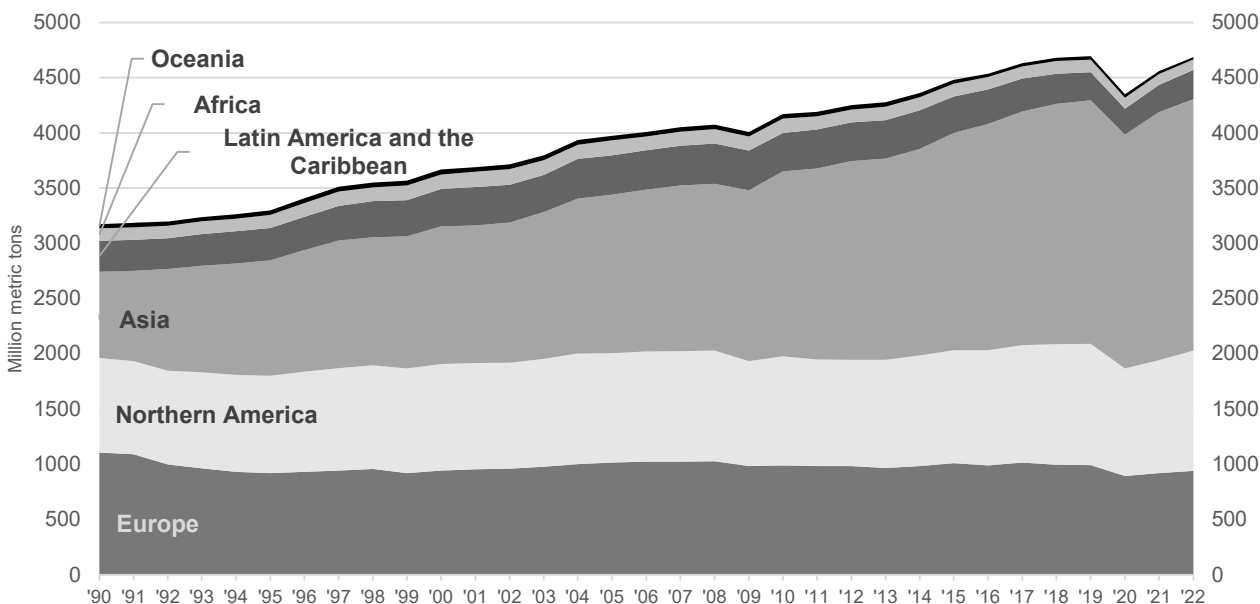


Table 26

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
World	2019	4,694,855	1,409,597	1,428,894	410,572	3,638	4,261,348	546
	2020	4,349,348	1,277,869	1,313,556	289,916	29,537	3,994,209	506
	2021	4,558,318	1,360,765	1,376,734	306,893	13,245	4,222,211	531
	2022	4,685,670	1,400,392	1,399,303	337,736	17,838	4,331,185	540
Africa	2019	111,042	120,770	40,533	14,327	-703	177,657	132
	2020	98,436	114,008	39,028	9,663	-434	164,188	119
	2021	98,095	126,753	34,316	10,477	-976	181,031	128
	2022	94,508	136,257	30,495	11,489	-474	189,256	131
Algeria	2019	37,269	1,940	20,079	*381	12	18,737	433
	2020	36,281	1,070	20,218	447	-35	16,722	380
	2021	37,006	5	19,492	450	16	17,053	381
	2022	38,878	533	20,031	546	-286	19,120	420
Angola	2019	4,921	3,891	2,673	565	785	4,790	148
	2020	4,332	1,903	3,110	258	3	2,864	86
	2021	3,879	2,879	2,508	262	35	3,953	114
	2022	3,860	3,096	2,042	389	79	4,444	125
Benin	2019	..	1,489	..	22	-10	1,478	116
	2020	..	1,496	..	16	-3	1,483	113
	2021	..	1,758	..	18	14	1,727	129
	2022	..	1,732	18	36	-54	1,734	126
Botswana	2019	..	1,219	..	16	..	1,203	516
	2020	..	1,087	..	4	..	1,083	458
	2021	..	1,134	..	6	..	1,128	470
	2022	..	1,024	..	10	..	1,014	416
Burkina Faso	2019	..	1,510	..	30	-6	1,485	71
	2020	..	*1,500	..	18	*2	*1,479	*69
	2021	..	*1,743	..	29	*29	*1,685	*77
	2022	..	*1,761	..	*29	0	*1,732	*77
Burundi	2019	..	*219	..	5	0	*214	*17
	2020	..	252	..	2	..	250	20
	2021	..	*246	..	3	..	*244	*19
	2022	..	*291	..	5	..	*286	*21
Cabo Verde	2019	..	*329	..	*118	..	*211	*410
	2020	..	*252	..	*79	..	*173	*336
	2021	..	*275	..	*79	..	*196	*380
	2022	..	*279	..	*83	..	*196	*378
Cameroon	2019	640	1,366	188	16	..	1,802	71
	2020	25	1,689	..	7	..	1,707	65
	2021	35	1,735	..	11	..	1,759	65
	2022	28	1,808	..	15	..	1,822	66
Central African Rep.	2019	..	112	..	7	*2	103	21
	2020	..	116	..	4	*2	110	22
	2021	..	127	..	4	*3	121	24
	2022	..	*128	..	*4	0	*124	*24
Chad	2019	*680	*3	*79	27	..	*577	*35
	2020	*705	*2	*75	*27	..	*604	*35
	2021	*773	*2	*77	*27	..	*671	*38
	2022	*776	*3	*78	*25	..	*674	*37
Comoros	2019	..	*106	..	*7	*-3	*102	*129
	2020	..	*126	..	*6	*-1	*121	*151
	2021	..	*175	..	*7	*6	*162	*198
	2022	..	*186	..	*8	*6	*172	*207

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Congo	2019	735	202	352	32	..	554	99
	2020	713	172	255	28	..	602	105
	2021	738	182	258	29	..	633	107
	2022	784	191	276	31	..	669	111
Côte d'Ivoire	2019	3,717	1,072	1,741	258	..	2,791	99
	2020	3,335	1,177	1,573	147	..	2,792	97
	2021	4,154	1,356	1,660	196	..	3,653	123
	2022	4,109	2,112	1,611	239	..	4,371	144
Dem. Rep. of the Congo	2019	..	1,169	..	133	..	1,035	11
	2020	..	1,193	..	99	..	1,095	11
	2021	..	1,170	..	121	..	1,050	11
	2022	..	1,585	..	80	..	1,505	15
Djibouti	2019	..	251	..	*100	..	151	139
	2020	..	220	..	*93	..	127	115
	2021	..	*252	..	*112	..	*140	*125
	2022	..	*227	..	*103	..	*124	*109
Egypt	2019	30,693	6,940	8,000	1,043	..	28,591	266
	2020	28,535	8,034	8,074	685	..	27,810	254
	2021	30,234	9,060	4,634	664	..	33,995	306
	2022	27,871	8,886	1,148	617	..	34,991	311
Equatorial Guinea	2019	528	*299	509	46	*3	269	161
	2020	478	*245	473	31	*-9	228	133
	2021	376	*243	393	28	*-29	227	129
	2022	409	*245	*386	35	*14	*220	*122
Eritrea	2019	..	225	..	31	..	194	60
	2020	..	216	..	20	..	196	60
	2021	..	224	..	18	..	207	62
	2022	..	244	..	25	..	219	64
Eswatini	2019	..	*303	..	2	..	*301	*255
	2020	..	278	..	1	..	277	232
	2021	..	271	..	0	..	271	224
	2022	..	277	..	1	..	276	226
Ethiopia	2019	..	4,931	..	820	-6	4,117	36
	2020	..	4,139	..	379	-6	3,766	32
	2021	..	4,759	..	825	-56	3,990	33
	2022	..	4,769	..	945	-49	3,873	31
Gabon	2019	619	412	208	204	1	619	273
	2020	818	265	474	182	-140	567	244
	2021	932	254	541	170	-157	632	266
	2022	882	291	284	201	183	505	208
Gambia	2019	..	*254	*2	*20	..	*232	*94
	2020	..	*247	*2	*18	..	*228	*91
	2021	..	*257	*2	*19	..	*236	*92
	2022	..	*284	*2	*20	..	*262	*99
Ghana	2019	690	3,545	292	219	-12	3,735	119
	2020	580	3,973	186	126	214	4,028	126
	2021	378	4,196	97	198	-200	4,478	138
	2022	152	4,105	13	194	9	4,041	122
Guinea	2019	..	1,463	..	*42	*20	1,401	107
	2020	..	1,487	..	*26	-47	1,507	113
	2021	..	1,477	..	*42	46	1,389	101
	2022	..	1,472	..	*44	*44	1,384	99

Table 26

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Guinea-Bissau	2019	..	93	..	0	..	93	47
	2020	..	*112	..	0	..	*112	*56
	2021	..	*122	..	0	..	*122	*59
	2022	..	*125	..	*1	..	*124	*59
Kenya	2019	..	5,762	23	718	..	5,021	98
	2020	..	5,767	29	398	..	5,339	102
	2021	..	5,653	*1	532	..	5,121	96
	2022	..	5,334	*1	549	..	4,784	88
Lesotho	2019	*3	237	..	0	0	241	109
	2020	*3	210	..	0	..	213	95
	2021	*3	231	..	0	0	234	104
	2022	*4	301	..	0	*1	304	133
Liberia	2019	..	305	..	*10	29	266	53
	2020	..	213	..	*9	-3	207	40
	2021	..	82	..	*10	-122	195	37
	2022	..	199	..	*10	*-39	228	42
Libya	2019	4,576	6,378	1,533	340	..	9,082	1,307
	2020	3,314	5,897	1,098	114	..	7,998	1,135
	2021	4,307	5,736	1,503	346	..	8,195	1,149
	2022	4,148	6,162	1,519	315	..	8,475	1,173
Madagascar	2019	..	1,064	0	50	24	989	35
	2020	..	870	0	20	*-8	858	30
	2021	..	974	..	15	*-39	998	34
	2022	..	1,036	..	29	*-7	1,014	33
Malawi	2019	..	433	..	*4	-28	458	24
	2020	..	501	..	3	23	475	24
	2021	..	448	..	7	*3	438	22
	2022	..	484	..	11	*5	468	23
Mali	2019	..	1,766	..	68	0	1,697	81
	2020	..	1,926	..	52	0	1,874	86
	2021	..	2,280	..	85	0	2,195	98
	2022	..	2,112	..	63	..	2,049	89
Mauritania	2019	..	1,758	..	20	*171	1,567	351
	2020	..	1,739	..	12	*126	1,602	348
	2021	..	*1,632	..	17	*112	*1,503	*318
	2022	..	1,889	..	18	*130	1,741	357
Mauritius	2019	..	1,868	62	808	6	992	771
	2020	..	1,261	..	697	-178	742	578
	2021	..	1,408	..	649	18	741	579
	2022	..	1,565	..	595	0	970	760
Morocco	2019	..	12,906	..	912	-456	12,450	344
	2020	..	11,699	..	416	-64	11,347	310
	2021	..	12,781	..	513	-353	12,620	342
	2022	..	13,523	..	768	47	12,709	340
Mozambique	2019	..	1,652	..	35	..	1,617	54
	2020	..	1,379	..	19	..	1,359	44
	2021	..	1,834	..	23	..	1,811	57
	2022	..	2,084	152	23	..	1,909	58
Namibia	2019	..	1,161	53	82	..	1,026	387
	2020	..	1,075	50	84	..	941	345
	2021	..	1,139	51	94	..	993	353
	2022	..	1,117	49	98	..	969	335



## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Niger	2019	818	53	101	*46	..	723	32
	2020	791	140	136	*48	-6	753	32
	2021	698	146	199	*51	*42	552	23
	2022	690	158	78	*72	*-6	703	28
Nigeria	2019	528	21,526	36	995	-1,306	22,329	107
	2020	136	21,180	0	561	-364	21,120	99
	2021	617	21,919	..	670	-388	22,254	102
	2022	641	22,643	..	752	-331	22,863	102
Rwanda	2019	..	557	..	*24	*160	372	29
	2020	..	388	..	*16	..	372	28
	2021	..	467	..	*24	..	443	33
	2022	..	*479	..	*25	..	*454	*33
Sao Tome and Principe	2019	..	51	..	*3	..	48	223
	2020	..	*50	..	*4	..	*46	*214
	2021	..	*51	..	*4	..	*47	*211
	2022	..	*48	..	*4	..	*44	*193
Senegal	2019	886	2,605	*670	385	-25	2,460	150
	2020	757	1,767	41	371	-14	2,126	127
	2021	868	1,945	73	335	12	2,394	139
	2022	604	2,583	12	308	-17	2,884	163
Seychelles	2019	..	348	..	*154	0	193	1,645
	2020	..	*315	..	*117	*2	*196	*1,630
	2021	..	*353	..	*107	*46	*200	*1,626
	2022	..	*380	..	*125	*51	*205	*1,632
Sierra Leone	2019	..	400	..	4	*27	369	48
	2020	..	441	..	2	*48	392	50
	2021	..	490	..	3	..	487	60
	2022	..	482	..	6	*1	475	57
Somalia	2019	..	*457	..	*108	..	*349	*22
	2020	..	*472	..	*101	..	*371	*22
	2021	..	*488	..	*112	..	*377	*22
	2022	..	*531	..	*116	..	*415	*23
South Africa	2019	19,212	9,674	3,775	4,438	..	20,673	347
	2020	12,434	11,196	2,671	3,431	..	17,529	289
	2021	8,148	16,574	1,956	2,867	..	19,899	324
	2022	5,150	21,548	1,993	3,021	..	21,684	348
South Sudan	2019	..	570	..	73	..	497	48
	2020	..	529	..	49	..	480	45
	2021	119	533	86	73	..	493	45
	2022	159	493	115	73	..	463	42
St. Helena and Depend.	2019	..	4	..	..	..	4	819
	2020	..	3	..	..	..	3	640
	2021	..	3	..	..	..	3	545
	2022	..	3	..	..	..	3	642
Sudan	2019	*3,625	3,740	79	*179	..	7,107	156
	2020	3,653	2,411	18	*101	..	5,945	127
	2021	3,091	3,123	36	*144	..	6,034	126
	2022	3,869	2,411	35	*155	..	6,090	123
Togo	2019	..	480	..	58	-13	435	51
	2020	..	618	..	56	-13	575	66
	2021	..	552	..	94	-9	468	53
	2022	..	569	..	99	-11	481	53

Table 26

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Tunisia	2019	243	4,521	76	310	-78	4,456	375
	2020	1,200	3,636	543	108	30	4,155	347
	2021	1,686	3,700	750	138	-6	4,504	374
	2022	1,495	3,546	649	220	-239	4,410	364
Uganda	2019	..	1,849	..	106	..	1,742	41
	2020	..	1,718	..	56	5	1,657	37
	2021	..	1,914	..	84	..	1,830	40
	2022	..	1,920	..	124	..	1,797	38
United Rep. of Tanzania	2019	..	3,133	..	171	..	2,962	50
	2020	..	3,135	..	81	..	3,054	50
	2021	..	3,507	..	104	..	3,403	54
	2022	..	3,715	..	136	..	3,579	55
Zambia	2019	658	853	2	29	..	1,480	80
	2020	344	1,178	..	17	..	1,505	79
	2021	54	1,599	..	23	..	1,630	83
	2022	0	1,687	..	32	..	1,655	82
Zimbabwe	2019	..	1,319	..	51	..	1,269	83
	2020	..	1,045	..	18	..	1,027	66
	2021	..	1,287	..	37	..	1,249	79
	2022	..	1,603	..	58	-3	1,548	96
<b>Asia</b>	<b>2019</b>	<b>2,203,477</b>	<b>557,727</b>	<b>585,064</b>	<b>191,336</b>	<b>1,961</b>	<b>1,982,844</b>	<b>426</b>
	<b>2020</b>	<b>2,119,142</b>	<b>527,252</b>	<b>532,095</b>	<b>146,940</b>	<b>24,272</b>	<b>1,943,087</b>	<b>414</b>
	<b>2021</b>	<b>2,244,116</b>	<b>542,865</b>	<b>566,251</b>	<b>152,317</b>	<b>37,431</b>	<b>2,030,982</b>	<b>430</b>
	<b>2022</b>	<b>2,274,099</b>	<b>558,246</b>	<b>575,102</b>	<b>153,629</b>	<b>15,891</b>	<b>2,087,724</b>	<b>440</b>
Afghanistan	2019	*112	2,426	..	*10	*175	2,353	62
	2020	*46	2,425	..	*12	*-24	2,483	64
	2021	*50	*2,206	..	*13	*-28	*2,271	*57
	2022	*50	*2,125	..	*6	*-17	*2,186	*54
Armenia	2019	..	487	1	69	31	386	133
	2020	..	607	2	37	30	538	186
	2021	..	645	0	*52	21	572	199
	2022	..	696	0	98	30	568	197
Azerbaijan	2019	6,077	280	1,141	344	38	4,834	478
	2020	5,832	259	1,297	368	59	4,368	429
	2021	6,607	286	1,748	447	-210	4,908	480
	2022	6,161	708	973	440	210	5,247	510
Bahrain	2019	13,386	*626	11,883	508	-346	1,967	1,324
	2020	11,200	*610	10,337	287	-582	1,768	1,192
	2021	11,517	*620	10,578	322	-651	1,888	1,257
	2022	12,628	*650	11,103	519	-368	2,024	1,320
Bangladesh	2019	1,593	7,234	37	552	..	8,239	50
	2020	1,238	6,814	0	468	..	7,584	46
	2021	1,837	6,073	19	383	..	7,509	45
	2022	1,761	6,770	..	359	..	8,172	48
Bhutan	2019	..	210	..	4	..	206	270
	2020	..	152	..	1	..	151	196
	2021	..	147	..	1	..	146	188
	2022	..	176	..	2	..	174	223
Brunei Darussalam	2019	1,348	690	835	108	223	871	1,969
	2020	8,240	1,403	7,753	43	261	1,586	3,545
	2021	7,989	1,036	7,538	18	123	1,346	2,980
	2022	8,317	1,094	7,790	37	151	1,432	3,146

Table 26

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Cambodia	2019	..	3,146	..	156	..	2,991	181
	2020	..	3,144	..	43	..	3,100	185
	2021	..	3,201	..	21	..	3,180	187
	2022	..	3,271	..	38	..	3,233	188
China	2019	763,910	64,029	71,704	21,090	5,108	730,035	513
	2020	808,477	62,969	65,752	15,870	20,997	768,826	539
	2021	842,814	67,570	64,528	16,737	34,338	794,781	557
	2022	815,100	71,178	57,432	804	18,953	809,089	568
China, Hong Kong SAR	2019	..	20,363	290	15,982	274	3,816	510
	2020	..	15,014	155	10,617	625	3,618	483
	2021	..	13,156	63	9,525	293	3,275	438
	2022	..	11,096	80	8,472	124	2,420	324
China, Macao SAR	2019	..	348	..	44	-12	316	471
	2020	..	308	..	4	7	297	435
	2021	..	285	..	3	-4	286	412
	2022	..	272	..	2	1	269	382
Cyprus	2019	4	2,600	..	575	0	2,028	1,576
	2020	15	2,265	..	368	35	1,877	1,441
	2021	13	2,275	33	404	-28	1,880	1,427
	2022	10	2,479	17	540	14	1,918	1,441
Georgia	2019	37	1,424	24	103	-22	1,356	357
	2020	37	1,351	17	59	24	1,288	339
	2021	50	1,427	26	97	-6	1,360	359
	2022	43	1,498	53	136	-23	1,375	362
India	2019	266,575	43,789	68,920	*5,704	71	235,669	170
	2020	234,490	43,247	59,211	*2,755	*624	215,147	153
	2021	258,895	42,062	66,172	3,389	-63	231,459	164
	2022	271,706	45,133	61,324	*4,873	..	250,642	176
Indonesia	2019	42,553	28,279	1,155	1,135	152	68,391	251
	2020	41,776	20,990	906	792	-1	61,068	222
	2021	41,712	22,546	1,319	476	..	62,464	226
	2022	40,688	33,600	1,038	508	530	72,212	259
Iran (Islamic Rep. of)	2019	113,302	400	30,467	1,812	-179	81,602	937
	2020	109,603	399	32,727	1,241	-831	76,866	876
	2021	115,272	399	34,888	1,984	-852	79,650	900
	2022	119,243	399	39,376	2,216	..	78,051	872
Iraq	2019	31,192	4,468	5,260	513	..	29,886	726
	2020	27,204	3,632	4,980	315	..	25,541	606
	2021	31,168	4,760	5,661	357	..	29,910	694
	2022	34,465	5,112	6,227	409	..	32,941	747
Israel	2019	15,268	4,007	6,127	1,464	-59	11,743	1,356
	2020	12,832	2,507	5,090	806	157	9,286	1,055
	2021	13,411	2,680	5,593	934	-186	9,751	1,090
	2022	14,202	3,502	5,557	1,440	78	10,630	1,168
Japan	2019	152,283	40,874	18,540	11,283	666	162,667	1,284
	2020	126,059	42,496	9,331	7,510	-1,077	152,792	1,210
	2021	133,171	43,145	12,690	8,548	-1,052	156,131	1,242
	2022	140,243	39,843	16,497	9,281	570	153,738	1,230
Jordan	2019	2,174	2,737	..	*123	95	4,694	440
	2020	1,780	2,097	..	85	..	3,792	349
	2021	1,777	2,229	..	106	..	3,900	352
	2022	1,565	2,583	..	*94	..	4,053	360

Table 26

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Kazakhstan	2019	17,462	622	5,092	464	57	12,471	649
	2020	16,496	1,065	4,562	206	1,212	11,581	594
	2021	18,453	720	4,561	484	-994	15,123	766
	2022	20,922	917	5,090	442	333	15,975	797
Korea, Dem.Ppl's.Rep.	2019	515	502	..	..	..	1,017	39
	2020	515	463	..	..	..	978	37
	2021	515	275	..	..	..	790	30
	2022	515	310	..	..	..	825	31
Korea, Republic of	2019	169,264	40,002	67,173	13,476	-599	129,217	2,496
	2020	157,931	39,300	59,990	12,623	-283	124,900	2,408
	2021	162,499	45,884	57,012	12,852	-79	138,598	2,673
	2022	175,137	42,563	63,939	14,518	-416	139,659	2,697
Kuwait	2019	40,181	193	23,731	1,941	-1,676	16,377	3,687
	2020	36,890	278	21,620	1,379	-37	14,206	3,228
	2021	41,778	1,759	25,370	1,402	51	16,714	3,833
	2022	47,367	1,673	30,665	1,892	-1	16,483	3,592
Kyrgyzstan	2019	318	1,243	136	*5	-44	1,464	225
	2020	162	1,308	108	*2	155	1,205	181
	2021	269	1,380	179	*4	59	1,407	206
	2022	303	1,376	213	..	28	1,438	207
Lao People's Dem. Rep.	2019	..	915	..	*36	..	879	121
	2020	..	876	..	*11	..	865	118
	2021	..	875	..	*4	..	871	117
	2022	..	894	..	4	..	890	118
Lebanon	2019	..	8,050	..	300	..	7,749	1,337
	2020	..	7,651	..	127	*75	7,449	1,306
	2021	..	6,217	..	160	..	6,057	1,059
	2022	..	4,939	..	257	..	4,682	815
Malaysia	2019	24,921	16,708	*10,374	2,825	-1,374	29,804	891
	2020	24,849	11,974	*11,947	1,447	-648	24,078	710
	2021	23,031	17,756	18,993	1,386	-2,731	23,139	675
	2022	23,195	20,436	20,462	1,536	-2,887	24,521	707
Maldives	2019	..	725	..	*74	..	651	1,334
	2020	..	615	..	*63	*4	548	1,092
	2021	..	720	..	*68	..	652	1,262
	2022	..	807	..	*87	..	719	1,372
Mongolia	2019	..	1,672	..	43	..	1,629	504
	2020	..	1,635	..	18	..	1,617	491
	2021	..	1,591	..	26	..	1,565	469
	2022	..	1,739	..	*70	..	1,669	493
Myanmar	2019	218	6,612	..	73	..	6,757	128
	2020	242	5,859	..	16	..	6,085	115
	2021	190	4,590	..	10	-110	4,880	91
	2022	202	5,166	..	21	44	5,303	99
Nepal	2019	..	2,280	..	80	358	1,842	65
	2020	..	2,540	..	39	2	2,499	86
	2021	..	2,689	..	86	40	2,563	87
	2022	..	2,906	..	102	40	2,764	93
Oman	2019	12,313	294	4,458	702	0	7,447	1,622
	2020	10,744	301	4,065	*355	..	6,625	1,465
	2021	11,726	408	4,405	196	..	7,533	1,674
	2022	12,960	772	4,331	495	..	8,906	1,883

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Other Asia	2019	51,519	15,862	20,758	4,770	-400	42,252	1,785
	2020	43,364	15,966	13,608	3,390	113	42,219	1,784
	2021	46,584	16,057	14,941	3,662	195	43,842	1,861
	2022	47,903	12,351	17,476	3,551	-87	39,314	1,679
Pakistan	2019	10,299	11,370	150	*225	..	21,294	92
	2020	11,843	14,672	135	174	..	26,206	112
	2021	11,685	18,851	233	243	..	30,060	126
	2022	10,313	13,394	367	*253	..	23,087	95
Philippines	2019	7,735	13,650	1,045	1,696	45	18,599	168
	2020	4,525	12,653	1,113	680	-499	15,884	142
	2021	3,743	14,545	625	616	-50	17,097	151
	2022	5,661	15,283	431	1,333	226	18,954	166
Qatar	2019	25,273	68	19,702	2,237	58	3,343	1,195
	2020	25,090	722	19,844	1,480	986	3,503	1,250
	2021	25,831	674	20,726	1,769	738	3,272	1,163
	2022	26,202	958	19,155	2,214	291	5,500	1,901
Saudi Arabia	2019	178,864	*21,359	*62,484	*6,730	*-900	131,909	4,329
	2020	159,007	*21,568	56,644	*3,831	712	119,388	3,852
	2021	185,457	*21,375	63,594	*4,034	*9,061	130,144	4,154
	2022	185,923	20,820	68,049	6,179	*-3,073	135,588	4,214
Singapore	2019	49,843	111,702	83,185	55,893	-392	22,860	4,032
	2020	41,391	107,800	75,389	51,786	*817	21,198	3,772
	2021	41,906	102,603	73,645	51,982	*-1,331	20,214	3,645
	2022	46,469	*104,235	67,959	54,632	526	27,587	4,883
Sri Lanka	2019	1,825	4,082	37	1,103	-70	4,837	216
	2020	1,669	3,277	175	548	-8	4,231	188
	2021	1,219	3,929	146	757	-288	4,533	200
	2022	483	3,929	10	747	-201	3,856	169
State of Palestine	2019	..	1,099	0	..	..	1,099	222
	2020	..	1,113	0	..	..	1,113	219
	2021	..	1,212	..	..	..	1,212	234
	2022	..	1,535	..	..	..	1,535	289
Syrian Arab Republic	2019	6,171	2,866	583	269	..	8,184	402
	2020	6,440	2,450	620	268	..	8,003	380
	2021	6,230	2,417	611	270	..	7,766	359
	2022	6,230	2,441	589	274	..	7,808	348
Tajikistan	2019	30	986	..	40	..	977	102
	2020	16	1,105	..	24	..	1,097	112
	2021	22	1,029	..	16	..	1,034	104
	2022	13	1,256	..	61	..	1,208	119
Thailand	2019	66,819	8,996	10,263	*5,668	1,083	58,801	822
	2020	64,738	6,505	10,624	*2,525	1,019	57,076	797
	2021	63,689	6,226	11,330	2,192	937	55,457	773
	2022	58,920	7,196	8,668	*3,397	769	53,281	743
Timor-Leste	2019	..	213	..	*3	..	210	161
	2020	..	203	..	*3	..	200	151
	2021	..	199	..	*4	..	196	145
	2022	..	207	..	*4	..	204	149
Türkiye	2019	38,348	20,804	8,491	5,202	-264	45,723	536
	2020	36,101	18,102	7,595	2,366	-187	44,429	516
	2021	39,296	18,558	7,514	3,193	-36	47,183	544
	2022	42,043	20,340	9,385	4,505	-3	48,495	557

Table 26

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Turkmenistan	2019	8,402	..	2,671	287	..	5,444	800
	2020	7,997	..	2,821	64	..	5,111	735
	2021	8,062	..	2,850	27	..	5,185	731
	2022	8,403	..	2,925	70	..	5,408	748
United Arab Emirates	2019	64,509	21,982	45,747	23,919	*-44	16,869	1,799
	2020	60,176	21,204	40,925	20,915	*-42	19,582	2,073
	2021	66,523	21,222	45,963	22,282	*-44	19,544	1,997
	2022	67,627	22,265	45,859	25,152	*47	18,834	1,839
Uzbekistan	2019	3,611	430	53	*133	-64	3,919	119
	2020	3,359	965	123	*111	-60	4,150	124
	2021	3,488	918	99	92	107	4,108	120
	2022	3,785	1,167	409	156	-164	4,552	130
Viet Nam	2019	13,206	12,558	2,047	1,460	-30	22,287	229
	2020	15,260	10,944	2,284	713	636	22,571	230
	2021	14,298	9,952	2,297	592	211	21,151	214
	2022	16,049	12,597	1,349	1,305	168	25,823	259
Yemen	2019	2,018	1,466	498	104	..	2,881	82
	2020	1,509	1,447	346	96	..	2,514	70
	2021	1,336	1,486	303	95	..	2,424	65
	2022	1,295	1,587	305	96	..	2,480	65
<b>Europe</b>	<b>2019</b>	<b>993,446</b>	<b>407,445</b>	<b>507,536</b>	<b>121,894</b>	<b>3,842</b>	<b>767,619</b>	<b>1,021</b>
	<b>2020</b>	<b>895,709</b>	<b>358,634</b>	<b>458,815</b>	<b>80,518</b>	<b>7,306</b>	<b>707,705</b>	<b>941</b>
	<b>2021</b>	<b>919,656</b>	<b>380,909</b>	<b>484,555</b>	<b>85,844</b>	<b>-15,033</b>	<b>745,198</b>	<b>993</b>
	<b>2022</b>	<b>940,007</b>	<b>386,366</b>	<b>471,829</b>	<b>105,675</b>	<b>4,144</b>	<b>744,725</b>	<b>994</b>
Albania	2019	458	1,130	184	52	62	1,291	448
	2020	246	1,104	103	47	70	1,130	393
	2021	278	1,025	120	45	47	1,090	383
	2022	262	1,060	51	66	70	1,135	401
Andorra	2019	..	158	..	0	..	158	2,065
	2020	..	121	..	0	..	121	1,568
	2021	..	132	..	0	..	132	1,688
	2022	..	135	..	0	..	135	1,694
Austria	2019	9,841	6,734	2,944	943	12	12,677	1,427
	2020	8,705	6,234	2,879	321	300	11,440	1,282
	2021	8,675	6,134	3,030	409	-447	11,817	1,318
	2022	6,377	7,497	1,749	613	-102	11,614	1,281
Belarus	2019	17,725	140	10,752	186	105	6,822	723
	2020	16,190	86	8,943	106	177	7,050	754
	2021	16,190	86	8,943	123	..	7,210	779
	2022	14,531	77	7,722	117	..	6,769	738
Belgium	2019	36,720	28,403	32,364	10,155	512	22,092	1,923
	2020	29,391	25,525	26,672	7,656	556	20,032	1,736
	2021	32,808	28,869	30,150	9,183	-898	23,242	2,009
	2022	30,698	27,594	27,651	9,491	256	20,894	1,795
Bosnia and Herzegovina	2019	74	1,554	42	9	-37	1,614	482
	2020	13	1,519	11	4	-3	1,520	461
	2021	13	1,634	21	14	-64	1,676	517
	2022	14	1,665	15	29	1	1,634	510
Bulgaria	2019	7,185	2,250	4,268	307	-25	4,884	700
	2020	5,268	2,267	2,849	218	-71	4,538	655
	2021	4,641	2,331	1,963	245	-55	4,820	701
	2022	7,504	2,132	4,061	281	217	5,076	744

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Croatia	2019	2,982	2,808	2,167	215	5	3,404	854
	2020	2,652	2,456	1,773	72	-80	3,343	846
	2021	2,542	2,799	1,744	117	4	3,475	886
	2022	2,306	3,252	1,671	196	113	3,578	916
Czechia	2019	8,522	4,043	2,286	405	-36	9,910	939
	2020	6,941	4,214	1,854	110	17	9,174	870
	2021	8,017	4,381	2,244	148	-1	10,007	950
	2022	8,312	3,953	1,898	256	35	10,076	944
Denmark	2019	8,908	7,211	6,528	1,750	775	7,065	1,215
	2020	8,493	6,985	7,062	876	709	6,830	1,171
	2021	8,583	4,737	7,147	883	-1,125	6,414	1,095
	2022	8,372	5,880	6,041	1,238	55	6,919	1,172
Estonia	2019	..	1,862	508	236	60	1,059	798
	2020	..	2,232	808	304	79	1,041	783
	2021	..	2,061	817	330	-86	1,000	751
	2022	..	1,705	328	320	36	1,022	757
Faeroe Islands	2019	..	*286	..	45	..	*241	*4,650
	2020	..	*301	..	53	..	*248	*4,707
	2021	..	*313	..	57	..	*256	*4,802
	2022	..	*294	..	59	..	*234	*4,338
Finland	2019	15,437	5,201	9,490	1,155	-253	10,246	1,856
	2020	14,237	5,420	8,732	588	261	10,076	1,822
	2021	10,745	5,060	6,461	551	-151	8,944	1,614
	2022	12,779	5,997	7,825	853	271	9,827	1,764
France	2019	56,103	44,925	17,170	7,839	-126	76,145	1,121
	2020	41,427	42,881	12,597	3,615	-29	68,124	1,000
	2021	40,959	44,986	12,469	3,744	-730	70,462	1,031
	2022	47,126	40,544	13,671	5,857	-103	68,245	996
Germany	2019	107,107	42,136	22,050	10,906	280	116,007	1,388
	2020	102,675	34,834	22,345	5,749	-429	109,844	1,313
	2021	102,789	36,799	25,574	7,300	-223	106,937	1,278
	2022	108,928	35,545	27,495	10,231	221	106,526	1,267
Gibraltar	2019	..	4,528	..	4,280	..	248	6,981
	2020	..	4,542	..	4,344	..	198	5,461
	2021	..	4,435	..	4,239	..	197	5,338
	2022	..	4,932	..	4,735	..	197	5,234
Greece	2019	30,375	9,595	18,100	3,711	-197	18,356	1,713
	2020	29,066	8,354	18,720	2,026	289	16,385	1,531
	2021	30,848	9,112	20,857	2,548	-436	16,992	1,606
	2022	30,878	10,215	17,748	3,139	311	19,894	1,911
Hungary	2019	7,905	4,352	3,280	270	29	8,678	888
	2020	7,820	3,526	2,924	98	41	8,283	850
	2021	7,764	3,910	2,760	119	-15	8,810	908
	2022	7,283	3,731	2,432	250	-155	8,487	876
Iceland	2019	12	893	..	368	-46	582	1,614
	2020	4	612	..	107	-23	531	1,449
	2021	..	753	..	170	29	554	1,487
	2022	..	961	..	355	9	597	1,569
Ireland	2019	2,876	6,307	1,494	1,192	-95	6,592	1,336
	2020	3,053	5,078	1,519	524	121	5,966	1,197
	2021	3,203	5,341	1,605	584	-43	6,398	1,272
	2022	3,232	5,609	1,483	1,075	-22	6,305	1,234

Table 26

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Italy	2019	76,671	17,155	27,527	6,607	348	59,343	986
	2020	63,420	14,954	23,152	3,971	477	50,774	847
	2021	72,211	14,589	26,259	4,178	-3,019	59,381	994
	2022	76,869	15,300	26,818	5,310	535	59,506	998
Kosovo	2019	..	801	15	2	..	783	446
	2020	..	775	8	2	..	765	437
	2021	..	876	9	2	..	864	496
	2022	..	802	24	4	..	774	451
Latvia	2019	44	2,285	479	442	11	1,397	730
	2020	60	1,978	288	260	114	1,376	724
	2021	60	1,903	337	281	-80	1,425	756
	2022	25	2,238	593	247	48	1,374	730
Lithuania	2019	9,718	1,096	7,464	318	-42	3,072	1,099
	2020	8,045	1,046	5,764	238	130	2,958	1,058
	2021	8,234	1,165	6,047	250	32	3,070	1,099
	2022	8,469	1,242	6,455	255	26	2,975	1,056
Luxembourg	2019	..	3,067	5	583	11	2,467	3,979
	2020	..	2,518	3	531	-1	1,986	3,149
	2021	..	2,683	1	606	-4	2,081	3,250
	2022	..	2,443	1	629	-7	1,821	2,787
Malta	2019	11	3,135	383	2,500	-66	329	652
	2020	14	2,776	195	2,316	-17	296	571
	2021	11	2,426	107	2,077	-51	304	580
	2022	13	2,709	35	2,315	19	352	667
Montenegro	2019	..	416	31	21	-14	378	618
	2020	..	321	11	5	-16	322	529
	2021	..	407	16	12	-3	382	633
	2022	..	394	5	18	-10	381	620
Netherlands (Kingd. of the)	2019	66,431	83,818	105,301	15,327	1,326	28,295	1,613
	2020	60,368	73,166	90,985	14,073	1,541	26,935	1,527
	2021	63,803	82,741	106,960	13,799	-2,807	28,592	1,613
	2022	64,074	85,317	106,343	14,704	1,185	27,159	1,517
North Macedonia	2019	0	1,251	159	27	20	1,045	551
	2020	0	1,162	109	15	40	997	533
	2021	0	1,263	154	16	15	1,078	582
	2022	0	1,349	134	26	23	1,167	634
Norway	2019	23,705	5,920	18,566	807	-150	10,402	1,945
	2020	21,953	5,912	16,844	415	158	10,447	1,942
	2021	20,119	6,124	16,523	418	-167	9,469	1,751
	2022	14,965	8,120	13,346	711	7	9,021	1,653
Poland	2019	30,207	8,799	5,242	1,320	124	32,319	845
	2020	28,844	7,924	4,606	743	24	31,395	822
	2021	28,239	10,261	4,038	893	254	33,314	876
	2022	30,340	11,044	5,224	1,221	105	34,835	907
Portugal	2019	13,243	4,875	4,802	2,405	-250	11,161	1,079
	2020	12,386	3,629	5,245	1,217	-51	9,603	926
	2021	11,743	4,968	5,007	1,328	-57	10,433	1,004
	2022	12,305	5,020	4,520	2,076	-72	10,801	1,037
Republic of Moldova	2019	6	1,016	9	48	8	956	307
	2020	7	957	10	17	11	926	302
	2021	2	1,021	2	40	-28	1,009	334
	2022	3	1,264	177	45	-10	1,056	347



## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Romania	2019	13,838	3,280	5,393	164	-58	11,618	596
	2020	12,291	3,515	4,298	83	82	11,343	585
	2021	11,651	4,168	3,916	105	-71	11,869	617
	2022	12,986	3,490	4,667	96	83	11,630	607
Russian Federation	2019	282,261	1,333	132,594	16,459	176	134,365	917
	2020	265,576	1,531	124,044	11,451	158	131,455	898
	2021	274,958	1,101	123,536	11,573	1,233	139,717	958
	2022	269,790	752	115,701	11,470	1,018	142,353	978
Serbia	2019	3,634	1,217	789	154	-66	3,973	570
	2020	3,771	957	887	93	9	3,739	541
	2021	4,087	1,171	996	122	-17	4,157	608
	2022	4,579	969	746	152	167	4,482	660
Slovakia	2019	5,989	1,856	3,350	44	18	4,433	813
	2020	6,454	1,616	3,621	28	-4	4,425	811
	2021	6,461	1,652	3,446	22	-18	4,663	857
	2022	6,275	1,710	3,235	33	50	4,667	853
Slovenia	2019	102	4,882	2,306	220	36	2,422	1,163
	2020	96	4,029	1,919	129	-11	2,088	993
	2021	106	3,863	1,604	99	-9	2,275	1,077
	2022	82	4,620	2,299	21	-36	2,418	1,143
Spain	2019	67,167	21,186	23,865	11,950	408	52,130	1,099
	2020	57,281	18,874	22,915	7,925	-30	45,345	951
	2021	59,680	20,214	22,349	9,067	-1,677	50,155	1,051
	2022	63,632	19,211	20,584	12,221	417	49,620	1,037
Sweden	2019	19,334	8,461	11,609	2,916	668	12,602	1,226
	2020	21,067	8,437	13,215	2,894	2,005	11,391	1,100
	2021	22,868	7,307	16,667	2,893	-2,699	13,313	1,278
	2022	22,637	7,899	15,008	2,732	112	12,683	1,209
Switzerland	2019	2,982	8,175	460	1,815	192	8,690	1,013
	2020	3,086	6,353	461	667	202	8,108	938
	2021	2,561	6,153	399	754	-303	7,863	903
	2022	3,314	5,822	614	1,344	-515	7,693	875
Ukraine	2019	*2,976	10,711	817	..	-106	12,976	289
	2020	*2,780	10,469	267	..	-24	13,006	291
	2021	*3,004	11,006	216	..	-63	13,856	313
	2022	*2,701	9,522	*68	..	*-21	12,176	297
United Kingdom	2019	62,898	38,196	22,743	13,738	222	64,391	959
	2020	52,030	27,446	20,177	6,624	525	52,150	774
	2021	51,804	28,948	20,058	6,502	-1,302	55,494	820
	2022	58,346	32,351	23,391	10,883	-193	56,616	830
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>256,443</b>	<b>159,724</b>	<b>39,516</b>	<b>23,241</b>	<b>-1,981</b>	<b>355,391</b>	<b>554</b>
	<b>2020</b>	<b>234,586</b>	<b>132,736</b>	<b>43,026</b>	<b>14,314</b>	<b>478</b>	<b>309,505</b>	<b>479</b>
	<b>2021</b>	<b>247,538</b>	<b>151,408</b>	<b>42,349</b>	<b>16,973</b>	<b>-45</b>	<b>339,668</b>	<b>523</b>
	<b>2022</b>	<b>269,162</b>	<b>166,045</b>	<b>57,959</b>	<b>21,716</b>	<b>-2,549</b>	<b>358,080</b>	<b>548</b>
Anguilla	2019	..	55	..	*12	*-4	47	3,171
	2020	..	43	..	*7	*-9	45	2,998
	2021	..	54	..	*12	*-4	46	3,157
	2022	..	59	..	*13	*-1	46	3,251
Antigua and Barbuda	2019	..	*339	*4	*122	..	*213	*2,335
	2020	..	*326	*3	*117	..	*206	*2,244
	2021	..	*342	*9	*121	..	*212	*2,295
	2022	..	*343	*9	*121	..	*213	*2,294

Table 26

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Argentina	2019	28,137	2,987	2,775	1,339	-239	27,249	606
	2020	26,689	1,676	2,478	723	-307	25,472	564
	2021	26,136	4,217	1,957	519	-336	28,213	623
	2022	28,040	6,117	3,985	1,258	-33	28,947	637
Aruba	2019	..	*366	..	*95	..	*272	*2,538
	2020	..	*359	..	*90	..	*269	*2,501
	2021	..	*379	..	*98	..	*282	*2,619
	2022	..	390	..	*101	..	289	2,682
Bahamas	2019	..	1,290	..	*432	*32	825	2,090
	2020	..	1,032	..	*408	*47	671	1,696
	2021	..	1,635	..	*601	*140	894	2,256
	2022	..	1,262	..	*432	*-135	965	2,428
Barbados	2019	..	515	..	126	-14	404	1,436
	2020	..	442	..	62	7	372	1,322
	2021	..	414	..	53	17	344	1,220
	2022	..	488	..	107	-1	382	1,354
Belize	2019	1	265	..	*20	..	246	638
	2020	1	215	..	*21	..	195	500
	2021	..	227	..	*22	..	205	519
	2022	..	236	..	23	..	213	530
Bolivia (Plur. State of)	2019	2,489	1,748	198	64	20	3,954	339
	2020	2,397	1,008	138	26	8	3,233	274
	2021	2,486	1,740	210	29	-40	4,027	337
	2022	2,323	2,271	135	52	31	4,376	362
Bonaire, St Eustatius, Saba	2019	..	*62	..	*19	*-5	*48	*1,870
	2020	..	*58	..	*13	0	*46	*1,728
	2021	..	*56	..	*14	*-6	*48	*1,744
	2022	..	*60	..	*15	*-4	*49	*1,726
Brazil	2019	107,105	28,073	8,560	5,762	545	120,311	580
	2020	110,780	23,020	13,833	4,812	64	115,091	552
	2021	112,844	28,150	12,568	4,062	701	123,663	590
	2022	124,307	29,452	14,491	5,001	1,912	132,355	629
British Virgin Islands	2019	..	*59	..	..	..	*59	*1,627
	2020	..	*58	..	..	..	*58	*1,565
	2021	..	*59	..	..	..	*59	*1,568
	2022	..	*60	..	..	..	*60	*1,571
Cayman Islands	2019	..	261	..	34	..	228	3,382
	2020	..	227	..	15	..	212	3,089
	2021	..	218	..	8	..	211	3,005
	2022	..	240	..	26	..	214	2,987
Chile	2019	10,245	7,542	536	823	217	16,210	844
	2020	8,507	7,772	612	418	-51	15,299	790
	2021	9,416	8,615	877	503	-59	16,710	859
	2022	8,423	10,973	1,132	726	1	17,538	897
Colombia	2019	20,651	5,209	5,414	1,455	-579	19,569	392
	2020	16,900	3,784	5,728	708	22	14,226	281
	2021	20,397	5,492	5,348	980	654	18,907	369
	2022	21,476	7,403	9,922	1,601	87	17,269	334
Costa Rica	2019	..	2,781	0	224	90	2,468	494
	2020	..	2,220	0	97	-48	2,172	431
	2021	..	2,672	..	172	71	2,429	480
	2022	..	2,668	..	239	-69	2,498	492

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Cuba	2019	1,701	2,813	*496	*494	..	3,524	315
	2020	2,052	3,084	*393	*480	..	4,263	381
	2021	1,461	2,563	*67	*487	..	3,470	312
	2022	1,396	2,986	*120	*358	..	3,904	353
Curaçao	2019	0	2,977	0	2,072	..	904	4,772
	2020	..	2,406	..	1,650	..	756	4,084
	2021	..	2,539	..	1,736	..	802	4,330
	2022	..	2,707	..	1,876	..	831	4,484
Dominica	2019	..	*58	..	*2	*-1	*57	*839
	2020	..	*53	..	*2	0	*52	*767
	2021	..	*54	..	*2	0	*52	*780
	2022	..	*55	..	*2	0	*54	*806
Dominican Republic	2019	1,141	5,903	..	506	-30	6,568	603
	2020	479	4,752	..	207	-42	5,065	460
	2021	1,118	4,996	..	355	-15	5,774	519
	2022	1,150	5,633	..	500	-8	6,292	560
Ecuador	2019	7,406	6,703	2,996	832	26	10,255	591
	2020	6,153	5,611	2,933	286	7	8,538	487
	2021	7,648	6,481	3,095	1,082	-3	9,956	563
	2022	8,032	6,922	2,955	1,205	0	10,793	606
El Salvador	2019	..	2,548	7	175	..	2,366	380
	2020	..	2,125	146	68	..	1,911	307
	2021	..	2,492	189	127	..	2,176	348
	2022	..	2,698	198	148	..	2,352	374
Falkland Is. (Malvinas)	2019	..	12	..	..	..	12	3,309
	2020	..	12	..	..	..	12	3,493
	2021	..	12	..	..	..	12	3,395
	2022	..	*12	..	..	..	*12	*3,430
Grenada	2019	..	119	..	9	1	109	939
	2020	..	103	..	8	1	94	807
	2021	..	113	..	9	3	101	866
	2022	..	124	..	10	3	111	949
Guatemala	2019	146	5,270	247	524	115	4,529	265
	2020	110	4,768	223	438	-40	4,257	245
	2021	132	5,573	306	553	8	4,838	275
	2022	136	6,050	284	560	164	5,179	290
Guyana	2019	..	887	5	17	1	864	1,070
	2020	..	922	32	5	36	849	1,051
	2021	..	998	*40	8	58	893	1,095
	2022	..	1,369	14	9	2	1,344	1,636
Haiti	2019	..	1,021	..	22	..	999	90
	2020	..	1,051	..	10	..	1,041	93
	2021	..	1,139	..	11	..	1,128	99
	2022	..	927	..	21	..	906	79
Honduras	2019	..	3,762	444	..	-22	3,339	336
	2020	..	3,479	416	..	12	3,051	301
	2021	..	3,807	366	..	43	3,398	330
	2022	..	4,042	438	..	24	3,580	342
Jamaica	2019	1,291	1,933	314	291	-6	2,625	930
	2020	1,167	1,217	631	149	5	1,599	565
	2021	1,011	1,232	503	167	37	1,535	541
	2022	946	1,526	375	251	-32	1,879	662

Table 26

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Mexico	2019	37,111	51,531	5,929	4,742	-1,491	79,462	632
	2020	36,759	42,339	7,498	1,924	657	69,019	544
	2021	41,839	45,711	9,493	3,225	-281	75,113	588
	2022	47,249	47,244	11,012	4,601	-69	78,949	614
Montserrat	2019	..	9	..	*1	..	8	1,768
	2020	..	9	..	*1	..	8	1,747
	2021	..	*9	..	*1	..	*8	*1,760
	2022	..	9	..	*1	..	8	1,785
Nicaragua	2019	518	1,226	39	16	64	1,625	251
	2020	516	972	79	6	-34	1,437	219
	2021	670	951	100	9	-63	1,575	237
	2022	712	1,083	95	15	103	1,581	235
Panama	2019	..	3,197	1	597	-52	2,651	626
	2020	..	1,585	0	208	355	1,022	238
	2021	..	2,283	5	329	-148	2,097	483
	2022	..	3,280	8	634	-138	2,776	631
Paraguay	2019	287	2,679	..	71	2	2,893	444
	2020	239	2,437	..	25	42	2,608	395
	2021	290	2,570	..	34	-82	2,908	435
	2022	279	2,434	..	45	2	2,665	394
Peru	2019	10,693	5,129	3,597	1,116	-531	11,639	359
	2020	7,778	5,203	2,248	492	-203	10,444	318
	2021	8,901	6,417	2,505	713	-672	12,772	385
	2022	9,145	7,366	2,272	716	-36	13,559	405
Saint Barthélemy	2019	..	*47	..	*10	..	*37	*3,565
	2020	..	*47	..	*10	..	*37	*3,514
	2021	..	*48	..	*10	..	*38	*3,496
	2022	..	*51	..	*10	..	*41	*3,731
Saint Martin (French Part)	2019	..	*220	..	*81	..	*138	*4,039
	2020	..	*215	..	*76	..	*138	*4,348
	2021	..	*214	..	*76	..	*138	*4,619
	2022	..	*217	..	*79	..	*138	*4,772
Sint Maarten (Dutch part)	2019	..	*473	..	*212	..	*261	*6,453
	2020	..	*436	..	*187	..	*249	*6,074
	2021	..	*464	..	*205	..	*259	*6,236
	2022	..	*488	..	*225	..	*263	*6,241
St. Kitts-Nevis	2019	..	*90	..	*5	..	*85	*1,810
	2020	..	*84	..	*5	..	*79	*1,688
	2021	..	*82	..	*5	..	*77	*1,656
	2022	..	*87	..	*5	..	*82	*1,751
St. Lucia	2019	..	198	..	*33	..	165	931
	2020	..	*189	..	*28	..	*161	*902
	2021	..	*196	..	*29	..	*167	*936
	2022	..	*200	..	*30	..	*170	*951
St. Vincent-Grenadines	2019	..	65	..	0	*-8	73	703
	2020	..	72	..	0	*-7	78	756
	2021	..	*72	..	0	*-6	*78	*756
	2022	..	*83	..	0	*2	*81	*793
Suriname	2019	637	291	*279	*77	0	571	943
	2020	618	295	*194	*69	1	650	1,062
	2021	686	264	*246	*77	0	627	1,015
	2022	685	292	125	*81	..	771	1,237

Table 26

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Trinidad and Tobago	2019	843	2,072	1,476	231	-31	1,239	834
	2020	710	1,895	1,324	160	13	1,109	749
	2021	608	1,877	1,263	172	14	1,036	696
	2022	888	1,822	1,238	*189	24	1,260	842
Turks and Caicos Islands	2019	..	*145	..	*25	..	*121	*2,794
	2020	..	*143	..	*24	..	*119	*2,672
	2021	..	*146	..	*25	..	*121	*2,679
	2022	..	*145	..	*25	..	*121	*2,630
Uruguay	2019	2,106	182	7	254	-82	2,108	621
	2020	1,960	340	7	140	39	2,114	622
	2021	2,155	482	21	132	-74	2,559	753
	2022	2,111	506	1	169	46	2,402	708
Venezuela (Bolivar. Rep.)	2019	23,934	6,613	6,191	297	..	24,059	831
	2020	10,770	4,652	4,108	137	..	11,177	393
	2021	9,741	3,351	3,182	202	..	9,708	344
	2022	11,863	3,665	9,150	240	-4,424	10,561	374
<b>Northern America</b>	<b>2019</b>	<b>1,097,172</b>	<b>126,967</b>	<b>252,392</b>	<b>52,321</b>	<b>270</b>	<b>919,158</b>	<b>2,447</b>
	<b>2020</b>	<b>970,681</b>	<b>108,293</b>	<b>235,723</b>	<b>33,211</b>	<b>-1,531</b>	<b>811,571</b>	<b>2,149</b>
	<b>2021</b>	<b>1,022,645</b>	<b>121,960</b>	<b>244,609</b>	<b>39,025</b>	<b>-8,086</b>	<b>869,058</b>	<b>2,295</b>
	<b>2022</b>	<b>1,088,991</b>	<b>108,126</b>	<b>259,244</b>	<b>41,932</b>	<b>917</b>	<b>895,024</b>	<b>2,352</b>
Bermuda	2019	..	215	..	*25	*-4	194	3,033
	2020	..	163	..	*21	..	142	2,209
	2021	..	183	..	*23	-9	169	2,613
	2022	..	*188	..	*24	*-8	*172	*2,663
Canada	2019	109,668	15,808	25,606	4,994	-253	95,130	2,518
	2020	98,551	10,114	22,740	2,339	-62	83,649	2,191
	2021	102,027	10,600	24,332	2,278	-208	86,225	2,242
	2022	108,313	11,836	23,169	3,759	92	93,129	2,399
Greenland	2019	..	204	..	20	*-1	186	3,308
	2020	..	188	..	20	*-10	178	3,173
	2021	..	193	..	12	*1	180	3,204
	2022	..	199	..	22	*-23	200	3,568
St. Pierre-Miquelon	2019	..	*27	..	*5	..	*21	*3,625
	2020	..	*23	..	*3	..	*20	*3,449
	2021	..	*20	..	*2	..	*18	*3,115
	2022	..	*19	..	*1	..	*17	*3,018
United States	2019	987,504	110,713	226,786	47,276	528	823,626	2,438
	2020	872,130	97,804	212,983	30,828	-1,459	727,582	2,144
	2021	920,618	110,964	220,277	36,709	-7,870	782,466	2,300
	2022	980,679	95,884	236,075	38,125	856	801,506	2,347
<b>Oceania</b>	<b>2019</b>	<b>33,274</b>	<b>36,963</b>	<b>3,854</b>	<b>7,454</b>	<b>249</b>	<b>58,680</b>	<b>1,349</b>
	<b>2020</b>	<b>30,794</b>	<b>36,945</b>	<b>4,869</b>	<b>5,271</b>	<b>-554</b>	<b>58,153</b>	<b>1,319</b>
	<b>2021</b>	<b>26,268</b>	<b>36,871</b>	<b>4,654</b>	<b>2,256</b>	<b>-46</b>	<b>56,275</b>	<b>1,263</b>
	<b>2022</b>	<b>18,903</b>	<b>45,352</b>	<b>4,674</b>	<b>3,296</b>	<b>-91</b>	<b>56,377</b>	<b>1,252</b>
American Samoa	2019	..	*154	..	*25	..	*129	*2,573
	2020	..	*150	..	*23	..	*127	*2,554
	2021	..	*150	..	*23	..	*127	*2,582
	2022	..	*152	..	*23	..	*129	*2,671
Australia	2019	26,000	29,888	3,125	5,503	315	46,944	1,842
	2020	24,607	30,098	4,156	4,315	-652	46,886	1,821
	2021	20,539	30,184	3,801	1,591	209	45,122	1,738
	2022	16,277	35,461	3,795	2,257	-104	45,789	1,748

Table 26

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Cook Islands	2019	..	*36	..	*10	..	*26	*1,605
	2020	..	*25	..	*3	..	*22	*1,404
	2021	..	*26	..	*2	..	*24	*1,574
	2022	..	*31	..	*6	..	*25	*1,711
Fiji	2019	..	792	117	185	*-8	498	545
	2020	..	619	61	106	..	452	494
	2021	..	519	89	68	..	361	394
	2022	..	681	40	179	..	461	502
French Polynesia	2019	..	295	..	..	3	293	1,049
	2020	..	278	..	..	5	274	980
	2021	..	296	..	..	10	286	1,023
	2022	..	302	..	..	10	292	1,042
Kiribati	2019	..	*24	..	*1	..	*23	*189
	2020	..	*24	..	*1	..	*23	*182
	2021	..	*24	..	*1	..	*23	*179
	2022	..	*24	..	*1	..	*23	*178
Marshall Islands	2019	..	*50	..	*2	..	*48	*1,095
	2020	..	*50	..	*2	..	*48	*1,115
	2021	..	*49	..	*2	..	*47	*1,146
	2022	..	*50	..	*2	..	*48	*1,200
Micronesia (Fed. States of)	2019	..	*59	..	*10	..	*49	*447
	2020	..	*59	..	*10	..	*49	*441
	2021	..	*58	..	*10	..	*48	*433
	2022	..	*59	..	*10	..	*49	*439
Nauru	2019	..	*25	..	*8	..	*17	*1,489
	2020	..	*24	..	*7	..	*17	*1,497
	2021	..	*26	..	*7	..	*18	*1,568
	2022	..	*26	..	*7	..	*19	*1,622
New Caledonia	2019	..	903	..	36	4	863	3,042
	2020	..	840	..	21	33	787	2,768
	2021	..	680	..	23	-75	732	2,567
	2022	..	813	..	34	9	770	2,682
New Zealand	2019	6,066	2,844	125	1,543	-20	7,261	1,455
	2020	4,736	3,186	..	672	90	7,161	1,412
	2021	4,425	3,083	202	416	-197	7,087	1,388
	2022	1,265	5,967	286	659	-7	6,293	1,226
Niue	2019	..	*3	..	0	..	*2	*1,148
	2020	..	*3	..	0	..	*2	*1,138
	2021	..	*3	..	*1	..	*2	*1,146
	2022	..	*3	..	*1	..	*2	*1,174
Northern Mariana Islands	2019	..	*144	0	21	..	*122	*2,539
	2020	..	*99	0	12	..	*87	*1,821
	2021	..	*113	0	15	..	*98	*2,093
	2022	..	*113	0	15	..	*98	*2,121
Palau	2019	..	*78	..	*7	..	*71	*4,003
	2020	..	*76	..	*6	..	*70	*3,906
	2021	..	*76	..	*6	..	*70	*3,936
	2022	..	*78	..	*6	..	*71	*4,020
Papua New Guinea	2019	1,208	1,317	485	*63	*-50	2,026	211
	2020	1,451	1,086	652	*66	-29	1,848	188
	2021	1,304	1,239	562	*66	*4	1,911	191
	2022	*1,362	*1,268	*552	*68	..	*2,010	*197

## Production, trade and supply of oil products

Thousand metric tons and kilograms per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Samoa	2019	..	106	*1	*12	*4	88	421
	2020	..	83	0	*4	*-1	80	376
	2021	..	95	0	*2	*2	91	424
	2022	..	84	1	3	*1	79	369
Solomon Islands	2019	..	*108	..	*9	..	*99	*136
	2020	..	*105	..	*8	..	*97	*131
	2021	..	*104	..	*8	..	*96	*126
	2022	..	*101	..	*7	..	*93	*119
Tonga	2019	..	53	..	0	..	53	501
	2020	..	46	..	0	..	46	432
	2021	..	46	..	0	..	46	436
	2022	..	48	..	0	..	48	455
Tuvalu	2019	..	*3	..	0	..	*3	*306
	2020	..	*3	..	0	..	*3	*288
	2021	..	*3	..	0	..	*3	*299
	2022	..	*3	..	0	..	*3	*307
Vanuatu	2019	..	71	..	*17	..	54	186
	2020	..	83	..	*16	..	67	225
	2021	..	88	..	*16	..	72	234
	2022	..	79	..	*17	..	62	198
Wallis and Futuna Is.	2019	..	10	..	1	..	8	723
	2020	..	*10	..	1	..	*9	*773
	2021	..	*10	..	1	..	*9	*792
	2022	..	*11	..	1	..	*10	*850





### Production of natural gas liquids – by end use

Thousand metric tons

#### Table Notes

**Production** refers to production of natural gas liquids.

**End-use products** refers to the output of natural gas liquids plants, arranged by product. **Net imports** refers to imports minus exports. **Inputs of NGLs to refineries** refers to quantities of natural gas liquids that are transformed in oil refineries. Data may not add up due to statistical differences or the presence of other natural gas liquid flows such as stock changes, transfers or energy industries own use.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

Figure 69: Production of natural gas liquids by region, 1990-2022

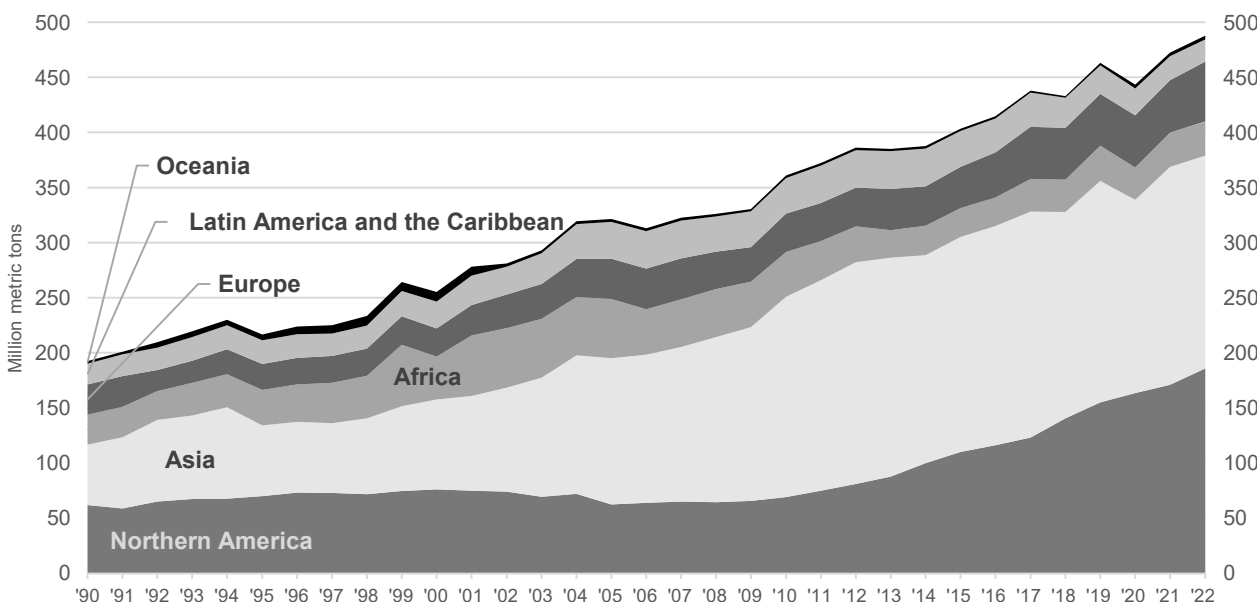


Figure 70: Production of natural gas liquids by end-use product, 2022

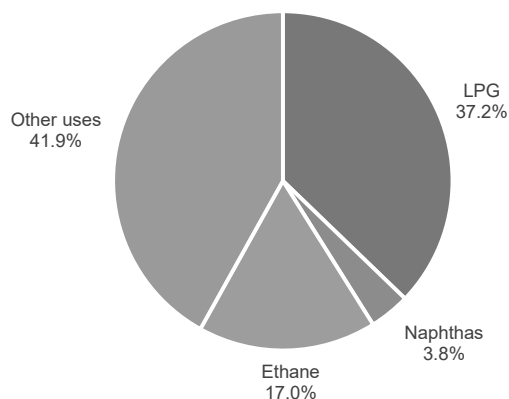


Table 27

## Production of natural gas liquids - by end use

Thousand metric tons

Country or area	Year	Total production	End-use products				Net imports	Inputs of NGLs to refineries
			LPG	Naphthas	Ethane	Other products		
World	2019	463,128	163,979	16,089	75,709	7,727	-44,992	113,743
	2020	443,292	166,840	14,956	79,527	6,816	-42,974	112,993
	2021	472,380	167,156	16,672	80,330	8,082	-55,976	108,506
	2022	487,812	181,527	18,776	83,145	10,676	-48,019	126,149
Africa	2019	32,169	12,919	240	..	..	-13,175	3,705
	2020	29,264	12,455	190	..	..	-10,568	4,285
	2021	31,055	12,930	216	..	..	-12,136	4,360
	2022	30,943	13,055	211	..	..	-11,183	4,990
Algeria	2019	16,517	8,259	107	..	..	-4,374	3,650
	2020	15,444	7,741	96	..	..	-3,253	4,231
	2021	16,076	8,285	95	..	..	-3,145	4,305
	2022	16,834	8,728	100	..	..	-2,989	4,899
Angola	2019	*2,818	2,358	..	..	..	*-429	..
	2020	*2,827	2,337	..	..	..	*-477	..
	2021	*2,411	2,010	..	..	..	*-377	..
	2022	*2,089	1,738	..	..	..	*-343	..
Cameroon	2019	24	24	..	..	..	..	..
	2020	25	25	..	..	..	..	..
	2021	35	35	..	..	..	..	..
	2022	28	28	..	..	..	..	..
Congo	2019	301	..	..	..	..	-276	25
	2020	301	..	..	..	..	-277	24
	2021	301	..	..	..	..	-276	25
	2022	301	..	..	..	..	-274	26
Côte d'Ivoire	2019	6	6	..	..	..	..	..
	2020	6	6	..	..	..	..	..
	2021	43	43	..	..	..	..	..
	2022	37	3	..	..	..	..	*34
Egypt	2019	3,218	1,153	..	..	..	-418	..
	2020	2,875	1,174	..	..	..	-287	..
	2021	2,656	1,174	..	..	..	-261	..
	2022	2,932	1,174	..	..	..	-255	..
Equatorial Guinea	2019	528	528	..	..	..	..	..
	2020	478	478	..	..	..	..	..
	2021	376	376	..	..	..	..	..
	2022	409	409	..	..	..	..	..
Ghana	2019	66	66	..	..	..	..	..
	2020	84	84	..	..	..	..	..
	2021	93	93	..	..	..	..	..
	2022	*111	111	..	..	..	..	..
Libya	2019	3,570	423	133	..	..	-3,014	..
	2020	1,734	381	94	..	..	-1,259	..
	2021	3,843	415	121	..	..	-3,307	..
	2022	3,573	407	111	..	..	-3,056	..
Mozambique	2019	7	..	..	..	..	-7	..
	2020	6	..	..	..	..	-6	..
	2021	6	..	..	..	..	-6	..
	2022	352	..	..	..	..	-345	..
Nigeria	2019	4,943	..	..	..	..	-4,623	..
	2020	5,314	136	..	..	..	-4,969	..
	2021	5,034	406	..	..	..	-4,708	..
	2022	4,144	406	..	..	..	-3,876	..

## Production of natural gas liquids - by end use

Thousand metric tons

Country or area	Year	Total production	End-use products				Net imports	Inputs of NGLs to refineries
			LPG	Naphthas	Ethane	Other products		
South Africa	2019	30	..	..	..	..	..	30
	2020	30	..	..	..	..	..	30
	2021	30	..	..	..	..	..	30
	2022	30	..	..	..	..	..	30
Tunisia	2019	142	102	..	..	..	-34	..
	2020	140	93	..	..	..	-39	..
	2021	151	93	..	..	..	-56	..
	2022	101	50	..	..	..	-46	..
<b>Asia</b>	<b>2019</b>	<b>200,722</b>	<b>71,098</b>	<b>15,005</b>	<b>31,587</b>	<b>178</b>	<b>-23,361</b>	<b>47,989</b>
	<b>2020</b>	<b>175,358</b>	<b>68,867</b>	<b>13,917</b>	<b>31,997</b>	<b>175</b>	<b>-27,086</b>	<b>47,214</b>
	<b>2021</b>	<b>197,842</b>	<b>67,680</b>	<b>15,643</b>	<b>30,019</b>	<b>60</b>	<b>-33,281</b>	<b>43,267</b>
	<b>2022</b>	<b>193,046</b>	<b>74,481</b>	<b>17,537</b>	<b>28,585</b>	<b>178</b>	<b>-29,194</b>	<b>52,729</b>
Azerbaijan	2019	3,904	12	20	..	..	-3,534	338
	2020	4,199	14	23	..	..	-3,544	619
	2021	5,343	13	23	..	..	-4,192	1,115
	2022	5,014	11	23	..	..	-4,407	573
Bahrain	2019	651	..	..	..	..	-693	..
	2020	636	..	..	..	..	-627	..
	2021	520	..	..	..	..	-505	..
	2022	553	..	..	..	..	-552	..
Bangladesh	2019	392	7	..	..	178	..	182
	2020	361	5	..	..	175	..	156
	2021	405	1	..	..	60	..	334
	2022	416	1	..	..	178	..	214
Brunei Darussalam	2019	524	18	..	..	..	-406	85
	2020	432	18	..	..	..	-388	27
	2021	382	17	..	..	..	-365	..
	2022	359	16	..	..	..	-342	..
India	2019	*4,763	*2,100	*1,280	..	..	..	*1,383
	2020	*4,212	*1,859	975	..	..	..	*1,378
	2021	4,051	*1,649	*971	..	..	..	*1,425
	2022	*3,543	*1,717	*831	..	..	..	*995
Indonesia	2019	*1,164	1,140	..	..	..	1,583	..
	2020	1,063	1,024	..	..	..	..	..
	2021	*1,039	1,039	..	..	..	..	..
	2022	*1,085	1,085	..	..	..	138	2,509
Iran (Islamic Rep. of)	2019	7,992	6,524	..	6,645	..	..	2,589
	2020	8,340	6,718	..	7,024	..	..	2,702
	2021	8,744	8,750	..	5,658	..	..	2,833
	2022	9,101	9,729	..	5,266	..	..	2,949
Iraq	2019	2,019	1,573	..	..	..	..	447
	2020	1,977	1,540	..	..	..	..	437
	2021	2,076	1,617	..	..	..	..	459
	2022	2,170	1,690	..	..	..	..	480
Japan	2019	198	..	..	..	..	2,232	2,390
	2020	185	..	..	..	..	1,232	1,415
	2021	180	..	..	..	..	311	403
	2022	163	..	..	..	..	176	305
Kazakhstan	2019	11,912	1,552	..	..	..	-10,360	..
	2020	12,649	1,571	..	..	..	-11,078	..
	2021	12,691	1,195	..	..	1	*-11,495	..
	2022	13,474	1,832	..	..	..	*-11,460	..

Table 27

## Production of natural gas liquids - by end use

Thousand metric tons

Country or area	Year	Total production	End-use products				Net imports	Inputs of NGLs to refineries
			LPG	Naphthas	Ethane	Other products		
Kuwait	2019	8,026	5,871	..	2,155	..	..	
	2020	8,403	6,248	..	2,155	..	..	
	2021	7,070	5,106	..	1,964	..	..	
	2022	12,052	6,203	..	2,291	..	1,126	
Malaysia	2019	1,937	1,937	..	..	..	..	
	2020	1,837	1,837	..	..	..	..	
	2021	1,114	1,114	..	..	..	..	
	2022	1,629	1,629	..	..	..	..	
Myanmar	2019	13	7	4	..	..	..	
	2020	5	..	*5	..	..	..	
	2021	5	..	5	..	..	..	
	2022	5	..	8	..	..	..	
Oman	2019	281	281	..	..	..	..	
	2020	216	216	..	..	..	..	
	2021	189	215	..	..	..	..	
	2022	210	200	..	..	..	..	
Pakistan	2019	255	255	..	..	..	..	
	2020	277	277	..	..	..	..	
	2021	284	284	..	..	..	..	
	2022	441	441	..	..	..	..	
Qatar	2019	37,615	6,279	..	2,793	..	-15,795	12,748
	2020	38,508	5,757	..	2,618	..	-16,675	13,458
	2021	39,571	6,036	..	2,635	..	-17,099	13,801
	2022	39,749	6,238	..	2,714	..	-17,043	13,755
Saudi Arabia	2019	76,068	26,872	9,533	*12,913	..	0	7,871
	2020	50,315	25,267	8,631	*12,778	..	-157	7,559
	2021	69,268	24,071	8,588	*12,597	..	*-5,000	*1,819
	2022	56,665	27,202	8,782	12,669	..	-696	7,316
Syrian Arab Republic	2019	86	86	..	..	..	..	..
	2020	95	95	..	..	..	..	..
	2021	95	95	..	..	..	..	..
	2022	95	95	..	..	..	..	..
Thailand	2019	7,666	3,909	..	3,128	..	-37	1,065
	2020	6,815	3,383	..	2,870	..	-39	954
	2021	6,872	3,469	..	2,848	..	-17	945
	2022	5,148	2,938	..	1,769	..	-1	787
Turkmenistan	2019	1,015	854	..	..	..	..	162
	2020	968	929	..	..	..	..	154
	2021	981	940	..	..	..	..	156
	2022	1,088	1,030	..	..	..	..	173
United Arab Emirates	2019	29,919	11,104	4,168	3,953	..	4,929	16,408
	2020	30,186	11,409	4,283	4,552	..	5,011	16,218
	2021	33,598	11,409	6,056	4,317	..	5,851	18,042
	2022	37,132	11,409	7,893	3,875	..	5,044	19,660
Uzbekistan	2019	2,310	..	..	..	..	11	2,321
	2020	2,028	..	..	..	..	108	2,136
	2021	*1,824	..	..	..	..	*110	*1,934
	2022	1,287	..	..	..	..	*600	*1,887
Viet Nam	2019	391	391	..	..	..	..	..
	2020	392	372	..	..	..	..	..
	2021	360	360	..	..	..	..	..
	2022	763	763	..	..	..	..	..

## Production of natural gas liquids - by end use

Thousand metric tons

Country or area	Year	Total production	End-use products				Net imports	Inputs of NGLs to refineries
			LPG	Naphthas	Ethane	Other products		
Yemen	2019	328	328	..	..	..	..	
	2020	329	329	..	..	..	..	
	2021	301	301	..	..	..	..	
	2022	252	252	..	..	..	..	
<b>Europe</b>	<b>2019</b>	<b>47,025</b>	<b>6,395</b>	<b>843</b>	<b>1,834</b>	<b>190</b>	<b>3,297</b>	<b>36,404</b>
	<b>2020</b>	<b>47,528</b>	<b>6,336</b>	<b>807</b>	<b>1,707</b>	<b>4</b>	<b>5,348</b>	<b>38,330</b>
	<b>2021</b>	<b>47,665</b>	<b>5,291</b>	<b>771</b>	<b>1,314</b>	<b>4</b>	<b>3,089</b>	<b>38,688</b>
	<b>2022</b>	<b>54,376</b>	<b>4,669</b>	<b>986</b>	<b>544</b>	<b>4</b>	<b>6,101</b>	<b>49,169</b>
Austria	2019	16	..	..	..	..	..	16
	2020	14	..	..	..	..	..	14
	2021	11	..	..	..	..	..	11
	2022	11	..	..	..	..	..	11
Belarus	2019	102	98	..	..	4	..	..
	2020	107	103	..	..	4	..	..
	2021	107	103	..	..	4	..	..
	2022	107	104	..	..	4	..	..
Croatia	2019	59	40	..	..	..	..	13
	2020	51	34	17	..	..	..	..
	2021	50	33	17	..	..	..	..
	2022	46	30	16	..	..	..	..
Finland	2019	..	..	..	..	..	549	673
	2020	..	..	..	..	..	647	665
	2021	..	..	..	..	..	587	619
	2022	..	..	..	..	..	713	754
France	2019	..	..	..	..	186	186	..
	2020	..	..	..	..	..	..	..
	2021	..	..	..	..	..	24	..
	2022	..	..	..	..	..	6	..
Hungary	2019	184	43	..	..	..	..	137
	2020	145	35	..	..	..	..	110
	2021	168	39	..	..	..	..	124
	2022	163	28	..	..	..	..	130
Italy	2019	..	..	..	..	..	..	..
	2020	10	..	..	..	..	..	10
	2021	10	..	..	..	..	..	10
	2022	10	..	..	..	..	..	10
Montenegro	2019	..	..	..	..	..	5	..
	2020	..	..	..	..	..	4	..
	2021	..	..	..	..	..	4	..
	2022	..	..	..	..	..	..	..
Netherlands (Kingd. of the)	2019	132	..	..	..	..	4,759	2,365
	2020	112	..	..	..	..	6,502	3,606
	2021	98	..	..	..	..	4,617	2,021
	2022	92	..	..	..	..	7,170	3,748
Norway	2019	9,061	5,309	843	1,098	..	..	..
	2020	8,759	5,073	789	1,012	..	..	..
	2021	7,699	4,340	754	715	..	..	..
	2022	6,179	3,520	970	178	..	..	..
Romania	2019	129	..	..	..	..	-30	78
	2020	123	..	..	..	..	-27	70
	2021	123	..	..	..	..	-27	87
	2022	112	..	..	..	..	-22	68

Table 27

## Production of natural gas liquids - by end use

Thousand metric tons

Country or area	Year	Total production	End-use products				Net imports	Inputs of NGLs to refineries
			LPG	Naphthas	Ethane	Other products		
Russian Federation	2019	33,431	..	..	..	..	-1,838	31,589
	2020	34,099	..	..	..	..	-1,709	32,386
	2021	36,001	..	..	..	..	-1,509	34,492
	2022	44,133	..	..	..	..	-1,555	42,567
Serbia	2019	31	..	..	..	..	31	61
	2020	32	..	..	..	..	23	54
	2021	28	..	..	..	..	27	53
	2022	26	..	..	..	..	26	53
Slovakia	2019	2	..	..	..	..	..	2
	2020	2	..	..	..	..	..	2
	2021	2	..	..	..	..	..	2
	2022	1	..	..	..	..	..	1
Ukraine	2019	735	..	..	..	..	1	737
	2020	746	..	..	..	..	..	746
	2021	744	..	..	..	..	..	738
	2022	679	..	..	..	..	..	*674
United Kingdom	2019	3,144	905	..	736	..	-366	733
	2020	3,327	1,092	..	695	..	-92	667
	2021	2,625	776	..	599	..	-633	530
	2022	2,817	987	..	366	..	-237	1,153
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>25,816</b>	<b>9,740</b>	<b>0</b>	<b>2,667</b>	<b>3,209</b>	<b>-286</b>	<b>6,541</b>
	<b>2020</b>	<b>24,271</b>	<b>8,960</b>	<b>0</b>	<b>2,851</b>	<b>3,081</b>	<b>-291</b>	<b>5,488</b>
	<b>2021</b>	<b>21,724</b>	<b>8,929</b>	..	<b>2,439</b>	<b>2,999</b>	<b>-275</b>	<b>4,529</b>
	<b>2022</b>	<b>19,925</b>	<b>9,083</b>	..	<b>1,909</b>	<b>3,508</b>	<b>-307</b>	<b>4,393</b>
Argentina	2019	4,106	1,995	..	1,074	..	-270	767
	2020	*4,129	1,723	..	1,379	..	-277	750
	2021	4,218	1,928	..	1,296	..	-255	739
	2022	4,063	2,107	..	958	..	-296	702
Belize	2019	*1	1	..	..	..	..	..
	2020	1	1	..	..	..	..	..
	2021	..	..	..	..	..	..	..
	2022	..	..	..	..	..	..	..
Bolivia (Plur. State of)	2019	1,034	469	..	..	..	-16	549
	2020	977	433	..	..	..	-14	530
	2021	1,111	506	..	..	..	-20	585
	2022	1,068	516	..	..	..	-11	541
Brazil	2019	5,735	1,288	0	..	1,120	..	1,764
	2020	6,142	1,293	0	..	1,147	..	1,546
	2021	5,255	1,306	..	..	1,157	..	810
	2022	3,369	1,282	..	..	1,176	..	911
Chile	2019	307	..	..	..	..	..	..
	2020	285	..	..	..	..	..	..
	2021	254	..	..	..	..	..	..
	2022	277	..	..	..	..	..	..
Colombia	2019	376	376	..	..	0	..	..
	2020	442	442	..	..	..	..	..
	2021	447	447	..	..	..	..	..
	2022	458	458	..	..	..	..	..
Ecuador	2019	*164	91	..	..	64	..	9
	2020	*151	79	..	..	64	..	8
	2021	*171	95	..	..	68	..	7
	2022	*130	64	..	..	51	..	15

## Production of natural gas liquids - by end use

Thousand metric tons

Country or area	Year	Total production	End-use products				Net imports	Inputs of NGLs to refineries
			LPG	Naphthas	Ethane	Other products		
Mexico	2019	6,218	3,047	..	1,593	..	..	1,486
	2020	5,875	2,873	..	1,472	..	..	1,420
	2021	4,802	2,503	..	1,143	..	..	1,087
	2022	4,527	2,415	..	951	..	..	810
Peru	2019	3,411	1,262	..	..	1,534	..	..
	2020	3,350	1,273	..	..	1,494	..	..
	2021	*2,756	1,313	..	..	1,443	..	..
	2022	*3,034	1,180	..	..	1,854	..	..
Trinidad and Tobago	2019	801	436	..	..	408	..	..
	2020	673	360	..	..	350	..	..
	2021	574	303	..	..	305	..	..
	2022	888	499	..	..	390	..	..
Venezuela (Bolivar. Rep.)	2019	3,662	775	..	..	83	..	1,966
	2020	2,246	483	..	..	26	..	1,234
	2021	2,136	528	..	..	25	..	1,301
	2022	2,111	562	..	..	37	..	1,415
<b>Northern America</b>	<b>2019</b>	<b>155,114</b>	<b>61,544</b>	<b>..</b>	<b>39,621</b>	<b>4,150</b>	<b>-11,466</b>	<b>19,104</b>
	<b>2020</b>	<b>163,441</b>	<b>66,835</b>	<b>..</b>	<b>42,973</b>	<b>3,556</b>	<b>-10,376</b>	<b>17,677</b>
	<b>2021</b>	<b>170,974</b>	<b>69,250</b>	<b>..</b>	<b>46,557</b>	<b>5,018</b>	<b>-13,374</b>	<b>17,662</b>
	<b>2022</b>	<b>185,955</b>	<b>76,715</b>	<b>..</b>	<b>52,108</b>	<b>6,986</b>	<b>-13,436</b>	<b>14,868</b>
Canada	2019	18,587	..	..	..	..	-4,719	2,440
	2020	18,042	..	..	..	..	-2,792	2,590
	2021	18,426	..	..	..	..	-5,627	2,559
	2022	19,577	..	..	..	..	-6,675	2,992
United States	2019	136,527	61,544	..	39,621	4,150	-6,748	16,664
	2020	145,399	66,835	..	42,973	3,556	-7,584	15,086
	2021	152,548	69,250	..	46,557	5,018	-7,747	15,104
	2022	166,378	76,715	..	52,108	6,986	-6,761	11,877
<b>Oceania</b>	<b>2019</b>	<b>2,282</b>	<b>2,282</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>
	<b>2020</b>	<b>3,430</b>	<b>3,387</b>	<b>43</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>
	<b>2021</b>	<b>3,120</b>	<b>3,077</b>	<b>43</b>	<b>..</b>	<b>..</b>	<b>0</b>	<b>..</b>
	<b>2022</b>	<b>3,567</b>	<b>3,524</b>	<b>43</b>	<b>..</b>	<b>..</b>	<b>0</b>	<b>..</b>
Australia	2019	2,120	2,120	..	..	..	..	..
	2020	3,226	3,226	..	..	..	..	..
	2021	2,926	2,926	..	..	..	..	..
	2022	3,368	3,368	..	..	..	..	..
New Zealand	2019	163	163	..	..	..	..	..
	2020	161	161	..	..	..	..	..
	2021	151	151	..	..	..	0	..
	2022	156	156	..	..	..	0	..
Papua New Guinea	2019	..	..	..	..	..	..	..
	2020	43	..	43	..	..	..	..
	2021	43	..	43	..	..	..	..
	2022	*43	..	*43	..	..	..	..





## Production, trade and supply of natural gas

Terajoules

### Table Notes

**Production** includes quantities from other sources, which would include any quantities of biogas, LPG or manufactured gas blended with natural gas.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

Figure 71: Production of natural gas by region, 1990-2022

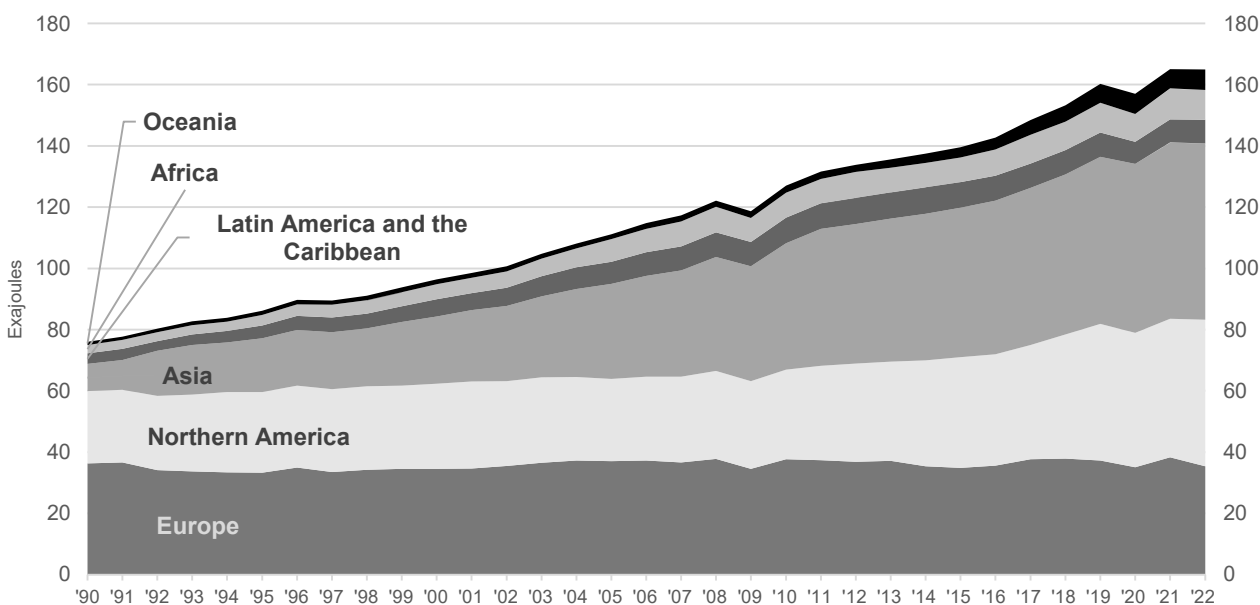


Figure 72: Major natural gas producing countries, 2022

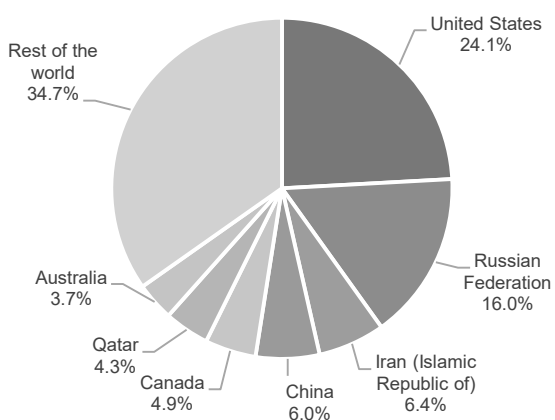


Figure 73: Major natural gas consuming countries, 2022

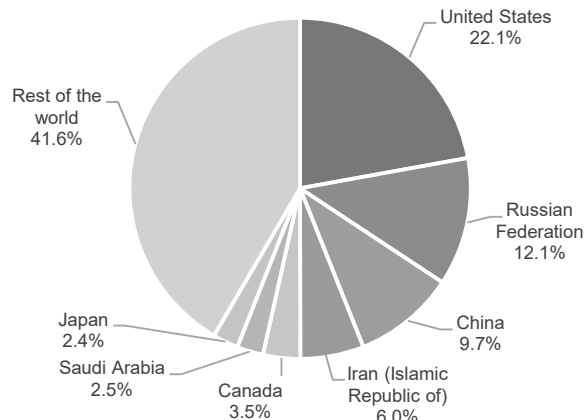


Table 28

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
World	2019	160,246,230	46,893,516	48,416,879	9,716	1,711,898	157,001,253	20,101
	2020	157,029,753	45,441,143	47,291,667	13,068	-731,979	155,898,139	19,768
	2021	165,125,329	48,240,703	49,104,119	16,860	-1,207,356	165,452,409	20,801
	2022	164,964,284	48,235,888	49,225,813	9,756	1,725,636	162,238,967	20,227
Africa	2019	9,722,679	391,082	3,711,287	..	1,366	6,401,108	4,754
	2020	9,025,291	452,156	3,425,389	..	-7,297	6,059,355	4,394
	2021	10,069,199	519,799	4,046,395	..	2,302	6,540,301	4,632
	2022	9,620,489	514,657	3,810,517	..	7,924	6,316,705	4,371
Algeria	2019	3,540,610	..	1,669,162	..	1,366	1,870,082	43,194
	2020	3,301,528	..	1,539,769	..	-7,297	1,769,056	40,167
	2021	4,105,517	..	2,146,467	..	2,302	1,956,747	43,715
	2022	4,012,833	..	1,944,059	..	7,924	2,060,850	45,316
Angola	2019	258,400	..	209,000	..	..	49,400	1,526
	2020	*286,900	..	*236,360	..	..	*50,540	*1,511
	2021	*231,040	..	180,880	..	..	*50,160	*1,453
	2022	205,786	..	166,611	..	..	39,175	1,099
Benin	2019	..	2,194	..	..	..	2,194	172
	2020	..	6,457	..	..	..	6,457	494
	2021	..	7,167	..	..	..	7,167	534
	2022	..	6,199	..	..	..	6,199	451
Cameroon	2019	89,680	..	62,700	..	..	26,980	1,058
	2020	90,440	..	55,860	..	..	34,580	1,319
	2021	88,540	..	60,420	..	..	28,120	1,045
	2022	91,200	..	66,500	..	..	24,700	894
Congo	2019	38,328	..	..	..	..	38,328	6,824
	2020	40,024	..	..	..	..	40,024	6,957
	2021	41,358	..	..	..	..	41,358	7,019
	2022	52,476	..	..	..	..	52,476	8,695
Côte d'Ivoire	2019	86,558	..	..	..	..	86,558	3,070
	2020	88,770	..	..	..	..	88,770	3,070
	2021	92,597	..	..	..	..	92,597	3,124
	2022	101,266	..	..	..	..	101,266	3,332
Egypt	2019	2,643,004	..	193,035	..	..	2,449,969	22,779
	2020	2,370,530	81,700	81,359	..	..	2,370,871	21,688
	2021	2,701,721	156,180	358,822	..	..	2,499,078	22,523
	2022	2,314,804	175,360	375,811	..	..	2,114,353	18,775
Equatorial Guinea	2019	243,285	..	164,363	..	..	78,922	47,254
	2020	235,023	..	141,422	..	..	93,602	54,532
	2021	274,981	..	160,482	..	..	114,499	65,101
	2022	316,265	..	191,644	..	..	124,621	69,098
Gabon	2019	17,493	..	..	..	..	17,493	7,714
	2020	18,925	..	..	..	..	18,925	8,149
	2021	17,116	..	..	..	..	17,116	7,201
	2022	23,719	..	..	..	..	23,719	9,758
Ghana	2019	58,367	25,073	..	..	..	83,440	2,669
	2020	100,406	25,786	..	..	..	126,192	3,957
	2021	113,776	19,739	..	..	..	133,515	4,106
	2022	124,361	21,012	..	..	..	145,374	4,385
Libya	2019	592,365	..	216,600	..	..	375,765	54,059
	2020	340,528	..	171,000	..	..	169,528	24,062
	2021	392,088	..	122,740	..	..	269,348	37,749
	2022	405,082	..	98,800	..	..	306,282	42,399

Table 28

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Morocco	2019	3,491	37,215	..	..	..	40,705	1,124
	2020	3,473	28,194	..	..	..	31,666	866
	2021	3,886	27,745	..	..	..	31,631	856
	2022	2,724	6,184	..	..	..	8,908	239
Mozambique	2019	190,410	..	155,227	..	..	35,183	1,177
	2020	185,337	..	151,580	..	..	33,757	1,097
	2021	187,558	..	150,944	..	..	36,614	1,155
	2022	269,323	..	225,711	..	..	43,612	1,335
Niger	2019	1,482	..	..	..	..	1,482	65
	2020	1,586	..	..	..	..	1,586	67
	2021	2,365	..	..	..	..	2,365	97
	2022	*1,975	..	..	..	..	*1,975	*78
Nigeria	2019	1,754,840	..	1,041,200	..	..	713,640	3,407
	2020	1,765,480	..	1,048,040	..	..	717,440	3,353
	2021	1,640,395	..	865,640	..	..	774,755	3,545
	2022	1,512,553	..	741,380	..	..	771,173	3,456
Rwanda	2019	*1,870	..	..	..	..	*1,870	*146
	2020	*1,800	..	..	..	..	*1,800	*138
	2021	*1,850	..	..	..	..	*1,850	*139
	2022	*1,839	..	..	..	..	*1,839	*135
Senegal	2019	559	..	..	..	..	559	34
	2020	553	..	..	..	..	553	33
	2021	283	..	..	..	..	283	16
	2022	199	..	..	..	..	199	11
South Africa	2019	44,827	155,227	..	..	..	200,054	3,357
	2020	42,790	151,580	..	..	..	194,370	3,209
	2021	659	143,780	..	..	..	144,439	2,349
	2022	465	140,436	..	..	..	140,902	2,259
Togo	2019	..	2,510	..	..	..	2,510	297
	2020	..	2,855	..	..	..	2,855	329
	2021	..	5,786	..	..	..	5,786	652
	2022	..	6,719	..	..	..	6,719	739
Tunisia	2019	88,184	168,864	..	..	..	257,048	21,646
	2020	89,547	155,584	..	..	..	245,131	20,472
	2021	103,353	159,403	..	..	..	262,756	21,808
	2022	98,234	158,746	..	..	..	256,980	21,204
United Rep. of Tanzania	2019	68,925	..	..	..	..	68,925	1,165
	2020	61,650	..	..	..	..	61,650	1,011
	2021	70,117	..	..	..	..	70,117	1,116
	2022	85,383	..	..	..	..	85,383	1,319
<b>Asia</b>	<b>2019</b>	<b>54,580,334</b>	<b>20,275,990</b>	<b>14,365,132</b>	..	<b>-40,805</b>	<b>60,531,997</b>	<b>13,011</b>
	<b>2020</b>	<b>55,112,507</b>	<b>21,033,038</b>	<b>14,111,969</b>	<b>1,329</b>	<b>-130,501</b>	<b>62,162,749</b>	<b>13,260</b>
	<b>2021</b>	<b>57,525,481</b>	<b>21,989,610</b>	<b>13,508,008</b>	<b>1,199</b>	<b>-89,560</b>	<b>66,095,444</b>	<b>14,008</b>
	<b>2022</b>	<b>57,605,690</b>	<b>21,412,078</b>	<b>13,819,437</b>	<b>438</b>	<b>213,814</b>	<b>64,984,080</b>	<b>13,688</b>
Afghanistan	2019	5,022	..	..	..	..	5,022	133
	2020	3,129	..	..	..	..	3,129	80
	2021	*3,185	..	..	..	..	*3,185	*80
	2022	*2,900	..	..	..	..	*2,900	*71
Armenia	2019	..	98,638	..	..	-721	99,359	34,215
	2020	..	99,896	..	..	289	99,607	34,455
	2021	..	108,534	..	..	-319	108,852	37,923
	2022	..	114,001	..	..	1,082	112,918	39,196

Table 28

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Azerbaijan	2019	957,529	0	462,197	..	4,949	490,383	48,502
	2020	1,034,594	..	540,587	..	-664	494,672	48,584
	2021	1,272,508	..	745,202	..	14,609	512,698	50,096
	2022	1,365,362	60,699	884,119	..	-2,707	544,649	52,903
Bahrain	2019	676,469	..	..	..	..	676,469	455,329
	2020	673,471	..	..	..	..	673,471	454,104
	2021	659,964	..	..	..	..	659,964	439,459
	2022	664,137	..	..	..	..	664,137	433,097
Bangladesh	2019	1,077,787	130,002	..	..	..	1,207,789	7,324
	2020	973,151	249,068	..	..	..	1,222,219	7,350
	2021	983,712	239,120	..	..	..	1,222,832	7,294
	2022	929,498	265,478	..	..	..	1,194,976	7,055
Brunei Darussalam	2019	426,639	..	304,995	..	247	121,396	274,230
	2020	414,523	..	306,167	..	4	108,352	242,180
	2021	378,317	..	269,915	..	0	108,403	239,977
	2022	347,434	..	230,669	..	117	116,648	256,161
China	2019	7,753,473	5,197,597	140,866	..	..	12,810,204	8,999
	2020	8,501,974	5,451,039	201,582	..	..	13,751,430	9,643
	2021	9,243,057	6,530,223	215,514	..	..	15,557,766	10,907
	2022	9,930,578	5,878,584	227,700	..	-136,769	15,718,230	11,029
China, Hong Kong SAR	2019	..	127,799	..	..	..	127,799	17,072
	2020	..	191,705	..	..	..	191,705	25,594
	2021	..	191,557	..	..	..	191,557	25,593
	2022	..	187,027	..	..	..	187,027	25,051
China, Macao SAR	2019	..	5,218	..	..	..	5,218	7,777
	2020	..	2,824	..	..	..	2,824	4,134
	2021	..	3,329	..	..	..	3,329	4,794
	2022	..	4,569	..	..	..	4,569	6,487
Georgia	2019	385	107,419	..	..	..	107,804	28,394
	2020	356	107,834	..	..	..	108,190	28,503
	2021	641	111,505	..	..	..	112,145	29,602
	2022	584	133,649	..	..	..	134,233	35,373
India	2019	*1,179,996	*1,401,333	..	..	..	*2,581,329	*1,858
	2020	*1,083,578	*1,363,015	..	..	..	*2,446,593	*1,744
	2021	*1,292,122	*1,269,958	..	..	..	*2,562,080	*1,812
	2022	*1,312,905	*1,088,986	..	..	..	*2,401,891	*1,685
Indonesia	2019	2,374,248	..	587,224	..	..	1,787,024	6,558
	2020	2,462,373	..	811,361	..	..	1,651,012	6,008
	2021	2,453,147	..	750,448	..	..	1,702,699	6,152
	2022	2,388,615	..	680,842	..	..	1,707,772	6,125
Iran (Islamic Rep. of)	2019	9,399,279	15,658	687,793	..	..	8,727,143	100,252
	2020	10,114,852	12,200	667,745	..	..	9,459,306	107,831
	2021	10,271,083	20,465	679,444	..	..	9,612,105	108,666
	2022	10,476,505	20,465	726,706	..	..	9,770,264	109,135
Iraq	2019	438,520	232,180	..	..	..	670,700	16,282
	2020	280,060	433,580	..	..	..	713,640	16,944
	2021	364,420	370,120	..	..	..	734,540	17,054
	2022	374,680	358,340	..	..	..	733,020	16,633
Israel	2019	336,263	28,994	7,057	..	..	358,200	41,375
	2020	586,782	25,463	161,517	..	..	450,727	51,217
	2021	733,097	7,601	271,349	..	..	469,349	52,483
	2022	833,808	1,900	350,017	..	..	485,691	53,354

Table 28

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Japan	2019	175,023	4,185,466	..	..	3,129	4,357,360	34,391
	2020	167,889	4,178,883	..	..	-17,993	4,364,766	34,557
	2021	177,329	3,910,636	..	..	-34,568	4,122,533	32,802
	2022	185,393	3,859,628	..	..	90,574	3,954,447	31,636
Jordan	2019	3,464	167,883	11,589	..	..	159,759	14,970
	2020	5,820	155,393	11,589	..	..	149,624	13,771
	2021	7,148	149,547	11,584	..	..	145,111	13,113
	2022	6,262	157,000	11,590	..	..	151,672	13,474
Kazakhstan	2019	1,339,839	647,078	1,050,070	..	755	936,092	48,731
	2020	1,224,568	510,912	813,220	..	-16,204	938,465	48,171
	2021	1,067,817	93,175	393,469	..	-21,759	789,281	39,977
	2022	1,078,382	47,489	268,618	..	17,285	839,968	41,926
Korea, Republic of	2019	10,845	2,228,102	..	..	-16,697	2,255,643	43,572
	2020	7,747	2,186,212	..	1,329	-64,675	2,257,306	43,528
	2021	2,301	2,511,535	..	1,199	17,549	2,495,088	48,123
	2022	..	2,540,696	..	438	62,926	2,477,333	47,841
Kuwait	2019	742,900	197,600	..	..	..	940,500	211,720
	2020	817,000	233,700	..	..	..	1,050,700	238,788
	2021	807,120	292,600	..	..	..	1,099,720	252,186
	2022	635,740	326,040	..	..	..	961,780	209,560
Kyrgyzstan	2019	880	11,714	..	..	..	12,594	1,939
	2020	807	12,404	..	..	..	13,211	1,982
	2021	801	14,767	..	..	..	15,568	2,283
	2022	1,078	16,205	..	..	..	17,283	2,485
Malaysia	2019	2,858,440	338,626	1,372,332	..	..	1,824,734	54,566
	2020	2,580,523	393,450	1,271,606	..	..	1,702,367	50,233
	2021	2,815,809	374,253	1,206,078	..	..	1,983,985	57,872
	2022	2,998,393	559,424	1,378,625	..	..	2,179,192	62,809
Myanmar	2019	738,693	..	576,441	..	..	162,252	3,082
	2020	661,296	..	484,477	..	..	176,819	3,335
	2021	729,693	..	545,801	..	..	183,892	3,445
	2022	701,588	..	518,293	..	-126	183,421	3,412
Oman	2019	1,541,267	82,800	560,031	..	..	1,064,036	231,753
	2020	1,810,418	74,914	*784,177	..	..	1,101,156	243,484
	2021	1,958,487	76,192	*887,112	..	..	1,147,568	254,991
	2022	2,031,507	77,151	*919,003	..	..	1,189,655	251,501
Other Asia	2019	6,915	1,026,855	..	..	11,890	1,021,880	43,164
	2020	4,356	1,101,620	..	..	2,312	1,103,664	46,640
	2021	4,557	1,208,352	..	..	12,166	1,200,744	50,969
	2022	3,961	1,243,432	..	..	2,794	1,244,599	53,142
Pakistan	2019	1,008,969	380,214	..	..	..	1,389,183	6,019
	2020	907,185	442,516	..	..	..	1,349,701	5,743
	2021	1,100,502	279,223	..	..	..	1,379,725	5,761
	2022	915,322	339,732	..	..	..	1,255,054	5,150
Philippines	2019	172,032	..	..	..	..	172,032	1,553
	2020	156,009	..	..	..	..	156,009	1,392
	2021	133,795	..	..	..	..	133,795	1,183
	2022	123,946	..	..	..	..	123,946	1,088
Qatar	2019	6,939,054	..	5,161,752	..	..	1,777,302	635,222
	2020	6,903,036	..	5,138,154	..	..	1,764,882	629,556
	2021	6,965,136	..	5,127,804	..	..	1,837,332	652,698
	2022	7,021,440	..	5,220,954	..	..	1,800,486	622,477

Table 28

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Saudi Arabia	2019	4,741,052	..	..	..	..	4,741,052	155,583
	2020	4,776,170	..	..	..	..	4,776,170	154,114
	2021	4,916,646	..	..	..	..	4,916,646	156,939
	2022	4,023,866	..	..	..	..	4,023,866	125,061
Singapore	2019	..	424,860	..	..	218	424,642	74,899
	2020	..	427,414	..	..	-1,837	429,251	76,377
	2021	..	444,830	..	..	6,716	438,114	78,992
	2022	..	441,376	..	..	7,850	433,526	76,732
Syrian Arab Republic	2019	133,081	..	..	..	..	133,081	6,538
	2020	116,870	..	..	..	..	116,870	5,552
	2021	124,410	..	..	..	..	124,410	5,752
	2022	101,790	..	..	..	..	101,790	4,532
Tajikistan	2019	28	5,600	..	..	..	5,628	591
	2020	28	*9,000	..	..	..	*9,028	*926
	2021	28	9,410	..	..	..	9,438	947
	2022	29	9,560	..	..	..	9,589	942
Thailand	2019	1,456,420	624,570	..	..	..	2,080,990	29,096
	2020	1,319,066	642,676	..	..	..	1,961,742	27,383
	2021	1,292,258	676,897	..	..	..	1,969,156	27,453
	2022	1,069,019	655,748	..	..	..	1,724,767	24,043
Timor-Leste	2019	183,311	..	183,311	..	..	0	0
	2020	188,725	..	188,725	..	..	0	0
	2021	198,488	..	198,488	..	..	0	0
	2022	84,882	..	84,882	..	..	0	0
Türkiye	2019	18,129	1,731,656	29,216	..	-2,750	1,723,319	20,189
	2020	16,902	1,843,399	22,121	..	-9,325	1,847,506	21,460
	2021	15,108	2,248,584	14,665	..	-35,923	2,284,950	26,359
	2022	14,548	2,093,761	22,271	..	131,011	1,955,027	22,456
Turkmenistan	2019	3,284,976	..	2,448,602	..	..	836,375	122,925
	2020	3,133,420	..	2,263,129	..	..	870,292	125,223
	2021	3,174,075	..	1,705,005	..	..	1,469,070	207,143
	2022	3,519,888	..	1,851,492	..	..	1,668,396	230,754
United Arab Emirates	2019	2,149,940	878,129	365,783	..	..	2,662,286	283,891
	2020	2,148,616	883,920	342,049	..	..	2,690,487	284,752
	2021	2,051,782	761,520	279,955	..	..	2,533,347	258,794
	2022	2,168,514	849,447	284,066	..	..	2,733,896	266,928
Uzbekistan	2019	2,064,317	..	415,873	..	-41,825	1,690,269	51,275
	2020	1,692,208	..	103,763	..	-22,407	1,610,852	47,961
	2021	2,032,682	85,675	206,176	..	-48,032	1,960,213	57,243
	2022	1,977,046	81,689	159,590	..	39,775	1,859,370	53,218
Viet Nam	2019	384,348	..	..	..	..	384,348	3,955
	2020	344,201	..	..	..	..	344,201	3,509
	2021	293,453	..	..	..	..	293,453	2,966
	2022	315,290	..	..	..	..	315,290	3,163
Yemen	2019	802	..	..	..	..	802	23
	2020	802	..	..	..	..	802	22
	2021	802	..	..	..	..	802	22
	2022	802	..	..	..	..	802	21
<b>Europe</b>	<b>2019</b>	<b>37,224,564</b>	<b>19,168,836</b>	<b>16,275,416</b>	<b>9,716</b>	<b>1,275,079</b>	<b>38,833,189</b>	<b>51,661</b>
	<b>2020</b>	<b>35,060,634</b>	<b>17,320,943</b>	<b>15,097,034</b>	<b>11,740</b>	<b>-908,968</b>	<b>38,181,771</b>	<b>50,792</b>
	<b>2021</b>	<b>38,310,816</b>	<b>18,100,425</b>	<b>15,248,514</b>	<b>15,661</b>	<b>-824,962</b>	<b>41,972,027</b>	<b>55,901</b>
	<b>2022</b>	<b>35,377,339</b>	<b>19,234,329</b>	<b>14,506,786</b>	<b>9,318</b>	<b>1,908,636</b>	<b>38,186,927</b>	<b>50,972</b>

Table 28

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Albania	2019	2,680	..	..	..	..	2,680	929
	2020	1,917	..	..	..	..	1,917	667
	2021	2,059	..	..	..	..	2,059	723
	2022	1,774	..	..	..	..	1,774	627
Andorra	2019	..	100	..	..	..	100	1,308
	2020	..	101	..	..	..	101	1,305
	2021	..	143	..	..	..	143	1,825
	2022	..	140	..	..	..	140	1,756
Austria	2019	36,367	438,713	..	..	117,417	357,663	40,273
	2020	29,926	249,840	..	..	-61,205	340,971	38,219
	2021	26,931	183,498	..	..	-149,747	360,176	40,167
	2022	25,339	477,943	..	..	182,278	321,004	35,413
Belarus	2019	5,952	753,709	..	..	221	759,440	80,488
	2020	5,865	696,631	..	..	816	701,680	75,038
	2021	6,125	711,035	..	..	..	717,160	77,519
	2022	5,922	683,837	..	..	..	689,759	75,193
Belgium	2019	149	894,124	174,114	423	12,850	706,887	61,519
	2020	266	832,259	134,703	131	-5,899	703,590	60,969
	2021	497	818,183	112,423	271	-565	706,552	61,063
	2022	1,048	940,208	334,241	190	5,309	601,517	51,669
Bosnia and Herzegovina	2019	..	8,745	..	..	..	8,745	2,614
	2020	..	7,977	..	..	..	7,977	2,418
	2021	..	9,615	..	..	2	9,613	2,962
	2022	..	9,368	..	..	-2	9,370	2,924
Bulgaria	2019	1,506	114,341	296	..	1,958	113,593	16,285
	2020	2,224	113,217	401	..	-1,965	117,005	16,875
	2021	1,228	127,190	..	..	-3,743	132,161	19,217
	2022	684	114,775	..	..	7,286	108,173	15,848
Croatia	2019	39,601	77,109	2,783	..	2,001	111,926	28,077
	2020	32,800	82,818	2,028	..	-3,883	117,472	29,710
	2021	29,007	89,079	4,908	..	171	113,007	28,795
	2022	29,221	118,510	41,654	..	6,856	99,220	25,395
Czechia	2019	8,026	365,476	..	..	40,504	332,999	31,549
	2020	7,593	291,223	..	..	-39,695	338,512	32,086
	2021	7,807	334,153	..	..	-20,783	362,744	34,446
	2022	8,616	334,474	..	..	48,028	295,062	27,645
Denmark	2019	139,274	46,506	54,936	..	2,510	128,335	22,071
	2020	71,434	103,034	66,268	..	-6,092	114,292	19,599
	2021	80,686	96,489	71,521	..	-6,148	111,801	19,089
	2022	83,017	107,062	88,345	..	9,662	92,072	15,598
Estonia	2019	136	18,642	..	947	..	17,831	13,439
	2020	210	17,202	..	1,006	..	16,406	12,339
	2021	329	19,454	..	1,107	..	18,676	14,024
	2022	363	16,193	..	2,562	..	13,995	10,366
Finland	2019	382	99,553	..	20	557	99,358	17,994
	2020	394	98,580	..	67	288	98,619	17,835
	2021	543	98,444	..	61	-371	99,297	17,920
	2022	562	52,598	..	78	1,584	51,498	9,247
France	2019	5,110	2,203,852	379,379	..	78,659	1,750,924	25,766
	2020	8,674	1,875,672	338,073	..	-84,990	1,631,263	23,939
	2021	16,548	1,878,358	223,335	..	-65,702	1,737,274	25,425
	2022	25,939	2,302,181	616,686	..	140,562	1,570,872	22,924

Table 28

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Germany	2019	203,460	3,520,265	..	..	205,863	3,517,861	42,100
	2020	187,515	3,092,273	..	..	-190,602	3,470,390	41,498
	2021	217,078	3,256,079	..	..	-154,514	3,627,672	43,343
	2022	204,830	3,288,950	..	..	351,158	3,142,622	37,374
Gibraltar	2019	..	2,691	..	653	1,306	732	20,634
	2020	..	2,379	..	637	-403	2,145	59,303
	2021	..	3,083	..	696	158	2,230	60,498
	2022	..	1,514	..	565	-1,159	2,108	56,049
Greece	2019	445	207,358	634	..	-1,672	208,840	19,484
	2020	311	232,185	1,320	..	1,902	229,274	21,429
	2021	189	252,594	622	..	-1,310	253,471	23,959
	2022	..	227,253	19,197	..	3,197	204,858	19,674
Hungary	2019	62,010	453,637	..	..	121,663	393,984	40,324
	2020	61,645	308,326	..	..	-37,970	407,941	41,842
	2021	55,028	290,618	..	..	-86,979	432,625	44,564
	2022	55,125	364,379	..	..	51,656	367,848	37,984
Ireland	2019	99,718	112,418	..	..	..	212,136	42,999
	2020	76,828	135,059	..	..	..	211,887	42,525
	2021	58,773	144,856	..	..	..	203,629	40,496
	2022	54,218	153,374	..	..	..	207,592	40,624
Isle of Man	2019	..	5,454	..	..	..	5,454	64,962
	2020	..	5,285	..	..	..	5,285	62,872
	2021	..	3,630	..	..	..	3,630	43,160
	2022	..	4,937	..	..	..	4,937	58,686
Italy	2019	184,780	2,707,586	12,399	..	42,713	2,837,254	47,158
	2020	156,739	2,529,567	12,023	..	-40,991	2,715,274	45,294
	2021	127,669	2,781,130	58,807	..	-60,624	2,910,615	48,701
	2022	126,939	2,765,731	175,792	..	98,323	2,618,555	43,896
Latvia	2019	..	51,343	..	..	17	51,327	26,813
	2020	..	42,387	..	..	42	42,345	22,274
	2021	..	44,843	..	..	-15	44,858	23,790
	2022	..	32,116	..	..	-72	32,188	17,112
Liechtenstein	2019	..	998	..	..	..	998	25,968
	2020	..	962	..	..	..	962	24,820
	2021	..	1,073	..	..	..	1,073	27,487
	2022	..	902	..	..	..	902	22,932
Lithuania	2019	..	106,877	20,175	..	-30	86,732	31,030
	2020	..	110,833	20,089	..	-982	91,726	32,809
	2021	..	93,171	5,168	..	719	87,284	31,234
	2022	..	137,723	77,386	..	725	59,612	21,162
Luxembourg	2019	153	31,822	..	..	..	31,976	51,560
	2020	233	28,901	..	..	..	29,135	46,202
	2021	198	31,159	..	..	..	31,357	48,975
	2022	174	24,470	..	..	..	24,644	37,721
Malta	2019	..	14,761	..	..	516	14,245	28,262
	2020	..	14,237	..	..	-568	14,805	28,569
	2021	..	15,362	..	..	517	14,845	28,310
	2022	..	15,040	..	..	24	15,016	28,430
Netherlands (Kingd. of the)	2019	1,116,420	1,198,009	805,856	2,766	7,866	1,497,941	85,414
	2020	812,504	1,216,229	555,586	5,288	-3,834	1,471,692	83,445
	2021	730,316	1,035,149	560,503	5,520	-212,734	1,412,177	79,646
	2022	611,624	1,300,218	595,139	3,395	214,291	1,099,017	61,382



## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
North Macedonia	2019	..	11,353	..	..	-4	11,357	5,985
	2020	..	12,999	..	..	-2	13,001	6,945
	2021	..	16,501	..	..	-4	16,505	8,917
	2022	..	11,151	..	..	0	11,151	6,059
Norway	2019	4,692,661	1,057	4,462,085	2,446	-2,540	231,727	43,332
	2020	4,560,755	1,326	4,348,404	2,691	-352	211,337	39,287
	2021	4,689,683	6,295	4,454,252	2,689	5,753	233,284	43,136
	2022	5,079,573	2,682	4,894,984	1,796	-348	185,822	34,053
Poland	2019	159,408	672,988	51,161	..	26,313	754,922	19,749
	2020	158,002	673,201	53,833	..	-18,445	795,815	20,849
	2021	155,371	713,103	4,389	..	15,994	848,091	22,295
	2022	152,175	591,900	23,458	..	20,770	699,847	18,232
Portugal	2019	..	245,615	..	..	-171	245,786	23,763
	2020	..	239,448	..	..	-1,733	241,180	23,256
	2021	..	230,624	..	..	103	230,521	22,185
	2022	..	232,260	..	..	8,930	223,330	21,439
Republic of Moldova	2019	3	35,201	..	..	-52	35,256	11,327
	2020	0	35,764	..	..	-106	35,870	11,687
	2021	2	41,145	..	..	70	41,077	13,585
	2022	3	32,090	..	..	2,827	29,266	9,627
Romania	2019	381,054	99,373	487	..	53,251	426,689	21,880
	2020	340,414	79,480	5,310	..	-31,413	445,997	22,998
	2021	341,973	132,122	27,683	..	-11,645	458,057	23,797
	2022	346,523	105,672	35,964	..	31,661	384,569	20,064
Russian Federation	2019	27,706,287	348,390	9,934,021	..	344,146	17,776,510	121,314
	2020	26,178,944	343,522	9,128,691	..	-354,769	17,748,544	121,257
	2021	29,730,879	311,850	9,268,360	..	113,757	20,660,612	141,670
	2022	26,341,559	298,128	6,422,974	..	524,512	19,692,201	135,267
Serbia	2019	16,247	83,812	..	..	7,333	92,726	13,311
	2020	15,133	73,709	..	..	-3,707	92,550	13,398
	2021	13,414	87,606	..	..	-10,373	111,393	16,296
	2022	12,146	110,000	..	..	14,438	107,707	15,860
Slovakia	2019	4,795	259,722	..	..	74,428	190,089	34,875
	2020	2,544	167,459	..	..	-20,180	190,183	34,864
	2021	2,271	198,621	52,453	..	-63,276	211,715	38,898
	2022	2,159	242,167	..	..	67,929	176,397	32,229
Slovenia	2019	273	34,027	79	..	..	34,220	16,425
	2020	213	34,004	..	..	..	34,217	16,275
	2021	202	35,859	..	..	..	36,061	17,062
	2022	172	31,626	..	..	..	31,798	15,033
Spain	2019	5,767	1,506,011	45,514	1,657	26,925	1,437,682	30,308
	2020	2,320	1,314,814	47,433	992	-30,863	1,299,572	27,256
	2021	1,944	1,496,250	122,261	4,504	2,601	1,368,828	28,675
	2022	1,906	1,606,503	245,051	717	43,857	1,318,784	27,573
Sweden	2019	..	45,695	1,039	804	..	43,851	4,266
	2020	1,408	60,378	1,162	928	..	59,696	5,766
	2021	1,461	49,904	2,263	812	..	48,289	4,636
	2022	1,445	30,426	405	15	..	31,451	2,999
Switzerland	2019	1,443	136,238	..	..	..	137,681	16,051
	2020	1,476	132,590	..	..	..	134,066	15,516
	2021	1,481	144,167	..	..	..	145,649	16,728
	2022	1,692	118,577	..	..	..	120,268	13,679

Table 28

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
Ukraine	2019	759,092	442,225	..	..	113,552	1,087,764	24,195
	2020	737,611	343,593	..	..	28,014	1,053,190	23,572
	2021	677,297	298,949	5,713	..	-109,249	1,079,782	24,375
	2022	654,408	121,404	..	..	59,721	716,091	17,445
United Kingdom	2019	1,591,364	1,813,040	330,458	..	-3,021	3,076,967	45,849
	2020	1,604,736	1,721,478	381,710	..	618	2,943,886	43,709
	2021	1,333,824	2,019,040	273,853	..	-7,022	3,086,033	45,605
	2022	1,548,185	2,225,848	935,510	..	14,634	2,823,889	41,419
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>7,878,686</b>	<b>2,887,946</b>	<b>1,383,571</b>	<b>..</b>	<b>-10,099</b>	<b>9,393,159</b>	<b>14,651</b>
	<b>2020</b>	<b>7,289,813</b>	<b>2,779,732</b>	<b>1,264,862</b>	<b>..</b>	<b>-8,550</b>	<b>8,813,233</b>	<b>13,650</b>
	<b>2021</b>	<b>7,556,180</b>	<b>3,325,834</b>	<b>1,032,156</b>	<b>..</b>	<b>-23,776</b>	<b>9,873,633</b>	<b>15,204</b>
	<b>2022</b>	<b>7,795,976</b>	<b>2,651,406</b>	<b>1,119,969</b>	<b>..</b>	<b>2,719</b>	<b>9,324,693</b>	<b>14,272</b>
Argentina	2019	1,725,250	226,780	9,194	..	-716	1,943,553	43,216
	2020	1,577,341	240,423	6,111	..	760	1,810,893	40,071
	2021	1,583,066	345,519	36,617	..	0	1,891,968	41,754
	2022	1,688,312	214,992	81,698	..	-209	1,821,815	40,121
Barbados	2019	892	..	..	..	..	892	3,171
	2020	386	223	..	..	..	609	2,162
	2021	285	260	..	..	..	544	1,929
	2022	322	307	..	..	..	629	2,228
Belize	2019	41	..	..	..	15	26	67
	2020	32	..	..	..	12	20	52
	2021	..	..	..	..	..	..	..
	2022	..	..	..	..	..	..	..
Bolivia (Plur. State of)	2019	631,583	..	466,515	..	..	165,069	14,143
	2020	608,826	..	474,460	..	..	134,366	11,371
	2021	626,657	..	473,833	..	..	152,824	12,802
	2022	569,275	..	405,006	..	..	164,269	13,602
Brazil	2019	962,178	379,714	..	..	..	1,341,892	6,468
	2020	860,787	372,221	..	..	..	1,233,008	5,909
	2021	1,010,761	690,032	..	..	-8,188	1,708,981	8,155
	2022	942,989	359,211	..	..	..	1,302,200	6,192
Chile	2019	59,692	187,447	..	..	2,155	244,984	12,761
	2020	45,717	176,962	..	..	-1,796	224,476	11,588
	2021	46,615	197,959	..	..	-1,051	245,626	12,624
	2022	50,900	215,043	..	..	4,378	261,564	13,377
Colombia	2019	486,362	6,072	..	..	..	492,434	9,867
	2020	473,372	13,531	..	..	..	486,903	9,617
	2021	440,611	1,734	..	..	..	442,345	8,642
	2022	435,764	2,111	..	..	..	437,875	8,463
Cuba	2019	37,113	..	..	..	..	37,113	3,313
	2020	34,916	..	..	..	..	34,916	3,124
	2021	33,695	..	..	..	..	33,695	3,030
	2022	32,914	..	..	..	..	32,914	2,976
Dominican Republic	2019	..	58,399	1,596	..	65	56,739	5,208
	2020	..	62,248	2,443	..	-4	59,808	5,433
	2021	..	75,655	2,235	..	-9	73,429	6,601
	2022	..	58,399	1,600	..	65	56,735	5,052
Ecuador	2019	24,637	..	..	..	..	24,637	1,421
	2020	20,929	..	..	..	..	20,929	1,193
	2021	22,075	..	..	..	..	22,075	1,248
	2022	20,361	..	..	..	..	20,361	1,142

Table 28

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
El Salvador	2019	..	..	..	..	..	..	..
	2020	..	..	..	..	..	..	..
	2021	..	6	..	..	..	6	1
	2022	..	8,125	..	..	..	8,125	1,294
Guyana	2019	..	13	..	..	-1	14	17
	2020	..	49	..	..	5	45	55
	2021	..	40	..	..	-3	43	53
	2022	..	60	..	..	-1	60	73
Jamaica	2019	..	9,918	..	..	-1,516	11,434	4,050
	2020	..	28,299	..	..	167	28,132	9,938
	2021	..	29,121	..	..	107	29,014	10,224
	2022	..	23,645	..	..	-64	23,710	8,351
Mexico	2019	1,285,121	1,908,243	436	..	-10,100	3,203,028	25,469
	2020	1,465,063	1,810,399	379	..	-7,693	3,282,776	25,890
	2021	1,483,669	1,882,815	315	..	-14,633	3,380,802	26,485
	2022	1,556,806	1,698,223	293	..	-4,130	3,258,866	25,339
Panama	2019	..	33,835	..	..	..	33,835	7,990
	2020	..	18,243	..	..	..	18,243	4,249
	2021	..	21,785	..	..	..	21,785	5,013
	2022	..	13,031	52	..	2,680	10,299	2,340
Peru	2019	542,941	..	224,255	..	..	318,686	9,821
	2020	487,281	..	219,514	..	..	267,767	8,154
	2021	511,616	..	158,405	..	..	353,211	10,653
	2022	616,269	..	213,561	..	..	402,707	12,030
Puerto Rico	2019	..	74,140	..	..	..	74,140	22,548
	2020	..	54,629	..	..	..	54,629	16,677
	2021	..	78,042	..	..	..	78,042	23,989
	2022	..	55,247	..	..	..	55,247	17,047
Suriname	2019	232	..	..	..	..	232	384
	2020	269	..	..	..	..	269	439
	2021	248	..	..	..	..	248	401
	2022	274	..	..	..	..	274	440
Trinidad and Tobago	2019	1,421,840	..	681,576	..	..	740,265	498,530
	2020	1,192,151	..	561,955	..	..	630,196	425,514
	2021	1,025,640	..	360,752	..	..	664,888	446,919
	2022	1,084,089	..	*417,759	..	..	666,330	445,432
Uruguay	2019	..	3,384	..	..	..	3,384	996
	2020	..	2,505	..	..	..	2,505	737
	2021	..	2,866	..	..	..	2,866	844
	2022	..	3,013	..	..	..	3,013	888
Venezuela (Bolivar. Rep.)	2019	700,803	..	..	..	..	700,803	24,217
	2020	522,742	..	..	..	..	522,742	18,378
	2021	771,241	..	..	..	..	771,241	27,312
	2022	797,700	..	..	..	..	797,700	28,274
<b>Northern America</b>	<b>2019</b>	<b>44,650,839</b>	<b>3,967,682</b>	<b>8,091,355</b>	<b>..</b>	<b>472,853</b>	<b>40,054,313</b>	<b>106,613</b>
	<b>2020</b>	<b>43,912,405</b>	<b>3,675,532</b>	<b>8,567,175</b>	<b>..</b>	<b>290,118</b>	<b>38,730,644</b>	<b>102,534</b>
	<b>2021</b>	<b>45,277,213</b>	<b>4,097,462</b>	<b>10,550,636</b>	<b>..</b>	<b>-253,944</b>	<b>39,077,983</b>	<b>103,178</b>
	<b>2022</b>	<b>47,814,853</b>	<b>4,271,367</b>	<b>10,822,939</b>	<b>..</b>	<b>-380,201</b>	<b>41,643,482</b>	<b>109,449</b>
Canada	2019	7,385,467	1,017,915	2,991,778	..	-58,473	5,470,077	144,776
	2020	7,208,998	930,316	2,786,173	..	126,365	5,226,776	136,927
	2021	7,440,864	965,893	3,131,335	..	-110,614	5,386,036	140,064
	2022	8,001,198	1,000,789	3,356,483	..	-65,720	5,711,224	147,116

Table 28

## Production, trade and supply of natural gas

Terajoules and megajoules per capita

Country or area	Year	Production	Imports	Exports	Bunkers	Changes in stocks	Supply	
							Total	Per capita
United States	2019	37,265,372	2,949,767	5,099,577	..	531,326	34,584,236	102,384
	2020	36,703,407	2,745,216	5,781,002	..	163,753	33,503,868	98,704
	2021	37,836,349	3,131,569	7,419,301	..	-143,330	33,691,947	99,047
	2022	39,813,655	3,270,578	7,466,456	..	-314,481	35,932,258	105,208
Oceania	<b>2019</b>	<b>6,189,128</b>	<b>201,980</b>	<b>4,590,118</b>	..	<b>13,504</b>	<b>1,787,487</b>	<b>41,090</b>
	<b>2020</b>	<b>6,629,103</b>	<b>179,742</b>	<b>4,825,238</b>	..	<b>33,220</b>	<b>1,950,387</b>	<b>44,250</b>
	<b>2021</b>	<b>6,386,441</b>	<b>207,573</b>	<b>4,718,410</b>	..	<b>-17,416</b>	<b>1,893,021</b>	<b>42,486</b>
	<b>2022</b>	<b>6,749,936</b>	<b>152,051</b>	<b>5,146,165</b>	..	<b>-27,258</b>	<b>1,783,080</b>	<b>39,583</b>
Australia	2019	5,488,747	201,980	4,095,657	..	14,173	1,580,897	62,038
	2020	5,921,342	179,742	4,338,571	..	32,644	1,729,869	67,196
	2021	5,711,322	207,573	4,240,632	..	-21,511	1,699,774	65,486
	2022	6,058,820	152,051	4,636,771	..	-27,835	1,601,935	61,140
New Zealand	2019	185,498	..	..	..	-669	186,167	37,313
	2020	181,094	..	..	..	576	180,518	35,606
	2021	158,453	..	..	..	4,094	154,359	30,221
	2022	144,652	..	..	..	577	144,074	28,075
Papua New Guinea	2019	514,883	..	494,461	..	..	20,422	2,125
	2020	526,667	..	486,667	..	..	40,000	4,075
	2021	516,667	..	477,778	..	..	38,889	3,884
	2022	*546,465	..	*509,394	..	..	*37,071	*3,633



Table 29

**International trade of natural gas  
(Principal importers/exporters)**

Terajoules

**2021**

Importers	Exporters							
	World	Algeria	Australia	Canada	Indonesia	Iran (Islamic Rep. of)	Kazakhstan	Malaysia
Argentina	345,519	..	..	..	..	..	..	..
Austria	183,498	..	..	..	..	..	..	..
Belarus	711,035	..	..	..	..	..	..	..
Belgium	818,183	3,332	..	..	..	..	..	..
Brazil	690,032	..	..	..	..	..	..	..
Canada	965,893	..	..	..	..	..	..	..
China	6,530,223	12,378	1,666,419	54	246,183	..	222,711	*366,320
Czechia	334,153	..	..	..	..	..	..	..
France	1,878,358	158,576	..	..	..	..	..	..
Germany	3,256,079	..	..	..	..	..	..	..
Hungary	290,618	..	..	..	..	..	..	..
India	1,269,958	8,778	34,942	..	..	..	..	..
Italy	2,781,130	855,717	..	..	..	..	..	..
Japan	3,910,636	1,935	1,496,271	..	118,771	..	..	535,614
Kazakhstan	93,175	..	..	..	..	..	..	..
Korea, Republic of	2,511,535	..	517,518	..	130,502	..	..	213,589
Malaysia	374,253	..	79,132	..	16,133	..	..	..
Mexico	1,882,815	..	..	..	..	..	..	..
Netherlands (Kingd. of the)	1,035,149	2,770	..	..	..	..	..	..
Poland	713,103	..	..	..	..	..	..	..
Portugal	230,624	3,025	..	..	..	..	..	..
Russian Federation	311,850	..	..	..	..	..	*102,474	..
Singapore	444,830	..	116,422	..	237,671	..	..	32,851
Slovakia	198,621	..	..	..	..	..	..	..
Spain	1,496,250	640,765	..	..	..	..	..	..
Thailand	676,897	..	23,173	..	..	..	..	56,883
Türkiye	2,248,584	229,326	..	..	..	361,342	..	..
Ukraine	298,949	..	..	..	..	..	..	..
United Arab Emirates	761,520	..	..	..	..	..	..	..
United Kingdom	2,019,040	29,502	..	..	..	..	..	..
United States	3,131,569	..	..	3,105,762	..	..	..	..

**International trade of natural gas  
(Principal importers/exporters)**

Terajoules

**2021**

Exporters							
Netherlands (Kingd. of the)	Nigeria	Norway	Qatar	Russian Federation	Trinidad and Tobago	Turkmenistan	United States
..	..	..	52,272	..	2,087	..	93,066
..	..	..	..	..	..	..	..
..	..	..	..	711,035	..	..	..
116,606	..	442,571	100,749	97,058	..	..	5,862
..	..	..	..	..	14,410	..	343,177
..	..	..	..	..	22,954	..	940,009
..	79,805	..	496,847	430,815	22,955	1,167,409	505,546
..	..	..	..	334,153	..	..	..
133,849	124,194	606,388	20,187	414,384	..	..	110,678
..	..	630,028	..	2,161,623	..	..	..
..	..	..	..	276,087	..	..	..
..	128,252	..	608,733	28,628	21,879	..	218,831
10,958	10,120	75,521	261,531	1,111,404	..	..	42,670
..	29,580	..	386,270	372,068	5,919	..	306,768
..	..	..	..	93,175	..	..	..
6,132	36,036	..	626,857	156,772	2,991	..	463,560
..	3,682	..	..	..	..	..	..
..	..	..	..	..	..	..	1,882,815
..	9,821	361,134	4,443	358,085	3,277	..	124,699
207	..	..	93,314	402,694	..	..	62,240
..	118,257	..	..	31,415	..	..	75,799
..	..	..	..	..	..	209,375	..
..	3,705	..	8,299	2,640	..	..	23,329
..	..	..	..	136,879	..	..	..
..	171,685	42,342	94,209	130,308	44,173	..	218,325
..	38,675	..	130,535	..	11,567	..	16,224
..	54,791	..	11,461	1,009,017	7,455	..	181,543
..	..	..	..	..	..	..	..
..	10,625	..	704,683	10,741	6,641	..	..
93,325	3,179	1,277,971	223,055	125,057	6,013	..	152,302
..	..	..	..	..	23,891	..	..

Table 29

**International trade of natural gas  
(Principal importers/exporters)**

Terajoules

**2022**

Importers	Exporters							
	World	Algeria	Australia	Canada	Indonesia	Iran (Islamic Rep. of)	Kazakhstan	Malaysia
Argentina	214,992	3,564	..	..	..	..	..	..
Austria	477,943	..	..	..	..	..	..	..
Belarus	683,837	..	..	..	..	..	..	..
Belgium	940,208	7,313	..	..	..	..	..	..
Brazil	359,211	..	..	..	..	..	..	..
Canada	1,000,789	..	..	..	..	..	..	..
China	5,878,584	3,611	1,460,385	9	176,292	..	165,475	*275,452
Czechia	334,474	..	..	..	..	..	..	..
France	2,302,181	189,412	..	..	..	..	..	..
Germany	3,288,950	..	..	..	..	..	..	..
Hungary	364,379	..	..	..	..	..	..	..
India	1,088,986	8,270	16,541	..	..	..	..	..
Italy	2,765,731	989,926	..	..	..	..	..	..
Japan	3,859,628	6,812	1,657,641	..	142,156	..	..	675,773
Kazakhstan	47,489	..	..	..	..	..	..	..
Korea, Republic of	2,540,696	3,511	638,054	..	176,652	..	..	302,083
Malaysia	559,424	..	113,560	..	9,239	..	..	..
Mexico	1,698,223	..	..	..	..	..	..	..
Netherlands (Kingd. of the)	1,300,218	4,024	5,193	..	..	..	..	..
Poland	591,900	..	..	..	..	..	..	..
Portugal	232,260	..	..	..	..	..	..	..
Russian Federation	298,128	..	..	..	..	..	55,364	..
Singapore	441,376	..	*175,070	..	*167,264	..	..	47,184
Slovakia	242,167	..	..	..	..	..	..	..
Spain	1,606,503	379,548	210	..	555	..	..	282
Thailand	655,748	3,385	50,954	..	5,314	..	..	77,851
Türkiye	2,093,761	201,516	..	..	3,370	360,237	..	..
Ukraine	121,404	..	..	..	..	..	..	..
United Arab Emirates	849,447	..	..	..	..	..	..	..
United Kingdom	2,225,848	22,497	..	..	..	..	..	..
United States	3,270,578	..	..	3,243,975	..	..	..	..



**International trade of natural gas  
(Principal importers/exporters)**

Terajoules

**2022**

Exporters							
Netherlands (Kingd. of the)	Nigeria	Norway	Qatar	Russian Federation	Trinidad and Tobago	Turkmenistan	United States
3,441	..	3,441	2,156	..	2,087	..	72,394
..	..	..	..	..	..	..	..
..	..	..	..	683,837	..	..	..
81,847	..	197,460	228,602	115,291	..	..	76,637
..	651	..	17,813	..	4,609	..	77,865
2,157	..	..	..	..	3,974	..	988,773
..	24,515	..	865,826	850,387	21,390	1,217,491	104,535
..	..	41,374	..	199,848	..	..	..
80,285	46,667	518,123	93,562	352,368	..	..	572,575
..	..	1,079,591	..	1,011,393	..	..	..
..	..	..	..	300,103	..	..	..
..	120,830	..	452,270	26,972	20,613	..	132,501
14,212	7,049	236,790	277,705	532,927	8,425	..	114,450
..	46,367	..	159,869	348,946	3,434	..	218,188
..	..	..	..	32,752	..	14,692	..
..	29,923	..	532,707	107,436	6,345	..	315,386
..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	1,698,223
..	7,029	310,452	12,953	212,582	31,325	..	285,939
306	7,383	..	90,743	114,935	3,864	..	133,275
..	116,762	..	..	11,956	15,307	..	80,209
..	..	..	..	..	..	*242,764	..
..	..	..	21,329	2,640	3,036	..	24,853
..	..	..	..	93,424	..	..	..
1	229,690	14,479	55,552	201,676	45,510	..	463,828
..	14,522	..	112,172	..	25,623	..	28,106
..	31,348	..	3,277	826,398	13,931	..	216,105
..	..	..	..	..	..	..	..
..	..	..	742,900	..	..	..	..
4,245	19,874	1,228,994	302,474	19,042	7,068	..	497,862
..	..	..	..	..	25,453	..	..



### Production of manufactured and recovered gases - by type

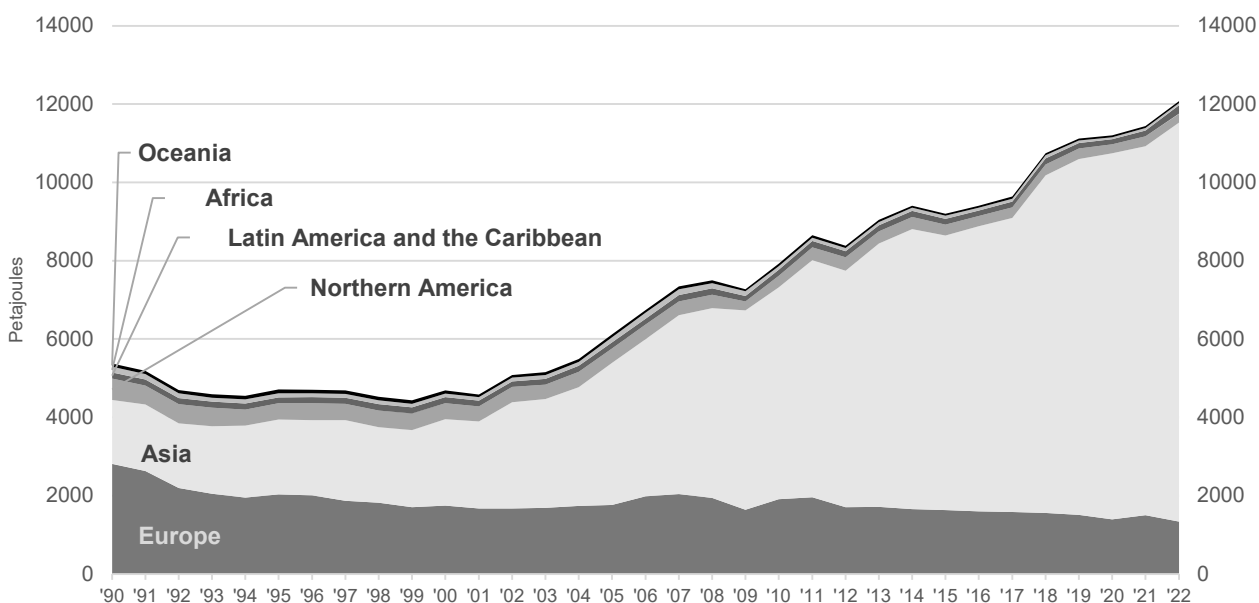
Terajoules

**Table Notes**

**Production** refers to gasworks gas, coke oven gas, blast furnace gas and other recovered gases.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 74: Production of manufactured and recovered gases by region, 1990-2022**



**Figure 75: World production of manufactured and recovered gases by type, 2022**

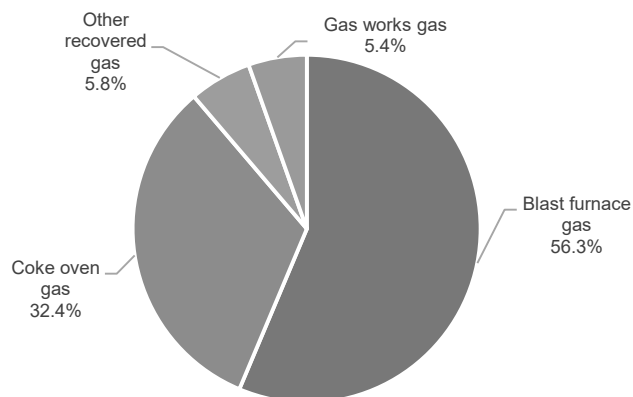


Table 30

## Production of manufactured and recovered gases - by type

Terajoules

Country or area	Year	Total	Gas works gas	Coke oven gas	Blast furnace gas	Other recovered gas
<b>World</b>	<b>2019</b>	<b>11,118,741</b>	<b>448,228</b>	<b>3,299,553</b>	<b>6,732,702</b>	<b>638,257</b>
	<b>2020</b>	<b>11,196,359</b>	<b>379,469</b>	<b>3,328,174</b>	<b>6,806,515</b>	<b>682,201</b>
	<b>2021</b>	<b>11,433,863</b>	<b>388,533</b>	<b>3,429,226</b>	<b>6,925,512</b>	<b>690,591</b>
	<b>2022</b>	<b>12,073,943</b>	<b>652,698</b>	<b>3,917,896</b>	<b>6,801,303</b>	<b>702,047</b>
<b>Africa</b>	<b>2019</b>	<b>69,014</b>	<b>21,920</b>	<b>21,165</b>	<b>25,930</b>	<b>..</b>
	<b>2020</b>	<b>45,549</b>	<b>16,348</b>	<b>12,484</b>	<b>16,717</b>	<b>..</b>
	<b>2021</b>	<b>64,400</b>	<b>21,661</b>	<b>20,147</b>	<b>22,592</b>	<b>..</b>
	<b>2022</b>	<b>52,629</b>	<b>19,075</b>	<b>14,910</b>	<b>18,644</b>	<b>..</b>
Algeria	2019	5,108	..	..	5,108	..
	2020	2,564	..	..	2,564	..
	2021	4,624	..	..	4,624	..
	2022	3,061	..	..	3,061	..
Egypt	2019	2,825	128	..	2,697	..
	2020	4,152	15	..	4,137	..
	2021	4,137	..	..	4,137	..
	2022	4,213	76	..	4,137	..
South Africa	2019	60,154	21,791	20,238	18,125	..
	2020	37,533	16,333	11,184	10,016	..
	2021	50,937	21,661	15,445	13,832	..
	2022	43,227	18,999	12,782	11,447	..
Zimbabwe	2019	927	..	927	..	..
	2020	1,300	..	1,300	..	..
	2021	4,702	..	4,702	..	..
	2022	2,128	..	2,128	..	..
<b>Asia</b>	<b>2019</b>	<b>9,090,551</b>	<b>354,562</b>	<b>2,457,142</b>	<b>5,711,586</b>	<b>567,262</b>
	<b>2020</b>	<b>9,347,291</b>	<b>293,726</b>	<b>2,538,332</b>	<b>5,898,920</b>	<b>616,313</b>
	<b>2021</b>	<b>9,427,966</b>	<b>307,425</b>	<b>2,576,504</b>	<b>5,918,195</b>	<b>625,842</b>
	<b>2022</b>	<b>10,191,869</b>	<b>575,592</b>	<b>3,133,381</b>	<b>5,848,190</b>	<b>634,706</b>
China	2019	6,913,797	324,677	1,680,918	4,452,352	455,851
	2020	7,354,793	264,677	1,816,220	4,765,796	508,100
	2021	7,248,195	278,668	1,826,211	4,635,216	*508,100
	2022	8,120,262	546,979	2,402,442	4,642,028	528,813
China, Hong Kong SAR	2019	28,712	28,712	..	..	..
	2020	27,947	27,947	..	..	..
	2021	27,677	27,677	..	..	..
	2022	27,398	27,398	..	..	..
India	2019	*639,222	*1,173	203,658	*434,391	..
	2020	*587,392	*1,102	*188,003	*398,287	..
	2021	*666,318	*1,080	*216,252	*448,986	..
	2022	*689,751	*1,215	*222,356	*466,180	..
Iran (Islamic Rep. of)	2019	25,894	..	9,753	16,140	..
	2020	25,620	..	10,072	15,548	..
	2021	29,167	..	11,103	18,064	..
	2022	28,225	..	11,499	16,726	..
Japan	2019	765,977	..	294,493	412,431	59,053
	2020	646,861	..	266,508	331,130	49,224
	2021	718,600	..	264,320	399,269	55,011
	2022	653,948	..	250,453	353,134	50,361
Kazakhstan	2019	35,479	..	14,455	21,025	..
	2020	32,370	..	12,135	20,234	..
	2021	30,688	..	11,317	19,371	..
	2022	30,004	..	12,623	17,381	..

## Production of manufactured and recovered gases - by type

Terajoules

Country or area	Year	Total	Gas works gas	Coke oven gas	Blast furnace gas	Other recovered gas
Korea, Dem.Ppl's.Rep.	2019	1,026	..	..	1,026	..
	2020	1,067	..	..	1,067	..
	2021	902	..	..	902	..
	2022	436	..	..	436	..
Korea, Republic of	2019	419,445	..	151,132	227,684	40,629
	2020	412,265	..	143,935	220,893	47,437
	2021	423,938	..	147,097	227,058	49,783
	2022	385,428	..	135,949	205,348	44,132
Malaysia	2019	15,799	..	..	15,799	..
	2020	17,342	..	..	17,342	..
	2021	22,093	..	..	22,093	..
	2022	18,446	..	..	18,446	..
Other Asia	2019	159,396	..	67,187	80,479	11,729
	2020	153,332	..	65,159	76,621	11,552
	2021	163,528	..	66,942	83,639	12,947
	2022	148,350	..	63,944	73,006	11,400
Syrian Arab Republic	2019	3	..	..	3	..
	2020	3	..	..	3	..
	2021	3	..	..	3	..
	2022	3	..	..	3	..
Thailand	2019	390	..	..	390	..
	2020	..	..	..	..	..
	2021	..	..	..	..	..
	2022	..	..	..	..	..
Türkiye	2019	85,411	..	35,546	49,865	..
	2020	88,300	..	36,300	52,000	..
	2021	96,855	..	33,261	63,594	..
	2022	89,618	..	34,116	55,503	..
<b>Europe</b>	<b>2019</b>	<b>1,508,565</b>	<b>15,917</b>	<b>620,018</b>	<b>801,937</b>	<b>70,692</b>
	<b>2020</b>	<b>1,393,400</b>	<b>11,969</b>	<b>593,664</b>	<b>722,150</b>	<b>65,617</b>
	<b>2021</b>	<b>1,497,136</b>	<b>2,646</b>	<b>628,660</b>	<b>801,372</b>	<b>64,457</b>
	<b>2022</b>	<b>1,337,591</b>	<b>2,638</b>	<b>579,879</b>	<b>701,969</b>	<b>53,105</b>
Austria	2019	41,769	..	10,428	27,616	3,725
	2020	39,647	..	10,217	25,967	3,462
	2021	44,332	..	10,250	30,007	4,075
	2022	40,961	..	9,721	27,467	3,773
Belgium	2019	37,978	..	9,906	24,319	3,754
	2020	30,070	..	8,921	18,252	2,896
	2021	35,248	..	10,347	21,796	3,106
	2022	36,549	..	10,671	22,167	3,711
Bosnia and Herzegovina	2019	12,060	..	6,978	5,082	..
	2020	10,020	..	6,285	3,735	..
	2021	10,762	..	6,810	3,952	..
	2022	10,955	..	6,482	4,473	..
Czechia	2019	55,016	12,670	18,950	17,571	5,824
	2020	49,358	9,358	18,243	17,847	3,910
	2021	44,913	..	20,860	20,140	3,914
	2022	40,334	..	18,783	17,680	3,872
Estonia	2019	14,370	3,247	11,123	..	..
	2020	13,707	2,610	11,096	..	..
	2021	12,252	2,646	9,606	..	..
	2022	11,503	2,638	8,865	..	..

Table 30

## Production of manufactured and recovered gases - by type

Terajoules

Country or area	Year	Total	Gas works gas	Coke oven gas	Blast furnace gas	Other recovered gas
Finland	2019	20,213	..	7,719	8,413	4,081
	2020	20,136	..	7,095	9,048	3,993
	2021	23,853	..	7,584	12,183	4,086
	2022	20,001	..	7,498	9,121	3,382
France	2019	81,667	..	..	81,667	..
	2020	62,309	..	..	62,309	..
	2021	72,964	..	..	72,964	..
	2022	66,473	..	..	66,473	..
Germany	2019	241,116	..	64,151	151,471	25,494
	2020	209,468	..	62,418	125,509	21,542
	2021	227,243	..	60,225	145,434	21,584
	2022	222,126	..	65,130	135,260	21,736
Hungary	2019	15,242	..	8,162	7,080	..
	2020	13,787	..	7,386	6,401	..
	2021	11,174	..	7,024	4,150	..
	2022	7,801	..	4,619	3,182	..
Italy	2019	33,246	..	14,586	17,071	1,590
	2020	23,857	..	11,506	10,825	1,526
	2021	27,704	..	11,906	14,764	1,034
	2022	22,191	..	9,490	11,772	929
Netherlands (Kingd. of the)	2019	51,719	..	17,657	34,062	..
	2020	48,690	..	17,093	31,597	..
	2021	53,550	..	17,038	36,512	..
	2022	52,949	..	16,954	35,994	..
Norway	2019	3,611	..	..	3,611	..
	2020	3,064	..	..	3,064	..
	2021	3,565	..	..	3,565	..
	2022	4,106	..	..	4,106	..
Poland	2019	102,427	..	74,779	24,327	3,322
	2020	88,378	..	65,419	19,443	3,516
	2021	101,193	..	78,034	20,336	2,823
	2022	91,322	..	70,092	17,941	3,289
Romania	2019	10,354	..	..	10,354	..
	2020	9,743	..	..	9,743	..
	2021	10,757	..	..	10,757	..
	2022	8,220	..	..	8,220	..
Russian Federation	2019	477,585	..	260,383	217,202	..
	2020	481,713	..	261,111	220,602	..
	2021	496,967	..	268,806	228,161	..
	2022	495,569	..	276,736	218,833	..
Serbia	2019	12,231	..	..	12,231	..
	2020	8,310	..	..	8,310	..
	2021	8,640	..	..	8,640	..
	2022	8,328	..	..	8,328	..
Slovakia	2019	31,861	..	11,619	17,065	3,177
	2020	27,117	..	9,640	14,880	2,597
	2021	38,780	..	12,490	22,473	3,817
	2022	33,339	..	11,594	18,764	2,981
Spain	2019	26,696	..	9,424	17,272	..
	2020	18,514	..	5,513	13,001	..
	2021	29,037	..	11,085	17,952	..
	2022	29,324	..	12,966	16,358	..

## Production of manufactured and recovered gases - by type

Terajoules

Country or area	Year	Total	Gas works gas	Coke oven gas	Blast furnace gas	Other recovered gas
Sweden	2019	22,895	..	8,096	13,448	1,351
	2020	21,473	..	7,926	11,922	1,625
	2021	20,771	..	6,964	12,553	1,254
	2022	21,473	..	8,151	11,796	1,526
Ukraine	2019	168,849	..	72,116	78,358	18,375
	2020	168,217	..	71,040	76,627	20,550
	2021	175,393	..	77,827	78,801	18,765
	2022	73,041	..	31,925	33,208	7,908
United Kingdom	2019	47,658	..	13,941	33,717	..
	2020	45,822	..	12,755	33,067	..
	2021	48,036	..	11,806	36,231	..
	2022	41,026	..	10,200	30,826	..
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>134,916</b>	<b>3,261</b>	<b>89,947</b>	<b>41,708</b>	<b>..</b>
	<b>2020</b>	<b>130,649</b>	<b>3,300</b>	<b>85,037</b>	<b>42,312</b>	<b>..</b>
	<b>2021</b>	<b>145,682</b>	<b>3,272</b>	<b>98,091</b>	<b>44,319</b>	<b>..</b>
	<b>2022</b>	<b>220,089</b>	<b>3,187</b>	<b>93,865</b>	<b>109,054</b>	<b>13,982</b>
Argentina	2019	24,922	..	3,263	21,660	..
	2020	24,070	..	3,592	20,478	..
	2021	29,117	..	4,415	24,701	..
	2022	31,625	..	5,212	26,413	..
Brazil	2019	73,223	..	73,223	..	..
	2020	67,308	..	67,308	..	..
	2021	78,939	..	78,939	..	..
	2022	152,197	..	74,718	63,497	13,982
Chile	2019	6,944	..	3,772	3,172	..
	2020	7,048	..	3,676	3,372	..
	2021	7,469	37	3,831	3,601	..
	2022	6,590	..	3,277	3,314	..
Colombia	2019	2,570	..	1,531	1,040	..
	2020	1,583	..	762	821	..
	2021	1,725	..	831	895	..
	2022	1,795	..	891	904	..
Cuba	2019	3,275	3,261	..	14	..
	2020	3,311	3,300	..	11	..
	2021	3,249	3,235	..	14	..
	2022	3,202	3,187	..	15	..
Mexico	2019	23,981	..	8,158	15,823	..
	2020	27,330	..	9,700	17,630	..
	2021	25,184	..	10,076	15,108	..
	2022	24,679	..	9,767	14,912	..
<b>Northern America</b>	<b>2019</b>	<b>266,902</b>	<b>52,531</b>	<b>86,408</b>	<b>127,963</b>	<b>..</b>
	<b>2020</b>	<b>230,943</b>	<b>54,087</b>	<b>73,018</b>	<b>103,838</b>	<b>..</b>
	<b>2021</b>	<b>248,945</b>	<b>53,482</b>	<b>80,029</b>	<b>115,434</b>	<b>..</b>
	<b>2022</b>	<b>224,285</b>	<b>52,159</b>	<b>71,809</b>	<b>100,317</b>	<b>..</b>
Canada	2019	46,506	..	23,969	22,537	..
	2020	42,243	..	22,789	19,454	..
	2021	42,221	..	19,163	23,058	..
	2022	37,888	..	16,531	21,357	..
United States	2019	220,396	52,531	62,439	105,426	..
	2020	188,700	54,087	50,229	84,384	..
	2021	206,724	53,482	60,866	92,376	..
	2022	186,397	52,159	55,278	78,960	..

Table 30

## Production of manufactured and recovered gases - by type

Terajoules

Country or area	Year	Total	Gas works gas	Coke oven gas	Blast furnace gas	Other recovered gas
<b>Oceania</b>	<b>2019</b>	<b>48,793</b>	<b>38</b>	<b>24,874</b>	<b>23,578</b>	<b>303</b>
	<b>2020</b>	<b>48,526</b>	<b>39</b>	<b>25,639</b>	<b>22,577</b>	<b>271</b>
	<b>2021</b>	<b>49,734</b>	<b>47</b>	<b>25,796</b>	<b>23,599</b>	<b>292</b>
	<b>2022</b>	<b>47,481</b>	<b>46</b>	<b>24,052</b>	<b>23,129</b>	<b>254</b>
Australia	2019	35,774	38	19,023	16,713	..
	2020	36,675	39	20,169	16,467	..
	2021	36,667	47	20,012	16,608	..
	2022	35,688	46	18,867	16,775	..
New Zealand	2019	13,019	..	5,851	6,865	303
	2020	11,851	..	5,470	6,110	271
	2021	13,067	..	5,784	6,991	292
	2022	11,793	..	5,185	6,354	254







## Net installed capacity of electric plants - by type

Megawatts

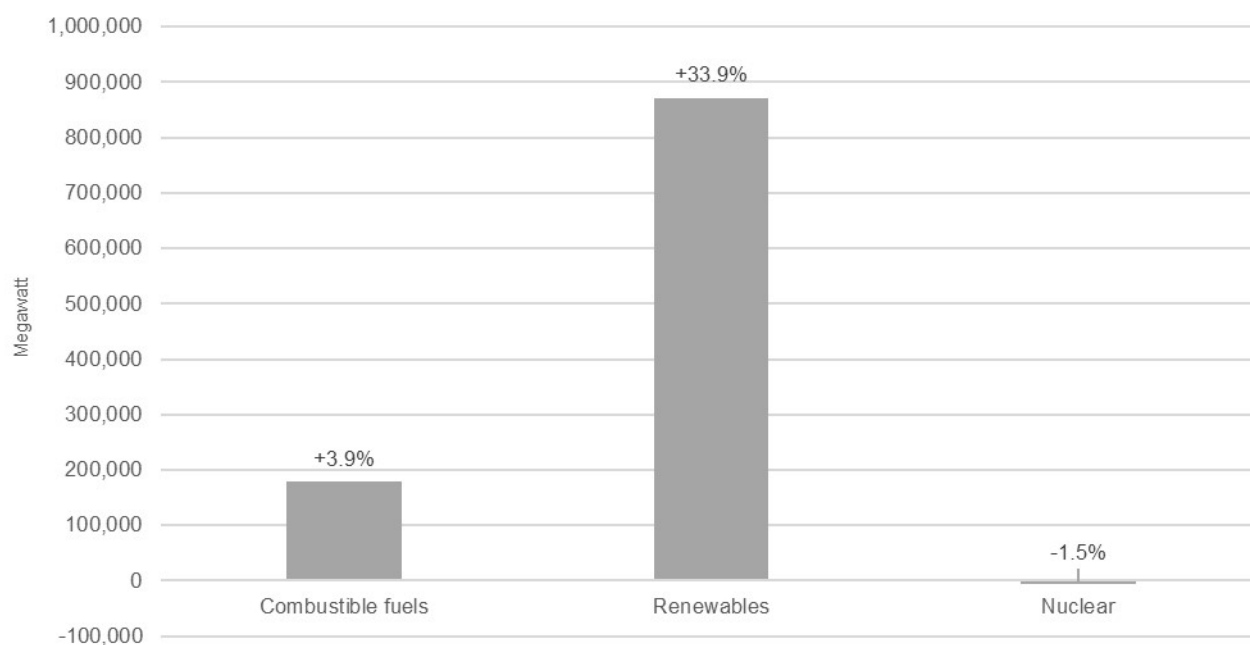
### Table Notes

Electricity capacity broken down by source, and main activity producers against autoproducers. For total producers, **Other** refers to geothermal, tide, wave, marine and other non-specified net installed capacity. For autoproducers, **Other** refers to nuclear (if any), wind, solar, geothermal, tide, wave, marine and other non-specified net installed capacity. For main activity producers, **Other** refers to wind, solar, geothermal, tide, wave, marine and other non-specified net installed capacity.

For Austria data are given in gross maximum capacity.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 76: Change in net installed capacity of electricity generating plants\* by source, 2019-2022**



\* Renewable includes capacity from hydro, wind, solar and other sources

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
World	2019	7,488,656	4,518,153	1,305,775	404,155	626,115	596,955	37,502
	2020	7,846,658	4,604,299	1,325,993	401,443	737,514	734,772	42,637
	2021	8,185,234	4,670,377	1,358,182	401,663	830,712	879,965	44,335
	2022	8,531,621	4,696,277	1,385,051	397,926	905,972	1,091,787	54,607
Africa	2019	235,123	183,057	36,764	1,940	5,954	6,087	1,321
	2020	238,764	184,162	37,808	1,940	6,630	6,868	1,356
	2021	244,893	188,397	38,352	1,940	7,345	7,508	1,353
	2022	249,337	189,812	39,725	1,940	8,030	8,391	1,439
Algeria	2019	*21,653	*20,967	228	..	10	448	..
	2020	*21,634	*20,967	209	..	*10	448	..
	2021	*22,448	*21,861	129	..	10	448	..
	2022	*22,460	*21,861	129	..	10	460	..
Angola	2019	5,926	2,571	3,342	..	..	13	..
	2020	6,166	2,477	3,676	..	..	13	..
	2021	6,168	2,479	3,676	..	..	*13	..
	2022	6,733	2,718	3,729	..	..	285	..
Benin	2019	*512	*439	*66	..	..	7	..
	2020	*512	*439	*66	..	..	7	..
	2021	*512	*439	*66	..	..	7	..
	2022	*538	*439	*66	..	..	33	..
Botswana	2019	758	752	..	..	..	6	..
	2020	758	752	..	..	..	6	..
	2021	758	752	..	..	..	6	..
	2022	759	752	..	..	..	7	..
Burkina Faso	2019	554	467	32	..	..	55	..
	2020	593	505	32	..	..	55	..
	2021	620	532	32	..	..	56	..
	2022	630	534	32	..	..	64	..
Burundi	2019	108	55	48	..	..	5	..
	2020	108	55	48	..	..	5	..
	2021	112	55	48	..	..	9	..
	2022	127	55	63	..	..	9	..
Cabo Verde	2019	193	156	..	..	24	*13	..
	2020	181	144	..	..	24	*13	..
	2021	178	141	..	..	24	*13	..
	2022	191	146	..	..	24	*20	..
Cameroon	2019	1,744	*918	812	..	..	14	..
	2020	1,745	*918	812	..	..	14	..
	2021	1,757	*918	812	..	..	26	..
	2022	1,758	*918	813	..	..	26	..
Central African Rep.	2019	*44	*19	*25	..	..	0	..
	2020	*44	*19	*25	..	..	0	..
	2021	*44	*19	*25	..	..	0	..
	2022	*44	*19	*25	..	..	0	..
Chad	2019	164	162	..	..	1	1	..
	2020	164	162	..	..	1	1	..
	2021	164	162	..	..	1	1	..
	2022	165	162	..	..	1	2	..
Comoros	2019	*28	*27	1	..	..	..	..
	2020	*28	*27	1	..	..	..	..
	2021	32	27	*1	..	..	4	..
	2022	*32	*27	*1	..	..	4	..
Congo	2019	*660	*445	214	..	..	1	..
	2020	*836	*615	214	..	..	*7	..
	2021	*836	*615	214	..	..	*7	..
	2022	*836	*615	214	..	..	*7	..

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
676,418	488,433	18,782	169,203	6,812,237	4,029,719	1,286,994	404,155	1,091,369
694,913	476,897	19,116	198,900	7,151,746	4,127,403	1,306,877	401,443	1,316,023
748,513	480,337	20,128	248,048	7,436,721	4,190,040	1,338,054	401,663	1,506,964
815,951	489,483	20,768	305,699	7,715,670	4,206,793	1,364,283	397,926	1,746,668
28,157	22,302	259	5,596	206,966	160,755	36,505	1,940	7,766
28,344	22,225	259	5,860	210,420	161,937	37,549	1,940	8,994
28,910	22,196	264	6,450	215,983	166,200	38,087	1,940	9,755
29,476	22,292	314	6,870	219,861	167,521	39,410	1,940	10,990
*6,567	*6,567	..	..	*15,086	*14,400	228	..	458
*6,567	*6,567	..	..	*15,067	*14,400	209	..	458
*6,265	*6,265	..	..	*16,183	*15,596	129	..	458
*6,265	*6,265	..	..	*16,195	*15,596	129	..	470
*300	*300	..	..	5,626	2,271	3,342	..	13
*310	*310	..	..	5,856	2,167	3,676	..	13
*310	*310	..	..	5,858	2,169	3,676	..	*13
*310	*310	..	..	6,423	2,408	3,729	..	285
*47	*45	..	2	*465	*394	*66	..	5
*47	*45	..	2	*465	*394	*66	..	5
*47	*45	..	*2	*465	*394	*66	..	5
*52	*45	..	7	*486	*394	*66	..	26
*20	*20	..	..	738	732	..	..	6
*20	*20	..	..	738	732	..	..	6
*20	*20	..	..	738	732	..	..	6
20	20	..	..	739	732	..	..	7
*172	*172	..	..	382	295	32	..	55
*154	*154	..	..	438	351	32	..	55
*181	*181	..	..	439	351	32	..	56
*184	*184	..	..	446	350	32	..	64
4	4	..	..	104	51	48	..	5
4	4	..	..	104	51	48	..	5
4	4	..	..	108	51	48	..	9
4	4	..	..	123	51	63	..	9
*1	*1	..	..	192	155	..	..	37
*1	*1	..	..	180	143	..	..	37
*1	*1	..	..	178	140	..	..	37
*1	*1	..	..	190	146	..	..	44
*650	*650	..	..	1,094	268	812	..	14
*650	*650	..	..	1,095	268	812	..	14
*650	*650	..	..	1,107	268	812	..	26
*650	*650	..	..	1,108	268	813	..	26
..	..	..	..	*44	*19	*25	..	0
..	..	..	..	*44	*19	*25	..	0
..	..	..	..	*44	*19	*25	..	0
..	..	..	..	*44	*19	*25	..	0
..	..	..	..	164	162	..	..	2
..	..	..	..	164	162	..	..	2
..	..	..	..	164	162	..	..	2
..	..	..	..	165	162	..	..	3
1	..	1	..	*27	*27	..	..	..
1	..	1	..	*27	*27	..	..	..
*1	..	*1	..	31	27	..	..	4
*1	..	*1	..	*31	*27	..	..	4
*404	*404	..	..	256	*41	214	..	1
*574	*574	..	..	262	*41	214	..	*7
*574	*574	..	..	262	*41	214	..	*7
*574	*574	..	..	262	*41	214	..	*7

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Côte d'Ivoire	2019	2,210	1,323	879	..	..	8	..
	2020	2,222	1,335	879	..	..	8	..
	2021	2,277	1,390	879	..	..	8	..
	2022	2,557	1,669	879	..	..	9	..
Dem. Rep. of the Congo	2019	2,610	32	2,577	..	..	*1	..
	2020	2,820	32	2,787	..	..	1	..
	2021	*2,973	*32	*2,939	..	..	1	..
	2022	*2,987	*32	*2,953	..	..	2	..
Djibouti	2019	130	130	..	..	..	0	..
	2020	130	130	..	..	..	0	..
	2021	*150	*130	..	..	20	0	..
	2022	*150	*130	..	..	20	0	..
Egypt	2019	58,353	53,394	2,832	..	1,127	1,000	..
	2020	59,530	53,802	2,832	..	1,385	1,511	..
	2021	58,819	52,971	2,832	..	1,385	1,631	..
	2022	61,914	55,818	2,832	..	1,633	1,631	..
Equatorial Guinea	2019	*554	*222	*327	..	..	*5	..
	2020	*554	*222	*327	..	..	*5	..
	2021	*554	*222	*327	..	..	*5	..
	2022	*554	*222	*327	..	..	*5	..
Eritrea	2019	*226	*205	..	..	1	20	..
	2020	*230	*207	..	..	1	22	..
	2021	242	217	..	..	1	24	..
	2022	243	217	..	..	1	25	..
Eswatini	2019	173	109	62	..	..	*2	..
	2020	*171	*107	62	..	..	*2	..
	2021	*182	*108	62	..	..	12	..
	2022	180	106	62	..	..	12	..
Ethiopia	2019	4,293	134	3,817	..	324	11	7
	2020	4,556	*134	4,071	..	324	20	7
	2021	4,564	*140	4,071	..	324	21	7
	2022	5,389	*135	4,821	..	404	21	7
Gabon	2019	*784	*451	332	..	..	*1	..
	2020	*784	*451	332	..	..	*1	..
	2021	*784	*451	332	..	..	*1	..
	2022	*786	*451	334	..	..	*1	..
Gambia	2019	*137	*134	..	..	1	3	..
	2020	142	138	..	..	*1	3	..
	2021	*162	*158	..	..	*1	3	..
	2022	*162	*158	..	..	1	3	..
Ghana	2019	5,382	3,759	1,580	..	..	43	0
	2020	5,288	3,649	1,580	..	..	59	0
	2021	5,449	3,753	1,584	..	..	112	0
	2022	5,454	3,758	1,584	..	..	112	0
Guinea	2019	534	198	336	..	..	..	..
	2020	863	320	543	..	..	..	..
	2021	952	292	660	..	..	..	..
	2022	1,045	445	600	..	..	..	..
Guinea-Bissau	2019	*45	*40	..	..	..	*5	..
	2020	*46	*40	..	..	..	*6	..
	2021	*47	*40	..	..	..	*7	..
	2022	*48	*40	..	..	..	*8	..
Kenya	2019	3,155	1,113	826	..	336	51	828
	2020	3,173	1,087	834	..	336	53	863
	2021	3,331	1,016	843	..	436	173	863
	2022	3,462	1,020	844	..	436	213	950

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
*23	*23	..	..	2,187	1,300	879	..	8
*23	*23	..	..	2,199	1,312	879	..	8
*23	*23	..	..	2,254	1,367	879	..	8
*23	*23	..	..	2,534	1,646	879	..	9
..	..	..	..	2,610	32	2,577	..	*1
..	..	..	..	2,820	32	2,787	..	1
..	..	..	..	*2,973	*32	*2,939	..	1
..	..	..	..	*2,987	*32	*2,953	..	2
..	..	..	..	130	130	..	..	0
..	..	..	..	130	130	..	..	0
..	..	..	..	*150	*130	..	..	20
..	..	..	..	*150	*130	..	..	20
2,048	2,048	..	..	56,305	51,346	2,832	..	2,127
2,048	2,048	..	..	57,482	51,754	2,832	..	2,896
2,048	2,048	..	..	56,771	50,923	2,832	..	3,016
2,048	2,048	..	..	59,866	53,770	2,832	..	3,264
..	..	..	..	*554	*222	*327	..	*5
..	..	..	..	*554	*222	*327	..	*5
..	..	..	..	*554	*222	*327	..	*5
..	..	..	..	*554	*222	*327	..	*5
*10	*10	..	..	*216	*195	..	..	21
*12	*12	..	..	*218	*195	..	..	23
*12	*12	..	..	230	205	..	..	25
*12	*12	..	..	231	205	..	..	26
112	109	*1	*2	61	..	61	..	..
*110	*107	*1	*2	61	..	61	..	..
*111	*108	*1	*2	71	..	61	..	10
109	106	*1	*2	71	..	61	..	10
30	30	..	..	4,263	104	3,817	..	342
30	30	..	..	4,526	*104	4,071	..	351
25	25	..	..	4,539	*115	4,071	..	352
25	25	..	..	5,364	*110	4,821	..	432
*88	*85	*2	*1	*696	*366	330	..	..
*88	*85	*2	*1	*696	*366	330	..	..
*88	*85	*2	*1	*696	*366	330	..	..
*88	*85	*2	*1	*698	*366	332	..	..
*36	*36	..	..	*102	*98	..	..	4
*36	*36	..	..	106	102	..	..	4
*36	*36	..	..	*126	*122	..	..	4
*36	*36	..	..	*126	*122	..	..	4
*210	*210	..	..	5,172	3,549	1,580	..	43
..	..	..	..	5,288	3,649	1,580	..	59
..	..	..	..	5,449	3,753	1,584	..	112
..	..	..	..	5,454	3,758	1,584	..	112
..	..	..	..	534	198	336	..	..
..	..	..	..	863	320	543	..	..
..	..	..	..	952	292	660	..	..
..	..	..	..	1,045	445	600	..	..
*5	*5	..	..	*40	*35	..	..	*5
*5	*5	..	..	*41	*35	..	..	*6
*5	*5	..	..	*42	*35	..	..	*7
*5	*5	..	..	*43	*35	..	..	*8
364	364	..	..	2,791	749	826	..	1,216
338	338	..	..	2,835	749	834	..	1,252
*343	*338	*5	..	2,988	678	838	..	1,472
*343	*338	*5	..	3,119	682	839	..	1,599

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Lesotho	2019	75	1	74	..	..	0	..
	2020	75	1	74	..	..	0	..
	2021	75	1	74	..	..	0	..
	2022	76	1	74	..	..	1	..
Liberia	2019	*195	*100	*92	..	..	*3	..
	2020	185	*102	80	..	..	*3	..
	2021	161	*98	60	..	..	*3	..
	2022	166	*103	60	..	..	*3	..
Libya	2019	10,516	10,511	..	..	..	5	..
	2020	*10,516	*10,511	..	..	..	5	..
	2021	*10,517	*10,511	..	..	..	6	..
	2022	*11,002	*10,996	..	..	..	6	..
Madagascar	2019	595	407	165	..	0	23	..
	2020	*653	*465	164	..	0	24	..
	2021	*699	*511	164	..	0	24	..
	2022	*758	*515	192	..	0	51	..
Malawi	2019	719	*263	376	..	..	80	..
	2020	747	*263	403	..	..	*80	..
	2021	728	*263	403	..	..	61	..
	2022	*752	*263	*407	..	..	81	..
Mali	2019	*1,100	629	*450	..	..	21	..
	2020	*1,154	629	*453	..	..	71	..
	2021	*1,154	629	*453	..	..	71	..
	2022	*1,295	*675	*523	..	..	97	..
Mauritania	2019	*608	*486	..	..	34	*88	..
	2020	*626	*504	..	..	34	*88	..
	2021	*626	*504	..	..	34	*88	..
	2022	*626	*504	..	..	34	*88	..
Mauritius	2019	844	681	60	..	11	89	3
	2020	862	681	61	..	11	106	3
	2021	863	684	61	..	11	108	..
	2022	866	684	61	..	11	111	..
Morocco	2019	14,412	10,276	1,770	..	1,248	711	*407
	2020	14,432	10,046	1,770	..	1,458	751	*407
	2021	*14,548	*10,046	1,770	..	1,471	854	*407
	2022	*14,635	*10,046	1,770	..	1,558	854	*407
Mozambique	2019	2,789	*490	2,204	..	..	95	..
	2020	2,789	*490	2,204	..	..	95	..
	2021	2,776	*490	2,191	..	..	*95	..
	2022	2,789	*490	2,191	..	..	108	..
Namibia	2019	600	113	347	..	5	135	..
	2020	616	113	347	..	5	151	..
	2021	628	120	351	..	5	151	..
	2022	643	144	347	..	5	147	..
Niger	2019	*324	*297	..	..	..	27	..
	2020	*324	*297	..	..	..	27	..
	2021	*325	*297	..	..	..	*27	..
	2022	*347	*297	..	..	..	50	..
Nigeria	2019	11,730	9,539	2,151	..	3	37	..
	2020	12,108	9,862	2,191	..	*3	53	..
	2021	13,370	11,103	2,191	..	*3	73	..
	2022	*13,417	*11,121	2,191	..	*3	102	..
Rwanda	2019	228	122	95	..	..	12	..
	2020	238	122	105	..	..	12	..
	2021	*239	*122	*105	..	..	*12	..
	2022	277	143	122	..	..	12	..



Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	75	1	74	..	0
..	..	..	..	75	1	74	..	0
..	..	..	..	75	1	74	..	0
..	..	..	..	76	1	74	..	1
*73	*70	..	*3	*122	*30	*92	..	..
*73	*70	..	*3	112	32	80	..	..
*73	*70	..	*3	88	28	60	..	0
*73	*70	..	*3	93	33	60	..	0
..	..	..	..	10,516	10,511	..	..	5
..	..	..	..	*10,516	*10,511	..	..	5
..	..	..	..	*10,517	*10,511	..	..	6
..	..	..	..	*11,002	*10,996	..	..	6
*106	*106	..	..	489	301	165	..	23
*102	*102	..	..	*551	*363	164	..	24
*103	*103	..	..	*596	*408	164	..	24
*105	*105	..	..	*653	*410	192	..	51
*215	*210	*5	..	504	53	371	..	80
*215	*210	*5	..	532	53	398	..	*80
*215	*210	*5	..	513	53	398	..	61
*215	*210	*5	..	*537	53	*402	..	81
*279	*260	..	19	*821	369	*450	..	2
*279	*260	..	*19	*874	369	*453	..	52
*279	*260	..	*19	*874	369	*453	..	52
*347	*306	..	41	*948	*369	*523	..	56
*97	*90	..	7	*511	*396	..	..	*115
*102	*95	..	7	*524	*409	..	..	*115
*102	*95	..	7	*524	*409	..	..	*115
*102	*95	..	7	*524	*409	..	..	*115
329	230	..	98	516	450	60	..	5
346	230	..	116	516	450	61	..	5
346	234	..	112	517	450	61	..	7
349	234	..	115	517	450	61	..	7
*3,728	*3,300	..	*428	10,684	6,976	1,770	..	1,938
*3,728	*3,300	..	*428	10,704	6,746	1,770	..	2,188
*3,728	*3,300	..	*428	*10,820	*6,746	1,770	..	2,304
*3,728	*3,300	..	*428	*10,907	*6,746	1,770	..	2,391
*50	*50	..	..	2,739	*440	2,204	..	95
*50	*50	..	..	2,739	*440	2,204	..	95
*50	*50	..	..	2,726	*440	2,191	..	*95
*50	*50	..	..	2,739	*440	2,191	..	108
..	..	..	..	600	113	347	..	140
..	..	..	..	616	113	347	..	157
..	..	..	..	628	120	351	..	157
..	..	..	..	643	144	347	..	152
*80	*53	..	27	*244	*244	..	..	..
*80	*53	..	27	*244	*244	..	..	..
*81	*53	..	*27	*244	*244	..	..	..
*103	*53	..	50	*244	*244	..	..	..
*3,260	*3,180	*40	40	8,470	6,359	2,111	..	..
*3,276	*3,180	*40	56	8,833	6,682	2,151	..	..
*3,448	*3,332	*40	76	9,922	7,771	2,151	..	..
*3,495	*3,350	*40	105	*9,922	*7,771	2,151	..	..
*1	*1	..	..	227	121	95	..	12
*1	*1	..	..	237	121	105	..	12
*1	*1	..	..	*238	*121	*105	..	*12
*1	*1	..	..	276	142	122	..	12

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Sao Tome and Principe	2019	*29	*26	2	..	..	0	..
	2020	40	37	2	..	..	0	..
	2021	40	37	*2	..	..	0	..
	2022	40	37	*2	..	..	*1	..
Senegal	2019	1,358	1,024	..	..	149	*110	*75
	2020	1,423	1,082	..	..	159	*108	*75
	2021	1,589	1,189	..	..	159	*166	*75
	2022	1,653	1,244	..	..	159	*175	*75
Seychelles	2019	*157	*147	..	..	6	4	..
	2020	143	133	..	..	6	4	..
	2021	152	133	..	..	6	12	..
	2022	153	133	..	..	6	13	..
Sierra Leone	2019	143	78	61	..	..	4	..
	2020	99	*34	61	..	..	4	..
	2021	99	*34	61	..	..	4	..
	2022	*213	*143	61	..	..	9	..
Somalia	2019	400	385	..	..	8	7	..
	2020	415	389	..	..	11	16	..
	2021	429	400	..	..	13	17	..
	2022	445	403	..	..	*15	*27	..
South Africa	2019	*58,783	*48,380	*3,479	1,940	*2,423	2,561	..
	2020	*58,982	*48,380	*3,485	1,940	*2,616	2,561	..
	2021	61,962	50,780	*3,485	1,940	*3,196	*2,561	..
	2022	59,168	47,709	*3,485	1,940	*3,473	*2,561	..
South Sudan	2019	*133	*120	*3	..	..	*10	..
	2020	*133	*120	*3	..	..	*10	..
	2021	*135	*120	*3	..	..	*12	..
	2022	*145	*121	*3	..	..	*21	..
St. Helena and Depend.	2019	12	8	..	..	*3	*2	..
	2020	12	8	..	..	*3	*2	..
	2021	10	5	..	..	3	*2	..
	2022	10	5	..	..	3	*2	..
Sudan	2019	4,127	2,134	1,913	..	..	80	..
	2020	4,134	2,134	1,883	..	..	117	..
	2021	4,155	2,134	1,885	..	..	136	..
	2022	4,209	2,134	1,885	..	..	190	..
Togo	2019	230	158	67	..	..	5	..
	2020	*259	*185	67	..	..	7	..
	2021	*317	*193	67	..	..	57	..
	2022	*358	*225	67	..	..	*66	..
Tunisia	2019	5,926	5,539	62	..	240	85	..
	2020	6,237	5,820	62	..	240	115	..
	2021	6,288	5,822	62	..	240	164	..
	2022	6,604	5,888	62	..	230	424	..
Uganda	2019	1,255	199	1,004	..	..	52	..
	2020	1,270	197	1,011	..	..	62	..
	2021	1,349	214	1,074	..	..	62	..
	2022	1,387	228	1,095	..	..	64	..
United Rep. of Tanzania	2019	1,530	931	574	..	..	26	..
	2020	*1,608	*1,000	574	..	2	*32	..
	2021	*1,738	*1,126	575	..	2	34	..
	2022	*1,815	*1,202	575	..	2	36	..
Zambia	2019	3,016	528	2,399	..	..	89	..
	2020	3,046	558	2,399	..	..	89	..
	2021	3,436	645	2,703	..	..	89	..
	2022	3,897	645	3,163	..	..	89	..

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	*29	*26	2	..	0
..	..	..	..	40	37	2	..	0
..	..	..	..	40	37	*2	..	0
..	..	..	..	40	37	*2	..	*1
405	330	..	*75	953	694	..	..	259
*405	*330	..	*75	1,018	752	..	..	267
*405	*330	..	*75	1,184	859	..	..	*325
*405	*330	..	*75	1,248	914	..	..	*334
*29	*29	..	..	*128	*118	..	..	10
*29	*29	..	..	114	104	..	..	10
*29	*29	..	..	123	104	..	..	18
*29	*29	..	..	124	104	..	..	19
2	2	..	..	141	76	61	..	4
2	2	..	..	97	*32	61	..	4
*2	*2	..	..	97	*32	61	..	4
*2	*2	..	..	*211	*141	61	..	9
*100	*100	..	..	300	285	..	..	15
*100	*100	..	..	315	289	..	..	26
*100	*100	..	..	329	300	..	..	29
*100	*100	..	..	345	303	..	..	*42
*7,245	*2,400	*61	4,784	*51,538	*45,980	*3,418	1,940	*200
*7,438	*2,400	*61	4,977	*51,544	*45,980	*3,424	1,940	*200
*7,918	*2,400	*61	*5,457	54,044	48,380	*3,424	1,940	*300
*8,185	*2,400	*61	*5,724	50,983	45,309	*3,424	1,940	*310
*43	*40	..	*3	*90	*80	*3	..	*7
*43	*40	..	*3	*90	*80	*3	..	*7
*45	*40	..	*5	*90	*80	*3	..	*7
*55	*41	..	*14	*90	*80	*3	..	*7
..	..	..	..	12	8	..	..	*4
..	..	..	..	12	8	..	..	*4
..	..	..	..	10	5	..	..	4
..	..	..	..	10	5	..	..	4
*199	*199	..	..	3,928	1,935	1,913	..	80
*199	*199	..	..	3,935	1,935	1,883	..	117
*199	*199	..	..	3,956	1,935	1,885	..	136
199	199	..	..	4,010	1,935	1,885	..	190
*13	*8	..	5	217	150	67	..	..
*15	*8	..	7	*244	*177	67	..	..
65	*8	..	57	*252	*185	67	..	..
*74	*8	..	*66	*284	*217	67	..	..
*273	*198	..	75	5,653	5,341	62	..	250
*303	*198	..	105	5,934	5,622	62	..	250
*344	*200	..	144	5,944	5,622	62	..	260
*394	*200	..	194	6,210	5,688	62	..	460
248	97	149	*1	1,007	102	855	..	51
246	96	149	1	1,023	101	862	..	61
246	96	149	1	1,103	118	925	..	61
313	112	199	2	1,074	116	896	..	62
*212	*186	..	26	1,318	745	574	..	..
*214	*182	..	*32	*1,394	*818	574	..	2
222	188	..	34	*1,515	*938	575	..	2
236	201	..	36	*1,579	*1,002	575	..	2
*34	*34	..	..	2,981	494	2,399	..	89
*34	*34	..	..	3,011	524	2,399	..	89
*120	*120	..	..	3,316	525	2,703	..	89
*120	*120	..	..	3,777	525	3,163	..	89

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Zimbabwe	2019	*2,357	*1,265	1,080	..	..	12	..
	2020	*2,359	*1,265	1,080	..	..	14	..
	2021	*2,373	*1,265	1,080	..	..	28	..
	2022	*2,386	*1,265	1,080	..	..	41	..
Asia	2019	3,907,021	2,545,284	599,082	118,583	269,263	353,346	21,465
	2020	4,191,875	2,640,444	616,853	121,463	346,176	440,150	26,790
	2021	4,421,607	2,700,394	642,936	124,988	403,712	521,573	28,004
	2022	4,663,425	2,753,106	667,702	130,048	443,712	646,343	22,513
Afghanistan	2019	*550	*135	*384	..	..	31	..
	2020	*550	*135	*384	..	..	31	..
	2021	*558	*135	*392	..	..	31	..
	2022	*662	*135	*494	..	..	33	..
Armenia	2019	3,621	1,827	1,340	408	4	43	..
	2020	3,687	1,832	1,350	408	4	94	..
	2021	4,070	2,086	1,345	448	4	187	..
	2022	3,996	1,786	1,358	448	3	402	..
Azerbaijan	2019	7,639	6,395	1,145	..	66	33	..
	2020	7,622	6,371	1,149	..	66	35	..
	2021	7,965	6,694	1,157	..	66	48	..
	2022	7,977	6,697	1,165	..	64	51	..
Bahrain	2019	*6,980	*6,970	..	..	..	10	..
	2020	*6,980	*6,970	..	..	..	10	..
	2021	*7,996	*7,970	..	..	1	25	..
	2022	8,140	8,094	..	..	2	44	..
Bangladesh	2019	18,054	17,541	230	..	3	280	..
	2020	19,531	18,955	230	..	3	343	..
	2021	21,252	20,512	230	..	4	506	..
	2022	*21,558	*20,865	230	..	*4	459	..
Bhutan	2019	2,342	7	2,334	..	1	0	..
	2020	2,343	8	2,334	..	1	0	..
	2021	2,335	8	2,326	..	1	0	..
	2022	2,335	8	2,326	..	1	0	..
Brunei Darussalam	2019	1,109	1,108	..	..	..	1	..
	2020	*1,127	*1,126	..	..	..	1	..
	2021	1,138	1,133	..	..	..	*5	..
	2022	1,138	1,133	..	..	..	*5	..
Cambodia	2019	2,443	1,007	1,330	..	..	105	..
	2020	2,991	1,365	1,330	..	..	297	..
	2021	3,033	1,325	1,332	..	..	377	..
	2022	3,464	1,351	1,676	..	..	437	..
China	2019	2,065,020	1,244,540	358,040	48,740	209,150	204,180	370
	2020	2,258,630	1,302,840	370,280	49,890	281,650	253,560	410
	2021	2,427,780	1,347,390	390,920	53,260	328,710	306,560	940
	2022	2,609,470	1,382,390	413,500	55,530	365,440	392,610	..
China, Hong Kong SAR	2019	12,225	12,225	..	..	..	..	..
	2020	13,129	13,129	..	..	..	..	..
	2021	13,240	13,240	..	..	..	..	..
	2022	13,274	13,274	..	..	..	..	..
China, Macao SAR	2019	397	397	..	..	..	0	..
	2020	397	397	..	..	..	0	..
	2021	397	397	..	..	..	0	..
	2022	397	397	..	..	..	0	..
Cyprus	2019	1,819	1,510	..	..	158	151	..
	2020	1,897	1,510	..	..	158	229	..
	2021	1,983	1,511	..	..	158	315	..
	2022	2,085	1,504	..	..	158	424	..

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
*45	*45	..	..	*2,312	*1,220	1,080	..	12
*45	*45	..	..	*2,314	*1,220	1,080	..	14
*45	*45	..	..	*2,328	*1,220	1,080	..	28
*45	*45	..	..	*2,341	*1,220	1,080	..	41
<b>368,177</b>	<b>284,920</b>	<b>3,447</b>	<b>79,811</b>	<b>3,538,844</b>	<b>2,260,364</b>	<b>595,634</b>	<b>118,583</b>	<b>564,263</b>
<b>365,181</b>	<b>270,910</b>	<b>3,518</b>	<b>90,753</b>	<b>3,826,694</b>	<b>2,369,534</b>	<b>613,335</b>	<b>121,463</b>	<b>722,363</b>
<b>373,516</b>	<b>267,020</b>	<b>4,590</b>	<b>101,906</b>	<b>4,048,091</b>	<b>2,433,375</b>	<b>638,345</b>	<b>124,988</b>	<b>851,382</b>
<b>389,673</b>	<b>270,687</b>	<b>4,736</b>	<b>114,250</b>	<b>4,273,751</b>	<b>2,482,419</b>	<b>662,967</b>	<b>130,048</b>	<b>998,318</b>
*214	*65	*130	19	*336	*70	*254	..	12
*214	*65	*130	19	*336	*70	*254	..	12
*214	*65	*130	19	*344	*70	*262	..	12
*216	*65	*130	21	*446	*70	*364	..	12
33	..	..	33	3,588	1,827	1,340	408	14
77	..	..	77	3,610	1,832	1,350	408	21
136	..	..	136	3,934	2,086	1,345	448	55
197	..	..	197	3,799	1,786	1,358	448	208
818	818	..	0	6,821	5,578	1,145	..	99
795	794	1	0	6,827	5,578	1,149	..	101
737	732	1	4	7,229	5,962	1,156	..	110
740	735	1	4	7,237	5,962	1,164	..	111
*3,060	*3,050	..	10	*3,920	*3,920	..	..	..
*3,060	*3,050	..	10	*3,920	*3,920	..	..	..
*3,072	*3,050	..	22	*4,924	*4,920	..	..	4
*3,091	*3,050	..	41	5,049	5,044	..	..	5
6,503	6,503	..	..	11,551	11,038	230	..	283
7,332	7,332	..	..	12,199	11,623	230	..	346
8,141	8,141	..	..	13,111	12,371	230	..	510
8,494	8,494	..	..	*13,064	*12,371	230	..	463
..	..	..	..	2,342	7	2,334	..	1
..	..	..	..	2,343	8	2,334	..	1
..	..	..	..	2,335	8	2,326	..	1
..	..	..	..	2,335	8	2,326	..	1
*234	*234	..	..	875	874	..	..	1
*234	*234	..	..	*893	*892	..	..	1
*238	*234	..	*4	900	899	..	..	1
*238	*234	..	*4	900	899	..	..	1
..	..	..	..	2,443	1,007	1,330	..	105
..	..	..	..	2,991	1,365	1,330	..	297
..	..	..	..	3,033	1,325	1,332	..	377
..	..	..	..	3,464	1,351	1,676	..	437
54,970	54,970	..	..	2,010,050	1,189,570	358,040	48,740	413,700
56,600	56,600	..	..	2,202,030	1,246,240	370,280	49,890	535,620
*50,000	*50,000	..	..	2,377,780	1,297,390	390,920	53,260	636,210
*50,000	*50,000	..	..	2,559,470	1,332,390	413,500	55,530	758,050
..	..	..	..	12,225	12,225	..	..	..
..	..	..	..	13,129	13,129	..	..	..
..	..	..	..	13,240	13,240	..	..	..
..	..	..	..	13,274	13,274	..	..	..
29	29	..	0	368	368	..	..	..
29	29	..	0	368	368	..	..	..
29	29	..	0	368	368	..	..	..
29	29	..	0	368	368	..	..	..
93	30	..	63	1,726	1,481	..	..	246
122	30	..	92	1,775	1,481	..	..	295
157	30	..	126	1,826	1,480	..	..	346
203	23	..	180	1,882	1,480	..	..	402

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Georgia	2019	3,712	1,108	2,583	..	21	..	..
	2020	3,739	990	2,727	..	21	..	..
	2021	3,989	1,001	2,967	..	21	..	..
	2022	4,189	1,126	3,042	..	21	..	..
India	2019	442,320	305,307	45,830	6,780	40,490	33,912	10,001
	2020	458,430	307,076	46,341	6,780	*42,808	*40,315	*15,110
	2021	472,397	305,746	46,858	6,780	*46,633	*50,795	*15,585
	2022	487,554	309,169	46,990	6,780	*47,033	*66,780	*10,802
Indonesia	2019	65,097	57,079	5,617	..	*154	*118	2,129
	2020	65,491	57,225	5,717	..	*155	*119	2,275
	2021	73,149	63,166	6,465	..	*155	*186	3,177
	2022	73,599	63,493	6,572	..	*155	203	3,177
Iran (Islamic Rep. of)	2019	80,467	66,752	12,026	1,020	302	367	..
	2020	83,506	69,590	12,192	1,020	*303	*402	..
	2021	85,432	71,449	12,193	1,020	*310	*459	..
	2022	95,004	81,600	11,503	1,020	342	539	..
Iraq	2019	27,234	25,400	1,797	..	..	37	..
	2020	*27,234	*25,400	1,797	..	..	37	..
	2021	*27,234	*25,400	1,797	..	..	37	..
	2022	*27,239	*25,400	1,797	..	..	42	..
Israel	2019	19,239	16,837	9	..	*135	2,257	..
	2020	20,106	16,982	309	..	*135	2,680	..
	2021	21,458	17,437	309	..	*121	3,591	..
	2022	22,552	17,173	309	..	*203	4,868	..
Japan	2019	355,932	195,898	50,033	33,083	3,951	70,166	*2,801
	2020	369,759	198,255	50,033	33,083	4,119	81,705	*2,564
	2021	375,637	195,455	49,929	33,083	4,262	90,214	*2,695
	2022	385,317	195,944	50,008	33,083	4,483	99,262	*2,537
Jordan	2019	5,269	3,796	6	..	370	1,097	..
	2020	6,561	4,250	6	..	518	*1,787	..
	2021	6,811	4,247	4	..	622	*1,938	..
	2022	*6,791	*4,208	4	..	621	*1,958	..
Kazakhstan	2019	24,827	20,281	2,778	..	284	1,485	..
	2020	25,976	20,652	2,785	..	486	2,054	..
	2021	26,803	21,956	*2,806	..	672	1,369	..
	2022	27,370	21,961	*2,808	..	1,120	1,481	..
Korea, Dem. Ppl's Rep.	2019	8,192	3,360	4,790	..	1	42	..
	2020	8,267	*3,360	4,865	..	1	42	..
	2021	8,278	*3,360	4,865	..	1	52	..
	2022	8,278	*3,360	4,865	..	1	52	..
Korea, Republic of	2019	132,898	88,174	6,509	23,250	1,494	12,745	725
	2020	139,181	89,555	6,507	23,250	1,645	17,357	866
	2021	143,787	90,109	6,521	23,250	1,709	21,199	998
	2022	148,729	90,109	6,513	24,650	1,946	24,370	1,141
Kuwait	2019	18,779	18,723	..	..	12	43	..
	2020	20,209	20,153	..	..	12	43	..
	2021	20,236	20,180	..	..	12	43	..
	2022	20,225	20,180	..	..	12	33	..
Kyrgyzstan	2019	3,869	734	3,135	..	..	..	..
	2020	3,869	734	3,135	..	..	..	..
	2021	3,869	734	3,135	..	..	..	..
	2022	3,869	734	3,135	..	..	..	..
Lao People's Dem. Rep.	2019	8,026	*1,909	6,083	..	..	34	..
	2020	10,021	*2,600	7,376	..	..	45	..
	2021	11,667	*2,817	8,791	..	..	59	..
	2022	12,340	*2,800	9,481	..	..	59	..

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	3,712	1,108	2,583	..	21
..	..	..	..	3,739	990	2,727	..	21
..	..	..	..	3,989	1,001	2,967	..	21
..	..	..	..	4,189	1,126	3,042	..	21
78,023	74,707	131	*3,185	364,297	230,600	45,699	6,780	81,218
76,279	72,348	132	*3,799	382,151	234,728	46,209	6,780	*94,434
74,342	69,637	135	*4,570	398,055	236,109	46,723	6,780	*108,443
76,840	71,900	140	*4,800	410,714	237,269	46,850	6,780	*119,815
12,480	12,056	170	*254	52,616	45,022	5,447	..	2,147
12,453	11,993	204	*256	53,039	45,231	5,513	..	2,294
14,700	13,943	501	*256	58,450	49,223	5,964	..	3,263
15,116	14,300	560	*256	58,484	49,193	6,012	..	3,279
*6,000	*6,000	..	..	74,467	60,752	12,026	1,020	669
*6,000	*6,000	..	..	77,506	63,590	12,192	1,020	*704
*6,000	*6,000	..	..	79,432	65,449	12,193	1,020	*770
*6,000	*6,000	..	..	89,004	75,600	11,503	1,020	881
37	..	..	37	27,197	25,400	1,797	..	..
37	..	..	37	*27,197	*25,400	1,797	..	..
37	..	..	37	*27,197	*25,400	1,797	..	..
42	..	..	42	*27,197	*25,400	1,797	..	..
2,778	656	7	2,115	16,460	16,181	2	..	277
3,288	743	7	2,538	16,818	16,239	302	..	277
4,203	748	7	3,449	17,255	16,690	302	..	263
5,564	751	7	4,806	16,989	16,422	302	..	265
86,215	24,654	398	61,162	269,718	171,244	49,635	33,083	15,756
95,588	25,128	398	70,063	274,171	173,127	49,635	33,083	18,325
101,372	24,403	396	76,572	274,265	171,052	49,532	33,083	20,598
108,089	25,188	395	82,507	277,227	170,756	49,613	33,083	23,775
710	*250	..	460	4,559	3,546	6	..	1,007
*1,150	*250	..	*900	5,411	4,000	6	..	1,405
*1,270	*270	..	*1,000	5,541	3,977	4	..	1,560
*1,270	*270	..	*1,000	*5,521	*3,938	4	..	1,579
*537	*202	..	*335	24,291	20,079	2,778	..	1,434
*908	*573	..	*335	25,068	20,079	2,785	..	2,205
*3,847	*2,500	*1,000	*347	22,956	19,456	*1,806	..	1,694
*3,847	*2,500	*1,000	*347	23,523	19,461	*1,808	..	2,254
..	..	..	..	8,192	3,360	4,790	..	42
..	..	..	..	8,267	*3,360	4,865	..	42
..	..	..	..	8,278	*3,360	4,865	..	53
..	..	..	..	8,278	*3,360	4,865	..	53
10,054	7,963	..	2,091	122,844	80,211	6,509	23,250	12,873
10,428	7,963	..	2,465	128,753	81,592	6,507	23,250	17,403
10,843	7,963	..	2,880	132,944	82,146	6,521	23,250	21,027
11,301	7,963	..	3,337	137,428	82,146	6,513	24,650	24,119
..	..	..	..	18,779	18,723	..	..	56
..	..	..	..	20,209	20,153	..	..	56
..	..	..	..	20,236	20,180	..	..	56
..	..	..	..	20,225	20,180	..	..	45
6	6	..	..	3,863	728	3,135	..	..
*6	*6	..	..	3,863	728	3,135	..	..
*6	*6	..	..	3,863	728	3,135	..	..
6	6	..	..	3,863	728	3,135	..	..
..	..	..	..	8,026	*1,909	6,083	..	34
..	..	..	..	10,021	*2,600	7,376	..	45
..	..	..	..	11,667	*2,817	8,791	..	59
..	..	..	..	12,340	*2,800	9,481	..	59

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Lebanon	2019	3,773	3,409	282	..	3	79	..
	2020	*3,773	*3,409	282	..	3	79	..
	2021	*4,072	*3,600	282	..	3	187	..
	2022	5,022	3,864	282	..	3	873	..
Malaysia	2019	*34,153	*26,260	6,245	..	..	882	766
	2020	*35,863	*27,257	6,275	..	..	1,556	*775
	2021	36,985	28,168	6,190	..	..	1,860	*766
	2022	39,690	30,768	6,215	..	..	1,933	774
Maldives	2019	410	388	..	..	1	21	..
	2020	*414	*386	..	..	1	27	..
	2021	*419	*387	..	..	1	31	..
	2022	*431	*394	..	..	1	36	..
Mongolia	2019	*1,486	*1,210	31	..	156	89	..
	2020	*1,507	*1,230	31	..	156	90	..
	2021	*1,507	*1,230	31	..	156	90	..
	2022	*1,507	*1,230	31	..	156	90	..
Myanmar	2019	7,129	3,827	3,262	..	..	40	..
	2020	6,830	3,527	3,262	..	..	41	..
	2021	7,174	3,841	3,262	..	..	71	..
	2022	7,291	3,848	3,262	..	..	181	..
Nepal	2019	1,238	53	1,129	..	*14	*41	..
	2020	1,395	53	1,278	..	*14	*50	..
	2021	2,207	56	2,082	..	*14	55	..
	2022	2,699	59	2,538	..	*14	87	..
Oman	2019	11,567	11,508	..	..	50	9	..
	2020	11,960	11,798	..	..	50	112	..
	2021	11,920	11,733	..	..	49	138	..
	2022	11,571	10,867	..	..	49	655	..
Other Asia	2019	55,958	41,960	4,695	3,872	1,157	4,274	0
	2020	57,738	41,919	4,695	3,872	1,157	6,094	0
	2021	59,401	43,019	4,696	2,887	1,094	7,700	5
	2022	61,944	43,047	4,700	2,887	1,581	9,724	5
Pakistan	2019	39,885	26,800	9,858	1,430	1,242	555	..
	2020	40,606	27,127	9,912	1,770	1,242	555	..
	2021	42,166	26,316	10,733	*2,870	1,692	555	..
	2022	40,707	24,784	10,756	*2,870	1,742	555	..
Philippines	2019	26,187	19,135	3,776	..	427	921	1,928
	2020	26,899	19,713	3,795	..	443	1,019	1,928
	2021	24,639	17,893	3,532	..	427	1,034	1,753
	2022	28,259	20,605	3,745	..	427	1,530	1,952
Qatar	2019	*10,590	*10,590	..	..	..	..	..
	2020	*10,590	*10,590	..	..	..	..	..
	2021	10,576	10,576	..	..	..	..	..
	2022	10,574	10,574	..	..	..	..	..
Saudi Arabia	2019	110,085	109,972	..	..	3	109	..
	2020	113,376	113,264	..	..	3	109	..
	2021	117,425	116,632	..	..	403	389	..
	2022	*117,425	*116,632	..	..	403	390	..
Singapore	2019	12,859	12,587	..	..	..	272	..
	2020	12,320	11,987	..	..	..	333	..
	2021	12,474	11,987	..	..	..	487	..
	2022	12,621	11,987	..	..	..	634	..
Sri Lanka	2019	*4,517	*2,432	1,809	..	128	*147	..
	2020	4,549	2,452	1,793	..	*130	*174	..
	2021	4,909	2,614	1,799	..	*135	*361	..
	2022	*5,364	*2,618	*1,883	..	148	*714	..



Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
*1,179	*1,100	..	79	2,594	2,309	282	..	3
*1,179	*1,100	..	79	*2,594	*2,309	282	..	3
*1,287	*1,100	..	187	*2,785	*2,500	282	..	3
*1,973	*1,100	..	873	3,049	2,764	282	..	3
2,454	1,762	0	692	*31,699	*24,498	6,245	..	956
*2,453	*1,760	0	*693	*33,410	*25,497	6,275	..	1,638
*2,453	*1,760	0	*693	34,532	26,408	6,190	..	1,933
*2,365	*1,760	0	605	37,325	29,008	6,215	..	2,102
210	210	..	..	*200	*178	..	..	22
*210	*210	..	..	*204	*176	..	..	28
*210	*210	..	..	*209	*177	..	..	32
*214	*214	..	..	*217	*180	..	..	37
41	*10	31	..	*1,445	*1,200	..	..	245
41	*10	31	..	*1,466	*1,220	..	..	246
41	*10	31	..	*1,466	*1,220	..	..	246
41	*10	31	..	*1,466	*1,220	..	..	246
3,719	2,568	1,111	40	3,410	1,259	2,151	..	..
3,596	2,444	1,111	41	3,234	1,083	2,151	..	..
3,938	2,757	1,111	70	3,236	1,084	2,151	..	1
4,055	2,764	1,111	180	3,236	1,084	2,151	..	1
*164	..	*124	*40	1,074	53	1,005	..	*15
*208	..	*168	*40	1,187	53	1,110	..	*24
514	3	478	33	1,693	53	1,604	..	36
546	6	478	62	2,153	53	2,060	..	39
..	..	..	..	11,567	11,508	..	..	59
..	..	..	..	11,960	11,798	..	..	162
..	..	..	..	11,920	11,733	..	..	187
..	..	..	..	11,571	10,867	..	..	704
20,529	15,534	..	4,995	35,429	26,426	4,695	3,872	436
22,241	15,578	1	6,662	35,498	26,341	4,695	3,872	590
24,788	16,677	2	8,109	34,613	26,341	4,694	2,887	690
27,315	16,705	2	10,608	34,629	26,341	4,699	2,887	702
1,024	1,024	..	..	38,861	25,776	9,858	1,430	1,797
977	977	..	..	39,629	26,150	9,912	1,770	1,797
728	728	..	..	41,438	25,588	10,733	*2,870	2,247
632	632	..	..	40,075	24,152	10,756	*2,870	2,297
*656	*640	*16	..	25,531	18,495	3,760	..	3,276
*649	*633	*16	..	26,250	19,080	3,779	..	3,390
*649	*633	*16	..	23,990	17,260	3,516	..	3,214
627	611	*16	..	27,632	19,994	3,729	..	3,909
*9,038	*9,038	..	..	*1,553	*1,553	..	..	..
*9,038	*9,038	..	..	*1,553	*1,553	..	..	..
9,023	9,023	..	..	1,553	1,553	..	..	..
9,021	9,021	..	..	1,553	1,553	..	..	..
33,600	33,600	..	..	76,485	76,372	..	..	112
*33,600	*33,600	..	..	79,776	79,664	..	..	112
*33,600	*33,600	..	..	83,825	83,032	..	..	792
*33,600	*33,600	..	..	*83,825	*83,032	..	..	793
552	552	..	..	12,307	12,035	..	..	272
552	552	..	..	11,768	11,435	..	..	333
552	552	..	..	11,922	11,435	..	..	487
552	552	..	..	12,069	11,435	..	..	634
784	284	410	*90	*3,733	*2,148	1,399	..	186
860	354	410	*96	3,689	2,098	1,383	..	*208
*1,192	516	*416	*261	3,716	2,098	1,383	..	*235
*1,318	*520	*500	*298	*4,046	*2,098	*1,383	..	*565

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
State of Palestine	2019	240	160	..	..	..	80	..
	2020	278	160	..	..	..	118	..
	2021	338	160	..	..	..	178	..
	2022	380	160	..	..	..	220	..
Syrian Arab Republic	2019	10,060	8,567	1,490	..	1	2	..
	2020	*10,069	*8,567	1,490	..	1	12	..
	2021	*9,602	*8,079	1,490	..	1	33	..
	2022	*10,178	*8,625	1,490	..	3	60	..
Tajikistan	2019	6,451	718	5,733	..	..	..	..
	2020	6,626	718	5,908	..	..	..	..
	2021	6,626	718	5,908	..	..	..	..
	2022	6,626	718	5,908	..	..	..	..
Thailand	2019	45,260	35,082	*3,682	..	*1,507	*4,988	0
	2020	49,550	41,959	3,106	..	1,528	2,957	0
	2021	52,110	44,459	3,109	..	1,544	2,998	0
	2022	50,580	42,864	*3,110	..	1,545	3,060	0
Timor-Leste	2019	283	283	0	..	..	1	..
	2020	283	283	0	..	..	0	..
	2021	277	276	0	..	..	0	..
	2022	277	276	0	..	..	0	..
Türkiye	2019	91,267	47,284	28,503	..	7,591	5,995	1,894
	2020	95,891	47,396	30,984	..	8,832	6,667	2,011
	2021	99,820	47,820	31,493	..	10,607	7,816	2,084
	2022	103,809	49,291	31,571	..	11,396	9,425	2,125
Turkmenistan	2019	6,511	6,510	1	..	..	..	..
	2020	6,511	6,510	1	..	..	..	..
	2021	6,511	6,510	1	..	..	..	..
	2022	6,511	6,510	1	..	..	..	..
United Arab Emirates	2019	*33,042	*31,287	..	..	..	1,755	..
	2020	36,291	32,846	..	1,390	..	2,055	..
	2021	37,068	33,106	..	1,390	..	2,572	..
	2022	37,901	32,049	..	2,780	..	3,072	..
Uzbekistan	2019	16,798	14,032	1,908	..	*5	4	*850
	2020	17,502	14,620	2,023	..	*5	4	*850
	2021	16,699	14,543	2,052	..	1	104	..
	2022	17,711	15,232	2,225	..	1	253	..
Viet Nam	2019	57,444	30,690	20,678	..	381	5,695	..
	2020	78,066	39,713	21,169	..	524	16,660	..
	2021	82,431	*39,713	21,934	..	4,124	16,660	..
	2022	85,031	*39,713	22,209	..	4,634	18,475	..
Yemen	2019	*1,769	*1,519	..	..	..	250	..
	2020	*1,753	*1,500	..	..	..	253	..
	2021	*1,758	*1,500	..	..	..	258	..
	2022	*1,764	*1,500	..	..	..	264	..
<b>Europe</b>	<b>2019</b>	<b>1,495,421</b>	<b>714,099</b>	<b>274,230</b>	<b>166,710</b>	<b>196,092</b>	<b>140,223</b>	<b>4,068</b>
	<b>2020</b>	<b>1,523,819</b>	<b>708,219</b>	<b>274,410</b>	<b>163,561</b>	<b>208,679</b>	<b>165,250</b>	<b>3,700</b>
	<b>2021</b>	<b>1,556,475</b>	<b>698,595</b>	<b>276,811</b>	<b>161,210</b>	<b>222,736</b>	<b>192,992</b>	<b>4,132</b>
	<b>2022</b>	<b>1,603,922</b>	<b>686,966</b>	<b>276,746</b>	<b>154,348</b>	<b>241,677</b>	<b>238,272</b>	<b>5,913</b>
Albania	2019	2,299	123	2,162	..	..	14	..
	2020	2,531	123	2,387	..	..	21	..
	2021	2,723	123	2,507	..	..	93	..
	2022	2,816	123	2,493	..	..	200	..
Andorra	2019	53	7	46	..	..	1	..
	2020	54	7	46	..	..	1	..
	2021	54	7	46	..	..	1	..
	2022	54	7	46	..	..	1	..

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
60	20	..	40	180	140	..	..	40
79	20	..	59	199	140	..	..	59
109	20	..	89	229	140	..	..	89
130	20	..	110	250	140	..	..	110
972	972	..	..	9,088	7,595	1,490	..	3
*972	*972	..	..	*9,097	*7,595	1,490	..	12
*972	*972	..	..	*8,630	*7,107	1,490	..	34
*972	*972	..	..	*9,206	*7,653	1,490	..	63
..	..	..	..	6,451	718	5,733	..	..
..	..	..	..	6,626	718	5,908	..	..
..	..	..	..	6,626	718	5,908	..	..
..	..	..	..	6,626	718	5,908	..	..
16,964	14,949	*15	*2,000	28,296	20,133	*3,667	..	*4,495
..	..	..	..	49,550	41,959	3,106	..	4,485
..	..	..	..	52,110	44,459	3,109	..	4,542
..	..	..	..	50,580	42,864	*3,110	..	4,606
..	..	..	..	283	283	0	..	1
..	..	..	..	283	283	0	..	0
..	..	..	..	277	276	0	..	0
..	..	..	..	277	276	0	..	0
7,588	5,222	552	1,814	83,679	42,062	27,951	..	13,666
8,074	5,284	558	2,233	87,817	42,113	30,426	..	15,278
8,156	5,363	15	2,779	91,664	42,457	31,478	..	17,729
9,167	5,450	13	3,704	94,642	43,841	31,558	..	19,243
..	..	..	..	6,511	6,510	1	..	..
..	..	..	..	6,511	6,510	1	..	..
..	..	..	..	6,511	6,510	1	..	..
..	..	..	..	6,511	6,510	1	..	..
..	..	..	..	*33,042	*31,287	..	..	1,755
..	..	..	..	36,291	32,846	..	1,390	2,055
..	..	..	..	37,068	33,106	..	1,390	2,572
..	..	..	..	37,901	32,049	..	2,780	3,072
..	..	..	..	16,798	14,032	1,908	..	*859
..	..	..	..	17,502	14,620	2,023	..	*859
*103	*103	..	..	16,596	14,440	2,052	..	104
..	..	..	..	17,711	15,232	2,225	..	253
*5,483	*5,125	*352	*6	51,961	25,565	20,326	..	6,070
*5,483	*5,125	*352	*6	72,583	34,588	20,817	..	17,178
*5,483	*5,125	*352	*6	76,948	*34,588	21,582	..	20,778
*5,483	*5,125	*352	*6	79,548	*34,588	21,857	..	23,103
367	*117	..	250	*1,402	*1,402	..	..	..
370	*117	..	253	*1,383	*1,383	..	..	..
375	*117	..	258	*1,383	*1,383	..	..	..
381	*117	..	264	*1,383	*1,383	..	..	..
<b>134,357</b>	<b>92,171</b>	<b>3,472</b>	<b>38,715</b>	<b>1,361,064</b>	<b>621,929</b>	<b>270,758</b>	<b>166,710</b>	<b>301,668</b>
<b>142,763</b>	<b>92,491</b>	<b>3,570</b>	<b>46,702</b>	<b>1,381,056</b>	<b>615,728</b>	<b>270,840</b>	<b>163,561</b>	<b>330,927</b>
<b>171,718</b>	<b>97,682</b>	<b>3,433</b>	<b>70,604</b>	<b>1,384,757</b>	<b>600,913</b>	<b>273,378</b>	<b>161,210</b>	<b>349,257</b>
<b>195,761</b>	<b>100,123</b>	<b>3,823</b>	<b>91,814</b>	<b>1,408,161</b>	<b>586,842</b>	<b>272,923</b>	<b>154,348</b>	<b>394,048</b>
25	25	..	..	2,274	98	2,162	..	14
25	25	..	..	2,506	98	2,387	..	21
95	25	..	70	2,628	98	2,507	..	23
125	25	..	100	2,691	98	2,493	..	100
5	5	..	..	48	2	46	..	1
5	5	..	..	49	2	46	..	1
5	5	..	..	49	2	46	..	1
5	5	..	..	49	2	46	..	1

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Austria	2019	25,902	6,378	14,597	..	3,224	1,702	1
	2020	26,350	6,437	14,635	..	3,226	2,043	9
	2021	27,390	6,443	14,748	..	3,408	2,783	8
	2022	28,195	5,893	14,923	..	3,579	3,792	8
Belarus	2019	10,183	9,820	97	..	112	154	..
	2020	11,339	9,801	96	1,170	112	160	..
	2021	*11,342	*9,800	*96	*1,170	*112	*163	..
	2022	*11,518	*9,859	*96	*1,170	*120	*273	..
Belgium	2019	24,017	8,078	1,411	5,930	3,864	4,731	3
	2020	25,820	8,085	1,413	5,942	4,673	5,705	3
	2021	26,368	7,986	1,418	5,851	4,948	6,162	3
	2022	26,746	8,159	1,430	4,845	5,288	6,915	109
Bosnia and Herzegovina	2019	4,485	2,137	2,239	..	87	22	..
	2020	4,507	2,136	2,249	..	87	35	..
	2021	4,594	2,146	2,257	..	135	56	..
	2022	4,641	2,146	2,258	..	135	102	..
Bulgaria	2019	11,429	4,097	3,378	2,006	703	1,044	*200
	2020	11,195	3,806	3,376	2,006	703	1,100	*203
	2021	11,411	3,854	3,369	2,006	704	1,275	*203
	2022	12,063	4,025	3,390	2,006	702	1,737	*203
Croatia	2019	4,712	1,771	2,200	..	646	85	10
	2020	4,662	1,543	2,200	..	801	109	10
	2021	4,873	1,537	2,201	..	987	138	10
	2022	4,974	1,550	2,206	..	987	222	10
Czechia	2019	22,023	13,031	2,265	4,290	339	2,097	..
	2020	21,416	12,384	2,265	4,290	339	2,137	..
	2021	20,980	11,874	2,285	4,290	339	2,191	..
	2022	21,126	11,792	2,285	4,290	339	2,420	..
Denmark	2019	15,005	7,772	7	..	6,111	1,115	..
	2020	15,180	7,569	7	..	6,259	1,345	..
	2021	16,394	7,465	7	..	7,084	1,838	..
	2022	18,037	7,437	7	..	7,084	3,510	..
Estonia	2019	2,753	2,303	6	..	316	128	..
	2020	2,751	2,205	8	..	317	221	..
	2021	2,439	1,693	6	..	316	424	..
	2022	2,579	1,699	8	..	316	556	..
Faeroe Islands	2019	131	78	38	..	14	0	..
	2020	168	115	38	..	14	0	..
	2021	*168	*115	*38	..	*14	0	0
	2022	*204	*142	40	..	23	0	0
Finland	2019	17,352	8,895	3,157	2,794	2,284	222	..
	2020	17,301	8,439	3,164	2,794	2,586	318	..
	2021	17,942	8,295	3,171	2,794	3,257	425	..
	2022	20,602	8,254	3,171	2,794	5,677	664	42
France	2019	137,170	20,786	25,868	63,130	16,427	10,729	230
	2020	138,014	20,888	25,954	61,400	17,535	11,917	320
	2021	142,184	21,023	25,991	61,400	18,551	14,603	616
	2022	148,739	21,046	25,964	61,400	20,811	17,341	2,178
Germany	2019	231,489	100,524	10,733	9,525	60,742	48,914	1,051
	2020	233,726	98,311	10,808	8,113	62,201	53,671	622
	2021	242,648	99,241	10,844	8,113	63,711	60,038	701
	2022	250,327	100,870	10,974	4,205	66,163	67,479	636
Gibraltar	2019	*50	*50	..	..	..	..	0
	2020	*50	*50	..	..	..	..	0
	2021	*50	*50	..	..	..	..	0
	2022	*50	*50	..	..	..	..	0

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
2,220	1,784	435	..	23,682	4,593	14,162	..	4,927
2,264	1,829	435	..	24,086	4,609	14,199	..	5,278
5,044	1,933	434	2,676	22,346	4,510	14,314	..	3,523
5,576	1,532	432	3,612	22,619	4,361	14,491	..	3,767
977	897	2	78	9,206	8,923	95	..	188
1,010	927	2	81	10,329	8,874	94	1,170	191
*1,011	*927	*2	*82	*10,331	*8,873	*94	*1,170	*193
*1,011	*927	*2	*82	*10,507	*8,932	*94	*1,170	*311
6,376	1,616	..	4,760	17,641	6,463	1,411	5,930	3,838
7,416	1,681	..	5,735	18,405	6,404	1,413	5,942	4,646
7,872	1,704	..	6,169	18,496	6,282	1,418	5,851	4,945
8,791	1,881	..	6,911	17,954	6,278	1,430	4,845	5,401
71	71	..	..	4,414	2,066	2,239	..	109
70	70	..	..	4,437	2,066	2,249	..	122
78	78	..	..	4,516	2,068	2,257	..	191
78	78	..	..	4,563	2,068	2,258	..	237
*361	161	..	*200	11,068	3,936	3,378	2,006	1,748
*358	155	..	*203	10,836	3,651	3,376	2,006	1,803
*374	171	..	*203	11,037	3,683	3,369	2,006	1,979
487	213	..	*274	11,576	3,812	3,390	2,006	2,369
165	162	3	..	4,547	1,609	2,197	..	741
164	162	2	..	4,498	1,381	2,197	..	920
140	138	2	..	4,733	1,400	2,198	..	1,135
140	138	2	..	4,834	1,412	2,203	..	1,219
1,925	1,741	184	..	20,098	11,290	2,081	4,290	2,437
1,821	1,636	184	..	19,596	10,748	2,081	4,290	2,477
1,789	1,605	184	..	19,190	10,269	2,101	4,290	2,530
1,783	1,598	185	..	19,343	10,194	2,100	4,290	2,760
1,685	570	..	1,115	13,320	7,202	7	..	6,111
1,908	563	..	1,345	13,272	7,006	7	..	6,259
2,393	555	..	1,838	14,001	6,910	7	..	7,084
4,065	555	..	3,510	13,972	6,882	7	..	7,084
24	23	..	1	2,729	2,280	6	..	443
24	23	..	1	2,727	2,182	8	..	537
24	23	..	1	2,415	1,670	6	..	739
33	31	..	2	2,546	1,668	8	..	870
..	..	..	..	131	78	38	..	14
..	..	..	..	168	115	38	..	14
..	..	..	..	*168	*115	*38	..	*15
..	..	..	..	*204	*142	40	..	23
2,458	2,035	208	215	14,894	6,860	2,949	2,794	2,291
2,522	2,006	205	311	14,779	6,433	2,959	2,794	2,593
2,540	1,940	182	418	15,402	6,355	2,989	2,794	3,264
2,793	1,961	182	650	17,809	6,293	2,989	2,794	5,733
7,462	3,815	194	3,453	129,708	16,970	25,674	63,130	23,933
7,724	3,734	194	3,796	130,290	17,154	25,760	61,400	25,976
8,116	3,594	195	4,327	134,068	17,428	25,796	61,400	29,444
8,740	3,709	199	4,831	140,000	17,337	25,764	61,400	35,499
11,169	10,954	35	180	220,320	89,570	10,698	9,525	110,527
11,151	10,954	35	162	222,575	87,357	10,773	8,113	116,332
11,242	11,063	35	144	231,406	88,178	10,809	8,113	124,306
11,879	11,700	35	144	238,448	89,170	10,939	4,205	134,134
..	..	..	..	*50	*50	..	..	0
..	..	..	..	*50	*50	..	..	0
..	..	..	..	*50	*50	..	..	0
..	..	..	..	*50	*50	..	..	0

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Greece	2019	20,478	10,643	3,412	..	3,589	2,834	..
	2020	20,795	9,971	3,417	..	4,119	3,288	..
	2021	21,929	9,581	3,421	..	4,649	4,277	..
	2022	23,941	10,387	3,421	..	4,702	5,430	..
Guernsey	2019	*132	*132	..	..	..	0	..
	2020	*132	*132	..	..	..	0	..
	2021	*132	*132	..	..	..	0	..
	2022	*132	*132	..	..	..	0	..
Hungary	2019	10,110	6,159	58	2,013	323	1,516	41
	2020	10,901	6,145	58	2,013	323	2,322	40
	2021	11,826	6,154	60	2,027	324	3,221	40
	2022	13,205	6,038	60	2,027	324	4,716	40
Iceland	2019	2,979	116	2,104	..	2	..	756
	2020	2,989	116	2,114	..	2	..	756
	2021	2,999	126	2,114	..	2	..	756
	2022	3,006	126	2,122	..	2	..	756
Ireland	2019	11,130	6,417	529	..	4,126	57	..
	2020	11,242	6,316	529	..	4,307	90	..
	2021	11,140	6,139	529	..	4,337	135	..
	2022	11,310	6,000	529	..	4,536	244	..
Isle of Man	2019	184	183	1	..	..	..	..
	2020	184	183	1	..	..	..	..
	2021	184	183	1	..	..	..	..
	2022	184	183	1	..	..	..	..
Italy	2019	116,435	61,284	22,541	..	10,679	20,865	1,066
	2020	116,383	60,106	22,695	..	10,871	21,650	1,062
	2021	117,160	59,496	22,750	..	11,254	22,594	1,066
	2022	120,947	60,135	22,861	..	11,821	25,064	1,067
Jersey	2019	*72	*72	..	..	..	..	..
	2020	*72	*72	..	..	..	..	..
	2021	*72	*72	..	..	..	..	..
	2022	*72	*72	..	..	..	..	..
Kosovo	2019	1,417	1,288	85	..	34	10	..
	2020	1,442	1,288	110	..	34	10	..
	2021	1,446	1,288	110	..	34	14	..
	2022	1,550	1,288	110	..	138	14	..
Latvia	2019	2,938	1,270	1,587	..	78	3	..
	2020	2,944	1,274	1,586	..	78	5	..
	2021	2,940	1,268	1,587	..	77	7	..
	2022	3,017	1,234	1,588	..	82	113	..
Liechtenstein	2019	*27	*1	*10	..	..	*16	..
	2020	*29	*1	*10	..	..	*18	..
	2021	*29	*1	*10	..	..	*18	..
	2022	*33	*1	*11	..	..	*21	..
Lithuania	2019	3,378	1,839	877	..	534	103	25
	2020	3,491	1,885	877	..	540	164	25
	2021	3,709	1,881	877	..	671	255	25
	2022	4,301	1,881	877	..	946	572	25
Luxembourg	2019	1,775	149	1,330	..	136	160	..
	2020	1,808	138	1,331	..	153	187	..
	2021	1,878	134	1,331	..	136	277	..
	2022	1,957	145	1,330	..	165	317	..
Malta	2019	750	595	..	..	0	155	..
	2020	783	595	..	..	0	188	..
	2021	800	595	..	..	0	206	..
	2022	723	501	..	..	0	222	..

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
568	568	..	..	19,910	10,076	3,412	..	6,423
568	568	..	..	20,227	9,404	3,417	..	7,407
568	568	..	..	21,361	9,014	3,421	..	8,927
568	568	..	..	23,373	9,820	3,421	..	10,132
..	..	..	..	*132	*132	..	..	0
..	..	..	..	*132	*132	..	..	0
..	..	..	..	*132	*132	..	..	0
..	..	..	..	*132	*132	..	..	0
1,083	286	..	797	9,027	5,873	58	2,013	1,083
1,406	274	..	1,132	9,495	5,871	58	2,013	1,553
1,853	281	..	1,572	9,974	5,873	60	2,027	2,014
2,679	394	..	2,285	10,526	5,644	60	2,027	2,795
..	..	..	..	2,979	116	2,104	..	758
..	..	..	..	2,989	116	2,114	..	758
..	..	..	..	2,999	126	2,114	..	758
..	..	..	..	3,006	126	2,122	..	758
448	364	..	84	10,682	6,053	529	..	4,100
483	367	..	116	10,758	5,949	529	..	4,280
535	371	..	164	10,605	5,768	529	..	4,308
594	371	..	223	10,716	5,629	529	..	4,558
8	8	..	..	176	175	1	..	..
8	8	..	..	176	175	1	..	..
8	8	..	..	176	175	1	..	..
8	8	..	..	176	175	1	..	..
5,432	5,256	106	70	111,003	56,028	22,435	..	32,541
5,166	4,991	91	84	111,218	55,115	22,604	..	33,498
20,469	9,731	102	10,637	96,690	49,766	22,648	..	24,277
22,704	9,984	106	12,614	98,243	50,150	22,755	..	25,337
22	22	..	..	*50	*50	..	..	..
22	22	..	..	*50	*50	..	..	..
22	22	..	..	*50	*50	..	..	..
22	22	..	..	*50	*50	..	..	..
0	..	..	0	1,417	1,288	85	..	44
..	..	..	..	1,442	1,288	110	..	44
..	..	..	..	1,446	1,288	110	..	48
..	..	..	..	1,550	1,288	110	..	152
34	29	1	3	2,904	1,241	1,585	..	78
38	32	2	5	2,905	1,243	1,585	..	78
38	29	2	7	2,902	1,239	1,586	..	77
125	28	2	96	2,892	1,207	1,586	..	99
..	..	..	..	*27	*1	*10	..	*16
..	..	..	..	*29	*1	*10	..	*18
..	..	..	..	*29	*1	*10	..	*18
..	..	..	..	*33	*1	*11	..	*21
282	257	..	25	3,096	1,582	877	..	637
282	257	..	25	3,209	1,628	877	..	704
281	256	..	25	3,428	1,625	877	..	926
281	256	..	25	4,020	1,625	877	..	1,518
215	53	2	160	1,560	95	1,329	..	136
232	43	2	187	1,576	95	1,329	..	153
323	44	2	277	1,555	90	1,329	..	136
376	58	2	317	1,581	87	1,329	..	165
160	5	..	155	590	590	..	..	..
193	5	..	188	590	590	..	..	..
210	5	..	206	590	590	..	..	..
225	3	..	223	498	498	..	..	..

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Montenegro	2019	998	225	652	..	118	2	..
	2020	1,042	225	697	..	118	3	..
	2021	1,042	225	697	..	118	3	..
	2022	1,043	225	697	..	118	3	..
Netherlands (Kingd. of the)	2019	36,853	24,185	37	512	4,484	7,228	407
	2020	42,988	24,274	37	512	6,648	11,110	407
	2021	47,851	24,397	38	512	7,674	14,823	407
	2022	53,942	24,489	38	512	8,755	19,600	549
North Macedonia	2019	1,851	1,112	678	..	37	24	..
	2020	1,868	1,112	687	..	37	32	..
	2021	2,093	1,322	689	..	37	45	..
	2022	2,196	1,322	693	..	37	144	..
Norway	2019	36,940	1,074	32,797	..	2,914	120	35
	2020	38,880	959	33,732	..	4,030	124	35
	2021	40,269	889	34,075	..	5,049	168	89
	2022	40,479	739	34,269	..	5,062	328	81
Poland	2019	43,440	33,638	2,397	..	5,838	1,539	28
	2020	49,368	36,715	2,400	..	6,298	3,955	0
	2021	52,834	36,053	2,398	..	6,967	7,416	0
	2022	55,819	33,092	2,407	..	8,150	12,170	0
Portugal	2019	21,665	8,160	7,262	..	5,223	991	29
	2020	21,783	8,163	7,241	..	5,122	1,228	29
	2021	21,596	6,987	7,255	..	5,427	1,898	29
	2022	23,020	6,186	8,189	..	5,538	3,078	29
Republic of Moldova	2019	486	430	16	..	35	5	..
	2020	490	428	16	..	41	4	..
	2021	528	432	16	..	67	12	..
	2022	649	471	16	..	98	64	..
Romania	2019	20,899	8,366	6,686	1,411	3,038	1,398	..
	2020	20,584	8,126	6,652	1,411	3,013	1,383	..
	2021	18,799	6,316	6,662	1,411	3,015	1,394	..
	2022	19,346	6,448	6,663	1,411	3,015	1,809	..
Russian Federation	2019	302,074	217,060	52,757	30,300	*600	1,276	81
	2020	*302,703	*217,060	52,889	*30,300	945	1,428	81
	2021	*304,020	*217,060	52,963	*30,300	1,955	1,661	81
	2022	*303,335	*217,060	51,860	*30,300	2,218	1,816	*81
Serbia	2019	7,968	4,485	3,074	..	398	11	..
	2020	7,984	4,492	3,082	..	398	12	..
	2021	8,002	4,507	3,085	..	398	12	..
	2022	8,227	4,699	3,107	..	398	22	..
Slovakia	2019	7,752	2,639	2,527	1,940	4	618	24
	2020	7,741	2,652	2,529	1,971	4	569	16
	2021	7,524	2,399	2,531	2,003	4	571	16
	2022	7,501	2,361	2,532	2,003	4	585	16
Slovenia	2019	3,832	1,512	1,351	688	3	278	..
	2020	3,929	1,516	1,352	688	3	370	..
	2021	4,080	1,576	1,352	688	3	461	..
	2022	4,235	1,571	1,346	688	3	626	..
Spain	2019	108,454	45,697	20,114	7,117	25,590	9,877	59
	2020	107,415	41,771	20,117	7,117	26,819	11,531	59
	2021	111,002	39,778	20,132	7,117	27,908	16,008	59
	2022	124,743	39,470	20,137	7,117	30,114	27,845	59
Sweden	2019	42,853	8,343	16,462	8,624	8,681	743	..
	2020	43,724	8,406	16,406	7,777	9,976	1,159	..
	2021	44,845	7,725	16,407	6,899	12,116	1,698	..
	2022	47,855	9,117	16,399	6,901	14,279	1,159	..



Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	998	225	652	..	120
..	..	..	..	1,042	225	697	..	121
..	..	..	..	1,042	225	697	..	121
..	..	..	..	1,043	225	697	..	121
12,963	6,019	..	6,944	23,891	18,167	37	512	5,175
16,450	6,504	..	9,946	26,538	17,770	37	512	8,219
19,379	6,626	..	12,754	28,472	17,772	38	512	10,150
23,314	6,733	..	16,581	30,628	17,756	38	512	12,322
..	..	..	..	1,851	1,112	678	..	61
..	..	..	..	1,868	1,112	687	..	69
..	..	..	..	2,093	1,322	689	..	82
..	..	..	..	2,196	1,322	693	..	181
672	552	..	120	36,268	522	32,797	..	2,949
681	557	..	124	38,199	402	33,732	..	4,065
617	450	..	168	39,652	439	34,075	..	5,138
778	450	..	328	39,701	289	34,269	..	5,143
4,680	3,112	1	1,567	38,760	30,526	2,397	..	5,838
7,033	3,077	1	3,955	42,336	33,638	2,399	..	6,298
10,532	3,116	1	7,416	42,302	32,937	2,397	..	6,967
15,482	3,311	1	12,171	40,337	29,780	2,406	..	8,150
2,461	1,879	6	576	19,204	6,281	7,256	..	5,667
2,570	1,884	6	679	19,213	6,278	7,235	..	5,700
2,742	1,889	6	847	18,854	5,098	7,249	..	6,507
3,138	1,661	6	1,470	19,882	4,525	8,183	..	7,175
123	100	..	23	363	330	16	..	17
118	98	..	20	372	330	16	..	26
149	101	..	48	379	330	16	..	32
211	110	..	101	438	362	16	..	60
2,261	1,696	83	482	18,638	6,670	6,603	1,411	3,954
2,555	1,817	87	652	18,029	6,309	6,566	1,411	3,743
2,670	1,854	87	730	16,128	4,463	6,576	1,411	3,679
2,557	1,609	93	855	16,789	4,839	6,569	1,411	3,969
*25,622	*25,160	*462	..	276,452	191,900	52,295	30,300	1,957
*25,622	*25,160	*462	..	*277,081	*191,900	52,427	*30,300	2,454
*25,622	*25,160	*462	..	*278,398	*191,900	52,501	*30,300	3,697
*25,622	*25,160	*462	..	*277,713	*191,900	51,398	*30,300	4,115
142	142	..	..	7,827	4,344	3,074	..	409
145	145	..	..	7,839	4,348	3,082	..	410
150	150	..	..	7,853	4,358	3,085	..	410
154	152	..	2	8,073	4,547	3,107	..	419
1,219	766	33	420	6,533	1,873	2,494	1,940	226
1,172	751	33	388	6,569	1,901	2,496	1,971	201
1,158	741	33	384	6,366	1,658	2,498	2,003	207
1,161	734	35	392	6,340	1,627	2,497	2,003	213
435	44	121	271	3,397	1,468	1,230	688	11
529	46	122	362	3,400	1,471	1,230	688	11
619	47	122	450	3,462	1,529	1,230	688	14
780	44	122	614	3,455	1,527	1,224	688	16
6,491	5,979	369	143	101,963	39,718	19,745	7,117	35,383
6,601	5,953	369	279	100,814	35,818	19,748	7,117	38,131
7,251	5,929	369	952	103,751	33,849	19,763	7,117	43,022
9,830	5,921	369	3,540	114,912	33,549	19,768	7,117	54,478
1,411	1,393	18	..	41,442	6,950	16,444	8,624	9,424
1,386	1,386	0	..	42,338	7,020	16,406	7,777	11,135
1,460	1,460	0	..	43,385	6,265	16,407	6,899	13,814
2,849	2,849	0	..	45,006	6,268	16,399	6,901	15,438

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Switzerland	2019	22,423	943	15,574	3,333	75	2,498	..
	2020	22,568	954	15,594	2,960	87	2,973	..
	2021	23,280	965	15,612	2,960	88	3,655	..
	2022	25,319	967	16,568	2,960	88	4,737	..
Ukraine	2019	51,444	28,535	6,325	13,835	796	1,953	..
	2020	58,257	30,739	4,819	13,835	1,402	7,462	..
	2021	56,312	28,664	6,335	13,835	1,110	6,368	..
	2022	42,294	16,564	4,835	13,835	1,099	5,961	..
United Kingdom	2019	104,633	51,699	4,780	9,261	23,887	14,984	22
	2020	104,237	50,507	4,785	9,261	24,458	15,203	22
	2021	104,596	50,598	4,790	7,833	25,748	15,604	22
	2022	106,870	51,013	4,790	5,883	28,762	16,399	22
Latin America & Carib.	2019	476,539	222,733	196,846	5,466	29,280	16,637	5,577
	2020	487,843	223,949	197,903	5,466	33,058	21,835	5,632
	2021	517,149	234,773	200,161	5,466	38,812	32,291	5,646
	2022	544,014	227,295	199,523	5,353	42,927	49,405	19,512
Anguilla	2019	26	24	..	..	..	2	..
	2020	*26	*24	..	..	..	2	..
	2021	*26	*24	..	..	..	*2	..
	2022	*26	*24	..	..	..	*2	..
Antigua and Barbuda	2019	90	79	..	..	..	10	..
	2020	92	79	..	..	4	9	..
	2021	146	128	..	..	4	14	..
	2022	*146	*128	..	..	4	14	..
Argentina	2019	43,272	28,137	11,330	1,755	1,611	439	..
	2020	45,565	29,062	11,364	1,755	2,625	759	..
	2021	46,602	29,129	11,365	1,755	3,293	1,060	..
	2022	46,255	29,136	10,916	1,755	3,362	1,086	..
Aruba	2019	295	258	..	..	30	8	..
	2020	295	258	..	..	30	8	..
	2021	295	258	..	..	30	8	..
	2022	295	258	..	..	30	8	..
Bahamas	2019	579	576	..	..	0	4	..
	2020	597	593	..	..	0	4	..
	2021	679	669	..	..	0	9	..
	2022	*685	*674	..	..	0	10	..
Barbados	2019	307	267	..	..	..	40	..
	2020	317	267	..	..	..	50	..
	2021	319	252	..	..	..	67	..
	2022	329	262	..	..	..	67	..
Belize	2019	136	81	55	..	..	1	..
	2020	131	76	55	..	..	1	..
	2021	135	76	55	..	..	4	..
	2022	135	76	55	..	..	4	..
Bolivia (Plur. State of)	2019	3,704	2,797	759	..	27	121	..
	2020	3,713	2,805	759	..	27	122	..
	2021	4,137	3,076	760	..	129	172	..
	2022	4,223	3,156	759	..	131	176	..
Bonaire, St Eustatius, Saba	2019	*38	*20	..	..	11	7	..
	2020	*38	*20	..	..	11	7	..
	2021	*38	*20	..	..	11	7	..
	2022	*39	*21	..	..	11	7	..
Brazil	2019	172,280	41,281	109,155	1,990	15,388	4,466	..
	2020	179,517	43,153	109,294	1,990	17,146	7,934	..
	2021	190,637	44,981	109,477	1,990	20,786	13,403	..
	2022	206,452	46,441	109,807	1,990	23,761	24,453	..

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
3,910	683	729	2,498	18,513	259	14,845	3,333	75
4,511	686	852	2,973	18,057	268	14,742	2,960	87
5,051	678	718	3,655	18,229	287	14,894	2,960	88
6,498	668	1,094	4,737	18,821	298	15,474	2,960	88
2,171	2,071	..	100	49,273	26,464	6,325	13,835	2,649
*2,206	*2,075	..	*131	56,051	28,664	4,819	13,835	8,733
2,341	2,139	4	198	53,971	26,525	6,331	13,835	7,280
2,345	2,139	4	202	39,949	14,425	4,831	13,835	6,858
26,623	11,868	479	14,276	78,010	39,831	4,301	9,261	24,618
26,326	12,016	487	13,823	77,912	38,491	4,298	9,261	25,861
26,948	12,268	492	14,188	77,648	38,329	4,299	7,833	27,187
27,953	12,538	492	14,924	78,917	38,475	4,299	5,883	30,260
<b>57,108</b>	<b>44,081</b>	<b>6,042</b>	<b>6,985</b>	<b>419,431</b>	<b>178,652</b>	<b>190,804</b>	<b>5,466</b>	<b>44,509</b>
<b>61,484</b>	<b>44,981</b>	<b>6,183</b>	<b>10,320</b>	<b>426,359</b>	<b>178,968</b>	<b>191,719</b>	<b>5,466</b>	<b>50,206</b>
<b>67,711</b>	<b>46,470</b>	<b>6,185</b>	<b>15,056</b>	<b>449,438</b>	<b>188,303</b>	<b>193,976</b>	<b>5,466</b>	<b>61,692</b>
<b>83,854</b>	<b>48,881</b>	<b>6,177</b>	<b>28,797</b>	<b>460,160</b>	<b>178,414</b>	<b>193,346</b>	<b>5,353</b>	<b>83,047</b>
..	..	..	..	26	24	..	..	2
..	..	..	..	*26	*24	..	..	2
..	..	..	..	*26	*24	..	..	*2
..	..	..	..	*26	*24	..	..	*2
*1	*1	..	..	89	78	..	..	10
*1	*1	..	..	91	78	..	..	13
*1	*1	..	..	145	127	..	..	18
*1	*1	..	..	*145	*127	..	..	18
3,614	3,592	20	2	39,658	24,545	11,310	1,755	2,048
3,614	3,592	20	2	41,951	25,470	11,344	1,755	3,382
3,614	3,592	20	2	42,988	25,537	11,345	1,755	4,351
3,996	3,861	82	53	42,259	25,275	10,834	1,755	4,395
..	..	..	..	295	258	..	..	38
..	..	..	..	295	258	..	..	38
..	..	..	..	295	258	..	..	38
..	..	..	..	295	258	..	..	38
*39	*39	..	..	540	537	..	..	4
*39	*39	..	..	558	554	..	..	4
44	44	..	..	634	625	..	..	9
*44	*44	..	..	*641	*630	..	..	11
*10	*10	..	..	297	257	..	..	40
*10	*10	..	..	307	257	..	..	50
*10	*10	..	..	309	242	..	..	67
*10	*10	..	..	319	252	..	..	67
*26	*26	..	..	110	55	55	..	1
22	22	..	..	110	54	55	..	1
22	22	..	..	113	54	55	..	4
22	22	..	..	113	54	55	..	4
329	328	2	..	3,375	2,470	758	..	148
328	328	1	..	3,384	2,477	758	..	149
154	153	*1	..	3,984	2,924	759	..	301
219	218	*1	..	4,004	2,939	758	..	307
..	..	..	..	*38	*20	..	..	18
..	..	..	..	*38	*20	..	..	18
..	..	..	..	*38	*20	..	..	18
..	..	..	..	*39	*21	..	..	18
26,482	20,129	5,068	1,285	145,798	21,152	104,087	1,990	18,569
29,987	20,283	5,158	4,546	149,530	22,870	104,136	1,990	20,534
34,882	20,872	5,160	8,850	155,755	24,109	104,317	1,990	25,339
43,913	21,543	5,090	17,280	162,539	24,898	104,717	1,990	30,934

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
British Virgin Islands	2019	61	59	..	..	1	1	..
	2020	65	63	..	..	1	1	..
	2021	65	63	..	..	1	1	..
	2022	65	63	..	..	1	1	..
Cayman Islands	2019	161	161	..	..	..	..	..
	2020	161	161	..	..	..	..	..
	2021	161	161	..	..	..	..	..
	2022	166	166	..	..	..	..	..
Chile	2019	27,646	16,544	6,341	..	1,999	2,722	40
	2020	30,007	17,564	6,818	..	2,293	3,293	40
	2021	33,444	17,752	6,797	..	3,140	5,704	51
	2022	37,562	17,752	7,502	..	3,824	8,401	83
Colombia	2019	18,978	6,809	11,996	..	18	155	0
	2020	16,684	4,412	12,024	..	18	229	..
	2021	16,953	4,447	12,008	..	18	479	..
	2022	17,927	4,695	12,607	..	18	607	..
Costa Rica	2019	3,624	549	2,343	..	411	59	262
	2020	3,607	554	2,331	..	394	66	262
	2021	3,678	554	2,396	..	394	72	262
	2022	3,630	554	2,347	..	394	72	263
Cuba	2019	6,508	6,285	64	..	*41	*118	..
	2020	6,660	6,374	65	..	*58	*164	..
	2021	6,767	6,461	65	..	*63	*179	..
	2022	6,236	5,909	65	..	12	251	..
Curaçao	2019	*231	*172	..	..	47	12	..
	2020	232	172	..	..	47	13	..
	2021	*232	*172	..	..	*47	*13	..
	2022	*232	*172	..	..	*47	*13	..
Dominica	2019	42	35	7	..	0	0	..
	2020	44	36	7	..	0	0	..
	2021	44	36	7	..	0	0	..
	2022	41	34	7	..	0	0	..
Dominican Republic	2019	6,010	4,995	623	..	188	204	..
	2020	5,691	4,427	623	..	370	271	..
	2021	5,679	4,380	623	..	370	305	..
	2022	5,749	4,304	623	..	417	405	..
Ecuador	2019	8,073	2,978	5,047	..	21	27	..
	2020	8,095	2,983	5,064	..	21	27	..
	2021	8,101	2,981	5,072	..	21	27	..
	2022	8,220	2,991	5,151	..	50	28	..
El Salvador	2019	2,263	1,071	572	..	..	416	204
	2020	2,357	1,071	572	..	36	474	204
	2021	2,437	1,073	572	..	54	533	204
	2022	2,842	1,452	572	..	54	559	204
Falkland Is. (Malvinas)	2019	9	7	..	..	2	0	..
	2020	*9	*7	..	..	2	0	..
	2021	7	5	..	..	2	0	..
	2022	7	5	..	..	*2	0	..
Grenada	2019	58	54	..	..	0	3	..
	2020	56	52	..	..	0	4	..
	2021	59	56	..	..	0	4	..
	2022	60	56	..	..	0	4	..
Guatemala	2019	4,042	2,234	1,560	..	107	93	49
	2020	4,162	2,332	1,577	..	107	93	52
	2021	4,118	2,284	1,584	..	107	93	49
	2022	4,040	2,281	1,518	..	107	96	38

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	61	59	..	..	2
..	..	..	..	65	63	..	..	2
..	..	..	..	65	63	..	..	2
..	..	..	..	65	63	..	..	2
..	..	..	..	161	161	..	..	..
..	..	..	..	161	161	..	..	..
..	..	..	..	161	161	..	..	..
..	..	..	..	166	166	..	..	..
3,358	3,310	9	40	24,288	13,234	6,333	..	4,721
4,538	4,449	50	39	25,469	13,115	6,768	..	5,586
4,538	4,449	50	39	28,906	13,303	6,747	..	8,857
4,651	4,449	50	152	32,910	13,303	7,452	..	12,156
*1,637	*1,530	*95	12	17,341	5,279	11,901	..	161
*1,649	*1,530	*95	24	15,035	2,882	11,929	..	224
*1,649	*1,530	*95	24	15,304	2,917	11,913	..	474
*1,659	*1,530	*95	34	16,268	3,165	12,512	..	592
128	75	..	53	3,495	474	2,343	..	678
141	80	..	61	3,466	474	2,331	..	661
147	80	..	67	3,531	474	2,396	..	661
147	80	..	67	3,483	474	2,347	..	662
459	459	..	..	6,049	5,826	64	..	*159
565	565	..	..	6,095	5,809	65	..	*222
569	569	..	..	6,198	5,892	65	..	*242
966	966	..	..	5,270	4,943	65	..	263
*55	*55	..	..	*176	*118	..	..	58
55	55	..	..	178	118	..	..	60
*55	*55	..	..	*178	*118	..	..	*60
*55	*55	..	..	*178	*118	..	..	*60
*15	*15	..	0	27	20	7	..	1
*15	*15	..	0	29	22	7	..	1
*15	*15	..	0	29	22	7	..	1
*15	*15	..	0	26	19	7	..	1
1,371	1,255	..	116	4,639	3,740	623	..	276
*856	*740	..	*116	4,835	3,687	623	..	525
*805	*705	..	100	4,873	3,675	623	..	575
*810	*705	..	105	4,939	3,599	623	..	717
1,346	1,118	227	..	6,727	1,860	4,819	..	48
1,332	1,094	238	..	6,764	1,889	4,826	..	48
1,377	1,139	238	..	6,724	1,841	4,835	..	48
1,387	1,149	238	..	6,832	1,841	4,914	..	77
525	300	19	207	1,737	771	553	..	413
574	300	19	255	1,783	771	553	..	459
626	302	19	305	1,811	771	553	..	487
653	303	19	331	2,189	1,149	553	..	487
..	..	..	..	9	7	..	..	2
..	..	..	..	*9	*7	..	..	2
..	..	..	..	7	5	..	..	2
..	..	..	..	7	5	..	..	*2
4	0	..	3	54	54	..	..	..
4	0	..	4	52	52	..	..	..
4	0	..	4	55	55	..	..	..
4	0	..	4	56	56	..	..	..
*655	*650	*5	..	3,387	1,584	1,555	..	249
*655	*650	*5	..	3,507	1,682	1,572	..	252
*655	*650	*5	..	3,463	1,634	1,579	..	250
*655	*650	*5	..	3,385	1,631	1,513	..	241

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Guyana	2019	335	327	..	..	0	8	..
	2020	337	329	..	..	0	8	..
	2021	359	349	..	..	0	10	..
	2022	372	360	..	..	0	12	..
Haiti	2019	*471	*390	78	..	0	3	..
	2020	*471	*390	78	..	0	3	..
	2021	*471	*390	78	..	0	3	..
	2022	*471	*390	*78	..	0	*3	..
Honduras	2019	2,882	1,308	731	..	235	570	39
	2020	3,011	1,318	840	..	235	578	39
	2021	3,028	1,318	853	..	235	578	44
	2022	3,184	1,393	923	..	235	589	44
Jamaica	2019	*1,150	*962	29	..	*102	57	..
	2020	*1,156	*968	*29	..	*102	*57	..
	2021	*1,156	*968	*29	..	*102	*57	..
	2022	*1,156	*968	*29	..	*102	*57	..
Mexico	2019	95,715	63,521	13,076	1,721	6,541	6,076	4,780
	2020	96,985	63,521	13,301	1,721	6,995	6,615	4,832
	2021	106,610	71,083	13,303	1,721	7,468	8,203	4,832
	2022	116,228	64,326	12,838	1,608	7,633	11,159	18,664
Montserrat	2019	6	5	..	..	..	0	..
	2020	6	5	..	..	..	0	..
	2021	6	5	..	..	..	1	..
	2022	*6	*5	..	..	..	1	..
Nicaragua	2019	1,620	1,107	157	..	186	16	153
	2020	1,620	1,107	157	..	186	16	153
	2021	1,615	1,101	159	..	186	16	153
	2022	1,628	1,101	159	..	186	16	165
Panama	2019	4,140	1,851	1,821	..	270	198	..
	2020	4,165	1,860	1,822	..	270	213	..
	2021	4,108	1,575	1,822	..	270	441	..
	2022	4,207	1,603	1,821	..	336	447	..
Paraguay	2019	8,761	1	8,760	..	..	..	..
	2020	8,761	1	8,760	..	..	..	..
	2021	8,761	1	8,760	..	..	..	..
	2022	8,761	1	8,760	..	..	..	..
Peru	2019	15,162	9,062	5,397	..	372	331	..
	2020	15,229	9,072	5,417	..	409	331	..
	2021	15,382	9,131	5,514	..	409	329	..
	2022	15,805	9,420	5,514	..	539	332	..
Puerto Rico	2019	6,173	5,808	99	..	102	165	..
	2020	6,107	5,742	99	..	102	165	..
	2021	6,107	5,742	98	..	102	*165	..
	2022	*6,106	*5,742	98	..	101	*165	..
Saint Barthélemy	2019	34	34	..	..	..	0	..
	2020	34	34	..	..	..	0	..
	2021	34	34	..	..	..	0	..
	2022	34	34	..	..	..	0	..
Saint Martin (French Part)	2019	57	57	..	..	..	1	..
	2020	58	57	..	..	..	1	..
	2021	58	57	..	..	..	1	..
	2022	58	57	..	..	..	1	..
Sint Maarten (Dutch part)	2019	*96	*96	..	..	..	..	..
	2020	99	99	..	..	..	..	..
	2021	*99	*99	..	..	..	..	..
	2022	*101	*101	..	..	..	..	..

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
42	42	..	..	293	285	..	..	8
42	42	..	..	295	287	..	..	8
*42	*42	..	..	317	307	..	..	10
42	42	..	..	330	318	..	..	12
*137	*137	..	..	*333	*253	78	..	3
*137	*137	..	..	*333	*253	78	..	3
*137	*137	..	..	*333	*253	78	..	3
*137	*137	..	..	*333	*253	*78	..	*3
455	398	0	57	2,427	910	730	..	787
561	496	0	65	2,450	823	840	..	787
561	496	0	65	2,467	823	853	..	792
561	496	0	65	2,622	897	923	..	803
*485	*350	..	*135	*665	*612	29	..	*24
*491	*356	..	*135	*665	*612	*29	..	*24
*491	*356	..	*135	*665	*612	*29	..	*24
*491	*356	..	*135	*665	*612	*29	..	*24
11,876	6,698	225	4,953	83,839	56,823	12,851	1,721	12,444
11,867	6,698	225	4,944	85,118	56,823	13,076	1,721	13,498
13,183	7,631	225	5,327	93,427	63,452	13,078	1,721	15,176
19,183	8,564	225	10,394	97,045	55,762	12,613	1,608	27,062
..	..	..	..	6	5	..	..	0
..	..	..	..	6	5	..	..	0
..	..	..	..	6	5	..	..	1
..	..	..	..	*6	*5	..	..	1
219	218	1	..	1,401	888	157	..	356
219	218	1	..	1,401	888	157	..	356
219	218	1	..	1,396	883	158	..	356
219	218	1	..	1,409	883	158	..	368
384	324	60	..	3,756	1,527	1,761	..	468
394	333	61	..	3,771	1,527	1,761	..	483
428	367	61	..	3,680	1,208	1,761	..	711
467	396	61	*10	3,740	1,207	1,761	..	773
..	..	..	..	8,761	1	8,760	..	..
..	..	..	..	8,761	1	8,760	..	..
..	..	..	..	8,761	1	8,760	..	..
..	..	..	..	8,761	1	8,760	..	..
1,512	1,339	131	*42	13,650	7,723	5,266	..	661
1,439	1,266	131	42	13,790	7,807	5,286	..	698
1,521	1,349	130	42	13,861	7,782	5,384	..	696
1,557	1,381	130	46	14,248	8,039	5,384	..	826
60	60	..	..	6,113	5,748	99	..	267
*60	*60	..	..	6,047	5,682	99	..	267
*60	*60	..	..	6,047	5,682	98	..	*267
*60	*60	..	..	*6,046	*5,682	98	..	*266
..	..	..	..	34	34	..	..	0
..	..	..	..	34	34	..	..	0
..	..	..	..	34	34	..	..	0
..	..	..	..	34	34	..	..	0
..	..	..	..	57	57	..	..	1
..	..	..	..	58	57	..	..	1
..	..	..	..	58	57	..	..	1
..	..	..	..	58	57	..	..	1
..	..	..	..	*96	*96	..	..	..
..	..	..	..	99	99	..	..	..
..	..	..	..	*99	*99	..	..	..
..	..	..	..	*101	*101	..	..	..

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
St. Kitts-Nevis	2019	*71	*67	..	..	2	2	..
	2020	*72	*67	..	..	2	3	..
	2021	*72	*67	..	..	2	3	..
	2022	*72	*67	..	..	2	3	..
St. Lucia	2019	92	88	..	..	..	4	..
	2020	93	88	..	..	..	4	..
	2021	93	88	..	..	..	4	..
	2022	93	88	..	..	..	5	..
St. Vincent-Grenadines	2019	50	40	6	..	..	4	..
	2020	56	44	6	..	..	6	..
	2021	*56	*44	6	..	..	6	..
	2022	*59	*47	6	..	..	6	..
Suriname	2019	503	316	180	..	..	7	..
	2020	491	302	180	..	..	9	..
	2021	532	343	180	..	..	9	..
	2022	588	386	180	..	..	22	..
Trinidad and Tobago	2019	2,118	2,115	..	..	0	3	..
	2020	2,517	2,513	..	..	0	4	..
	2021	2,134	2,130	..	..	0	4	..
	2022	2,134	2,130	..	..	0	4	..
Turks and Caicos Islands	2019	91	90	..	..	..	1	..
	2020	91	90	..	..	..	1	..
	2021	92	90	..	..	..	3	..
	2022	*93	*90	..	..	..	3	..
United States Virgin Is.	2019	*341	*316	..	..	0	*25	..
	2020	*342	*316	..	..	0	*26	..
	2021	*343	*316	..	..	0	*27	..
	2022	*343	*316	..	..	0	*27	..
Uruguay	2019	4,901	1,593	1,538	..	1,517	253	..
	2020	4,905	1,593	1,538	..	1,517	258	..
	2021	4,914	1,593	1,538	..	1,517	266	..
	2022	4,929	1,594	1,538	..	1,517	280	..
Venezuela (Bolivar. Rep.)	2019	33,338	18,107	15,123	..	50	8	50
	2020	33,117	17,886	15,123	..	50	8	50
	2021	36,360	19,210	17,042	..	50	8	50
	2022	32,227	16,468	15,651	..	50	8	50
<b>Northern America</b>	<b>2019</b>	<b>1,277,089</b>	<b>796,279</b>	<b>184,311</b>	<b>111,457</b>	<b>116,890</b>	<b>64,158</b>	<b>3,994</b>
	<b>2020</b>	<b>1,298,587</b>	<b>789,596</b>	<b>184,513</b>	<b>109,014</b>	<b>132,010</b>	<b>79,407</b>	<b>4,049</b>
	<b>2021</b>	<b>1,333,327</b>	<b>789,866</b>	<b>185,414</b>	<b>108,059</b>	<b>146,574</b>	<b>99,324</b>	<b>4,090</b>
	<b>2022</b>	<b>1,352,308</b>	<b>780,690</b>	<b>186,606</b>	<b>106,237</b>	<b>156,582</b>	<b>118,081</b>	<b>4,112</b>
Bermuda	2019	*176	*172	..	..	..	4	..
	2020	*177	*173	..	..	..	*4	..
	2021	*177	*173	..	..	..	*4	..
	2022	*177	*173	..	..	..	*4	..
Canada	2019	148,929	37,393	81,570	13,338	13,220	3,327	*81
	2020	150,305	39,155	81,383	12,513	13,532	3,609	*113
	2021	152,621	39,397	82,307	12,513	13,722	4,534	*148
	2022	153,744	38,388	83,312	11,578	15,081	5,235	*150
Greenland	2019	187	*96	91	..	..	..	..
	2020	187	*96	91	..	..	..	..
	2021	187	*96	91	..	..	..	..
	2022	187	*96	91	..	..	..	..
St. Pierre-Miquelon	2019	26	26	..	..	0	..	..
	2020	26	26	..	..	0	..	..
	2021	26	26	..	..	0	..	..
	2022	26	26	..	..	0	..	..



Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
*4	*4	..	..	*67	*63	..	..	4
*4	*4	..	..	*68	*63	..	..	5
*4	*4	..	..	*68	*63	..	..	5
*4	*4	..	..	*68	*63	..	..	5
1	..	..	1	91	88	..	..	3
1	..	..	1	91	88	..	..	3
1	..	..	1	91	88	..	..	3
2	..	..	2	91	88	..	..	3
0	..	..	0	50	40	6	..	4
2	..	..	2	54	44	6	..	4
*2	..	..	*2	*54	*44	6	..	4
*2	..	..	*2	*57	*47	6	..	4
276	96	180	..	227	220	..	..	7
276	96	180	..	215	206	..	..	9
276	96	180	..	256	247	..	..	9
290	*100	180	*10	298	286	..	..	12
*96	*96	..	..	2,022	2,019	..	..	3
*96	*96	..	..	2,421	2,417	..	..	4
*98	*98	..	..	2,036	2,032	..	..	4
*98	*98	..	..	2,036	2,032	..	..	4
..	..	..	..	91	90	..	..	1
..	..	..	..	91	90	..	..	1
..	..	..	..	92	90	..	..	3
..	..	..	..	*93	*90	..	..	3
*15	..	..	*15	*326	*316	..	..	10
*16	..	..	*16	*326	*316	..	..	10
*17	..	..	*17	*326	*316	..	..	10
*17	..	..	*17	*326	*316	..	..	10
478	417	..	*61	4,423	1,176	1,538	..	1,709
482	417	..	*65	4,423	1,176	1,538	..	1,710
491	417	..	*73	4,423	1,176	1,538	..	1,710
506	418	..	*87	4,423	1,176	1,538	..	1,710
1,013	1,010	..	3	32,325	17,097	15,123	..	105
1,013	1,010	..	3	32,104	16,876	15,123	..	105
1,013	1,010	..	3	35,347	18,200	17,042	..	105
1,013	1,010	..	3	31,214	15,458	15,651	..	105
<b>67,396</b>	<b>35,201</b>	<b>5,464</b>	<b>26,731</b>	<b>1,209,693</b>	<b>761,078</b>	<b>178,847</b>	<b>111,457</b>	<b>158,311</b>
<b>73,022</b>	<b>36,007</b>	<b>5,506</b>	<b>31,509</b>	<b>1,225,565</b>	<b>753,589</b>	<b>179,007</b>	<b>109,014</b>	<b>183,956</b>
<b>78,802</b>	<b>36,282</b>	<b>5,576</b>	<b>36,943</b>	<b>1,254,525</b>	<b>753,584</b>	<b>179,838</b>	<b>108,059</b>	<b>213,044</b>
<b>86,074</b>	<b>36,530</b>	<b>5,638</b>	<b>43,906</b>	<b>1,266,235</b>	<b>744,161</b>	<b>180,967</b>	<b>106,237</b>	<b>234,870</b>
9	5	..	4	*167	*167	..	..	..
10	6	..	*4	*167	*167	..	..	..
*10	*6	..	*4	*167	*167	..	..	..
*10	*6	..	*4	*167	*167	..	..	..
12,530	5,685	5,175	1,670	136,399	31,708	76,395	13,338	14,958
12,983	5,952	5,218	1,813	137,322	33,203	76,165	12,513	15,441
13,160	5,989	5,277	1,894	139,461	33,408	77,030	12,513	16,510
13,312	5,836	5,342	2,134	140,432	32,552	77,970	11,578	18,332
*16	*16	..	..	171	*80	91	..	..
*16	*16	..	..	171	*80	91	..	..
*16	*16	..	..	171	*80	91	..	..
*16	*16	..	..	171	*80	91	..	..
..	..	..	..	26	26	..	..	0
..	..	..	..	26	26	..	..	0
..	..	..	..	26	26	..	..	0
..	..	..	..	26	26	..	..	0

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
United States	2019	1,127,771	758,592	102,650	98,119	103,670	60,827	3,914
	2020	1,147,892	750,146	103,039	96,501	118,478	75,794	3,936
	2021	1,180,315	750,174	103,016	95,546	132,852	94,786	3,941
	2022	1,198,174	742,008	103,202	94,659	141,501	112,842	3,962
Oceania	2019	97,462	56,701	14,544	..	8,636	16,505	1,077
	2020	105,771	57,931	14,507	..	10,962	21,261	1,111
	2021	111,783	58,353	14,509	..	11,532	26,278	1,111
	2022	118,614	58,408	14,749	..	13,044	31,295	1,118
American Samoa	2019	47	42	..	..	..	5	..
	2020	*47	*42	..	..	..	5	..
	2021	*50	*45	..	..	..	5	..
	2022	*50	*45	..	..	..	5	..
Australia	2019	84,092	51,540	8,523	..	7,881	16,147	0
	2020	92,394	52,826	8,523	..	10,207	20,838	0
	2021	98,058	53,223	8,523	..	10,555	25,757	0
	2022	104,575	53,471	8,523	..	11,966	30,615	0
Cook Islands	2019	*16	*11	..	..	..	5	..
	2020	*16	*11	..	..	..	5	..
	2021	*16	*11	..	..	..	5	..
	2022	*16	*11	..	..	..	5	..
Fiji	2019	*363	*194	138	..	*21	10	..
	2020	*363	*194	138	..	*21	10	..
	2021	*370	*201	138	..	*21	10	..
	2022	*370	*201	138	..	*21	10	..
French Polynesia	2019	318	227	49	..	0	41	..
	2020	321	227	49	..	0	44	..
	2021	340	243	49	..	0	48	..
	2022	*341	*243	*49	..	0	*49	..
Guam	2019	460	420	..	..	0	40	..
	2020	462	420	..	..	0	41	..
	2021	463	420	..	..	0	43	..
	2022	*524	*420	..	..	0	104	..
Kiribati	2019	*12	*9	..	..	..	3	..
	2020	*12	*9	..	..	..	*3	..
	2021	*12	*9	..	..	..	*3	..
	2022	*12	*9	..	..	..	*3	..
Marshall Islands	2019	32	30	..	..	..	2	..
	2020	*32	*30	..	..	..	2	..
	2021	*32	*30	..	..	..	2	..
	2022	*32	*30	..	..	..	2	..
Micronesia (Fed. States of)	2019	*35	*32	1	..	1	2	..
	2020	42	38	1	..	1	3	..
	2021	42	38	1	..	1	3	..
	2022	42	38	1	..	1	3	..
Nauru	2019	*14	*13	..	..	..	1	..
	2020	18	16	..	..	..	2	..
	2021	18	16	..	..	..	2	..
	2022	*19	*16	..	..	..	*3	..
New Caledonia	2019	1,022	809	78	..	37	97	2
	2020	1,047	809	78	..	37	121	2
	2021	1,090	808	81	..	37	162	2
	2022	1,170	848	81	..	57	182	2
New Zealand	2019	9,515	2,242	5,443	..	690	115	1,025
	2020	9,683	2,346	5,443	..	690	145	1,059
	2021	9,953	2,346	5,443	..	913	192	1,059
	2022	10,112	2,112	5,680	..	994	260	1,066

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
54,842	29,496	289	25,057	1,072,930	729,097	102,360	98,119	143,353
60,013	30,033	288	29,692	1,087,879	720,113	102,750	96,501	168,515
65,616	30,272	299	35,046	1,114,699	719,902	102,717	95,546	196,534
72,736	30,672	296	41,768	1,125,438	711,335	102,906	94,659	216,538
<b>21,222</b>	<b>9,759</b>	<b>98</b>	<b>11,365</b>	<b>76,240</b>	<b>46,942</b>	<b>14,446</b>	..	<b>14,853</b>
<b>24,119</b>	<b>10,284</b>	<b>80</b>	<b>13,756</b>	<b>81,652</b>	<b>47,647</b>	<b>14,427</b>	..	<b>19,578</b>
<b>27,856</b>	<b>10,688</b>	<b>80</b>	<b>17,088</b>	<b>83,928</b>	<b>47,665</b>	<b>14,430</b>	..	<b>21,833</b>
<b>31,113</b>	<b>10,970</b>	<b>80</b>	<b>20,063</b>	<b>87,502</b>	<b>47,437</b>	<b>14,670</b>	..	<b>25,395</b>
..	..	..	..	47	42	..	..	5
..	..	..	..	*47	*42	..	..	5
..	..	..	..	*50	*45	..	..	5
..	..	..	..	*50	*45	..	..	5
19,569	8,424	..	11,145	64,523	43,116	8,523	..	12,883
22,529	9,038	..	13,492	69,865	43,788	8,523	..	17,554
26,193	9,435	..	16,758	71,866	43,788	8,523	..	19,554
29,330	9,677	..	19,653	75,245	43,794	8,523	..	22,928
..	..	..	..	*16	*11	..	..	5
..	..	..	..	*16	*11	..	..	5
..	..	..	..	*16	*11	..	..	5
..	..	..	..	*16	*11	..	..	5
54	54	..	..	*309	*140	138	..	*31
54	54	..	..	*309	*140	138	..	*31
61	61	..	..	*309	*140	138	..	*31
61	61	..	..	*309	*140	138	..	*31
..	..	..	..	318	227	49	..	41
..	..	..	..	321	227	49	..	45
..	..	..	..	340	243	49	..	49
..	..	..	..	*341	*243	*49	..	*49
*14	..	..	*14	446	420	..	..	26
16	..	..	16	446	420	..	..	26
17	..	..	17	446	420	..	..	26
*18	..	..	*18	*506	*420	..	..	86
*1	*1	..	..	*11	*8	..	..	3
*1	*1	..	..	*10	*7	..	..	*3
*1	*1	..	..	*11	*8	..	..	*3
*1	*1	..	..	*11	*8	..	..	*3
..	..	..	..	32	30	..	..	2
..	..	..	..	*32	*30	..	..	2
..	..	..	..	*32	*30	..	..	2
..	..	..	..	*32	*30	..	..	2
..	..	..	..	*35	*32	1	..	3
..	..	..	..	42	38	1	..	3
..	..	..	..	42	38	1	..	3
..	..	..	..	42	38	1	..	3
..	..	..	..	*14	*13	..	..	1
..	..	..	..	18	16	..	..	2
..	..	..	..	18	16	..	..	2
..	..	..	..	*19	*16	..	..	*3
589	572	..	16	434	237	78	..	119
601	572	..	29	446	237	78	..	131
619	572	..	47	471	236	81	..	154
670	612	..	58	500	236	81	..	183
397	255	3	139	9,118	1,987	5,440	..	1,691
421	249	3	169	9,262	2,097	5,440	..	1,725
468	249	3	216	9,485	2,097	5,440	..	1,948
536	249	3	284	9,576	1,863	5,677	..	2,036

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Niue	2019	*3	*2	..	..	..	1	..
	2020	*3	*2	..	..	..	*1	..
	2021	*3	*2	..	..	..	*1	..
	2022	*3	*2	..	..	..	*1	..
Northern Mariana Islands	2019	*63	*63	..	..	..	..	..
	2020	*65	*63	..	..	..	*2	..
	2021	68	63	..	..	..	*5	..
	2022	68	63	..	..	..	5	..
Palau	2019	*41	*39	..	..	..	3	..
	2020	*41	*39	..	..	..	*3	..
	2021	*41	*39	..	..	..	*3	..
	2022	*41	*39	..	..	..	*3	..
Papua New Guinea	2019	*1,265	*919	295	..	..	1	50
	2020	1,058	748	258	..	..	*1	50
	2021	1,058	748	258	..	..	*1	50
	2022	1,061	748	261	..	..	*2	50
Samoa	2019	*56	*23	14	..	1	*18	..
	2020	*58	*24	14	..	1	*20	..
	2021	*59	*24	14	..	1	*20	..
	2022	*60	*25	14	..	1	*20	..
Solomon Islands	2019	*35	*32	0	..	..	3	..
	2020	35	32	0	..	..	3	..
	2021	*35	*32	0	..	..	*3	..
	2022	*37	*32	0	..	..	4	..
Tonga	2019	25	18	..	..	1	6	..
	2020	*25	*18	..	..	2	6	..
	2021	*26	*18	..	..	1	7	..
	2022	33	18	..	..	1	14	..
Tuvalu	2019	7	*3	..	..	..	4	..
	2020	7	*3	..	..	..	4	..
	2021	7	*3	..	..	..	4	..
	2022	7	*3	..	..	..	4	..
Vanuatu	2019	33	25	1	..	3	3	..
	2020	33	26	1	..	3	3	..
	2021	33	26	1	..	3	3	..
	2022	33	26	1	..	3	3	..
Wallis and Futuna Is.	2019	9	9	0	..	..	0	..
	2020	9	9	0	..	..	0	..
	2021	*9	*9	0	..	..	0	..
	2022	*9	*9	0	..	..	0	..

Table 31

## Net installed capacity of electricity plants by type

Megawatts

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	*3	*2	..	..	1
..	..	..	..	*3	*2	..	..	*1
..	..	..	..	*3	*2	..	..	*1
..	..	..	..	*3	*2	..	..	*1
..	..	..	..	*63	*63	..	..	..
..	..	..	..	*65	*63	..	..	*2
..	..	..	..	68	63	..	..	*5
..	..	..	..	68	63	..	..	5
*2	*2	..	..	*39	*37	..	..	3
*2	*2	..	..	*39	*37	..	..	*3
*2	*2	..	..	*39	*37	..	..	*3
*2	*2	..	..	*39	*37	..	..	*3
*595	*450	*95	50	*670	*469	200	..	1
493	366	77	50	565	382	181	..	*1
493	366	77	50	565	382	181	..	*1
493	366	77	50	568	382	184	..	*2
0	..	..	0	*56	*23	14	..	*19
0	..	..	0	*58	*24	14	..	*21
0	..	..	0	*59	*24	14	..	*21
0	..	..	0	*60	*25	14	..	*21
1	1	..	..	*34	*31	0	..	3
1	1	..	..	34	31	0	..	3
*1	*1	..	..	*34	*31	0	..	*3
*1	*1	..	..	*36	*31	0	..	4
..	..	..	..	25	18	..	..	7
..	..	..	..	*25	*18	..	..	8
..	..	..	..	*26	*18	..	..	8
..	..	..	..	33	18	..	..	16
..	..	..	..	7	*3	..	..	4
..	..	..	..	7	*3	..	..	4
..	..	..	..	7	*3	..	..	4
..	..	..	..	7	*3	..	..	4
..	..	..	..	33	25	1	..	6
..	..	..	..	33	26	1	..	6
..	..	..	..	33	26	1	..	6
..	..	..	..	33	26	1	..	6
..	..	..	..	9	9	0	..	0
..	..	..	..	9	9	0	..	0
..	..	..	..	*9	*9	0	..	0
..	..	..	..	*9	*9	0	..	0



## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

### Table Notes

Data on utilization are derived by dividing the data on electricity production shown in Table 32 by the net installed capacity shown in Table 30, and then by the total number of hours in a year to yield a percentage of theoretical maximal utilization.

For this table, **Other** under total producers refers to geothermal, tide, wave, marine and other non-specified sources. **Other** under autoproducers refers to nuclear (if any), wind, solar, tide, wave, marine and other non-specified sources. **Other** under main activity producers refers to wind, solar, tide, wave, marine and other non-specified sources.

For Austria data are given in gross maximum capacity.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 77: Utilization of installed electric generating capacity by source and region, 2022**

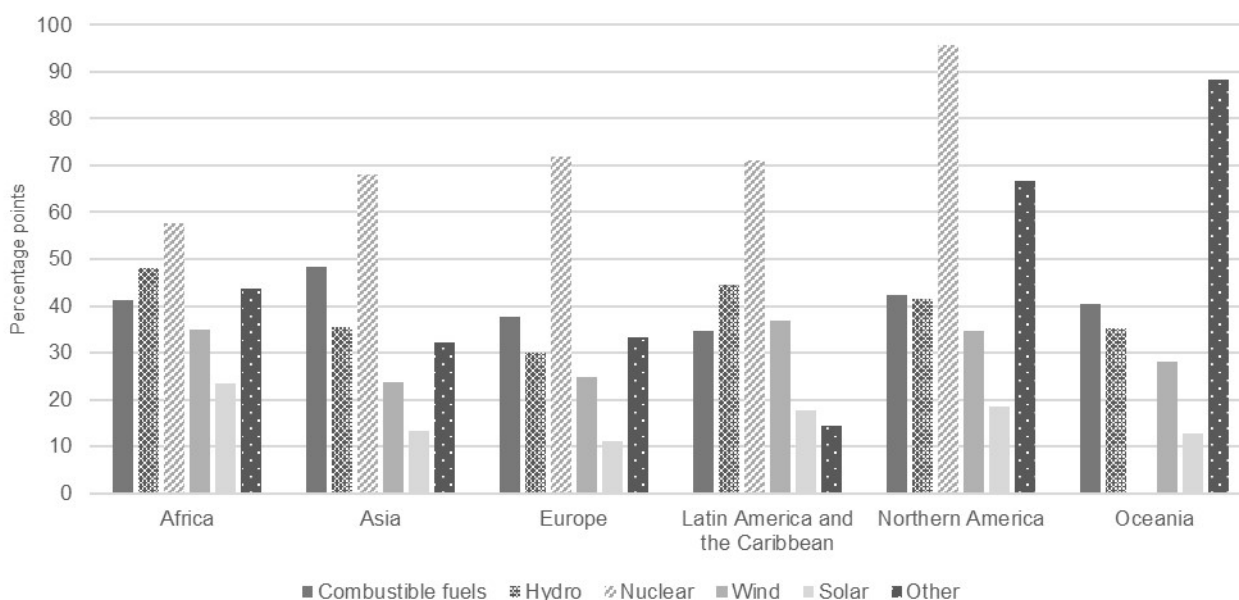


Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
World	2019	41	44	38	79	26	13	41
	2020	39	43	38	76	25	13	34
	2021	40	44	37	80	26	13	34
	2022	39	45	37	77	27	14	30
Africa	2019	42	42	45	78	35	20	45
	2020	41	40	46	58	32	24	43
	2021	42	41	47	73	35	26	43
	2022	42	41	48	58	35	24	44
Algeria	2019	43	44	8	..	11	17	..
	2020	42	43	3	..	9	17	..
	2021	43	44	1	..	13	16	..
	2022	46	47	1	..	18	16	..
Angola	2019	27	15	37	..	..	33	..
	2020	27	9	39	..	..	37	..
	2021	27	16	35	..	..	34	..
	2022	27	13	38	..	..	25	..
Benin	2019	12	14	0	..	..	13	..
	2020	22	26	0	..	..	12	..
	2021	25	29	..	..	..	28	..
	2022	21	25	..	..	..	11	..
Botswana	2019	49	50	..	..	..	9	..
	2020	33	33	..	..	..	12	..
	2021	36	36	..	..	..	12	..
	2022	38	39	..	..	..	12	..
Burkina Faso	2019	32	34	37	..	..	17	..
	2020	28	29	40	..	..	12	..
	2021	31	32	45	..	..	12	..
	2022	28	30	29	..	..	11	..
Burundi	2019	28	27	31	..	..	18	..
	2020	29	19	42	..	..	18	..
	2021	27	26	31	..	..	10	..
	2022	27	26	30	..	..	16	..
Cabo Verde	2019	30	30	..	..	39	14	..
	2020	29	29	..	..	33	12	..
	2021	30	31	..	..	37	13	..
	2022	33	35	..	..	37	12	..
Cameroon	2019	56	40	73	..	..	16	..
	2020	57	46	69	..	..	36	..
	2021	62	39	89	..	..	20	..
	2022	65	36	99	..	..	20	..
Central African Rep.	2019	37	1	64	..	..	15	..
	2020	36	0	64	..	..	15	..
	2021	36	0	64	..	..	15	..
	2022	37	0	65	..	..	15	..
Chad	2019	22	22	..	..	93	5	..
	2020	23	23	..	..	93	14	..
	2021	23	23	..	..	93	15	..
	2022	23	23	..	..	93	7	..
Comoros	2019	45	47	..	..	..	..	..
	2020	54	56	..	..	..	..	..
	2021	49	57	..	..	..	11	..
	2022	50	58	..	..	..	11	..
Congo	2019	63	72	45	..	..	15	..
	2020	52	54	48	..	..	13	..
	2021	56	58	53	..	..	14	..
	2022	68	72	60	..	..	16	..



## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
39	47	46	14	41	44	38	79	21
36	46	44	14	39	42	38	76	20
35	47	39	13	40	44	37	80	21
34	47	39	14	40	45	37	77	21
26	26	31	24	44	44	45	78	33
26	26	38	24	43	42	46	58	33
27	26	40	27	43	43	47	73	34
32	32	40	27	43	43	48	58	32
10	10	..	..	58	60	8	..	17
9	9	..	..	56	58	3	..	17
10	10	..	..	56	58	1	..	16
10	10	..	..	60	62	1	..	16
16	16	..	..	28	15	37	..	33
15	15	..	..	27	8	39	..	37
15	15	..	..	28	16	35	..	34
15	15	..	..	28	13	38	..	25
40	41	..	10	9	10	0	..	13
41	42	..	9	20	24	0	..	13
48	49	..	11	23	27	..	..	33
47	54	..	3	18	22	..	..	14
..	..	..	..	51	51	..	..	9
..	..	..	..	34	34	..	..	12
..	..	..	..	37	37	..	..	12
..	..	..	..	39	40	..	..	12
53	53	..	..	23	23	37	..	17
64	64	..	..	15	13	40	..	12
50	50	..	..	23	22	45	..	12
51	51	..	..	18	18	29	..	11
15	15	..	..	29	28	31	..	18
16	16	..	..	30	20	42	..	18
17	17	..	..	27	27	31	..	10
49	49	..	..	27	24	30	..	16
18	18	..	..	30	30	..	..	30
18	18	..	..	29	30	..	..	26
18	18	..	..	30	31	..	..	28
18	18	..	..	33	35	..	..	26
53	53	..	..	57	10	73	..	16
61	61	..	..	54	8	69	..	36
52	52	..	..	67	8	89	..	20
48	48	..	..	75	8	99	..	20
..	..	..	..	37	1	64	..	15
..	..	..	..	36	0	64	..	15
..	..	..	..	36	0	64	..	15
..	..	..	..	37	0	65	..	15
..	..	..	..	22	22	..	..	51
..	..	..	..	23	23	..	..	55
..	..	..	..	23	23	..	..	56
..	..	..	..	23	23	..	..	38
..	..	..	..	47	47	..	..	..
..	..	..	..	56	56	..	..	..
..	..	..	..	51	57	..	..	11
..	..	..	..	52	58	..	..	11
79	79	..	..	38	..	45	..	15
58	58	..	..	40	..	48	..	13
62	62	..	..	43	..	53	..	14
77	77	..	..	49	..	60	..	16

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Côte d'Ivoire	2019	55	62	45	..	..	26	..
	2020	58	67	44	..	..	16	..
	2021	58	73	34	..	..	25	..
	2022	56	66	37	..	..	16	..
Dem. Rep. of the Congo	2019	50	3	51	..	..	4	..
	2020	50	3	51	..	..	4	..
	2021	50	1	51	..	..	8	..
	2022	50	2	51	..	..	12	..
Djibouti	2019	11	11	..	..	..	17	..
	2020	9	9	..	..	..	17	..
	2021	15	11	..	..	39	17	..
	2022	15	11	..	..	40	17	..
Egypt	2019	38	38	53	..	37	17	..
	2020	38	37	61	..	35	33	..
	2021	40	39	60	..	43	35	..
	2022	39	39	59	..	40	33	..
Equatorial Guinea	2019	39	66	22	..	..	..	..
	2020	42	73	22	..	..	..	..
	2021	36	59	22	..	..	..	..
	2022	36	59	21	..	..	..	..
Eritrea	2019	18	19	..	..	28	6	..
	2020	18	20	..	..	28	5	..
	2021	18	20	..	..	28	5	..
	2022	19	20	..	..	28	4	..
Eswatini	2019	39	33	50	..	..	15	..
	2020	36	33	43	..	..	3	..
	2021	41	39	50	..	..	13	..
	2022	41	36	54	..	..	24	..
Ethiopia	2019	40	3	43	..	21	20	..
	2020	40	3	42	..	29	18	..
	2021	39	2	42	..	20	18	..
	2022	37	0	40	..	15	19	..
Gabon	2019	42	39	45	..	..	22	..
	2020	44	41	49	..	..	22	..
	2021	44	42	47	..	..	22	..
	2022	48	52	43	..	..	30	..
Gambia	2019	38	39	..	..	20	18	..
	2020	39	40	..	..	20	18	..
	2021	36	37	..	..	20	18	..
	2022	42	42	..	..	20	17	..
Ghana	2019	39	34	52	..	..	14	..
	2020	44	40	53	..	..	11	..
	2021	46	44	54	..	..	12	..
	2022	48	45	59	..	..	16	..
Guinea	2019	43	43	43	..	..	..	..
	2020	32	33	31	..	..	..	..
	2021	36	16	46	..	..	..	..
	2022	36	8	56	..	..	..	..
Guinea-Bissau	2019	27	28	..	..	..	24	..
	2020	45	48	..	..	..	24	..
	2021	49	53	..	..	..	23	..
	2022	46	51	..	..	..	21	..
Kenya	2019	42	16	44	..	53	21	72
	2020	42	9	58	..	45	19	67
	2021	42	17	50	..	52	11	67
	2022	43	21	41	..	56	21	66

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
32	32	..	..	55	63	45	..	26
36	36	..	..	58	68	44	..	16
68	68	..	..	58	73	34	..	25
73	73	..	..	55	66	37	..	16
..	..	..	..	50	3	51	..	4
..	..	..	..	50	3	51	..	4
..	..	..	..	50	1	51	..	8
..	..	..	..	50	2	51	..	12
..	..	..	..	11	11	..	..	17
..	..	..	..	9	9	..	..	17
..	..	..	..	15	11	..	..	39
..	..	..	..	15	11	..	..	40
64	64	..	..	37	37	53	..	28
64	64	..	..	37	36	61	..	34
62	62	..	..	39	38	60	..	39
50	50	..	..	39	38	59	..	37
..	..	..	..	39	66	22	..	..
..	..	..	..	42	73	22	..	..
..	..	..	..	36	59	22	..	..
..	..	..	..	36	59	21	..	..
21	21	..	..	18	19	..	..	6
18	18	..	..	19	20	..	..	6
18	18	..	..	18	20	..	..	5
19	19	..	..	19	21	..	..	5
32	33	15	15	50	..	50	..	..
33	33	72	2	43	..	43	..	..
39	39	69	35	44	..	49	..	9
36	36	68	29	50	..	54	..	24
11	11	..	..	40	1	43	..	21
11	11	..	..	40	0	42	..	28
11	11	..	..	39	0	42	..	19
..	..	..	..	37	0	40	..	15
29	29	32	22	43	42	45	..	..
32	32	32	22	46	44	49	..	..
27	27	32	22	46	46	47	..	..
68	69	33	6	45	47	43	..	..
12	12	..	..	48	49	..	..	19
12	12	..	..	48	49	..	..	19
12	12	..	..	43	44	..	..	19
12	12	..	..	50	51	..	..	18
10	10	..	..	40	35	52	..	14
..	..	..	..	44	40	53	..	11
..	..	..	..	46	44	54	..	12
..	..	..	..	48	45	59	..	16
..	..	..	..	43	43	43	..	..
..	..	..	..	32	33	31	..	..
..	..	..	..	36	16	46	..	..
..	..	..	..	36	8	56	..	..
40	40	..	..	25	26	..	..	24
40	40	..	..	46	50	..	..	24
40	40	..	..	50	55	..	..	23
41	41	..	..	47	53	..	..	21
7	7	..	..	47	20	44	..	65
5	5	..	..	46	11	58	..	59
9	8	54	..	46	21	50	..	56
10	9	63	..	46	27	41	..	57

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Lesotho	2019	60	12	60	..	..	..	..
	2020	65	12	66	..	..	..	..
	2021	81	17	82	..	..	17	..
	2022	73	18	74	..	..	7	..
Liberia	2019	24	33	15	..	..	15	..
	2020	28	36	18	..	..	15	..
	2021	34	29	43	..	..	19	..
	2022	32	26	43	..	..	18	..
Libya	2019	38	38	..	..	..	18	..
	2020	32	32	..	..	..	18	..
	2021	38	38	..	..	..	17	..
	2022	36	36	..	..	..	18	..
Madagascar	2019	42	35	61	..	30	16	..
	2020	38	32	57	..	30	15	..
	2021	37	32	53	..	29	17	..
	2022	34	31	49	..	32	12	..
Malawi	2019	31	5	50	..	..	24	..
	2020	34	14	53	..	..	0	..
	2021	38	7	62	..	..	7	..
	2022	32	8	49	..	..	23	..
Mali	2019	37	39	35	..	..	18	..
	2020	37	40	36	..	..	15	..
	2021	39	43	37	..	..	18	..
	2022	37	39	39	..	..	15	..
Mauritania	2019	28	29	..	..	37	19	..
	2020	27	27	..	..	46	19	..
	2021	25	24	..	..	46	19	..
	2022	28	29	..	..	38	15	..
Mauritius	2019	44	50	19	..	17	16	..
	2020	38	44	22	..	20	16	..
	2021	40	45	20	..	16	16	..
	2022	41	47	24	..	17	16	..
Morocco	2019	33	36	11	..	43	25	..
	2020	32	36	8	..	36	23	..
	2021	33	38	8	..	40	24	..
	2022	33	39	4	..	39	19	..
Mozambique	2019	78	94	77	..	..	4	..
	2020	78	76	81	..	..	8	..
	2021	78	77	81	..	..	8	..
	2022	80	77	84	..	..	8	..
Namibia	2019	27	5	31	..	47	32	..
	2020	37	7	50	..	47	32	..
	2021	27	4	31	..	47	33	..
	2022	21	2	26	..	53	28	..
Niger	2019	22	23	..	..	..	14	..
	2020	22	23	..	..	..	10	..
	2021	23	23	..	..	..	19	..
	2022	22	25	..	..	..	6	..
Nigeria	2019	32	29	45	..	11	13	..
	2020	33	32	40	..	11	9	..
	2021	31	29	41	..	..	8	..
	2022	32	29	48	..	..	11	..
Rwanda	2019	40	37	47	..	..	17	..
	2020	40	31	54	..	..	17	..
	2021	47	39	59	..	..	17	..
	2022	45	42	52	..	..	16	..

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	60	12	60	..	..
..	..	..	..	65	12	66	..	..
..	..	..	..	81	17	82	..	17
..	..	..	..	73	18	74	..	7
32	33	..	15	20	34	15	..	..
32	33	..	15	25	42	18	..	..
32	33	..	19	35	20	43	..	4
32	33	..	19	32	12	43	..	3
..	..	..	..	38	38	..	..	18
..	..	..	..	32	32	..	..	18
..	..	..	..	38	38	..	..	17
..	..	..	..	36	36	..	..	18
31	31	..	..	44	37	61	..	16
33	33	..	..	39	32	57	..	15
37	37	..	..	37	31	53	..	17
37	37	..	..	34	29	49	..	12
7	7	11	..	41	1	51	..	24
7	7	11	..	44	43	53	..	0
7	7	11	..	51	9	63	..	7
7	7	11	..	42	14	50	..	23
46	48	..	19	34	32	35	..	13
46	48	..	19	34	34	36	..	13
48	50	..	19	37	39	37	..	18
44	48	..	18	34	31	39	..	13
44	46	..	20	25	25	..	..	25
42	44	..	18	24	23	..	..	27
43	44	..	22	21	20	..	..	27
37	38	..	18	26	27	..	..	22
61	80	..	16	33	35	19	..	6
55	75	..	16	27	27	22	..	8
58	78	..	17	27	28	20	..	8
47	63	..	16	37	39	24	..	15
5	1	..	2	43	53	11	..	37
5	1	..	2	41	53	8	..	31
5	1	..	2	43	56	8	..	34
5	1	..	2	43	57	4	..	32
51	51	..	..	78	99	77	..	4
48	48	..	..	78	79	81	..	8
48	48	..	..	78	81	81	..	8
51	51	..	..	81	80	84	..	8
..	..	..	..	27	5	31	..	32
..	..	..	..	37	7	50	..	32
..	..	..	..	27	4	31	..	33
..	..	..	..	21	2	26	..	28
13	12	..	14	25	25	..	..	..
22	31	..	5	22	22	..	..	..
14	13	..	14	26	26	..	..	..
13	22	..	3	26	25	..	..	..
20	19	49	13	37	35	45	..	..
22	21	45	9	37	36	40	..	..
21	21	46	7	34	32	41	..	..
71	73	54	11	19	11	48	..	..
23	23	..	..	40	37	47	..	17
23	23	..	..	40	31	54	..	17
23	23	..	..	47	39	59	..	17
23	23	..	..	45	42	52	..	16

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Sao Tome and Principe	2019	44	45	29	..	..	14	..
	2020	32	32	24	..	..	14	..
	2021	31	31	25	..	..	14	..
	2022	31	33	9	..	..	8	..
Senegal	2019	38	45	..	..	2	34	..
	2020	47	54	..	..	16	41	..
	2021	46	52	..	..	29	38	..
	2022	52	60	..	..	28	39	..
Seychelles	2019	39	41	..	..	9	11	..
	2020	43	45	..	..	11	16	..
	2021	40	44	..	..	10	13	..
	2022	41	45	..	..	13	14	..
Sierra Leone	2019	30	20	44	..	..	17	..
	2020	49	60	44	..	..	17	..
	2021	54	75	44	..	..	16	..
	2022	26	22	40	..	..	11	..
Somalia	2019	15	15	..	..	9	18	..
	2020	14	14	..	..	7	18	..
	2021	14	14	..	..	6	25	..
	2022	14	14	..	..	5	25	..
South Africa	2019	49	52	19	78	31	21	..
	2020	46	50	20	58	29	25	..
	2021	45	47	22	73	30	30	..
	2022	45	48	24	58	32	28	..
South Sudan	2019	48	52	..	..	..	12	..
	2020	48	52	..	..	..	12	..
	2021	48	52	..	..	..	16	..
	2022	42	47	..	..	..	19	..
St. Helena and Depend.	2019	11	14	..	..	8	7	..
	2020	11	13	..	..	8	7	..
	2021	13	18	..	..	6	7	..
	2022	12	18	..	..	4	7	..
Sudan	2019	47	35	61	..	..	3	..
	2020	49	35	67	..	..	2	..
	2021	46	36	61	..	..	2	..
	2022	45	26	71	..	..	8	..
Togo	2019	36	34	41	..	..	12	..
	2020	31	34	25	..	..	12	..
	2021	22	28	15	..	..	10	..
	2022	26	33	13	..	..	16	..
Tunisia	2019	42	43	12	..	24	16	..
	2020	39	40	8	..	22	15	..
	2021	40	41	5	..	20	15	..
	2022	37	40	3	..	16	9	..
Uganda	2019	40	17	45	..	..	17	..
	2020	40	14	46	..	..	22	..
	2021	40	18	46	..	..	19	..
	2022	45	22	52	..	..	18	..
United Rep. of Tanzania	2019	58	65	49	..	..	12	..
	2020	56	53	62	..	..	11	..
	2021	57	56	61	..	..	10	..
	2022	61	64	56	..	..	10	..
Zambia	2019	57	58	59	..	..	15	..
	2020	57	47	61	..	..	19	..
	2021	59	27	68	..	..	19	..
	2022	58	45	62	..	..	18	..

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	44	45	29	..	14
..	..	..	..	32	32	24	..	14
..	..	..	..	31	31	25	..	14
..	..	..	..	31	33	9	..	8
26	30	..	..	43	53	..	..	16
19	22	..	0	58	69	..	..	26
22	26	..	2	54	62	..	..	33
24	27	..	2	61	72	..	..	33
36	36	..	..	40	42	..	..	10
36	36	..	..	44	47	..	..	13
36	36	..	..	41	46	..	..	12
36	36	..	..	42	48	..	..	14
23	23	..	..	30	20	44	..	17
23	23	..	..	49	63	44	..	17
23	23	..	..	54	78	44	..	16
29	29	..	..	26	21	40	..	11
17	17	..	..	14	14	..	..	13
14	14	..	..	14	15	..	..	13
13	13	..	..	15	15	..	..	17
13	13	..	..	15	14	..	..	18
38	62	8	27	51	52	19	78	16
37	58	12	28	48	49	21	58	17
39	56	18	31	46	47	22	73	10
37	50	19	31	47	48	24	58	8
13	12	..	22	64	72	..	..	8
13	13	..	22	64	72	..	..	8
14	13	..	21	64	72	..	..	12
14	12	..	20	59	65	..	..	17
..	..	..	..	11	14	..	..	8
..	..	..	..	11	13	..	..	7
..	..	..	..	13	18	..	..	6
..	..	..	..	12	18	..	..	5
6	6	..	..	49	38	61	..	3
6	6	..	..	51	38	67	..	2
6	6	..	..	48	39	61	..	2
6	6	..	..	47	28	71	..	8
10	9	..	11	37	36	41	..	..
8	5	..	11	32	35	25	..	..
1	2	..	1	28	30	15	..	..
1	3	..	1	33	34	13	..	..
61	61	..	18	41	43	12	..	23
53	60	..	16	39	40	8	..	21
50	61	..	16	39	40	5	..	19
47	64	..	17	36	39	3	..	9
31	23	37	..	42	12	47	..	18
38	22	48	..	41	7	46	..	22
42	33	48	..	40	5	46	..	19
41	37	44	..	46	7	53	..	18
2	0	..	12	67	81	49	..	..
2	1	..	11	64	65	62	..	..
2	0	..	10	65	67	61	..	..
2	0	..	10	69	77	56	..	..
26	26	..	..	58	60	59	..	15
26	26	..	..	57	48	61	..	19
8	8	..	..	61	31	68	..	19
8	8	..	..	60	54	62	..	18

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Zimbabwe	2019	41	38	44	..	..	..	..
	2020	32	26	40	..	..	20	..
	2021	41	23	63	..	..	7	..
	2022	43	28	62	..	..	4	..
<b>Asia</b>	<b>2019</b>	<b>42</b>	<b>48</b>	<b>38</b>	<b>63</b>	<b>22</b>	<b>13</b>	<b>31</b>
	<b>2020</b>	<b>39</b>	<b>46</b>	<b>38</b>	<b>62</b>	<b>19</b>	<b>12</b>	<b>26</b>
	<b>2021</b>	<b>40</b>	<b>48</b>	<b>36</b>	<b>68</b>	<b>23</b>	<b>13</b>	<b>26</b>
	<b>2022</b>	<b>40</b>	<b>48</b>	<b>35</b>	<b>68</b>	<b>24</b>	<b>13</b>	<b>32</b>
Afghanistan	2019	34	15	41	..	..	20	..
	2020	28	11	35	..	..	24	..
	2021	29	11	35	..	..	24	..
	2022	24	11	28	..	..	22	..
Armenia	2019	24	19	20	62	9	16	..
	2020	24	20	15	77	5	17	..
	2021	22	19	19	51	4	18	..
	2022	26	25	16	72	7	15	..
Azerbaijan	2019	39	43	16	..	18	15	..
	2020	39	44	11	..	17	15	..
	2021	40	45	13	..	16	13	..
	2022	42	47	16	..	15	14	..
Bahrain	2019	56	56	..	..	..	18	..
	2020	57	57	..	..	..	19	..
	2021	51	51	..	..	5	16	..
	2022	52	52	..	..	11	19	..
Bangladesh	2019	54	55	38	..	24	14	..
	2020	50	51	43	..	23	14	..
	2021	49	50	33	..	18	4	..
	2022	50	51	37	..	18	8	..
Bhutan	2019	43	0	43	..	21	16	..
	2020	55	0	56	..	21	16	..
	2021	56	0	56	..	7	16	..
	2022	54	0	54	..	7	16	..
Brunei Darussalam	2019	51	51	..	..	..	15	..
	2020	58	58	..	..	..	12	..
	2021	57	57	..	..	..	10	..
	2022	56	56	..	..	..	12	..
Cambodia	2019	42	55	35	..	..	11	..
	2020	35	40	35	..	..	12	..
	2021	38	37	45	..	..	19	..
	2022	35	32	42	..	..	19	..
China	2019	41	48	42	82	22	13	1
	2020	39	47	42	84	19	12	1
	2021	40	49	39	87	23	12	0
	2022	39	49	37	86	24	12	..
China, Hong Kong SAR	2019	34	34	..	..	..	..	..
	2020	31	31	..	..	..	..	..
	2021	32	32	..	..	..	..	..
	2022	31	31	..	..	..	..	..
China, Macao SAR	2019	24	24	..	..	..	11	..
	2020	16	16	..	..	..	9	..
	2021	14	14	..	..	..	11	..
	2022	18	18	..	..	..	11	..
Cyprus	2019	32	35	..	..	17	16	..
	2020	29	33	..	..	17	15	..
	2021	29	33	..	..	18	17	..
	2022	29	34	..	..	16	16	..



## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
53	53	..	..	40	38	44	..	..
28	28	..	..	32	26	40	..	20
0	0	..	..	41	23	63	..	7
9	9	..	..	44	29	62	..	4
<b>40</b>	<b>48</b>	<b>35</b>	<b>14</b>	<b>42</b>	<b>48</b>	<b>38</b>	<b>63</b>	<b>18</b>
<b>38</b>	<b>46</b>	<b>32</b>	<b>13</b>	<b>40</b>	<b>46</b>	<b>38</b>	<b>62</b>	<b>16</b>
<b>38</b>	<b>48</b>	<b>34</b>	<b>13</b>	<b>40</b>	<b>48</b>	<b>36</b>	<b>68</b>	<b>18</b>
<b>38</b>	<b>49</b>	<b>28</b>	<b>13</b>	<b>40</b>	<b>48</b>	<b>35</b>	<b>68</b>	<b>18</b>
18	1	26	20	44	29	49	..	20
18	1	26	20	35	19	40	..	30
18	1	26	20	36	20	40	..	29
17	1	25	18	28	20	29	..	29
16	..	..	16	24	19	20	62	13
17	..	..	17	24	20	15	77	13
17	..	..	17	22	19	19	51	19
16	..	..	16	27	25	16	72	13
29	29	..	0	40	46	16	..	17
31	31	37	0	40	46	11	..	16
33	34	21	3	41	47	13	..	15
33	34	13	3	42	48	16	..	15
57	57	..	18	56	56	..	..	..
58	58	..	19	56	56	..	..	..
58	58	..	19	46	46	..	..	2
60	61	..	19	47	47	..	..	16
30	30	..	..	67	69	38	..	14
26	26	..	..	65	66	43	..	14
26	26	..	..	63	66	33	..	4
23	23	..	..	68	71	37	..	8
..	..	..	..	43	0	43	..	20
..	..	..	..	55	0	56	..	20
..	..	..	..	56	0	56	..	10
..	..	..	..	54	0	54	..	10
44	44	..	..	52	53	..	..	15
81	81	..	..	52	52	..	..	12
79	80	..	10	51	51	..	..	9
76	78	..	13	51	51	..	..	8
..	..	..	..	42	55	35	..	11
..	..	..	..	35	40	35	..	12
..	..	..	..	38	37	45	..	19
..	..	..	..	35	32	42	..	19
88	88	..	..	40	46	42	82	17
87	87	..	..	38	45	42	84	16
108	108	..	..	39	47	39	87	18
109	109	..	..	37	46	37	86	18
..	..	..	..	34	34	..	..	..
..	..	..	..	31	31	..	..	..
..	..	..	..	32	32	..	..	..
..	..	..	..	31	31	..	..	..
85	85	..	11	19	19	..	..	..
74	74	..	9	12	12	..	..	..
82	82	..	11	9	9	..	..	..
79	80	..	11	13	13	..	..	..
17	20	..	16	33	36	..	..	17
14	20	..	12	30	33	..	..	17
16	20	..	16	31	34	..	..	18
16	25	..	15	30	34	..	..	17

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Georgia	2019	36	29	39	..	46	..	..
	2020	34	33	35	..	49	..	..
	2021	36	27	39	..	45	..	..
	2022	39	34	40	..	48	..	..
India	2019	41	47	39	78	20	17	..
	2020	38	45	40	72	18	17	..
	2021	39	47	40	79	19	17	..
	2022	43	53	39	77	20	18	..
Indonesia	2019	49	50	42	..	..	1	70
	2020	48	48	43	..	..	1	72
	2021	45	46	35	..	..	7	61
	2022	53	54	43	..	..	12	63
Iran (Islamic Rep. of)	2019	46	49	30	76	23	21	..
	2020	47	51	21	62	28	17	..
	2021	48	54	11	49	27	15	..
	2022	44	48	13	90	27	16	..
Iraq	2019	37	37	32	..	..	18	..
	2020	36	36	26	..	..	18	..
	2021	36	37	21	..	..	18	..
	2022	48	51	17	..	..	17	..
Israel	2019	43	47	..	..	16	16	..
	2020	41	46	..	..	17	18	..
	2021	39	45	..	..	17	17	..
	2022	38	46	..	..	18	14	..
Japan	2019	33	46	20	22	22	11	88
	2020	31	45	20	13	25	11	88
	2021	32	45	20	24	25	11	88
	2022	30	44	20	19	24	11	86
Jordan	2019	45	54	35	..	27	22	..
	2020	36	45	35	..	31	18	..
	2021	36	43	59	..	29	21	..
	2022	37	45	61	..	32	23	..
Kazakhstan	2019	49	54	41	..	28	6	..
	2020	49	55	40	..	24	8	..
	2021	49	53	37	..	30	14	..
	2022	47	52	37	..	24	14	..
Korea, Dem.Ppl's.Rep.	2019	33	43	26	..	..	14	..
	2020	33	38	30	..	..	14	..
	2021	35	32	38	..	..	14	..
	2022	36	33	39	..	..	14	..
Korea, Republic of	2019	49	51	11	72	20	12	43
	2020	47	49	13	79	22	12	52
	2021	48	52	12	78	21	13	58
	2022	47	50	13	82	20	14	41
Kuwait	2019	46	46	..	..	33	25	..
	2020	42	42	..	..	30	47	..
	2021	46	46	..	..	27	42	..
	2022	47	47	..	..	31	45	..
Kyrgyzstan	2019	45	20	50	..	..	..	..
	2020	45	22	51	..	..	..	..
	2021	44	29	47	..	..	..	..
	2022	41	30	43	..	..	..	..
Lao People's Dem. Rep.	2019	44	73	35	..	..	13	..
	2020	46	60	41	..	..	11	..
	2021	44	56	40	..	..	12	..
	2022	47	50	47	..	..	15	..

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	36	29	39	..	46
..	..	..	..	34	33	35	..	49
..	..	..	..	36	27	39	..	45
..	..	..	..	39	34	40	..	48
32	32	24	24	43	52	39	78	16
27	27	30	25	40	50	40	72	15
21	21	30	26	42	54	40	79	15
34	34	33	28	44	58	39	77	17
41	42	46	..	51	52	41	..	70
34	35	46	..	51	51	43	..	71
31	31	42	..	49	50	34	..	60
25	27	..	..	61	62	47	..	61
11	11	..	..	49	53	30	76	22
12	12	..	..	50	55	21	62	22
13	13	..	..	50	58	11	49	20
13	13	..	..	46	51	13	90	20
18	..	..	18	37	37	32	..	..
18	..	..	18	36	36	26	..	..
18	..	..	18	36	37	21	..	..
17	..	..	17	48	51	17	..	..
28	66	..	15	45	46	..	..	21
28	63	..	17	44	45	..	..	26
25	67	..	16	43	44	..	..	34
20	62	..	13	44	45	..	..	31
21	37	95	14	37	47	19	22	16
19	34	86	13	36	47	19	13	17
20	39	88	13	36	46	20	24	16
18	36	89	12	35	45	19	19	15
31	56	..	18	48	54	35	..	25
21	41	..	15	40	45	35	..	25
20	38	..	15	39	44	59	..	28
23	38	..	19	40	45	61	..	29
24	40	..	15	50	54	41	..	9
28	40	..	9	49	55	40	..	12
48	60	34	1	49	52	39	..	23
46	58	31	0	48	51	41	..	21
..	..	..	..	33	43	26	..	14
..	..	..	..	33	38	30	..	14
..	..	..	..	35	32	38	..	14
..	..	..	..	36	33	39	..	14
42	51	..	7	49	52	11	72	15
43	54	..	6	47	48	13	79	16
44	58	..	6	49	52	12	78	16
33	44	..	7	48	50	13	82	16
..	..	..	..	46	46	..	..	27
..	..	..	..	42	42	..	..	44
..	..	..	..	46	46	..	..	38
..	..	..	..	47	47	..	..	41
61	61	..	..	45	19	50	..	..
49	49	..	..	45	22	51	..	..
44	44	..	..	44	29	47	..	..
44	44	..	..	41	30	43	..	..
..	..	..	..	44	73	35	..	13
..	..	..	..	46	60	41	..	11
..	..	..	..	44	56	40	..	12
..	..	..	..	47	50	47	..	15

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Lebanon	2019	72	76	39	..	..	16	..
	2020	60	63	34	..	..	19	..
	2021	45	47	25	..	..	19	..
	2022	26	28	28	..	..	17	..
Malaysia	2019	60	66	48	..	..	19	..
	2020	55	61	50	..	..	16	..
	2021	56	60	57	..	..	13	..
	2022	54	57	57	..	..	14	..
Maldives	2019	23	23	..	..	20	17	..
	2020	21	21	..	..	20	17	..
	2021	33	34	..	..	20	16	..
	2022	32	34	..	..	20	15	..
Mongolia	2019	53	61	31	..	25	8	..
	2020	53	60	31	..	25	7	..
	2021	59	66	51	..	42	7	..
	2022	61	69	25	..	37	10	..
Myanmar	2019	38	43	33	..	..	23	..
	2020	40	49	29	..	..	22	..
	2021	35	37	34	..	..	22	..
	2022	34	36	32	..	..	12	..
Nepal	2019	57	0	61	..	0	20	..
	2020	51	0	54	..	0	22	..
	2021	50	0	52	..	0	28	..
	2022	45	0	47	..	0	6	..
Oman	2019	37	37	..	..	..	22	..
	2020	37	37	..	..	..	13	..
	2021	39	40	..	..	..	11	..
	2022	41	43	..	..	..	2	..
Other Asia	2019	56	62	21	95	19	11	29
	2020	55	64	15	93	23	11	73
	2021	56	65	16	110	23	12	23
	2022	53	64	22	94	26	13	53
Pakistan	2019	39	35	45	79	27	15	..
	2020	40	38	45	72	27	19	..
	2021	39	38	37	68	32	20	..
	2022	36	29	37	95	27	22	..
Philippines	2019	46	51	24	..	28	15	63
	2020	43	47	22	..	26	15	64
	2021	49	54	30	..	34	16	65
	2022	45	49	31	..	28	14	61
Qatar	2019	54	54	..	..	..	..	..
	2020	53	53	..	..	..	..	..
	2021	56	56	..	..	..	..	..
	2022	59	59	..	..	..	..	..
Saudi Arabia	2019	38	38	..	..	20	49	..
	2020	37	37	..	..	21	97	..
	2021	37	37	..	..	12	28	..
	2022	43	43	..	..	45	28	..
Singapore	2019	48	49	..	..	..	17	..
	2020	50	51	..	..	..	17	..
	2021	52	53	..	..	..	17	..
	2022	53	54	..	..	..	22	..
Sri Lanka	2019	42	52	30	..	31	28	..
	2020	40	48	32	..	30	14	..
	2021	40	39	46	..	56	18	..
	2022	35	37	41	..	57	12	..

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
88	93	..	16	65	68	39	..	..
90	95	..	19	46	48	34	..	..
72	82	..	19	32	32	25	..	..
50	76	..	17	11	9	28	..	..
33	46	..	1	62	67	48	..	17
31	43	..	2	57	62	50	..	14
32	43	..	2	57	61	57	..	12
35	47	..	2	55	58	57	..	12
14	14	..	..	33	35	..	..	17
11	11	..	..	30	32	..	..	17
9	9	..	..	56	64	..	..	16
7	7	..	..	58	66	..	..	15
24	..	31	..	54	61	..	..	19
24	..	31	..	54	61	..	..	19
38	..	51	..	60	66	..	..	29
19	..	25	..	62	69	..	..	27
44	49	35	23	31	31	32	..	..
52	62	32	22	25	21	28	..	..
43	47	34	22	25	10	33	..	8
42	46	38	12	23	13	29	..	8
13	..	11	20	63	0	67	..	2
12	..	10	23	57	0	61	..	8
5	..	3	28	64	0	67	..	17
0	..	0	0	56	0	58	..	14
..	..	..	..	37	37	..	..	3
..	..	..	..	37	37	..	..	9
..	..	..	..	39	40	..	..	8
..	..	..	..	41	43	..	..	2
23	28	..	9	75	82	21	95	56
22	27	5	9	76	85	15	93	62
21	27	9	9	81	90	16	110	63
17	22	46	9	82	91	22	94	95
27	27	..	..	39	35	45	79	23
18	18	..	..	41	39	45	72	24
48	48	..	..	39	37	37	68	29
17	17	..	..	36	30	37	95	26
18	18	12	..	47	52	24	..	45
22	22	12	..	44	48	22	..	44
25	26	12	..	50	55	30	..	45
24	24	12	..	46	50	31	..	39
61	61	..	..	14	14	..	..	..
59	59	..	..	20	20	..	..	..
63	63	..	..	12	12	..	..	..
66	66	..	..	20	20	..	..	..
44	44	..	..	36	36	..	..	48
43	43	..	..	34	34	..	..	95
44	44	..	..	34	34	..	..	20
40	40	..	..	44	44	..	..	36
93	93	..	..	46	47	..	..	17
96	96	..	..	47	48	..	..	17
95	95	..	..	50	51	..	..	17
92	92	..	..	51	53	..	..	22
18	5	28	13	47	58	31	..	38
17	4	29	12	45	55	32	..	25
18	2	43	12	47	48	47	..	46
17	2	31	20	41	45	44	..	19

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
State of Palestine	2019	39	49	..	..	..	17	..
	2020	34	47	..	..	..	17	..
	2021	31	49	..	..	..	14	..
	2022	31	48	..	..	..	18	..
Syrian Arab Republic	2019	25	29	6	..	11	20	..
	2020	24	27	6	..	11	20	..
	2021	26	29	6	..	11	20	..
	2022	23	25	6	..	3	19	..
Tajikistan	2019	37	24	38	..	..	..	..
	2020	34	26	35	..	..	..	..
	2021	36	26	37	..	..	..	..
	2022	37	23	38	..	..	..	..
Thailand	2019	48	57	20	..	28	12	49
	2020	44	48	17	..	23	18	42
	2021	41	45	17	..	26	18	42
	2022	45	49	25	..	22	19	38
Timor-Leste	2019	21	21	53	..	..	18	..
	2020	20	20	53	..	..	18	..
	2021	21	21	53	..	..	18	..
	2022	22	22	53	..	..	18	..
Türkiye	2019	38	42	36	..	33	18	61
	2020	37	44	29	..	32	19	64
	2021	38	53	20	..	34	20	66
	2022	36	46	24	..	35	20	67
Turkmenistan	2019	39	39	30	..	..	..	..
	2020	45	45	30	..	..	..	..
	2021	50	50	55	..	..	..	..
	2022	57	57	55	..	..	..	..
United Arab Emirates	2019	48	49	..	..	..	25	..
	2020	43	46	..	..	..	30	..
	2021	46	46	..	83	..	26	..
	2022	47	46	..	85	..	29	..
Uzbekistan	2019	43	46	39	..	33	0	..
	2020	43	48	28	..	33	1	..
	2021	49	52	28	..	18	5	..
	2022	48	50	33	..	0	20	..
Viet Nam	2019	46	53	47	..	9	10	..
	2020	35	45	40	..	21	6	..
	2021	35	41	41	..	9	19	..
	2022	37	41	50	..	22	16	..
Yemen	2019	20	19	..	..	..	22	..
	2020	17	16	..	..	..	22	..
	2021	15	14	..	..	..	22	..
	2022	16	16	..	..	..	22	..
<b>Europe</b>	<b>2019</b>	<b>37</b>	<b>37</b>	<b>32</b>	<b>78</b>	<b>26</b>	<b>12</b>	<b>49</b>
	<b>2020</b>	<b>35</b>	<b>35</b>	<b>34</b>	<b>73</b>	<b>27</b>	<b>12</b>	<b>54</b>
	<b>2021</b>	<b>36</b>	<b>37</b>	<b>35</b>	<b>79</b>	<b>24</b>	<b>11</b>	<b>48</b>
	<b>2022</b>	<b>34</b>	<b>38</b>	<b>30</b>	<b>72</b>	<b>25</b>	<b>11</b>	<b>33</b>
Albania	2019	26	..	27	..	..	18	..
	2020	24	..	25	..	..	18	..
	2021	38	..	41	..	..	5	..
	2022	28	..	31	..	..	9	..
Andorra	2019	25	55	21	..	..	11	..
	2020	33	49	31	..	..	10	..
	2021	23	49	20	..	..	11	..
	2022	21	50	17	..	..	19	..

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
30	57	..	17	41	48	..	..	17
24	42	..	17	39	48	..	..	17
19	41	..	14	37	51	..	..	14
21	41	..	18	36	50	..	..	18
62	62	..	..	21	24	6	..	18
61	61	..	..	20	23	6	..	20
62	62	..	..	22	25	6	..	20
63	63	..	..	18	21	6	..	19
..	..	..	..	37	24	38	..	..
..	..	..	..	34	26	35	..	..
..	..	..	..	36	26	37	..	..
..	..	..	..	37	23	38	..	..
46	49	27	26	49	63	20	..	11
..	..	..	..	44	48	17	..	20
..	..	..	..	41	45	17	..	20
..	..	..	..	45	49	25	..	20
..	..	..	..	21	21	53	..	18
..	..	..	..	20	20	53	..	18
..	..	..	..	21	21	53	..	18
..	..	..	..	22	22	53	..	18
35	41	27	19	38	42	36	..	32
36	45	21	19	37	44	29	..	32
42	54	29	20	38	53	20	..	34
32	40	40	20	37	46	24	..	34
..	..	..	..	39	39	30	..	..
..	..	..	..	45	45	30	..	..
..	..	..	..	50	50	55	..	..
..	..	..	..	57	57	55	..	..
..	..	..	..	48	49	..	..	25
..	..	..	..	43	46	..	..	30
..	..	..	..	46	46	..	83	26
..	..	..	..	47	46	..	85	29
..	..	..	..	43	46	39	..	0
..	..	..	..	43	48	28	..	0
33	33	..	..	49	52	28	..	5
..	..	..	..	48	50	33	..	20
9	9	3	4	50	62	48	..	10
18	19	3	4	36	49	40	..	7
18	19	3	4	36	45	42	..	17
19	20	3	4	38	44	51	..	18
23	24	..	22	19	19	..	..	..
22	22	..	22	16	16	..	..	..
22	22	..	22	14	14	..	..	..
22	22	..	22	15	15	..	..	..
36	45	34	12	37	36	32	78	21
33	44	35	12	35	33	34	73	22
31	46	35	11	37	36	35	79	20
28	42	28	11	35	37	30	72	20
..	..	..	..	26	..	27	..	18
..	..	..	..	24	..	25	..	18
..	..	..	..	39	..	41	..	20
..	..	..	..	30	..	31	..	18
61	61	..	..	21	37	21	..	11
57	57	..	..	30	26	31	..	10
49	49	..	..	20	46	20	..	11
54	54	..	..	18	37	17	..	19

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Austria	2019	33	37	35	..	26	11	2
	2020	31	33	35	..	24	11	2
	2021	29	33	33	..	23	11	6
	2022	28	37	30	..	23	11	7
Belarus	2019	45	46	41	..	18	13	..
	2020	39	44	47	3	20	13	..
	2021	42	40	44	56	17	12	..
	2022	39	37	44	67	17	12	..
Belgium	2019	45	49	10	84	29	10	41
	2020	40	50	11	66	31	10	41
	2021	43	44	11	98	28	10	34
	2022	41	43	13	103	27	11	3
Bosnia and Herzegovina	2019	45	59	31	..	33	16	..
	2020	43	64	24	..	34	15	..
	2021	46	60	34	..	32	15	..
	2022	40	59	24	..	33	13	..
Bulgaria	2019	44	60	11	94	21	15	..
	2020	42	53	11	95	24	15	..
	2021	48	68	17	94	23	13	..
	2022	48	75	13	94	24	14	..
Croatia	2019	31	33	31	..	26	11	105
	2020	33	42	30	..	25	10	107
	2021	36	42	38	..	24	12	102
	2022	33	46	29	..	25	8	83
Czechia	2019	45	44	16	80	24	13	..
	2020	43	41	17	80	24	12	..
	2021	46	46	18	82	20	12	..
	2022	46	46	15	83	22	12	..
Denmark	2019	22	18	27	..	30	10	..
	2020	22	17	27	..	30	10	..
	2021	23	24	26	..	26	8	..
	2022	22	21	26	..	31	7	..
Estonia	2019	32	34	36	..	25	7	..
	2020	25	26	43	..	30	13	..
	2021	34	41	44	..	26	10	..
	2022	40	51	33	..	24	12	..
Faeroe Islands	2019	34	34	31	..	42	..	..
	2020	28	25	32	..	38	7	..
	2021	29	27	30	..	44	8	1
	2022	24	17	38	..	46	7	1
Finland	2019	45	33	45	98	30	8	..
	2020	46	29	57	95	36	8	..
	2021	46	33	57	96	30	8	..
	2022	40	29	49	104	24	7	15
France	2019	48	34	27	72	24	13	57
	2020	44	31	30	66	26	13	44
	2021	45	32	28	71	23	12	21
	2022	36	38	22	55	21	13	6
Germany	2019	30	38	27	90	24	10	18
	2020	28	35	27	91	24	11	34
	2021	28	38	26	97	20	10	30
	2022	26	38	25	94	22	10	28
Gibraltar	2019	50	50	..	..	..	..	11
	2020	49	49	..	..	..	..	11
	2021	51	51	..	..	..	..	11
	2022	48	48	..	..	..	..	3



Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
41	47	14	..	32	33	35	..	21
40	46	12	..	31	27	36	..	19
24	45	11	11	31	28	34	..	22
23	53	7	11	29	31	31	..	23
50	53	40	14	45	46	41	..	16
46	49	46	13	38	43	47	3	17
43	45	42	12	41	40	44	56	15
40	41	42	19	39	36	44	67	12
25	65	..	10	52	45	10	84	29
23	64	..	10	46	46	11	66	31
23	64	..	10	52	38	11	98	28
21	55	..	11	51	39	13	103	26
66	66	..	..	44	59	31	..	30
57	57	..	..	43	64	24	..	29
61	61	..	..	46	60	34	..	27
64	64	..	..	40	59	24	..	24
23	49	..	..	45	61	11	94	18
23	52	..	..	42	54	11	95	19
28	59	..	..	48	69	17	94	17
21	42	..	4	49	77	13	94	17
26	26	25	..	31	34	31	..	25
28	28	28	..	33	44	30	..	24
28	28	28	..	36	44	38	..	23
23	23	12	..	33	49	29	..	22
52	53	36	..	44	43	14	80	14
57	58	40	..	42	39	15	80	14
59	60	43	..	45	44	16	82	13
47	47	37	..	46	46	13	83	14
22	45	..	10	23	16	27	..	30
20	45	..	10	22	15	27	..	30
17	46	..	8	24	22	26	..	26
13	47	..	7	25	19	26	..	31
45	45	..	23	31	34	34	..	20
87	88	..	23	25	25	37	..	23
84	85	..	23	33	40	40	..	17
60	63	..	17	39	51	33	..	17
..	..	..	..	34	34	31	..	42
..	..	..	..	28	25	32	..	37
..	..	..	..	29	27	30	..	43
..	..	..	..	24	17	38	..	45
50	54	42	8	44	27	45	98	30
46	49	61	8	46	23	57	95	36
48	53	68	8	46	26	56	96	30
39	47	59	7	40	23	48	104	24
34	52	35	14	48	30	27	72	21
32	49	35	14	45	27	29	66	22
33	58	33	13	45	26	28	71	19
37	67	29	14	36	32	22	55	17
55	55	32	58	29	36	27	90	18
54	54	27	77	27	33	27	91	18
55	55	32	83	27	36	26	97	15
48	48	33	72	25	37	24	94	16
..	..	..	..	50	50	..	..	11
..	..	..	..	49	49	..	..	11
..	..	..	..	51	51	..	..	11
..	..	..	..	48	48	..	..	3

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Greece	2019	27	35	14	..	23	18	..
	2020	26	36	11	..	26	15	..
	2021	28	39	20	..	26	14	..
	2022	25	34	13	..	26	15	..
Guernsey	2019	14	14	..	..	..	4	..
	2020	2	2	..	..	..	13	..
	2021	2	2	..	..	..	13	..
	2022	3	2	..	..	..	13	..
Hungary	2019	39	29	43	92	26	11	36
	2020	37	29	48	91	23	12	45
	2021	35	28	40	90	23	13	45
	2022	31	27	34	89	21	11	22
Iceland	2019	75	0	73	..	31	..	91
	2020	73	0	71	..	42	..	90
	2021	75	0	75	..	39	..	88
	2022	76	0	76	..	36	..	89
Ireland	2019	32	35	24	..	28	7	..
	2020	33	35	26	..	31	7	..
	2021	33	39	22	..	26	7	..
	2022	34	41	20	..	28	7	..
Isle of Man	2019	36	36	30	..	..	..	..
	2020	34	34	33	..	..	..	..
	2021	22	22	38	..	..	..	..
	2022	36	36	21	..	..	..	..
Italy	2019	29	36	24	..	22	13	72
	2020	28	34	25	..	20	13	70
	2021	28	36	24	..	21	13	70
	2022	27	38	15	..	20	13	70
Jersey	2019	7	7	..	..	..	..	..
	2020	7	7	..	..	..	..	..
	2021	5	5	..	..	..	..	..
	2022	7	7	..	..	..	..	..
Kosovo	2019	51	54	28	..	31	12	..
	2020	53	56	27	..	31	14	..
	2021	54	57	31	..	43	13	..
	2022	52	56	27	..	30	11	..
Latvia	2019	25	38	15	..	23	11	..
	2020	22	26	19	..	26	11	..
	2021	23	27	19	..	21	11	..
	2022	19	19	20	..	26	4	..
Liechtenstein	2019	44	24	85	..	..	19	..
	2020	41	16	83	..	..	19	..
	2021	42	27	84	..	..	19	..
	2022	36	29	64	..	..	21	..
Lithuania	2019	13	8	12	..	32	10	..
	2020	18	15	14	..	33	9	..
	2021	16	14	14	..	23	9	..
	2022	13	11	13	..	18	7	..
Luxembourg	2019	12	42	8	..	24	9	..
	2020	14	52	9	..	26	10	..
	2021	13	54	9	..	26	7	..
	2022	13	41	10	..	22	10	..
Malta	2019	31	36	..	..	7	14	..
	2020	31	37	..	..	7	14	..
	2021	32	38	..	..	7	14	..
	2022	36	46	..	..	7	15	..

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
50	50	..	..	26	34	14	..	21
55	55	..	..	26	34	11	..	21
56	56	..	..	28	38	20	..	20
59	59	..	..	24	32	13	..	20
..	..	..	..	14	14	..	..	4
..	..	..	..	2	2	..	..	13
..	..	..	..	2	2	..	..	13
..	..	..	..	3	2	..	..	13
21	42	..	13	41	28	43	92	15
19	42	..	13	39	28	48	91	14
18	39	..	14	38	28	40	90	15
14	29	..	11	35	27	34	89	13
..	..	..	..	75	0	73	..	91
..	..	..	..	73	0	71	..	90
..	..	..	..	75	0	75	..	87
..	..	..	..	76	0	76	..	89
55	65	..	12	31	33	24	..	28
52	65	..	10	32	33	26	..	31
47	64	..	10	32	37	22	..	26
44	64	..	10	34	40	20	..	28
49	49	..	..	36	36	30	..	..
49	49	..	..	34	34	33	..	..
48	48	..	..	21	21	38	..	..
49	49	..	..	35	35	21	..	..
47	47	53	25	28	35	24	..	18
45	45	59	29	27	33	25	..	17
28	46	37	11	28	34	24	..	20
27	47	27	12	27	36	15	..	19
22	22	..	..	0	0	..	..	..
22	22	..	..	0	0	..	..	..
17	17	..	..	0	0	..	..	..
21	21	..	..	0	0	..	..	..
8	..	..	8	51	54	28	..	26
..	..	..	..	53	56	27	..	27
..	..	..	..	54	57	31	..	34
..	..	..	..	52	56	27	..	28
63	71	15	17	25	37	15	..	22
54	62	16	15	22	25	19	..	26
51	62	14	13	22	26	19	..	21
16	54	15	5	19	18	20	..	22
..	..	..	..	44	24	85	..	19
..	..	..	..	41	16	83	..	19
..	..	..	..	42	27	84	..	19
..	..	..	..	36	29	64	..	21
33	27	..	..	12	4	12	..	29
33	27	..	..	17	14	14	..	27
28	23	..	..	15	12	14	..	19
29	29	..	..	12	8	13	..	14
15	32	28	9	12	48	8	..	24
15	37	26	10	14	59	9	..	26
11	33	26	7	14	64	9	..	26
12	20	53	10	13	55	10	..	22
14	16	..	14	36	36	..	..	..
14	15	..	14	37	37	..	..	..
14	18	..	14	38	38	..	..	..
15	30	..	15	46	46	..	..	..

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Montenegro	2019	39	76	28	..	28	11	..
	2020	37	82	24	..	31	10	..
	2021	41	73	33	..	31	11	..
	2022	36	79	24	..	31	11	..
Netherlands (Kingd. of the)	2019	38	47	23	87	29	9	15
	2020	33	45	14	91	26	9	14
	2021	29	41	27	85	27	9	15
	2022	26	37	15	93	28	10	13
North Macedonia	2019	36	47	20	..	32	11	..
	2020	33	40	21	..	36	9	..
	2021	30	34	24	..	32	13	..
	2022	31	38	22	..	33	7	..
Norway	2019	42	32	44	..	22	1	..
	2020	46	29	48	..	28	8	0
	2021	45	17	48	..	27	7	0
	2022	41	30	43	..	33	6	..
Poland	2019	43	49	13	..	30	5	74
	2020	37	43	14	..	29	6	70
	2021	39	49	15	..	27	6	..
	2022	37	51	14	..	28	8	..
Portugal	2019	28	39	16	..	30	15	84
	2020	28	35	21	..	27	16	85
	2021	27	36	21	..	28	13	70
	2022	24	42	12	..	27	13	76
Republic of Moldova	2019	22	22	46	..	14	7	..
	2020	23	23	33	..	14	11	..
	2021	24	26	48	..	13	10	..
	2022	18	18	29	..	16	10	..
Romania	2019	33	32	27	91	25	15	..
	2020	31	28	27	93	26	14	..
	2021	36	40	30	91	25	14	..
	2022	33	38	25	90	26	13	..
Russian Federation	2019	42	38	43	79	6	11	61
	2020	41	34	46	81	15	16	59
	2021	44	38	47	84	19	15	61
	2022	43	38	44	84	29	16	63
Serbia	2019	54	67	38	..	26	14	..
	2020	54	69	36	..	28	13	..
	2021	55	64	44	..	31	13	..
	2022	49	61	34	..	27	8	..
Slovakia	2019	42	34	21	90	17	11	16
	2020	43	34	22	89	11	13	22
	2021	46	43	21	90	14	13	42
	2022	41	30	18	91	11	13	34
Slovenia	2019	48	40	40	97	21	12	..
	2020	50	39	44	105	22	11	..
	2021	44	34	42	95	19	11	..
	2022	37	29	29	93	20	12	..
Spain	2019	29	29	15	94	25	17	31
	2020	28	26	19	94	24	20	36
	2021	28	27	19	91	25	19	58
	2022	27	33	13	94	24	15	59
Sweden	2019	45	22	45	88	26	10	..
	2020	43	18	50	72	31	10	..
	2021	44	24	51	88	26	10	..
	2022	41	20	49	86	27	20	..

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	39	76	28	..	28
..	..	..	..	37	82	24	..	31
..	..	..	..	41	73	33	..	31
..	..	..	..	36	79	24	..	31
26	44	..	10	44	48	23	87	25
24	45	..	10	38	44	14	91	22
22	46	..	10	34	40	27	85	21
19	38	..	11	31	36	15	93	22
..	..	..	..	36	47	20	..	23
..	..	..	..	33	40	21	..	23
..	..	..	..	30	34	24	..	21
..	..	..	..	31	38	22	..	13
46	49	..	1	42	14	44	..	21
36	37	..	8	46	18	48	..	28
22	18	..	7	45	16	48	..	26
29	34	..	6	42	23	43	..	33
42	60	71	6	43	48	13	..	30
31	62	63	6	38	41	14	..	29
21	55	41	6	43	49	15	..	27
16	48	25	8	45	52	14	..	28
40	49	33	13	26	36	16	..	29
39	48	33	16	26	31	21	..	27
35	45	26	14	26	32	21	..	26
28	43	19	11	24	42	12	..	25
7	6	..	13	27	27	46	..	13
7	5	..	14	28	29	33	..	14
8	6	..	12	31	32	48	..	13
9	5	..	14	22	23	29	..	14
32	38	37	10	33	31	27	91	23
33	41	35	8	31	24	27	93	25
36	45	41	13	36	38	30	91	23
38	55	27	9	32	33	25	90	24
34	34	29	..	43	38	43	79	12
32	32	32	..	42	35	46	81	17
36	36	32	..	44	38	47	84	18
36	36	30	..	44	38	44	84	24
38	38	..	..	54	68	38	..	25
37	37	..	..	55	70	36	..	28
40	40	..	..	55	65	44	..	31
36	36	..	7	50	62	34	..	26
29	38	42	11	44	33	20	90	11
30	37	44	14	45	33	21	89	13
32	41	45	15	48	44	20	90	13
30	38	35	13	43	27	18	91	13
20	67	20	12	52	39	41	97	15
18	68	20	11	55	39	46	105	15
17	62	21	11	49	33	44	95	13
15	59	16	12	42	28	30	93	15
67	71	28	29	26	23	15	94	23
62	66	30	21	26	19	19	94	23
60	68	27	17	26	20	18	91	23
36	49	27	14	26	30	12	94	20
56	57	3	..	44	15	45	88	25
54	54	..	..	42	11	50	72	29
54	54	..	..	43	17	51	88	24
32	28	..	..	42	16	49	86	25

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Switzerland	2019	37	46	30	90	22	10	..
	2020	36	46	30	93	19	10	..
	2021	32	45	29	75	19	9	..
	2022	30	43	23	93	19	9	..
Ukraine	2019	34	23	14	68	29	17	..
	2020	29	21	18	63	27	9	..
	2021	32	21	19	71	29	12	..
	2022	31	24	26	51	19	8	..
United Kingdom	2019	35	40	18	69	31	9	32
	2020	34	37	20	62	35	9	26
	2021	34	40	17	67	29	9	40
	2022	35	39	18	93	32	9	86
Latin America & Carib.	2019	40	39	43	74	37	18	47
	2020	38	36	42	75	36	18	20
	2021	39	40	40	78	37	17	24
	2022	37	35	45	71	37	18	14
Anguilla	2019	45	46	..	..	..	20	..
	2020	40	42	..	..	..	20	..
	2021	44	45	..	..	..	20	..
	2022	47	49	..	..	..	20	..
Antigua and Barbuda	2019	46	50	..	..	..	14	..
	2020	43	48	..	..	..	20	..
	2021	27	30	..	..	..	13	..
	2022	29	31	..	..	..	13	..
Argentina	2019	39	39	37	52	35	21	..
	2020	36	39	24	70	41	20	..
	2021	38	42	20	70	45	24	..
	2022	36	38	25	52	48	31	..
Aruba	2019	38	35	..	..	63	15	..
	2020	35	33	..	..	63	17	..
	2021	37	34	..	..	65	17	..
	2022	37	34	..	..	66	17	..
Bahamas	2019	37	38	..	..	30	12	..
	2020	34	35	..	..	30	13	..
	2021	33	33	..	..	30	10	..
	2022	36	37	..	..	30	9	..
Barbados	2019	40	44	..	..	..	15	..
	2020	37	41	..	..	..	16	..
	2021	37	43	..	..	..	14	..
	2022	37	42	..	..	..	18	..
Belize	2019	30	41	16	..	..	12	..
	2020	38	29	51	..	..	10	..
	2021	31	31	33	..	..	6	..
	2022	39	33	50	..	..	14	..
Bolivia (Plur. State of)	2019	32	28	49	..	30	18	..
	2020	31	27	44	..	27	31	..
	2021	30	27	49	..	11	23	..
	2022	31	28	43	..	38	23	..
Bonaire, St Eustatius, Saba	2019	44	59	..	..	33	15	..
	2020	44	64	..	..	26	13	..
	2021	47	68	..	..	28	17	..
	2022	48	68	..	..	28	17	..
Brazil	2019	42	41	42	93	42	17	..
	2020	40	38	41	81	38	15	..
	2021	39	48	38	84	40	14	..
	2022	37	30	44	84	39	14	..

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
24	53	45	10	40	27	29	90	22
22	53	38	10	40	29	30	93	19
20	52	47	9	36	29	28	75	19
17	52	27	9	34	24	23	93	19
12	12	..	1	35	24	14	68	21
17	17	..	2	30	21	18	63	12
17	17	..	1	33	21	19	71	15
12	12	..	1	32	25	26	51	10
26	40	42	14	38	41	16	69	27
26	39	44	14	37	36	17	62	31
25	39	39	12	37	41	15	67	26
25	38	41	13	38	39	16	93	29
<b>44</b>	<b>47</b>	<b>45</b>	<b>25</b>	<b>40</b>	<b>37</b>	<b>43</b>	<b>74</b>	<b>33</b>
<b>42</b>	<b>47</b>	<b>40</b>	<b>20</b>	<b>37</b>	<b>34</b>	<b>42</b>	<b>75</b>	<b>30</b>
<b>39</b>	<b>46</b>	<b>39</b>	<b>18</b>	<b>39</b>	<b>39</b>	<b>40</b>	<b>78</b>	<b>30</b>
<b>35</b>	<b>40</b>	<b>47</b>	<b>23</b>	<b>37</b>	<b>33</b>	<b>44</b>	<b>71</b>	<b>25</b>
..	..	..	..	45	46	..	..	20
..	..	..	..	40	42	..	..	20
..	..	..	..	44	45	..	..	20
..	..	..	..	47	49	..	..	20
11	11	..	..	46	50	..	..	14
11	11	..	..	43	48	..	..	14
11	11	..	..	28	30	..	..	11
11	11	..	..	29	32	..	..	11
47	47	26	..	38	38	37	52	32
44	44	24	..	36	38	24	70	36
44	44	24	..	37	42	20	70	40
35	36	2	..	36	39	25	52	44
..	..	..	..	38	35	..	..	53
..	..	..	..	35	33	..	..	54
..	..	..	..	37	34	..	..	56
..	..	..	..	37	34	..	..	56
27	27	..	..	38	38	..	..	14
29	29	..	..	35	35	..	..	14
27	27	..	..	34	34	..	..	10
26	26	..	..	37	37	..	..	10
20	20	..	..	41	45	..	..	15
19	19	..	..	37	41	..	..	16
19	19	..	..	37	44	..	..	14
20	20	..	..	38	43	..	..	18
100	100	..	..	14	13	16	..	12
81	81	..	..	29	8	51	..	10
86	86	..	..	20	9	33	..	6
93	93	..	..	29	10	50	..	14
15	15	50	..	33	29	49	..	20
17	17	41	..	32	28	44	..	30
49	49	45	..	29	25	49	..	18
37	37	46	..	31	27	43	..	29
..	..	..	..	44	59	..	..	26
..	..	..	..	44	64	..	..	21
..	..	..	..	47	68	..	..	24
..	..	..	..	48	68	..	..	24
44	46	44	15	41	37	42	93	37
41	47	39	12	39	30	42	81	35
37	48	35	12	40	48	38	84	36
33	46	46	12	39	17	44	84	35

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
British Virgin Islands	2019	38	38	..	..	18	18	..
	2020	36	36	..	..	23	16	..
	2021	37	37	..	..	29	17	..
	2022	37	38	..	..	29	17	..
Cayman Islands	2019	49	49	..	..	..	..	..
	2020	47	47	..	..	..	..	..
	2021	48	48	..	..	..	..	..
	2022	48	48	..	..	..	..	..
Chile	2019	35	35	40	..	28	27	58
	2020	32	31	37	..	28	28	62
	2021	30	32	32	..	28	21	72
	2022	28	29	31	..	27	21	64
Colombia	2019	48	43	52	..	39	10	..
	2020	54	76	47	..	6	10	..
	2021	58	60	59	..	39	8	..
	2022	55	59	56	..	46	10	..
Costa Rica	2019	36	6	38	..	50	15	66
	2020	37	4	41	..	42	12	74
	2021	40	4	44	..	46	13	70
	2022	40	1	46	..	40	13	70
Cuba	2019	36	37	22	..	18	18	..
	2020	33	33	20	..	13	13	..
	2021	30	31	21	..	13	13	..
	2022	29	30	21	..	27	10	..
Curaçao	2019	43	43	..	..	51	24	..
	2020	41	41	..	..	47	24	..
	2021	42	41	..	..	48	24	..
	2022	43	43	..	..	46	24	..
Dominica	2019	37	38	35	..	28	6	..
	2020	37	38	33	..	28	6	..
	2021	38	39	34	..	57	13	..
	2022	41	42	39	..	60	14	..
Dominican Republic	2019	40	43	24	..	48	16	..
	2020	39	43	29	..	33	14	..
	2021	43	47	34	..	38	17	..
	2022	43	49	24	..	32	18	..
Ecuador	2019	46	29	56	..	46	16	..
	2020	44	26	55	..	42	16	..
	2021	45	25	58	..	33	16	..
	2022	46	32	55	..	14	16	..
El Salvador	2019	30	27	30	..	..	13	77
	2020	30	19	41	..	4	22	81
	2021	30	20	36	..	28	23	81
	2022	30	20	45	..	29	23	88
Falkland Is. (Malvinas)	2019	24	22	..	..	30	16	..
	2020	24	24	..	..	25	16	..
	2021	30	32	..	..	26	16	..
	2022	31	32	..	..	27	16	..
Grenada	2019	49	51	..	..	32	13	..
	2020	46	49	..	..	32	13	..
	2021	44	46	..	..	32	14	..
	2022	45	48	..	..	32	14	..
Guatemala	2019	38	43	33	..	23	25	73
	2020	33	25	43	..	34	27	72
	2021	36	33	41	..	35	28	61
	2022	36	25	52	..	34	26	83



Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	38	38	..	..	18
..	..	..	..	36	36	..	..	19
..	..	..	..	37	37	..	..	22
..	..	..	..	37	38	..	..	22
..	..	..	..	49	49	..	..	..
..	..	..	..	47	47	..	..	..
..	..	..	..	48	48	..	..	..
..	..	..	..	48	48	..	..	..
22	22	40	2	37	38	40	..	28
17	17	13	6	35	36	37	..	28
17	16	38	17	32	38	32	..	24
16	16	43	17	29	34	31	..	23
77	81	19	9	46	32	52	..	13
76	81	17	5	52	73	48	..	10
78	83	25	11	56	48	60	..	29
81	86	23	10	53	46	57	..	11
24	30	..	14	37	2	38	..	56
21	27	..	12	38	1	41	..	55
21	27	..	12	40	0	44	..	55
11	9	..	12	41	0	46	..	52
21	21	..	..	37	38	22	..	18
18	18	..	..	34	35	20	..	13
17	17	..	..	32	32	21	..	13
10	10	..	..	33	34	21	..	11
9	9	..	..	54	58	..	..	46
5	5	..	..	52	58	..	..	42
3	3	..	..	54	59	..	..	43
0	0	..	..	56	63	..	..	41
34	34	..	..	39	41	35	..	16
34	34	..	..	39	41	33	..	16
34	34	..	..	41	43	34	..	32
35	35	..	..	45	47	39	..	34
27	28	..	15	44	48	24	..	39
20	21	..	15	42	47	29	..	27
23	23	..	20	46	51	34	..	30
26	25	..	34	45	53	24	..	24
50	43	83	..	45	20	54	..	29
48	42	76	..	43	17	54	..	27
52	45	86	..	44	13	56	..	24
51	45	82	..	45	23	53	..	15
8	1	48	15	36	37	30	..	44
10	1	48	18	37	26	41	..	49
11	1	51	19	36	28	36	..	50
12	1	52	20	36	25	44	..	53
..	..	..	..	24	22	..	..	29
..	..	..	..	24	24	..	..	24
..	..	..	..	30	32	..	..	25
..	..	..	..	31	32	..	..	27
22	96	..	13	50	50	..	..	..
21	89	..	14	48	48	..	..	..
22	89	..	14	46	46	..	..	..
21	86	..	14	47	47	..	..	..
23	23	61	..	41	51	33	..	34
16	15	74	..	36	29	43	..	39
19	19	74	..	39	38	41	..	37
14	14	74	..	41	30	52	..	38

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Guyana	2019	39	39	..	..	50	16	..
	2020	38	39	..	..	50	18	..
	2021	36	37	..	..	50	16	..
	2022	35	36	..	..	50	16	..
Haiti	2019	26	26	26	..	..	15	..
	2020	25	26	21	..	..	15	..
	2021	25	26	20	..	..	15	..
	2022	25	24	27	..	..	15	..
Honduras	2019	42	51	38	..	40	24	87
	2020	38	45	37	..	34	22	90
	2021	41	43	50	..	38	22	90
	2022	40	43	48	..	33	20	87
Jamaica	2019	44	47	61	..	30	18	..
	2020	49	52	53	..	31	25	..
	2021	46	49	55	..	30	26	..
	2022	52	55	45	..	30	42	..
Mexico	2019	41	48	21	74	29	13	44
	2020	37	44	23	75	32	16	13
	2021	41	47	30	79	32	18	15
	2022	34	42	32	77	31	21	12
Montserrat	2019	29	30	..	..	..	14	..
	2020	28	29	..	..	..	21	..
	2021	28	33	..	..	..	4	..
	2022	28	34	..	..	..	2	..
Nicaragua	2019	32	29	16	..	45	18	58
	2020	27	19	42	..	34	18	57
	2021	30	23	43	..	40	19	55
	2022	31	25	47	..	34	18	47
Panama	2019	38	46	33	..	31	19	..
	2020	37	30	47	..	25	19	..
	2021	40	33	54	..	22	16	..
	2022	38	34	51	..	20	19	..
Paraguay	2019	64	46	64	..	..	..	..
	2020	60	44	60	..	..	..	..
	2021	53	45	53	..	..	..	..
	2022	57	30	57	..	..	..	..
Peru	2019	43	29	67	..	51	29	..
	2020	40	25	64	..	51	30	..
	2021	42	28	66	..	51	30	..
	2022	43	33	62	..	41	30	..
Puerto Rico	2019	35	36	5	..	18	17	..
	2020	35	36	6	..	16	18	..
	2021	36	37	5	..	19	19	..
	2022	34	36	5	..	18	17	..
Saint Barthélemy	2019	39	39	..	..	..	20	..
	2020	40	40	..	..	..	11	..
	2021	44	44	..	..	..	11	..
	2022	47	47	..	..	..	13	..
Saint Martin (French Part)	2019	34	34	..	..	..	9	..
	2020	34	35	..	..	..	14	..
	2021	35	36	..	..	..	15	..
	2022	36	37	..	..	..	16	..
Sint Maarten (Dutch part)	2019	35	35	..	..	..	..	..
	2020	30	30	..	..	..	..	..
	2021	33	33	..	..	..	..	..
	2022	33	33	..	..	..	..	..

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
8	8	..	..	43	44	..	..	17
7	7	..	..	43	44	..	..	18
6	6	..	..	40	41	..	..	17
5	5	..	..	39	40	..	..	17
2	2	..	..	36	39	26	..	15
2	2	..	..	35	39	21	..	15
2	2	..	..	35	39	20	..	15
2	2	..	..	34	36	27	..	15
50	55	9	12	40	49	38	..	32
35	39	10	12	39	49	37	..	30
44	49	10	12	41	39	50	..	31
45	49	10	12	39	39	48	..	28
36	39	..	31	50	51	61	..	..
22	18	..	34	68	72	53	..	..
24	20	..	33	63	66	55	..	..
25	19	..	40	72	76	45	..	..
58	80	40	29	39	44	20	74	27
64	91	41	28	34	39	23	75	18
52	69	40	28	39	45	29	79	21
43	46	46	41	32	41	32	77	10
..	..	..	..	29	30	..	..	14
..	..	..	..	28	29	..	..	21
..	..	..	..	28	33	..	..	4
..	..	..	..	28	34	..	..	2
46	46	..	..	30	25	17	..	49
41	41	..	..	25	14	42	..	43
49	49	..	..	27	16	43	..	45
49	49	..	..	28	19	47	..	39
60	67	19	..	35	41	33	..	25
71	78	29	..	33	20	48	..	21
70	72	53	..	36	21	54	..	18
65	68	52	27	35	23	51	..	19
..	..	..	..	64	46	64	..	..
..	..	..	..	60	44	60	..	..
..	..	..	..	53	45	53	..	..
..	..	..	..	57	30	57	..	..
19	16	60	15	46	31	67	..	42
17	13	54	17	42	27	65	..	43
18	14	55	16	45	30	66	..	43
14	11	51	15	46	37	62	..	38
44	44	..	..	35	36	5	..	17
44	44	..	..	35	36	6	..	17
44	44	..	..	36	37	5	..	19
45	45	..	..	34	35	5	..	18
..	..	..	..	39	39	..	..	20
..	..	..	..	40	40	..	..	11
..	..	..	..	44	44	..	..	11
..	..	..	..	47	47	..	..	13
..	..	..	..	34	34	..	..	9
..	..	..	..	34	35	..	..	14
..	..	..	..	35	36	..	..	15
..	..	..	..	36	37	..	..	16
..	..	..	..	35	35	..	..	..
..	..	..	..	30	30	..	..	..
..	..	..	..	33	33	..	..	..
..	..	..	..	33	33	..	..	..

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
St. Kitts-Nevis	2019	40	41	..	..	29	18	..
	2020	37	38	..	..	29	18	..
	2021	36	37	..	..	29	18	..
	2022	37	38	..	..	29	18	..
St. Lucia	2019	50	52	..	..	..	20	..
	2020	46	47	..	..	..	19	..
	2021	48	50	..	..	..	18	..
	2022	50	52	..	..	..	18	..
St. Vincent-Grenadines	2019	35	37	44	..	..	7	..
	2020	31	32	43	..	..	10	..
	2021	29	31	38	..	..	7	..
	2022	30	31	42	..	..	8	..
Suriname	2019	42	33	60	..	..	16	..
	2020	40	39	43	..	..	16	..
	2021	34	24	54	..	..	16	..
	2022	41	34	58	..	..	13	..
Trinidad and Tobago	2019	50	50	..	..	67	18	..
	2020	42	42	..	..	67	13	..
	2021	50	50	..	..	67	15	..
	2022	51	51	..	..	68	17	..
Turks and Caicos Islands	2019	33	33	..	..	..	18	..
	2020	32	32	..	..	..	18	..
	2021	33	33	..	..	..	18	..
	2022	33	33	..	..	..	14	..
United States Virgin Is.	2019	21	22	..	..	31	14	..
	2020	22	23	..	..	0	14	..
	2021	24	24	..	..	0	14	..
	2022	23	24	..	..	0	15	..
Uruguay	2019	37	20	60	..	36	19	..
	2020	32	25	30	..	41	20	..
	2021	37	37	39	..	38	21	..
	2022	34	27	42	..	36	20	..
Venezuela (Bolivar. Rep.)	2019	27	11	47	..	14	8	0
	2020	28	10	51	..	5	8	0
	2021	27	10	45	..	4	8	0
	2022	31	14	50	..	4	8	0
<b>Northern America</b>	<b>2019</b>	<b>45</b>	<b>42</b>	<b>43</b>	<b>97</b>	<b>32</b>	<b>18</b>	<b>67</b>
	<b>2020</b>	<b>43</b>	<b>40</b>	<b>43</b>	<b>96</b>	<b>33</b>	<b>18</b>	<b>68</b>
	<b>2021</b>	<b>43</b>	<b>41</b>	<b>41</b>	<b>96</b>	<b>33</b>	<b>18</b>	<b>67</b>
	<b>2022</b>	<b>43</b>	<b>42</b>	<b>41</b>	<b>96</b>	<b>35</b>	<b>19</b>	<b>67</b>
Bermuda	2019	40	41	..	..	..	6	..
	2020	38	39	..	..	..	6	..
	2021	38	39	..	..	..	6	..
	2022	39	40	..	..	..	6	..
Canada	2019	50	40	53	87	28	13	24
	2020	49	37	54	90	30	13	32
	2021	48	37	53	85	30	13	32
	2022	48	37	54	86	28	13	32
Greenland	2019	32	15	51	..	..	..	..
	2020	35	16	54	..	..	..	..
	2021	35	16	54	..	..	..	..
	2022	37	18	58	..	..	..	..
St. Pierre-Miquelon	2019	23	23	..	..	..	..	..
	2020	22	22	..	..	..	..	..
	2021	22	22	..	..	..	..	..
	2022	22	22	..	..	..	..	..

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
3	3	..	..	42	44	..	..	24
3	3	..	..	39	40	..	..	23
3	3	..	..	38	39	..	..	23
3	3	..	..	39	41	..	..	23
5	..	..	5	51	52	..	..	26
5	..	..	5	46	47	..	..	25
5	..	..	5	49	50	..	..	24
5	..	..	5	51	52	..	..	25
23	..	..	23	35	37	44	..	5
8	..	..	8	32	32	43	..	10
8	..	..	8	30	31	38	..	6
8	..	..	8	30	31	42	..	8
61	62	60	..	20	20	..	..	16
52	68	43	..	26	26	..	..	16
55	56	54	..	12	12	..	..	16
65	82	58	14	17	17	..	..	13
9	9	..	..	51	51	..	..	18
9	9	..	..	43	43	..	..	13
9	9	..	..	52	52	..	..	16
9	9	..	..	53	53	..	..	17
..	..	..	..	33	33	..	..	18
..	..	..	..	32	32	..	..	18
..	..	..	..	33	33	..	..	18
..	..	..	..	33	33	..	..	14
13	..	..	13	22	22	..	..	17
12	..	..	12	23	23	..	..	16
11	..	..	11	24	24	..	..	19
11	..	..	11	24	24	..	..	20
41	46	..	6	37	11	60	..	34
41	46	..	7	31	18	30	..	39
41	47	..	7	37	34	39	..	36
36	42	..	8	34	22	42	..	35
18	18	..	17	28	10	47	..	7
10	10	..	17	29	10	51	..	2
10	10	..	17	27	10	45	..	2
10	10	..	17	32	14	50	..	2
<b>44</b>	<b>64</b>	<b>63</b>	<b>14</b>	<b>45</b>	<b>41</b>	<b>42</b>	<b>97</b>	<b>31</b>
<b>41</b>	<b>62</b>	<b>60</b>	<b>13</b>	<b>43</b>	<b>39</b>	<b>42</b>	<b>96</b>	<b>30</b>
<b>37</b>	<b>60</b>	<b>47</b>	<b>13</b>	<b>43</b>	<b>40</b>	<b>40</b>	<b>96</b>	<b>30</b>
<b>35</b>	<b>61</b>	<b>46</b>	<b>13</b>	<b>44</b>	<b>41</b>	<b>41</b>	<b>96</b>	<b>31</b>
20	33	..	6	41	41	..	..	..
18	27	..	6	39	39	..	..	..
18	27	..	6	40	40	..	..	..
18	27	..	6	40	40	..	..	..
56	60	64	15	49	37	53	87	26
53	59	61	15	49	33	54	90	28
47	57	47	13	48	33	54	85	27
47	60	46	13	48	32	55	86	25
..	..	..	..	35	17	51	..	..
..	..	..	..	38	19	54	..	..
..	..	..	..	38	19	54	..	..
..	..	..	..	41	21	58	..	..
..	..	..	..	23	23	..	..	..
..	..	..	..	22	22	..	..	..
..	..	..	..	22	22	..	..	..
..	..	..	..	22	22	..	..	..

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
United States	2019	44	42	35	98	33	18	68
	2020	42	40	34	97	33	18	69
	2021	42	42	30	97	33	18	69
	2022	43	43	31	97	35	19	68
Oceania	2019	38	47	34	..	26	11	89
	2020	35	45	33	..	24	12	87
	2021	33	42	33	..	27	12	88
	2022	32	40	35	..	28	13	88
American Samoa	2019	43	46	..	..	..	18	..
	2020	44	47	..	..	..	16	..
	2021	42	45	..	..	..	16	..
	2022	42	45	..	..	..	16	..
Australia	2019	36	48	21	..	26	10	..
	2020	33	45	20	..	23	12	..
	2021	31	42	20	..	27	12	..
	2022	30	41	23	..	28	13	..
Cook Islands	2019	28	30	..	..	..	24	..
	2020	24	26	..	..	..	20	..
	2021	24	27	..	..	..	17	..
	2022	27	31	..	..	..	17	..
Fiji	2019	34	29	46	..	2	15	..
	2020	31	25	46	..	1	15	..
	2021	29	22	45	..	0	14	..
	2022	34	27	49	..	0	14	..
French Polynesia	2019	25	25	37	..	4	12	..
	2020	24	23	37	..	4	11	..
	2021	23	23	33	..	4	11	..
	2022	23	20	45	..	4	12	..
Guam	2019	43	45	..	..	21	20	..
	2020	42	44	..	..	21	19	..
	2021	42	45	..	..	21	18	..
	2022	37	43	..	..	21	11	..
Kiribati	2019	37	43	..	..	..	19	..
	2020	37	43	..	..	..	19	..
	2021	37	43	..	..	..	19	..
	2022	37	43	..	..	..	19	..
Marshall Islands	2019	32	33	..	..	..	11	..
	2020	32	33	..	..	..	11	..
	2021	29	30	..	..	..	11	..
	2022	33	34	..	..	..	11	..
Micronesia (Fed. States of)	2019	25	25	20	..	16	18	..
	2020	23	24	20	..	4	14	..
	2021	24	26	16	..	1	14	..
	2022	25	26	20	..	15	14	..
Nauru	2019	29	31	..	..	..	10	..
	2020	24	26	..	..	..	12	..
	2021	27	28	..	..	..	14	..
	2022	27	29	..	..	..	12	..
New Caledonia	2019	37	41	42	..	17	14	4
	2020	35	39	45	..	15	14	3
	2021	30	32	60	..	13	13	3
	2022	31	31	76	..	10	14	3
New Zealand	2019	54	45	54	..	37	13	93
	2020	52	46	51	..	38	13	90
	2021	51	44	51	..	33	12	92
	2022	50	36	53	..	33	12	92

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Total	Autoproducers			Main activity producers				
	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
42	65	49	14	45	41	34	98	31
38	62	49	13	43	39	34	97	30
35	60	46	13	43	41	30	97	30
33	61	46	13	43	42	31	97	32
<b>23</b>	<b>36</b>	<b>25</b>	<b>13</b>	<b>42</b>	<b>50</b>	<b>34</b>	..	<b>24</b>
<b>22</b>	<b>34</b>	<b>44</b>	<b>12</b>	<b>39</b>	<b>47</b>	<b>33</b>	..	<b>22</b>
<b>21</b>	<b>33</b>	<b>44</b>	<b>13</b>	<b>37</b>	<b>44</b>	<b>33</b>	..	<b>24</b>
<b>20</b>	<b>33</b>	<b>30</b>	<b>13</b>	<b>36</b>	<b>42</b>	<b>35</b>	..	<b>24</b>
..	..	..	..	43	46	..	..	18
..	..	..	..	44	47	..	..	16
..	..	..	..	42	45	..	..	16
..	..	..	..	42	45	..	..	16
22	33	..	13	40	51	21	..	18
20	32	..	12	37	48	20	..	18
19	31	..	13	35	45	20	..	20
19	30	..	13	34	43	23	..	20
..	..	..	..	28	30	..	..	24
..	..	..	..	24	26	..	..	20
..	..	..	..	24	27	..	..	17
..	..	..	..	27	31	..	..	17
10	10	..	..	38	37	46	..	6
14	14	..	..	34	29	46	..	5
11	11	..	..	33	27	45	..	5
14	14	..	..	38	33	49	..	5
..	..	..	..	25	25	37	..	12
..	..	..	..	24	23	37	..	11
..	..	..	..	23	23	33	..	11
..	..	..	..	23	20	45	..	12
13	..	..	13	44	45	..	..	23
12	..	..	12	43	44	..	..	23
11	..	..	11	43	45	..	..	23
11	..	..	11	38	43	..	..	11
21	21	..	..	38	46	..	..	19
21	21	..	..	39	46	..	..	19
21	21	..	..	38	46	..	..	19
22	22	..	..	39	46	..	..	19
..	..	..	..	32	33	..	..	11
..	..	..	..	32	33	..	..	11
..	..	..	..	29	30	..	..	11
..	..	..	..	33	34	..	..	11
..	..	..	..	25	25	20	..	17
..	..	..	..	23	24	20	..	12
..	..	..	..	24	26	16	..	11
..	..	..	..	25	26	20	..	15
..	..	..	..	29	31	..	..	10
..	..	..	..	24	26	..	..	12
..	..	..	..	27	28	..	..	14
..	..	..	..	27	29	..	..	12
39	40	..	13	35	43	42	..	15
37	38	..	12	33	39	45	..	15
29	30	..	13	32	35	60	..	13
29	31	..	14	32	33	76	..	13
47	63	15	19	54	43	54	..	71
42	59	15	18	53	44	51	..	70
41	63	15	16	52	42	51	..	65
35	58	14	15	51	33	53	..	64

Table 32

## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Niue	2019	15	18	..	..	..	6	..
	2020	15	18	..	..	..	6	..
	2021	15	18	..	..	..	6	..
	2022	15	19	..	..	..	6	..
Northern Mariana Islands	2019	72	72	..	..	..	..	..
	2020	52	53	..	..	..	17	..
	2021	52	55	..	..	..	11	..
	2022	52	55	..	..	..	11	..
Palau	2019	26	27	..	..	..	18	..
	2020	26	27	..	..	..	18	..
	2021	27	27	..	..	..	18	..
	2022	27	27	..	..	..	18	..
Papua New Guinea	2019	39	39	42	..	..	38	22
	2020	45	47	43	..	..	40	22
	2021	48	51	44	..	..	46	22
	2022	48	54	36	..	..	43	22
Samoa	2019	35	47	40	..	4	15	..
	2020	34	51	33	..	5	14	..
	2021	33	45	44	..	2	12	..
	2022	33	53	28	..	4	12	..
Solomon Islands	2019	35	36	30	..	..	16	..
	2020	35	36	30	..	..	15	..
	2021	35	36	30	..	..	14	..
	2022	32	36	30	..	..	9	..
Tonga	2019	32	41	..	..	2	12	..
	2020	33	41	..	..	20	12	..
	2021	33	43	..	..	20	10	..
	2022	27	46	..	..	14	4	..
Tuvalu	2019	15	27	..	..	..	6	..
	2020	16	31	..	..	..	5	..
	2021	17	32	..	..	..	5	..
	2022	17	32	..	..	..	5	..
Vanuatu	2019	28	28	68	..	21	16	..
	2020	26	26	74	..	19	14	..
	2021	26	26	74	..	15	13	..
	2022	27	28	79	..	10	11	..
Wallis and Futuna Is.	2019	27	27	20	..	..	10	..
	2020	30	31	20	..	..	10	..
	2021	31	32	21	..	..	11	..
	2022	34	34	21	..	..	11	..



## Utilization of installed electricity capacity - by type

Kilowatt-hours per kilowatt divided by 8760

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	15	18	..	..	6
..	..	..	..	15	18	..	..	6
..	..	..	..	15	18	..	..	6
..	..	..	..	15	19	..	..	6
..	..	..	..	72	72	..	..	..
..	..	..	..	52	53	..	..	17
..	..	..	..	52	55	..	..	11
..	..	..	..	52	55	..	..	11
68	68	..	..	24	24	..	..	18
68	68	..	..	24	25	..	..	18
68	68	..	..	25	25	..	..	18
68	68	..	..	25	25	..	..	18
51	60	25	22	28	18	51	..	38
63	73	46	22	29	23	42	..	40
67	78	46	22	31	25	44	..	46
70	84	31	22	29	24	38	..	43
10	..	..	10	35	47	40	..	15
11	..	..	11	34	51	33	..	13
11	..	..	11	33	45	44	..	12
11	..	..	11	33	53	28	..	12
39	39	..	..	35	36	30	..	16
37	37	..	..	35	36	30	..	15
40	40	..	..	34	36	30	..	14
34	34	..	..	32	36	30	..	9
..	..	..	..	32	41	..	..	10
..	..	..	..	33	41	..	..	14
..	..	..	..	33	43	..	..	12
..	..	..	..	27	46	..	..	5
..	..	..	..	15	27	..	..	6
..	..	..	..	16	31	..	..	5
..	..	..	..	17	32	..	..	5
..	..	..	..	17	32	..	..	5
..	..	..	..	28	28	68	..	18
..	..	..	..	26	26	74	..	17
..	..	..	..	26	26	74	..	14
..	..	..	..	27	28	79	..	11
..	..	..	..	27	27	20	..	10
..	..	..	..	30	31	20	..	10
..	..	..	..	31	32	21	..	11
..	..	..	..	34	34	21	..	11

**Table 33**

**Production of electricity - by type**

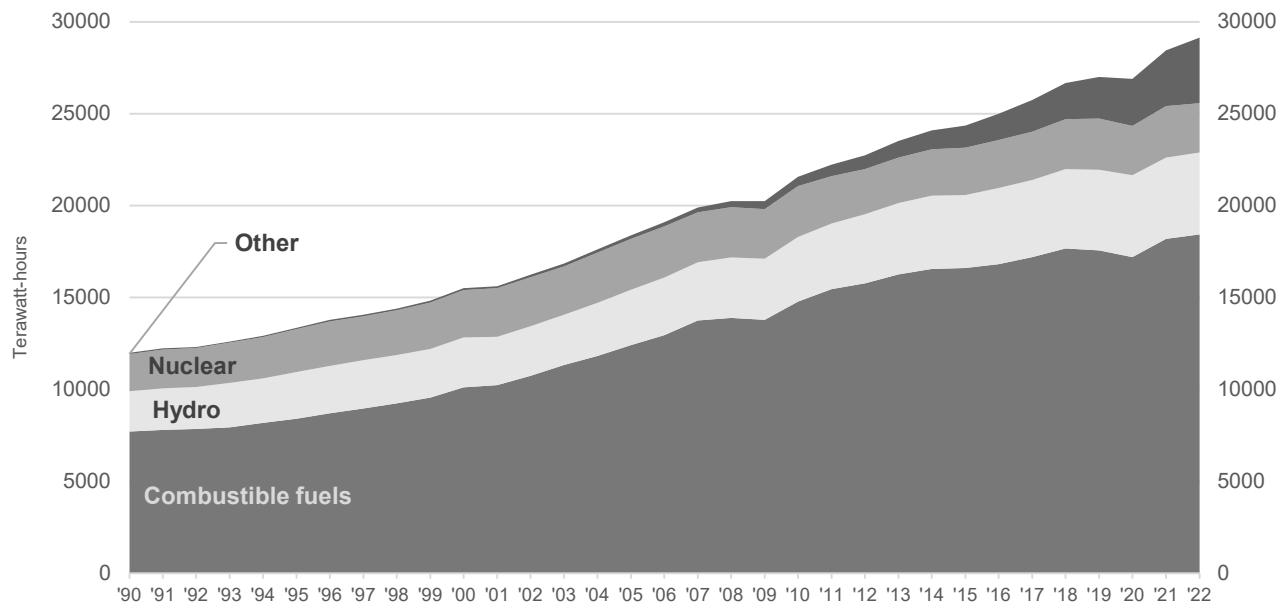
Gigawatt-hours

**Table Notes**

For this table, **Other** under total producers refers to geothermal, tide, wave, marine, electricity from chemical heat, and other non-specified sources. **Other** under autoproducers refers to nuclear (if any), wind, solar, tide, wave, marine, electricity from chemical heat, and other non-specified sources. **Other** under main activity producers refers to wind, solar, tide, wave, marine, electricity from chemical heat, and other non-specified sources.

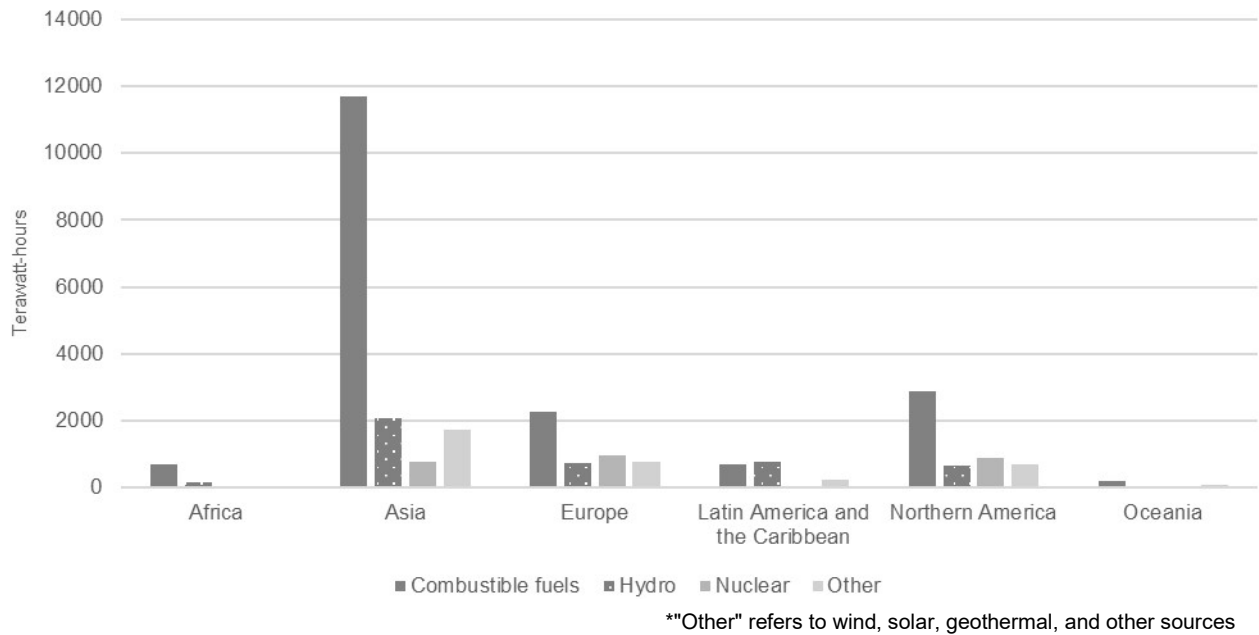
Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 78: World electricity generation by source\*, 1990-2022**

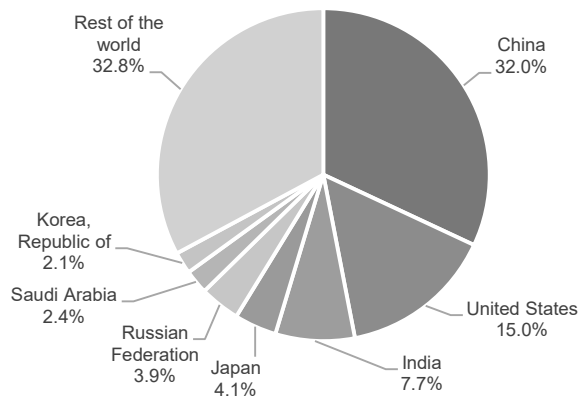


\*\*"Other" refers to wind, solar, geothermal, and other sources

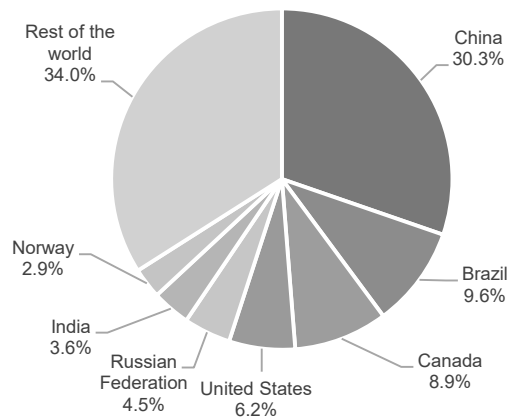
**Figure 79: World production of electricity by source\* and region, 2022**



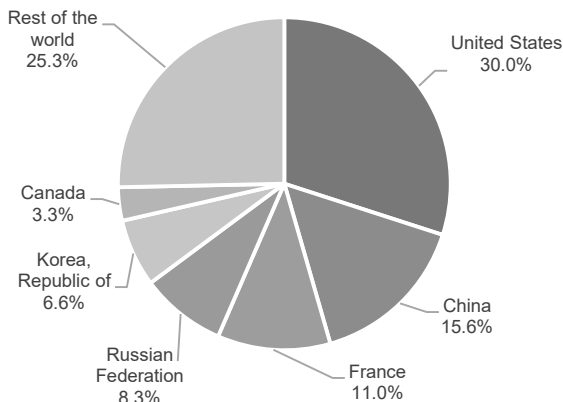
**Figure 80: Major countries producing electricity from combustible fuels, 2022**



**Figure 81: Major countries producing hydro electricity, 2022**



**Figure 82: Major countries producing nuclear electricity, 2022**



**Figure 83: Major countries producing electricity from other sources, 2022**

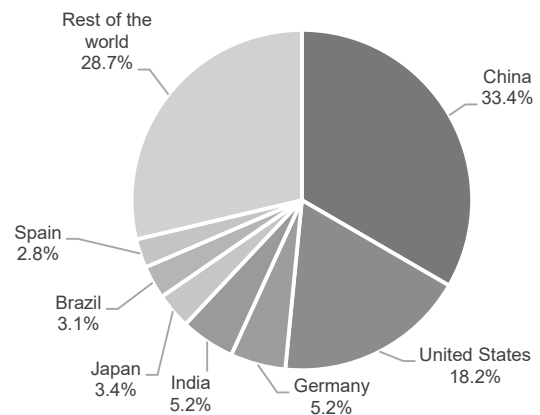


Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
World	2019	26,993,822	17,558,995	4,386,305	2,788,601	1,426,624	693,712	139,584
	2020	26,900,048	17,189,251	4,470,339	2,676,398	1,599,203	836,283	128,574
	2021	28,445,024	18,189,993	4,411,100	2,811,030	1,865,684	1,031,429	135,788
	2022	29,146,341	18,429,982	4,465,964	2,682,374	2,117,469	1,303,371	147,181
Africa	2019	863,430	670,384	144,230	13,252	18,001	10,677	6,885
	2020	851,704	649,093	152,878	9,903	18,553	14,656	6,621
	2021	890,542	673,689	158,461	12,355	22,450	16,988	6,598
	2022	912,310	686,181	167,411	9,803	24,563	17,282	7,070
Algeria	2019	81,531	80,691	152	..	10	678	..
	2020	79,155	78,432	50	..	8	665	..
	2021	85,391	84,729	9	..	11	642	..
	2022	91,231	90,550	16	..	16	649	..
Angola	2019	14,247	3,383	10,826	..	..	38	..
	2020	14,488	1,967	12,478	..	..	43	..
	2021	14,741	3,498	11,203	..	..	39	..
	2022	15,983	3,051	12,318	..	..	*613	..
Benin	2019	529	521	0	..	..	8	..
	2020	989	982	0	..	..	7	..
	2021	1,127	1,110	..	..	..	17	..
	2022	1,002	968	..	..	..	33	..
Botswana	2019	3,277	3,272	..	..	..	5	..
	2020	2,182	2,176	..	..	..	6	..
	2021	2,409	2,403	..	..	..	6	..
	2022	2,550	2,542	..	..	..	8	..
Burkina Faso	2019	*1,576	*1,388	105	..	..	82	..
	2020	*1,442	*1,273	112	..	..	57	..
	2021	1,672	*1,486	128	..	..	58	..
	2022	*1,532	*1,386	82	..	..	64	..
Burundi	2019	269	129	132	..	..	8	..
	2020	276	92	176	..	..	8	..
	2021	262	124	131	..	..	*8	..
	2022	305	125	167	..	..	13	..
Cabo Verde	2019	512	414	..	..	82	16	..
	2020	454	371	..	..	69	14	..
	2021	475	382	..	..	78	15	..
	2022	544	443	..	..	79	*22	..
Cameroon	2019	8,483	3,234	5,229	..	..	20	..
	2020	8,650	3,660	4,945	..	..	45	..
	2021	9,484	3,130	6,309	..	..	46	..
	2022	9,974	2,896	7,033	..	..	46	..
Central African Rep.	2019	142	2	140	..	..	0	..
	2020	141	1	140	..	..	0	..
	2021	141	1	140	..	..	0	..
	2022	142	*1	141	..	..	0	..
Chad	2019	317	308	..	..	9	0	..
	2020	336	326	..	..	9	1	..
	2021	336	326	..	..	9	1	..
	2022	*336	*326	..	..	*9	*1	..
Comoros	2019	*108	*108	..	..	..	..	..
	2020	*130	*130	..	..	..	..	..
	2021	*136	*132	..	..	..	*4	..
	2022	*139	*135	..	..	..	*4	..
Congo	2019	3,655	2,807	847	..	..	1	..
	2020	3,840	2,931	900	..	..	8	..
	2021	4,103	3,105	989	..	..	9	..
	2022	5,013	3,884	1,119	..	..	10	..

Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
2,306,940	2,013,446	76,036	217,459	24,686,882	15,545,550	4,310,270	2,788,601	2,042,461
2,221,171	1,906,800	73,061	241,310	24,678,877	15,282,451	4,397,278	2,676,398	2,322,750
2,319,460	1,960,779	69,551	289,130	26,125,563	16,229,214	4,341,549	2,811,030	2,743,770
2,438,516	1,999,807	70,568	368,140	26,707,825	16,430,175	4,395,396	2,682,374	3,199,880
64,671	50,644	706	13,320	798,759	619,739	143,524	13,252	22,244
65,311	50,351	861	14,099	786,393	598,742	152,017	9,903	25,731
67,920	50,022	931	16,967	822,622	623,667	157,531	12,355	29,069
81,591	62,448	1,104	18,039	830,718	623,733	166,306	9,803	30,876
5,508	5,508	..	..	76,023	75,183	152	..	688
5,317	5,317	..	..	73,838	73,115	50	..	673
5,488	5,488	..	..	79,903	79,241	9	..	653
5,477	5,477	..	..	85,754	85,073	16	..	665
418	418	..	..	13,829	2,965	10,826	..	38
395	395	..	..	14,093	1,572	12,478	..	43
*400	*400	..	..	14,341	3,098	11,203	..	39
*400	*400	..	..	15,583	2,651	12,318	..	*613
163	162	..	1	366	359	0	..	6
166	165	..	1	823	817	0	..	6
195	193	..	1	932	917	..	..	15
215	214	..	2	786	755	..	..	31
..	..	..	..	3,277	3,272	..	..	5
..	..	..	..	2,182	2,176	..	..	6
..	..	..	..	2,409	2,403	..	..	6
..	..	..	..	2,550	2,542	..	..	8
*800	*800	..	..	776	588	105	..	82
*870	*870	..	..	572	403	112	..	57
*800	*800	..	..	872	686	128	..	58
*820	*820	..	..	712	566	82	..	64
5	5	..	..	264	124	132	..	8
6	6	..	..	270	87	176	..	8
*6	*6	..	..	257	118	131	..	*8
17	17	..	..	288	108	167	..	13
*1	*1	..	..	511	413	..	..	98
*1	*1	..	..	453	370	..	..	83
*1	*1	..	..	474	381	..	..	93
*1	*1	..	..	543	442	..	..	100
2,996	2,996	..	..	5,487	238	5,229	..	20
3,478	3,478	..	..	5,173	182	4,945	..	45
2,951	2,951	..	..	6,534	179	6,309	..	46
2,708	2,708	..	..	7,266	188	7,033	..	46
..	..	..	..	142	2	140	..	0
..	..	..	..	141	1	140	..	0
..	..	..	..	141	1	140	..	0
..	..	..	..	142	*1	141	..	0
..	..	..	..	317	308	..	..	9
..	..	..	..	336	326	..	..	10
..	..	..	..	336	326	..	..	10
..	..	..	..	*336	*326	..	..	*10
..	..	..	..	*108	*108	..	..	..
..	..	..	..	*130	*130	..	..	..
..	..	..	..	*136	*132	..	..	*4
..	..	..	..	*139	*135	..	..	*4
2,807	2,807	..	..	848	..	847	..	1
2,931	2,931	..	..	909	..	900	..	8
3,105	3,105	..	..	998	..	989	..	9
3,884	3,884	..	..	1,129	..	1,119	..	10

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Côte d'Ivoire	2019	10,697	7,197	3,481	..	..	18	..
	2020	11,274	7,887	3,376	..	..	11	..
	2021	11,579	8,935	2,626	..	..	18	..
	2022	12,460	9,602	2,846	..	..	13	..
Dem. Rep. of the Congo	2019	11,491	8	11,483	..	..	0	..
	2020	12,460	7	12,453	..	..	0	..
	2021	13,135	3	13,131	..	..	1	..
	2022	13,200	6	13,192	..	..	2	..
Djibouti	2019	126	126	..	..	..	1	..
	2020	102	102	..	..	..	1	..
	2021	196	126	..	..	69	1	..
	2022	*199	*128	..	..	*70	*1	..
Egypt	2019	194,279	175,998	13,121	..	3,689	1,471	..
	2020	197,201	173,500	15,038	..	4,233	4,430	..
	2021	204,637	179,666	14,769	..	5,257	4,945	..
	2022	214,050	188,867	14,646	..	5,784	4,753	..
Equatorial Guinea	2019	*1,912	*1,292	*620	..	..	..	..
	2020	*2,038	*1,418	*620	..	..	..	..
	2021	*1,770	*1,150	*620	..	..	..	..
	2022	*1,750	*1,150	*600	..	..	..	..
Eritrea	2019	362	350	..	..	2	10	..
	2020	372	361	..	..	2	10	..
	2021	383	371	..	..	2	10	..
	2022	400	388	..	..	2	9	..
Eswatini	2019	585	313	270	..	..	2	..
	2020	543	310	233	..	..	0	..
	2021	652	369	270	..	..	13	..
	2022	653	333	295	..	..	25	..
Ethiopia	2019	15,068	35	14,404	..	609	20	..
	2020	15,823	30	14,943	..	818	32	..
	2021	15,503	26	14,882	..	561	34	..
	2022	17,338	2	16,771	..	529	36	..
Gabon	2019	2,859	1,547	1,310	..	..	2	..
	2020	3,053	1,630	1,420	..	..	2	..
	2021	3,034	1,664	1,368	..	..	2	..
	2022	3,300	2,037	1,260	..	..	3	..
Gambia	2019	462	456	..	..	2	4	..
	2020	485	478	..	..	2	4	..
	2021	516	510	..	..	2	4	..
	2022	592	586	..	..	*2	*4	..
Ghana	2019	18,368	11,065	7,252	..	..	52	..
	2020	20,170	12,820	7,293	..	..	57	..
	2021	22,051	14,408	7,521	..	..	122	..
	2022	23,163	14,810	8,192	..	..	162	..
Guinea	2019	2,020	740	1,280	..	..	..	..
	2020	2,420	935	1,484	..	..	..	..
	2021	3,036	401	2,635	..	..	..	..
	2022	3,263	325	2,938	..	..	..	..
Guinea-Bissau	2019	*108	*97	..	..	..	11	..
	2020	*184	*171	..	..	..	13	..
	2021	*202	*188	..	..	..	14	..
	2022	*196	*181	..	..	..	*15	..
Kenya	2019	11,621	1,526	3,205	..	1,563	92	5,235
	2020	11,604	891	4,233	..	1,331	88	5,060
	2021	12,377	1,512	3,675	..	1,985	167	5,037
	2022	12,962	1,849	3,068	..	2,143	384	5,518

Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
65	65	..	..	10,631	7,132	3,481	..	18
72	72	..	..	11,202	7,815	3,376	..	11
137	137	..	..	11,442	8,798	2,626	..	18
146	146	..	..	12,314	9,455	2,846	..	13
..	..	..	..	11,491	8	11,483	..	0
..	..	..	..	12,460	7	12,453	..	0
..	..	..	..	13,135	3	13,131	..	1
..	..	..	..	13,200	6	13,192	..	2
..	..	..	..	126	126	..	..	1
..	..	..	..	102	102	..	..	1
..	..	..	..	196	126	..	..	70
..	..	..	..	*199	*128	..	..	*71
11,554	11,554	..	..	182,725	164,444	13,121	..	5,160
11,408	11,408	..	..	185,793	162,092	15,038	..	8,663
11,188	11,188	..	..	193,449	168,478	14,769	..	10,202
8,890	8,890	..	..	205,160	179,977	14,646	..	10,537
..	..	..	..	*1,912	*1,292	*620	..	..
..	..	..	..	*2,038	*1,418	*620	..	..
..	..	..	..	*1,770	*1,150	*620	..	..
..	..	..	..	*1,750	*1,150	*600	..	..
19	19	..	..	343	331	..	..	12
19	19	..	..	354	342	..	..	12
19	19	..	..	363	352	..	..	12
20	20	..	..	380	368	..	..	11
316	313	*1	2	269	..	269	..	..
316	310	6	0	227	..	227	..	0
380	369	6	6	272	..	264	..	8
344	333	6	5	309	..	289	..	21
30	30	..	..	15,038	5	14,404	..	629
30	30	..	..	15,793	0	14,943	..	850
23	23	..	..	15,479	2	14,882	..	594
..	..	..	..	17,338	2	16,771	..	565
222	214	6	2	2,637	1,333	1,304	..	..
243	236	6	2	2,810	1,395	1,415	..	..
210	202	6	2	2,824	1,462	1,363	..	..
523	517	6	1	2,776	1,520	1,254	..	2
*38	*38	..	..	425	418	..	..	6
*38	*38	..	..	447	440	..	..	6
*38	*38	..	..	478	472	..	..	6
*38	*38	..	..	554	548	..	..	*6
*180	*180	..	..	18,188	10,885	7,252	..	52
..	..	..	..	20,170	12,820	7,293	..	57
..	..	..	..	22,051	14,408	7,521	..	122
..	..	..	..	23,163	14,810	8,192	..	162
..	..	..	..	2,020	740	1,280	..	..
..	..	..	..	2,420	935	1,484	..	..
..	..	..	..	3,036	401	2,635	..	..
..	..	..	..	3,263	325	2,938	..	..
*19	*19	..	..	*89	*78	..	..	11
*19	*19	..	..	*165	*152	..	..	13
*19	*19	..	..	*183	*169	..	..	14
*19	*19	..	..	*177	*162	..	..	*15
212	212	..	..	11,408	1,313	3,205	..	6,890
137	137	..	..	11,467	755	4,233	..	6,480
274	250	24	..	12,103	1,262	3,651	..	7,189
292	264	28	..	12,670	1,585	3,040	..	8,045

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Lesotho	2019	393	1	392	..	..	..	..
	2020	427	1	426	..	..	..	..
	2021	533	1	531	..	..	1	..
	2022	482	1	480	..	..	1	..
Liberia	2019	*418	*290	*124	..	..	*4	..
	2020	*446	*318	*124	..	..	*4	..
	2021	478	*249	223	..	..	*5	..
	2022	468	*236	228	..	..	*5	..
Libya	2019	34,629	34,621	..	..	..	8	..
	2020	29,499	29,491	..	..	..	8	..
	2021	34,786	34,776	..	..	..	9	..
	2022	35,106	35,097	..	..	..	10	..
Madagascar	2019	2,178	1,259	886	..	0	32	..
	2020	2,167	1,317	818	..	0	32	..
	2021	2,245	1,441	767	..	0	36	..
	2022	2,274	1,398	822	..	*1	53	..
Malawi	2019	1,937	*125	1,647	..	..	165	..
	2020	2,191	324	1,867	..	..	0	..
	2021	2,401	167	2,194	..	..	40	..
	2022	2,115	193	1,757	..	..	165	..
Mali	2019	3,535	*2,137	1,365	..	..	33	..
	2020	3,728	*2,191	1,444	..	..	93	..
	2021	*3,969	*2,381	*1,473	..	..	115	..
	2022	*4,209	*2,296	1,787	..	..	125	..
Mauritania	2019	1,477	1,216	..	..	*112	*149	..
	2020	*1,461	*1,178	..	..	138	145	..
	2021	*1,364	*1,080	..	..	*139	*145	..
	2022	1,510	1,277	..	..	114	119	..
Mauritius	2019	3,237	2,994	99	..	15	128	..
	2020	2,883	2,603	116	..	18	146	..
	2021	2,992	2,719	107	..	15	151	..
	2022	3,119	2,821	128	..	16	155	..
Morocco	2019	41,650	32,390	1,654	..	4,723	1,581	1,302
	2020	40,057	31,353	1,290	..	4,592	1,520	1,302
	2021	42,562	33,120	1,213	..	5,107	1,820	1,302
	2022	42,723	33,937	679	..	5,356	1,448	1,302
Mozambique	2019	18,981	4,021	14,930	..	..	31	..
	2020	19,026	3,253	15,703	..	..	70	..
	2021	18,863	3,326	15,468	..	..	69	..
	2022	19,559	3,313	16,173	..	..	72	..
Namibia	2019	1,402	52	954	..	22	375	..
	2020	2,012	65	1,505	..	22	421	..
	2021	1,467	41	968	..	22	437	..
	2022	1,180	20	781	..	23	356	..
Niger	2019	626	593	..	..	..	33	..
	2020	635	610	..	..	..	24	..
	2021	*658	*612	..	..	..	*46	..
	2022	*669	*644	..	..	..	24	..
Nigeria	2019	33,110	24,633	8,433	..	3	41	..
	2020	35,059	27,324	7,690	..	*3	42	..
	2021	36,038	28,046	7,943	..	..	49	..
	2022	37,916	28,611	9,204	..	..	101	..
Rwanda	2019	798	393	387	..	..	18	..
	2020	838	326	494	..	..	18	..
	2021	976	414	545	..	..	18	..
	2022	1,101	529	555	..	..	18	..



Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	393	1	392	..	..
..	..	..	..	427	1	426	..	..
..	..	..	..	533	1	531	..	1
..	..	..	..	482	1	480	..	1
*204	*200	..	*4	*214	*90	*124	..	..
*204	*200	..	*4	*242	*118	*124	..	..
*205	*200	..	*5	273	49	223	..	0
*205	*200	..	*5	263	36	228	..	0
..	..	..	..	34,629	34,621	..	..	8
..	..	..	..	29,499	29,491	..	..	8
..	..	..	..	34,786	34,776	..	..	9
..	..	..	..	35,106	35,097	..	..	10
*285	*285	..	..	1,892	974	886	..	32
*298	*298	..	..	1,869	1,018	818	..	32
*334	*334	..	..	1,911	1,107	767	..	36
*340	*340	..	..	1,934	1,058	822	..	54
*125	*120	*5	..	1,812	*5	1,642	..	165
130	125	*5	..	2,061	199	1,862	..	0
130	125	*5	..	2,271	42	2,189	..	40
130	125	*5	..	1,985	68	1,752	..	165
*1,124	*1,093	..	31	2,411	1,044	1,365	..	2
*1,133	*1,101	..	32	2,595	1,090	1,444	..	61
*1,163	*1,131	..	*32	*2,806	*1,250	*1,473	..	83
*1,348	*1,285	..	63	2,860	*1,011	1,787	..	62
375	362	..	13	1,102	854	..	..	*248
379	368	..	12	*1,081	*810	..	..	271
384	370	..	14	*980	*710	..	..	*270
329	317	..	12	1,181	960	..	..	221
1,755	1,614	..	141	1,482	1,381	99	..	3
1,682	1,521	..	161	1,201	1,082	116	..	3
1,766	1,604	..	162	1,226	1,114	107	..	5
1,445	1,284	..	161	1,674	1,537	128	..	9
1,567	176	..	1,391	40,083	32,214	1,654	..	6,216
1,660	283	..	1,378	38,396	31,070	1,290	..	6,036
1,620	235	..	1,385	40,942	32,885	1,213	..	6,845
1,631	264	..	1,366	41,092	33,673	679	..	6,740
222	222	..	..	18,759	3,799	14,930	..	31
210	210	..	..	18,816	3,043	15,703	..	70
210	210	..	..	18,653	3,116	15,468	..	69
225	225	..	..	19,334	3,089	16,173	..	72
..	..	..	..	1,402	52	954	..	396
..	..	..	..	2,012	65	1,505	..	442
..	..	..	..	1,467	41	968	..	458
..	..	..	..	1,180	20	781	..	379
*91	*58	..	33	535	535	..	..	..
157	145	..	13	477	465	..	..	12
*96	*62	..	*34	*562	*550	..	..	12
*116	*103	..	13	*552	*541	..	..	11
5,599	5,383	172	44	27,511	19,250	8,261	..	..
6,173	5,971	157	45	28,886	21,353	7,533	..	..
6,339	6,129	162	49	29,698	21,917	7,781	..	..
21,619	21,331	187	101	16,297	7,280	9,017	..	..
*2	*2	..	..	796	391	387	..	18
*2	*2	..	..	836	324	494	..	18
*2	*2	..	..	974	412	545	..	18
*2	*2	..	..	1,099	527	555	..	18

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Sao Tome and Principe	2019	110	103	6	..	..	0	..
	2020	*110	*105	5	..	..	0	..
	2021	*106	*101	5	..	..	0	..
	2022	*110	*108	2	..	..	*1	..
Senegal	2019	*4,491	*4,081	..	..	23	329	58
	2020	5,804	5,159	..	..	217	385	43
	2021	6,380	5,392	..	..	400	552	36
	2022	7,550	6,524	..	..	396	594	36
Seychelles	2019	540	531	..	..	5	4	..
	2020	535	523	..	..	6	6	..
	2021	536	517	..	..	5	14	..
	2022	550	527	..	..	7	17	..
Sierra Leone	2019	378	*135	237	..	..	6	..
	2020	422	*180	236	..	..	6	..
	2021	467	*224	237	..	..	6	..
	2022	495	270	216	..	..	*9	..
Somalia	2019	522	505	..	..	6	11	..
	2020	520	490	..	..	6	24	..
	2021	534	491	..	..	6	37	..
	2022	*560	*494	..	..	*6	*60	..
South Africa	2019	252,644	222,168	5,791	13,252	6,624	4,809	..
	2020	239,521	211,067	6,246	9,903	6,611	5,694	..
	2021	244,381	210,233	6,784	12,355	8,356	6,653	..
	2022	234,850	201,891	7,245	9,803	9,689	6,222	..
South Sudan	2019	557	546	..	..	..	11	..
	2020	558	547	..	..	..	11	..
	2021	566	549	..	..	..	17	..
	2022	538	503	..	..	..	35	..
St. Helena and Depend.	2019	12	9	..	..	2	1	..
	2020	11	8	..	..	2	1	..
	2021	11	8	..	..	1	1	..
	2022	10	9	..	..	1	1	..
Sudan	2019	16,814	6,583	10,210	..	..	21	..
	2020	17,642	6,613	11,008	..	..	22	..
	2021	*16,781	*6,693	*10,061	..	..	28	..
	2022	16,771	4,842	11,804	..	..	126	..
Togo	2019	718	476	236	..	..	6	..
	2020	699	547	144	..	..	8	..
	2021	618	482	86	..	..	51	..
	2022	821	651	78	..	..	91	..
Tunisia	2019	22,014	21,038	66	..	500	119	291
	2020	21,449	20,572	46	..	465	150	216
	2021	21,890	20,999	28	..	425	215	223
	2022	21,422	20,552	15	..	322	319	214
Uganda	2019	4,364	300	3,986	..	..	78	..
	2020	4,447	246	4,083	..	..	118	..
	2021	4,769	334	4,334	..	..	101	..
	2022	5,502	438	4,965	..	..	99	..
United Rep. of Tanzania	2019	7,775	5,270	2,477	..	..	27	..
	2020	7,834	4,664	3,139	..	..	31	..
	2021	8,650	5,533	3,086	..	..	31	..
	2022	9,626	6,775	2,821	..	..	31	..
Zambia	2019	15,115	2,669	12,329	..	..	118	..
	2020	15,237	2,294	12,793	..	..	150	..
	2021	17,718	1,498	16,073	..	..	148	..
	2022	19,783	2,551	17,089	..	..	143	..

Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	110	103	6	..	0
..	..	..	..	*110	*105	5	..	0
..	..	..	..	*106	*101	5	..	0
..	..	..	..	*110	*108	2	..	*1
926	869	..	58	*3,564	*3,212	..	..	352
675	631	..	43	5,130	4,528	..	..	602
794	745	..	49	5,586	4,647	..	..	939
840	791	..	49	6,709	5,733	..	..	976
*92	*92	..	..	448	439	..	..	9
*93	*93	..	..	442	430	..	..	12
*93	*93	..	..	443	424	..	..	19
*93	*93	..	..	457	434	..	..	23
4	4	..	..	374	*131	237	..	6
*4	*4	..	..	418	*176	236	..	6
*4	*4	..	..	463	*220	237	..	6
*5	*5	..	..	490	265	216	..	*9
*145	*145	..	..	377	360	..	..	17
*120	*120	..	..	400	370	..	..	30
*110	*110	..	..	424	381	..	..	43
*110	*110	..	..	*450	*384	..	..	*66
24,164	12,971	43	11,150	228,480	209,197	5,748	13,252	283
24,329	12,265	64	12,000	215,192	198,802	6,182	9,903	305
26,731	11,877	98	14,756	217,650	198,356	6,686	12,355	253
26,263	10,462	104	15,697	208,587	191,429	7,141	9,803	214
49	43	..	6	508	503	..	..	5
50	44	..	6	508	503	..	..	5
55	46	..	9	511	503	..	..	8
69	45	..	24	469	458	..	..	11
..	..	..	..	12	9	..	..	3
..	..	..	..	11	8	..	..	3
..	..	..	..	11	8	..	..	2
..	..	..	..	10	9	..	..	2
109	109	..	..	16,705	6,474	10,210	..	21
*108	*108	..	..	17,534	6,505	11,008	..	22
*107	*107	..	..	*16,674	*6,585	*10,061	..	28
107	107	..	..	16,665	4,735	11,804	..	126
12	7	..	5	706	469	236	..	0
10	4	..	7	688	543	144	..	1
8	2	..	6	610	480	86	..	45
8	2	..	6	812	650	78	..	84
1,465	1,055	..	410	20,549	19,983	66	..	500
1,411	1,045	..	366	20,039	19,527	46	..	465
1,500	1,074	..	426	20,391	19,925	28	..	437
1,622	1,119	..	503	19,801	19,433	15	..	353
677	197	480	..	3,687	103	3,506	..	78
812	188	624	..	3,635	58	3,459	..	118
913	282	631	..	3,856	52	3,703	..	101
1,132	363	769	..	4,370	75	4,196	..	99
35	8	..	27	7,739	5,262	2,477	..	..
39	8	..	31	7,795	4,656	3,139	..	..
39	8	..	31	8,612	5,525	3,086	..	..
39	8	..	31	9,587	6,767	2,821	..	..
78	78	..	..	15,037	2,591	12,329	..	118
78	78	..	..	15,159	2,216	12,793	..	150
*83	*83	..	..	17,636	1,415	16,073	..	148
*83	*83	..	..	19,700	2,468	17,089	..	143

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Zimbabwe	2019	8,402	4,236	4,166	..	..	..	..
	2020	6,673	2,843	3,805	..	..	24	..
	2021	8,454	2,508	5,928	..	..	18	..
	2022	9,016	3,103	5,897	..	..	16	..
<b>Asia</b>	<b>2019</b>	<b>14,241,164</b>	<b>10,605,104</b>	<b>2,002,350</b>	<b>655,650</b>	<b>521,416</b>	<b>398,056</b>	<b>58,589</b>
	<b>2020</b>	<b>14,492,608</b>	<b>10,683,488</b>	<b>2,030,034</b>	<b>659,028</b>	<b>585,745</b>	<b>473,781</b>	<b>60,533</b>
	<b>2021</b>	<b>15,552,174</b>	<b>11,344,077</b>	<b>2,006,778</b>	<b>744,709</b>	<b>798,714</b>	<b>592,620</b>	<b>65,276</b>
	<b>2022</b>	<b>16,255,971</b>	<b>11,680,682</b>	<b>2,069,351</b>	<b>774,899</b>	<b>920,235</b>	<b>746,918</b>	<b>63,886</b>
Afghanistan	2019	1,626	183	1,388	..	..	55	..
	2020	1,371	124	1,181	..	..	66	..
	2021	*1,409	*130	*1,215	..	..	*64	..
	2022	*1,414	*130	*1,220	..	..	*64	..
Armenia	2019	7,680	3,047	2,371	2,198	3	61	..
	2020	7,839	3,166	1,778	2,756	2	137	..
	2021	7,879	3,384	2,202	1,998	1	294	..
	2022	9,190	3,879	1,940	2,846	2	524	..
Azerbaijan	2019	26,073	24,359	1,565	..	105	44	..
	2020	25,839	24,627	1,070	..	96	47	..
	2021	27,889	26,464	1,277	..	91	56	..
	2022	29,041	27,300	1,596	..	83	62	..
Bahrain	2019	34,445	34,430	..	..	..	16	..
	2020	34,769	34,752	..	..	..	17	..
	2021	35,444	35,407	..	..	0	36	..
	2022	36,954	36,879	..	..	2	73	..
Bangladesh	2019	85,046	83,925	769	..	6	347	..
	2020	85,500	84,207	875	..	6	413	..
	2021	90,847	90,026	657	..	6	158	..
	2022	94,886	93,811	746	..	6	323	..
Bhutan	2019	8,858	0	8,857	..	1	0	..
	2020	11,371	0	11,370	..	1	0	..
	2021	11,371	0	11,370	..	0	0	..
	2022	10,961	0	10,960	..	0	0	..
Brunei Darussalam	2019	4,933	4,931	..	..	..	2	..
	2020	5,736	5,734	..	..	..	2	..
	2021	5,700	5,695	..	..	..	4	..
	2022	5,602	5,597	..	..	..	5	..
Cambodia	2019	8,995	4,872	4,025	..	..	98	..
	2020	9,092	4,739	4,048	..	..	304	..
	2021	10,208	4,324	5,249	..	..	635	..
	2022	10,643	3,759	6,157	..	..	726	..
China	2019	7,503,458	5,220,150	1,304,440	348,350	406,030	224,460	28
	2020	7,779,060	5,330,250	1,355,210	366,250	466,470	260,857	23
	2021	8,534,273	5,805,870	1,339,000	407,520	656,100	325,760	*23
	2022	8,848,707	5,888,795	1,352,195	417,775	762,672	427,270	..
China, Hong Kong SAR	2019	36,911	36,911	..	..	..	..	..
	2020	35,189	35,189	..	..	..	..	..
	2021	37,071	37,071	..	..	..	..	..
	2022	36,186	36,186	..	..	..	..	..
China, Macao SAR	2019	830	830	..	..	..	0	..
	2020	562	562	..	..	..	0	..
	2021	496	496	..	..	..	0	..
	2022	609	609	..	..	..	0	..
Cyprus	2019	5,141	4,685	..	..	239	218	..
	2020	4,849	4,313	..	..	240	296	..
	2021	5,119	4,405	..	..	246	468	..
	2022	5,268	4,442	..	..	224	602	..

Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
210	210	..	..	8,192	4,026	4,166	..	..
109	109	..	..	6,564	2,734	3,805	..	24
0	0	..	..	8,454	2,508	5,928	..	18
35	35	..	..	8,980	3,068	5,897	..	16
<b>1,297,810</b>	<b>1,185,782</b>	<b>10,631</b>	<b>101,396</b>	<b>12,943,354</b>	<b>9,419,322</b>	<b>1,991,719</b>	<b>655,650</b>	<b>876,664</b>
<b>1,204,458</b>	<b>1,087,623</b>	<b>9,970</b>	<b>106,865</b>	<b>13,288,150</b>	<b>9,595,865</b>	<b>2,020,063</b>	<b>659,028</b>	<b>1,013,194</b>
<b>1,247,023</b>	<b>1,114,230</b>	<b>13,866</b>	<b>118,927</b>	<b>14,305,151</b>	<b>10,229,847</b>	<b>1,992,912</b>	<b>744,709</b>	<b>1,337,683</b>
<b>1,308,727</b>	<b>1,168,014</b>	<b>11,750</b>	<b>128,963</b>	<b>14,947,244</b>	<b>10,512,668</b>	<b>2,057,600</b>	<b>774,899</b>	<b>1,602,077</b>
*340	*6	*300	34	1,286	177	1,088	..	21
*340	*6	*300	34	1,031	118	881	..	32
*335	*6	*295	*34	*1,074	*124	*920	..	*30
*330	*6	*290	*34	*1,084	*124	*930	..	*30
47	..	..	47	7,632	3,047	2,371	2,198	17
115	..	..	115	7,723	3,166	1,778	2,756	23
204	..	..	204	7,675	3,384	2,202	1,998	91
282	..	..	282	8,908	3,879	1,940	2,846	243
2,069	2,069	..	0	24,004	22,290	1,565	..	150
2,158	2,155	3	0	23,681	22,471	1,067	..	143
2,158	2,155	2	*1	25,731	24,309	1,276	..	147
2,164	2,163	1	*1	26,876	25,137	1,595	..	144
15,252	15,236	..	16	19,194	19,194	..	..	..
15,444	15,427	..	17	19,325	19,325	..	..	..
15,574	15,538	..	36	19,870	19,869	..	..	1
16,365	16,298	..	67	20,588	20,581	..	..	7
17,161	17,161	..	..	67,885	66,764	769	..	353
16,517	16,517	..	..	68,983	67,690	875	..	419
18,507	18,507	..	..	72,340	71,519	657	..	164
16,969	16,969	..	..	77,917	76,842	746	..	329
..	..	..	..	8,858	0	8,857	..	2
..	..	..	..	11,371	0	11,370	..	2
..	..	..	..	11,371	0	11,370	..	1
..	..	..	..	10,961	0	10,960	..	1
912	912	..	..	4,021	4,019	..	..	2
1,662	1,662	..	..	4,074	4,073	..	..	2
1,652	1,648	..	4	4,048	4,047	..	..	1
1,594	1,590	..	4	4,008	4,007	..	..	1
..	..	..	..	8,995	4,872	4,025	..	98
..	..	..	..	9,092	4,739	4,048	..	304
..	..	..	..	10,208	4,324	5,249	..	635
..	..	..	..	10,643	3,759	6,157	..	726
423,354	423,354	..	..	7,080,104	4,796,796	1,304,440	348,350	630,518
432,283	432,283	..	..	7,346,777	4,897,967	1,355,210	366,250	727,350
470,856	470,856	..	..	8,063,417	5,335,014	1,339,000	407,520	981,883
477,581	477,581	..	..	8,371,126	5,411,214	1,352,195	417,775	1,189,942
..	..	..	..	36,911	36,911	..	..	..
..	..	..	..	35,189	35,189	..	..	..
..	..	..	..	37,071	37,071	..	..	..
..	..	..	..	36,186	36,186	..	..	..
217	217	..	0	613	613	..	..	..
189	189	..	0	373	373	..	..	..
209	209	..	0	287	287	..	..	..
203	203	..	0	406	406	..	..	..
138	51	..	87	5,003	4,633	..	..	370
150	52	..	98	4,699	4,261	..	..	438
225	53	..	172	4,894	4,352	..	..	542
292	50	..	241	4,976	4,391	..	..	585

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Georgia	2019	11,857	2,840	8,932	..	85	..	..
	2020	11,160	2,821	8,248	..	91	..	..
	2021	12,645	2,380	10,182	..	83	..	..
	2022	14,247	3,388	10,771	..	88	..	..
India	2019	1,576,740	1,253,707	156,049	46,472	*69,949	*50,563	..
	2020	*1,533,307	*1,200,660	*160,909	*43,029	*67,418	*61,291	..
	2021	*1,610,082	*1,247,823	*162,441	*47,112	77,140	*75,566	..
	2022	1,816,815	1,423,001	162,499	45,861	*80,714	*104,740	..
Indonesia	2019	281,248	247,723	20,435	..	..	10	13,080
	2020	276,504	240,582	21,624	..	..	9	14,289
	2021	289,471	252,870	19,580	..	..	120	16,901
	2022	344,244	301,613	25,013	..	..	218	17,400
Iran (Islamic Rep. of)	2019	326,672	287,539	31,087	6,757	616	673	..
	2020	342,427	313,487	22,076	5,527	754	584	..
	2021	355,912	337,927	12,267	4,358	737	622	..
	2022	367,669	345,417	12,619	8,085	813	736	..
Iraq	2019	87,370	82,350	4,963	..	..	57	..
	2020	85,433	81,214	4,162	..	..	57	..
	2021	86,164	82,761	3,346	..	..	57	..
	2022	115,530	112,818	2,651	..	..	61	..
Israel	2019	72,351	68,796	..	..	190	3,115	250
	2020	72,285	67,702	..	..	204	4,163	216
	2021	73,796	68,054	..	..	178	5,351	214
	2022	75,964	69,347	..	..	317	6,084	217
Japan	2019	1,038,532	788,485	87,653	63,779	7,617	69,382	21,615
	2020	1,016,901	782,680	87,548	38,752	8,970	79,087	19,864
	2021	1,049,662	773,669	88,825	70,805	9,412	86,081	20,869
	2022	1,018,606	755,458	86,038	56,070	9,297	92,614	19,129
Jordan	2019	20,995	18,016	18	..	875	2,086	..
	2020	20,952	16,675	18	..	1,407	2,852	..
	2021	21,289	16,168	19	..	1,596	3,507	..
	2022	22,065	16,425	19	..	1,748	3,873	..
Kazakhstan	2019	106,878	95,346	9,994	..	707	831	..
	2020	110,890	98,711	9,660	..	1,029	1,490	..
	2021	115,078	102,493	9,208	..	1,747	1,629	..
	2022	113,461	100,130	9,201	..	2,372	1,758	..
Korea, Dem.Ppl's.Rep.	2019	23,853	12,800	11,000	..	..	53	..
	2020	24,053	11,200	12,800	..	..	53	..
	2021	25,565	9,400	16,100	..	..	65	..
	2022	26,465	9,800	16,600	..	..	65	..
Korea, Republic of	2019	568,414	397,708	6,249	145,910	2,681	12,996	2,870
	2020	574,095	381,567	7,148	160,184	3,151	17,967	4,077
	2021	609,460	412,992	6,737	158,015	3,182	23,395	5,138
	2022	613,888	394,082	7,256	176,054	3,372	28,918	4,205
Kuwait	2019	75,203	75,071	..	..	36	96	..
	2020	74,956	74,743	..	..	33	180	..
	2021	80,757	80,569	..	..	29	159	..
	2022	83,529	83,366	..	..	34	129	..
Kyrgyzstan	2019	15,100	1,256	13,844	..	..	..	..
	2020	15,404	1,425	13,979	..	..	..	..
	2021	14,815	1,858	12,957	..	..	..	..
	2022	13,883	1,954	11,929	..	..	..	..
Lao People's Dem. Rep.	2019	31,133	12,194	18,899	..	..	40	..
	2020	*39,971	*13,665	*26,262	..	..	*45	..
	2021	*44,931	*13,798	*31,072	..	..	61	..
	2022	51,031	12,216	38,736	..	..	79	..

Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	11,857	2,840	8,932	..	85
..	..	..	..	11,160	2,821	8,248	..	91
..	..	..	..	12,645	2,380	10,182	..	83
..	..	..	..	14,247	3,388	10,771	..	88
217,942	210,869	280	*6,793	1,358,798	1,042,838	155,769	46,472	*113,719
*182,041	*173,533	*351	*8,157	*1,351,266	*1,027,127	*160,558	*43,029	*120,552
*136,055	*125,123	*350	*10,582	*1,474,027	*1,122,700	*162,091	*47,112	*142,124
228,726	216,700	400	*11,626	1,588,089	1,206,301	162,099	45,861	*173,828
44,799	44,113	686	..	236,449	203,610	19,749	..	13,089
37,555	36,735	820	..	238,950	203,848	20,804	..	14,298
39,805	37,975	1,830	..	249,666	214,895	17,750	..	17,021
33,491	33,491	..	..	310,753	268,122	25,013	..	17,618
5,879	5,879	..	..	320,793	281,660	31,087	6,757	1,288
6,120	6,120	..	..	336,307	307,367	22,076	5,527	1,338
6,595	6,595	..	..	349,317	331,333	12,267	4,358	1,359
6,772	6,772	..	..	360,897	338,645	12,619	8,085	1,548
57	..	..	57	87,313	82,350	4,963	..	..
57	..	..	57	85,376	81,214	4,162	..	..
57	..	..	57	86,107	82,761	3,346	..	..
61	..	..	61	115,469	112,818	2,651	..	..
6,845	3,796	..	3,049	65,506	65,000	..	..	505
8,072	4,128	..	3,945	64,212	63,574	..	..	638
9,322	4,355	..	4,966	64,475	63,698	..	..	776
9,963	4,076	..	5,886	66,002	65,270	..	..	731
160,233	80,449	3,328	76,456	878,298	708,036	84,325	63,779	22,158
159,038	74,622	2,999	81,417	857,863	708,059	84,549	38,752	26,504
173,192	82,958	3,041	87,194	876,470	690,712	85,784	70,805	29,169
172,656	80,332	3,083	89,241	845,950	675,126	82,955	56,070	31,799
1,940	1,222	..	718	19,056	16,794	18	..	2,244
2,114	907	..	1,207	18,838	15,768	18	..	3,052
2,251	907	..	1,344	19,038	15,261	19	..	3,758
2,558	*907	..	1,651	19,508	15,518	19	..	3,971
1,148	708	..	440	105,730	94,638	9,994	..	1,098
2,261	2,008	..	253	108,629	96,703	9,660	..	2,266
16,248	13,217	3,016	16	98,830	89,276	6,193	..	3,361
15,462	12,719	2,729	13	97,999	87,410	6,472	..	4,117
..	..	..	..	23,853	12,800	11,000	..	53
..	..	..	..	24,053	11,200	12,800	..	53
..	..	..	..	25,565	9,400	16,100	..	65
..	..	..	..	26,465	9,800	16,600	..	65
37,070	35,725	..	1,345	531,344	361,983	6,249	145,910	17,202
39,452	37,944	..	1,507	534,643	343,623	7,148	160,184	23,688
42,203	40,479	..	1,723	567,257	372,512	6,737	158,015	29,992
32,907	30,838	..	2,069	580,981	363,244	7,256	176,054	34,427
..	..	..	..	75,203	75,071	..	..	132
..	..	..	..	74,956	74,743	..	..	213
..	..	..	..	80,757	80,569	..	..	188
..	..	..	..	83,529	83,366	..	..	163
32	32	..	..	15,068	1,224	13,844	..	..
26	26	..	..	15,378	1,399	13,979	..	..
23	23	..	..	14,792	1,835	12,957	..	..
23	23	..	..	13,860	1,931	11,929	..	..
..	..	..	..	31,133	12,194	18,899	..	40
..	..	..	..	*39,971	*13,665	*26,262	..	*45
..	..	..	..	*44,931	*13,798	*31,072	..	61
..	..	..	..	51,031	12,216	38,736	..	79

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						Other
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	
Lebanon	2019	23,869	22,791	965	..	..	112	..
	2020	19,772	18,797	843	..	..	133	..
	2021	15,879	*14,958	612	..	..	309	..
	2022	*11,419	*9,462	695	..	..	1,262	..
Malaysia	2019	178,440	150,783	26,167	..	..	1,490	..
	2020	174,224	144,794	27,295	..	..	2,136	..
	2021	180,070	146,849	31,101	..	..	2,120	..
	2022	187,398	154,005	31,101	..	..	2,292	..
Maldives	2019	830	797	..	..	2	31	..
	2020	745	703	..	..	2	40	..
	2021	1,195	1,151	..	..	3	42	..
	2022	1,227	1,178	..	..	3	46	..
Mongolia	2019	6,900	6,416	*85	..	*340	*59	..
	2020	6,970	6,486	85	..	340	59	..
	2021	7,825	7,061	138	..	568	59	..
	2022	8,035	7,387	68	..	503	78	..
Myanmar	2019	23,778	14,328	9,369	..	..	81	..
	2020	23,643	15,194	8,370	..	..	79	..
	2021	22,075	12,350	9,590	..	..	135	..
	2022	21,539	12,275	9,070	..	..	194	..
Nepal	2019	6,134	0	6,061	..	0	73	..
	2020	6,189	0	6,092	..	1	96	..
	2021	9,668	0	9,534	..	1	133	..
	2022	10,583	0	10,536	..	0	47	..
Oman	2019	37,550	37,534	..	..	..	17	..
	2020	38,449	38,322	..	..	..	128	..
	2021	41,122	40,992	..	..	..	*130	..
	2022	41,374	41,239	..	..	..	*135	..
Other Asia	2019	274,179	227,194	8,753	32,323	1,892	4,016	1
	2020	279,974	233,970	6,178	31,440	2,309	6,075	2
	2021	290,936	246,308	6,653	27,788	2,209	7,969	9
	2022	288,154	241,255	8,899	23,755	3,543	10,677	25
Pakistan	2019	134,818	82,533	38,802	9,861	2,914	708	..
	2020	144,049	90,212	38,936	11,090	2,900	911	..
	2021	144,435	86,550	35,069	17,045	4,800	971	..
	2022	127,875	63,567	35,273	23,857	4,086	1,092	..
Philippines	2019	106,057	85,036	8,043	..	1,042	1,246	10,691
	2020	101,773	81,408	7,209	..	1,026	1,373	10,757
	2021	106,131	84,173	9,202	..	1,270	1,470	10,017
	2022	111,533	88,154	10,102	..	1,030	1,822	10,425
Qatar	2019	49,873	49,873	..	..	..	..	..
	2020	49,259	49,259	..	..	..	..	..
	2021	51,641	51,641	..	..	..	..	..
	2022	54,623	54,623	..	..	..	..	..
Saudi Arabia	2019	367,816	367,341	..	..	6	*469	..
	2020	367,498	366,563	..	..	*6	*929	..
	2021	379,045	377,682	..	..	409	*954	..
	2022	437,654	435,126	..	..	1,588	940	..
Singapore	2019	54,552	54,142	..	..	..	410	..
	2020	53,582	53,080	..	..	..	502	..
	2021	56,524	55,789	..	..	..	735	..
	2022	58,349	57,113	..	..	..	1,236	..
Sri Lanka	2019	16,630	11,102	4,812	..	350	366	..
	2020	15,801	10,260	4,976	..	344	221	..
	2021	17,363	8,923	7,227	..	657	557	..
	2022	16,680	8,459	6,759	..	742	720	..



Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
9,111	8,999	..	112	14,757	13,792	965	..	..
*9,299	*9,167	..	133	10,473	9,630	843	..	..
*8,164	*7,855	..	309	7,715	7,103	612	..	..
*8,599	*7,336	..	1,262	2,821	2,126	695	..	..
7,170	7,084	..	*86	171,270	143,699	26,167	..	1,404
6,758	6,666	..	*92	167,466	138,128	27,295	..	2,044
6,769	6,676	..	*93	173,301	140,173	31,101	..	2,027
7,296	7,197	..	*99	180,102	146,808	31,101	..	2,193
*250	*250	..	..	580	547	..	..	33
*210	*210	..	..	535	493	..	..	43
*160	*160	..	..	1,035	991	..	..	45
*130	*130	..	..	1,097	1,048	..	..	49
*85	..	*85	..	6,815	6,416	..	..	*399
85	..	85	..	6,885	6,486	..	..	399
138	..	138	..	7,687	7,061	..	..	627
68	..	68	..	7,967	7,387	..	..	580
14,415	10,929	3,405	81	9,363	3,399	5,964	..	..
16,421	13,243	3,099	79	7,222	1,951	5,271	..	..
14,859	11,379	3,345	134	7,216	971	6,245	..	1
14,918	11,072	3,652	194	6,621	1,202	5,418	..	1
191	..	121	70	5,942	0	5,939	..	3
222	..	143	79	5,966	0	5,949	..	17
227	..	146	81	9,441	0	9,388	..	53
0	..	0	0	10,583	0	10,536	..	47
..	..	..	..	37,550	37,534	..	..	17
..	..	..	..	38,449	38,322	..	..	128
..	..	..	..	41,122	40,992	..	..	*130
..	..	..	..	41,374	41,239	..	..	*135
42,082	38,319	..	3,763	232,097	188,875	8,753	32,323	2,146
42,351	37,169	0	5,181	237,623	196,801	6,178	31,440	3,204
45,399	39,037	1	6,361	245,537	207,271	6,652	27,788	3,826
40,493	32,069	6	8,418	247,661	209,186	8,893	23,755	5,827
2,434	2,434	..	..	132,384	80,099	38,802	9,861	3,622
1,538	1,538	..	..	142,511	88,674	38,936	11,090	3,811
3,066	3,066	..	..	141,369	83,484	35,069	17,045	5,771
927	927	..	..	126,948	62,640	35,273	23,857	5,178
1,032	1,015	*17	..	105,025	84,021	8,026	..	12,979
1,259	1,242	*17	..	100,513	80,166	7,192	..	13,156
1,447	1,430	*17	..	104,684	82,743	9,185	..	12,756
1,315	1,298	*17	..	110,218	86,856	10,085	..	13,277
47,942	47,942	..	..	1,930	1,930	..	..	..
46,500	46,500	..	..	2,759	2,759	..	..	..
50,005	50,005	..	..	1,637	1,637	..	..	..
51,917	51,917	..	..	2,706	2,706	..	..	..
*129,601	*129,601	..	..	238,215	237,740	..	..	*475
*127,936	*127,936	..	..	239,562	238,627	..	..	*935
*129,546	*129,546	..	..	249,499	248,136	..	..	*1,363
*117,022	*117,022	..	..	320,632	318,104	..	..	2,528
4,497	4,497	..	..	50,055	49,645	..	..	410
4,661	4,661	..	..	48,921	48,419	..	..	502
4,599	4,599	..	..	51,925	51,190	..	..	735
4,432	4,432	..	..	53,917	52,681	..	..	1,236
1,233	118	1,011	105	15,396	10,984	3,801	..	611
1,269	*118	1,047	*105	14,532	10,142	3,929	..	460
1,924	93	1,568	263	15,439	8,830	5,659	..	951
2,010	*100	1,377	534	14,670	8,359	5,383	..	928

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
State of Palestine	2019	811	691	..	..	..	120	..
	2020	840	662	..	..	..	178	..
	2021	917	693	..	..	..	224	..
	2022	1,021	679	..	..	..	342	..
Syrian Arab Republic	2019	22,300	21,541	754	..	1	4	..
	2020	21,000	20,225	754	..	1	20	..
	2021	21,677	20,864	754	..	1	58	..
	2022	20,062	19,205	754	..	1	102	..
Tajikistan	2019	20,676	1,507	19,169	..	..	..	..
	2020	19,734	1,620	18,114	..	..	..	..
	2021	20,624	1,657	18,967	..	..	..	..
	2022	21,399	1,475	19,924	..	..	..	..
Thailand	2019	191,576	176,313	6,446	..	3,670	5,146	1
	2020	189,645	177,227	4,656	..	3,124	4,636	1
	2021	*187,758	*174,966	4,687	..	3,462	4,641	1
	2022	199,382	184,533	6,834	..	2,988	5,026	1
Timor-Leste	2019	518	515	2	..	..	1	..
	2020	505	503	2	..	..	1	..
	2021	510	508	2	..	..	1	..
	2022	*522	*520	*2	..	..	*1	..
Türkiye	2019	303,898	174,041	88,823	..	21,731	9,250	10,053
	2020	306,703	181,526	78,094	..	24,828	10,950	11,304
	2021	334,723	221,312	55,927	..	31,437	13,943	12,105
	2022	328,379	197,261	66,802	..	34,945	16,888	12,483
Turkmenistan	2019	22,500	22,497	3	..	..	..	..
	2020	25,763	25,759	3	..	..	..	..
	2021	28,400	28,394	6	..	..	..	..
	2022	32,600	32,594	6	..	..	..	..
United Arab Emirates	2019	*138,454	*134,674	..	..	..	3,780	..
	2020	*137,310	*131,835	..	..	..	5,475	..
	2021	149,053	133,234	..	10,067	..	5,752	..
	2022	156,120	127,781	..	20,596	..	7,743	..
Uzbekistan	2019	63,021	56,544	6,462	..	16	0	..
	2020	66,516	61,502	4,999	..	16	0	..
	2021	71,414	66,391	4,972	..	1	49	..
	2022	74,268	67,348	6,484	..	0	436	..
Viet Nam	2019	*232,602	*142,200	85,097	..	312	4,993	..
	2020	240,543	156,672	73,461	..	976	9,434	..
	2021	253,498	143,728	78,633	..	3,346	27,791	..
	2022	276,372	143,000	97,894	..	9,064	26,414	..
Yemen	2019	3,041	2,557	..	..	..	484	..
	2020	2,606	2,116	..	..	..	490	..
	2021	2,359	1,869	..	..	..	490	..
	2022	2,544	2,043	..	..	..	502	..
<b>Europe</b>	<b>2019</b>	<b>4,847,797</b>	<b>2,342,187</b>	<b>763,381</b>	<b>1,139,926</b>	<b>440,654</b>	<b>142,608</b>	<b>19,040</b>
	<b>2020</b>	<b>4,695,775</b>	<b>2,143,080</b>	<b>825,930</b>	<b>1,050,101</b>	<b>489,756</b>	<b>168,017</b>	<b>18,892</b>
	<b>2021</b>	<b>4,904,913</b>	<b>2,275,095</b>	<b>839,081</b>	<b>1,112,327</b>	<b>471,526</b>	<b>188,007</b>	<b>18,878</b>
	<b>2022</b>	<b>4,757,241</b>	<b>2,277,078</b>	<b>727,399</b>	<b>973,400</b>	<b>526,221</b>	<b>234,499</b>	<b>18,643</b>
Albania	2019	5,206	..	5,184	..	..	22	..
	2020	5,313	..	5,281	..	..	32	..
	2021	8,963	..	8,922	..	..	41	..
	2022	7,003	..	6,842	..	..	161	..
Andorra	2019	118	32	85	..	..	1	..
	2020	153	29	124	..	..	1	..
	2021	109	29	79	..	..	1	..
	2022	100	29	70	..	..	2	..

Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
160	100	..	60	651	591	..	..	60
163	74	..	89	677	588	..	..	89
183	71	..	112	733	621	..	..	112
242	71	..	171	779	608	..	..	171
5,289	5,289	..	..	17,011	16,252	754	..	5
5,200	5,200	..	..	15,800	15,025	754	..	21
5,269	5,269	..	..	16,408	15,595	754	..	59
5,322	5,322	..	..	14,740	13,883	754	..	103
..	..	..	..	20,676	1,507	19,169	..	..
..	..	..	..	19,734	1,620	18,114	..	..
..	..	..	..	20,624	1,657	18,967	..	..
..	..	..	..	21,399	1,475	19,924	..	..
68,932	64,358	35	4,538	122,644	111,954	6,411	..	4,279
..	..	..	..	189,645	177,227	4,656	..	7,761
..	..	..	..	*187,758	*174,966	4,687	..	8,105
..	..	..	..	199,382	184,533	6,834	..	8,015
..	..	..	..	518	515	2	..	1
..	..	..	..	505	503	2	..	1
..	..	..	..	510	508	2	..	1
..	..	..	..	*522	*520	*2	..	*1
22,934	18,598	1,282	3,053	280,964	155,443	87,540	..	37,980
25,677	20,842	1,026	3,808	281,027	160,684	77,068	..	43,274
30,106	25,321	37	4,748	304,617	195,992	55,889	..	52,736
25,591	18,939	47	6,604	302,789	178,321	66,755	..	57,712
..	..	..	..	22,500	22,497	3	..	..
..	..	..	..	25,763	25,759	3	..	..
..	..	..	..	28,400	28,394	6	..	..
..	..	..	..	32,600	32,594	6	..	..
..	..	..	..	*138,454	*134,674	..	..	3,780
..	..	..	..	*137,310	*131,835	..	..	5,475
..	..	..	..	149,053	133,234	..	10,067	5,752
..	..	..	..	156,120	127,781	..	20,596	7,743
..	..	..	..	63,021	56,544	6,462	..	16
..	..	..	..	66,516	61,502	4,999	..	16
297	297	..	..	71,117	66,094	4,972	..	50
308	308	..	..	73,960	67,040	6,484	..	436
*4,282	*4,200	*80	*2	*228,320	*138,000	85,017	..	5,303
8,596	8,514	*80	*2	231,947	148,158	73,381	..	10,408
8,679	8,597	*80	*2	244,820	135,132	78,553	..	31,135
9,007	8,925	*80	*2	267,365	134,075	97,814	..	35,476
734	250	..	484	2,307	2,307	..	..	..
719	229	..	490	1,888	1,888	..	..	..
717	226	..	490	1,643	1,643	..	..	..
731	230	..	502	1,813	1,813	..	..	..
<b>418,414</b>	<b>365,504</b>	<b>10,403</b>	<b>42,508</b>	<b>4,429,384</b>	<b>1,976,684</b>	<b>752,979</b>	<b>1,139,926</b>	<b>559,795</b>
<b>417,096</b>	<b>356,169</b>	<b>10,974</b>	<b>49,953</b>	<b>4,278,679</b>	<b>1,786,911</b>	<b>814,956</b>	<b>1,050,101</b>	<b>626,711</b>
<b>468,453</b>	<b>389,650</b>	<b>10,668</b>	<b>68,135</b>	<b>4,436,460</b>	<b>1,885,445</b>	<b>828,413</b>	<b>1,112,327</b>	<b>610,276</b>
<b>473,011</b>	<b>372,142</b>	<b>9,544</b>	<b>91,325</b>	<b>4,284,230</b>	<b>1,904,935</b>	<b>717,855</b>	<b>973,400</b>	<b>688,039</b>
..	..	..	..	5,206	..	5,184	..	22
..	..	..	..	5,313	..	5,281	..	32
..	..	..	..	8,963	..	8,922	..	41
..	..	..	..	7,003	..	6,842	..	161
27	27	..	..	91	6	85	..	1
25	25	..	..	128	4	124	..	1
22	22	..	..	87	7	79	..	1
24	24	..	..	77	6	70	..	2

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Austria	2019	74,234	20,865	44,204	..	7,450	1,702	13
	2020	72,558	18,368	45,344	..	6,792	2,043	12
	2021	70,757	18,678	42,540	..	6,740	2,783	16
	2022	69,228	18,955	39,221	..	7,245	3,792	15
Belarus	2019	40,465	39,756	350	..	178	181	..
	2020	38,548	37,441	399	338	194	176	..
	2021	41,240	34,749	371	5,780	168	172	..
	2022	39,400	31,734	371	6,828	180	287	..
Belgium	2019	93,646	34,497	1,181	43,524	9,755	4,253	436
	2020	89,455	35,277	1,315	34,435	12,819	5,112	498
	2021	100,465	30,667	1,350	50,326	11,998	5,618	507
	2022	95,944	30,773	1,646	43,879	12,353	6,876	418
Bosnia and Herzegovina	2019	17,493	11,037	6,172	..	254	30	..
	2020	16,874	11,904	4,663	..	262	45	..
	2021	18,536	11,286	6,796	..	382	72	..
	2022	16,384	11,140	4,739	..	391	114	..
Bulgaria	2019	44,277	21,573	3,383	16,555	1,317	1,417	31
	2020	40,754	17,827	3,320	16,626	1,477	1,469	36
	2021	47,568	23,079	5,067	16,487	1,434	1,467	35
	2022	50,499	26,583	3,833	16,462	1,499	2,094	28
Croatia	2019	12,760	5,185	5,933	..	1,467	83	92
	2020	13,385	5,665	5,810	..	1,721	96	94
	2021	15,210	5,681	7,229	..	2,062	149	90
	2022	14,221	6,284	5,574	..	2,138	152	73
Czechia	2019	87,035	50,474	3,175	30,246	700	2,316	124
	2020	81,525	44,933	3,437	30,043	699	2,294	118
	2021	85,016	47,677	3,620	30,731	602	2,250	136
	2022	84,848	47,346	3,083	31,022	641	2,626	130
Denmark	2019	29,517	12,387	17	..	16,150	963	..
	2020	28,729	11,201	17	..	16,330	1,181	..
	2021	33,051	15,671	16	..	16,054	1,309	..
	2022	35,129	13,884	15	..	19,028	2,203	..
Estonia	2019	7,616	6,836	19	..	687	74	..
	2020	6,078	4,959	30	..	844	245	..
	2021	7,204	6,095	23	..	733	354	..
	2022	8,937	7,650	23	..	668	596	..
Faeroe Islands	2019	386	230	104	..	53	..	..
	2020	407	251	109	..	47	0	..
	2021	424	269	100	..	54	0	0
	2022	434	213	131	..	90	0	0
Finland	2019	68,650	25,923	12,421	23,870	6,025	147	264
	2020	69,268	21,392	15,883	23,291	8,256	218	227
	2021	72,121	23,671	15,792	23,598	8,507	298	255
	2022	72,221	20,693	13,491	25,336	12,022	392	286
France	2019	570,775	62,148	61,572	399,012	34,722	12,165	1,156
	2020	532,255	56,864	67,094	353,833	40,045	13,189	1,229
	2021	555,082	58,149	63,947	379,361	37,119	15,357	1,149
	2022	474,744	70,176	51,049	294,731	38,004	19,628	1,156
Germany	2019	606,917	334,214	25,671	75,071	125,894	44,383	1,684
	2020	575,462	302,330	25,275	64,382	132,102	49,496	1,877
	2021	592,799	332,188	24,972	69,130	114,169	50,472	1,868
	2022	580,266	335,279	23,576	34,709	124,816	60,304	1,582
Gibraltar	2019	220	220	..	..	..	..	0
	2020	215	215	..	..	..	..	0
	2021	223	223	..	..	..	..	0
	2022	211	211	..	..	..	..	0

Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
7,966	7,419	535	13	66,268	13,446	43,669	..	9,152
7,837	7,371	456	10	64,721	10,997	44,888	..	8,836
10,764	7,669	407	2,688	59,993	11,009	42,133	..	6,852
11,044	7,153	269	3,622	58,185	11,803	38,952	..	7,429
4,263	4,160	7	96	36,202	35,596	343	..	263
4,072	3,974	8	90	34,476	33,467	391	338	280
3,782	3,688	7	86	37,458	31,061	364	5,780	254
3,510	3,368	7	134	35,891	28,366	364	6,828	333
13,893	9,159	..	4,734	79,753	25,339	1,181	43,524	9,710
15,119	9,453	..	5,666	74,336	25,824	1,315	34,435	12,763
15,644	9,511	..	6,133	84,822	21,156	1,350	50,326	11,989
16,355	9,067	..	7,288	79,589	21,706	1,646	43,879	12,359
412	412	..	..	17,081	10,625	6,172	..	284
347	347	..	..	16,527	11,557	4,663	..	307
414	414	..	..	18,122	10,872	6,796	..	454
434	434	..	..	15,950	10,706	4,739	..	505
721	690	..	31	43,555	20,883	3,383	16,555	2,734
737	702	..	36	40,017	17,125	3,320	16,626	2,946
926	891	..	35	46,642	22,188	5,067	16,487	2,900
907	793	..	114	49,592	25,790	3,833	16,462	3,506
375	370	6	..	12,385	4,816	5,927	..	1,642
405	399	6	..	12,981	5,266	5,805	..	1,910
346	340	6	..	14,865	5,341	7,223	..	2,300
283	281	2	..	13,937	6,003	5,571	..	2,362
8,737	8,065	575	98	78,298	42,409	2,600	30,246	3,043
9,066	8,333	644	89	72,458	36,600	2,793	30,043	3,023
9,177	8,375	693	110	75,838	39,302	2,927	30,731	2,878
7,337	6,629	602	106	77,511	40,717	2,481	31,022	3,292
3,202	2,239	..	963	26,315	10,148	17	..	16,150
3,419	2,238	..	1,181	25,310	8,963	17	..	16,330
3,564	2,255	..	1,309	29,487	13,416	16	..	16,054
4,469	2,266	..	2,203	30,660	11,618	15	..	19,028
94	91	1	2	7,521	6,745	18	..	759
183	177	4	2	5,896	4,782	26	..	1,087
176	172	2	2	7,029	5,923	21	..	1,085
173	170	..	3	8,764	7,480	23	..	1,261
..	..	..	..	386	230	104	..	53
..	..	..	..	407	251	109	..	47
..	..	..	..	424	269	100	..	54
..	..	..	..	434	213	131	..	90
10,819	9,713	760	346	57,831	16,210	11,661	23,870	6,090
10,079	8,602	1,094	383	59,189	12,790	14,789	23,291	8,319
10,585	9,013	1,084	488	61,536	14,658	14,708	23,598	8,572
9,515	7,994	948	573	62,706	12,699	12,543	25,336	12,127
22,367	17,405	595	4,367	548,408	44,743	60,977	399,012	43,676
21,541	16,137	589	4,815	510,714	40,727	66,505	353,833	49,649
23,687	18,146	561	4,980	531,395	40,002	63,386	379,361	48,646
28,019	21,764	502	5,753	446,726	48,413	50,547	294,731	53,035
53,336	52,318	98	920	553,581	281,896	25,573	75,071	171,041
53,010	51,839	84	1,087	522,452	250,491	25,191	64,382	182,388
54,378	53,236	99	1,043	538,421	278,952	24,873	69,130	165,466
50,396	49,390	100	906	529,870	285,889	23,476	34,709	185,796
..	..	..	..	220	220	..	..	0
..	..	..	..	215	215	..	..	0
..	..	..	..	223	223	..	..	0
..	..	..	..	211	211	..	..	0

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Greece	2019	48,626	32,880	4,051	..	7,266	4,429	..
	2020	48,252	31,055	3,440	..	9,310	4,447	..
	2021	54,744	33,049	5,961	..	10,483	5,251	..
	2022	52,670	30,647	4,000	..	10,883	7,140	..
Guernsey	2019	165	164	..	..	..	0	..
	2020	23	23	..	..	..	0	..
	2021	27	27	..	..	..	0	..
	2022	29	29	..	..	..	0	..
Hungary	2019	34,291	15,429	219	16,288	729	1,497	129
	2020	34,930	15,358	244	16,055	655	2,459	159
	2021	36,120	15,301	212	15,990	664	3,796	157
	2022	35,775	14,365	178	15,812	610	4,732	77
Iceland	2019	19,489	3	13,461	..	7	..	6,018
	2020	19,127	3	13,157	..	7	..	5,961
	2021	19,614	2	13,804	..	6	..	5,802
	2022	20,120	3	14,196	..	6	..	5,916
Ireland	2019	30,956	19,771	1,132	..	10,019	33	..
	2020	32,267	19,440	1,224	..	11,549	53	..
	2021	31,862	20,968	1,036	..	9,778	79	..
	2022	33,856	21,551	948	..	11,208	148	..
Isle of Man	2019	581	578	3	..	..	..	..
	2020	552	548	4	..	..	..	..
	2021	360	356	4	..	..	..	..
	2022	577	575	2	..	..	..	..
Italy	2019	293,853	195,084	48,154	..	20,202	23,689	6,725
	2020	280,531	180,805	49,495	..	18,762	24,942	6,528
	2021	289,074	189,132	47,478	..	20,931	25,039	6,493
	2022	283,961	198,515	30,291	..	20,494	28,121	6,540
Jersey	2019	44	44	..	..	..	..	..
	2020	43	43	..	..	..	..	..
	2021	33	33	..	..	..	..	..
	2022	41	41	..	..	..	..	..
Kosovo	2019	6,348	6,037	210	..	91	11	..
	2020	6,713	6,348	263	..	90	12	..
	2021	6,892	6,453	297	..	126	16	..
	2022	6,998	6,361	260	..	363	14	..
Latvia	2019	6,438	4,174	2,108	..	154	3	..
	2020	5,725	2,940	2,603	..	177	5	..
	2021	5,846	2,990	2,708	..	141	7	..
	2022	4,997	2,016	2,750	..	190	41	..
Liechtenstein	2019	103	2	75	..	..	26	..
	2020	104	1	73	..	..	30	..
	2021	107	2	74	..	..	31	..
	2022	103	3	62	..	..	39	..
Lithuania	2019	3,972	1,210	948	..	1,499	91	223
	2020	5,518	2,550	1,080	..	1,552	129	207
	2021	5,079	2,240	1,094	..	1,362	191	193
	2022	4,783	1,845	1,021	..	1,512	342	63
Luxembourg	2019	1,908	547	949	..	281	130	..
	2020	2,234	628	1,094	..	351	161	..
	2021	2,211	632	1,085	..	314	180	..
	2022	2,238	526	1,124	..	312	276	..
Malta	2019	2,060	1,864	..	..	0	195	..
	2020	2,143	1,906	..	..	0	237	..
	2021	2,215	1,959	..	..	0	256	..
	2022	2,293	2,004	..	..	0	290	..

Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
2,480	2,480	..	..	46,146	30,400	4,051	..	11,695
2,712	2,712	..	..	45,539	28,342	3,440	..	13,757
2,795	2,795	..	..	51,949	30,254	5,961	..	15,734
2,923	2,923	..	..	49,747	27,725	4,000	..	18,023
..	..	..	..	165	164	..	..	0
..	..	..	..	23	23	..	..	0
..	..	..	..	27	27	..	..	0
..	..	..	..	29	29	..	..	0
1,978	1,056	..	922	32,313	14,373	219	16,288	1,433
2,352	1,017	..	1,335	32,578	14,341	244	16,055	1,938
2,850	957	..	1,893	33,270	14,344	212	15,990	2,724
3,199	993	..	2,206	32,576	13,373	178	15,812	3,213
..	..	..	..	19,489	3	13,461	..	6,025
..	..	..	..	19,127	3	13,157	..	5,967
..	..	..	..	19,614	2	13,804	..	5,808
..	..	..	..	20,120	3	14,196	..	5,922
2,169	2,084	..	85	28,786	17,687	1,132	..	9,967
2,194	2,088	..	107	30,073	17,352	1,224	..	11,496
2,204	2,064	..	139	29,658	18,904	1,036	..	9,718
2,264	2,072	..	192	31,591	19,479	948	..	11,164
*33	*33	..	..	548	545	3	..	..
*33	*33	..	..	518	515	4	..	..
*32	*32	..	..	328	324	4	..	..
*33	*33	..	..	544	542	2	..	..
22,340	21,695	492	153	271,513	173,389	47,661	..	50,463
20,335	19,658	465	212	260,196	161,147	49,030	..	50,019
50,206	39,184	331	10,691	238,868	149,948	47,148	..	41,772
53,927	40,904	247	12,776	230,034	157,612	30,044	..	42,379
42	42	..	..	2	2	..	..	..
42	42	..	..	1	1	..	..	..
32	32	..	..	1	1	..	..	..
40	40	..	..	1	1	..	..	..
0	..	..	0	6,348	6,037	210	..	101
..	..	..	..	6,713	6,348	263	..	102
..	..	..	..	6,892	6,453	297	..	142
..	..	..	..	6,998	6,361	260	..	377
187	180	2	5	6,251	3,994	2,106	..	152
182	173	2	7	5,543	2,767	2,601	..	175
168	157	2	9	5,678	2,833	2,706	..	140
175	131	2	42	4,822	1,884	2,748	..	189
..	..	..	..	103	2	75	..	26
..	..	..	..	104	1	73	..	30
..	..	..	..	107	2	74	..	31
..	..	..	..	103	3	62	..	39
821	598	..	223	3,151	612	948	..	1,591
816	609	..	207	4,702	1,941	1,080	..	1,681
697	505	..	193	4,382	1,735	1,094	..	1,553
716	653	..	63	4,067	1,192	1,021	..	1,854
285	150	5	130	1,623	398	944	..	281
309	143	5	161	1,926	485	1,090	..	351
312	128	5	180	1,899	504	1,080	..	314
387	104	7	276	1,851	422	1,116	..	312
202	6	..	195	1,858	1,858	..	..	..
243	6	..	237	1,900	1,900	..	..	..
263	7	..	256	1,952	1,952	..	..	..
297	7	..	290	1,997	1,997	..	..	..

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Montenegro	2019	3,423	1,506	1,621	..	293	2	..
	2020	3,386	1,615	1,448	..	320	2	..
	2021	3,781	1,444	2,010	..	325	3	..
	2022	3,322	1,551	1,444	..	325	3	..
Netherlands (Kingd. of the)	2019	121,411	99,973	74	3,910	11,508	5,399	547
	2020	123,279	94,787	46	4,087	15,278	8,568	512
	2021	122,093	88,305	88	3,828	18,046	11,304	522
	2022	121,810	78,513	50	4,156	21,401	17,079	611
North Macedonia	2019	5,870	4,581	1,164	..	102	23	..
	2020	5,347	3,929	1,277	..	117	24	..
	2021	5,532	3,926	1,452	..	103	51	..
	2022	5,933	4,389	1,345	..	108	92	..
Norway	2019	134,907	3,011	126,030	..	5,525	13	328
	2020	155,196	2,441	142,471	..	9,913	82	289
	2021	157,922	1,292	144,368	..	11,770	109	383
	2022	146,731	1,918	129,366	..	14,810	173	464
Poland	2019	163,989	145,269	2,665	..	15,107	711	237
	2020	158,043	137,254	2,937	..	15,800	1,958	94
	2021	179,631	156,279	3,101	..	16,234	3,934	84
	2022	179,748	148,579	3,018	..	19,780	8,310	61
Portugal	2019	53,154	27,687	10,243	..	13,667	1,342	215
	2020	53,078	25,214	13,633	..	12,299	1,716	217
	2021	50,980	21,894	13,455	..	13,216	2,237	179
	2022	48,808	23,011	8,839	..	13,244	3,519	195
Republic of Moldova	2019	941	830	65	..	43	3	..
	2020	983	881	47	..	51	4	..
	2021	1,131	976	68	..	77	10	..
	2022	995	761	41	..	140	53	..
Romania	2019	59,623	23,787	16,006	11,280	6,773	1,778	..
	2020	55,935	20,088	15,701	11,466	6,945	1,733	..
	2021	59,470	22,162	17,745	11,284	6,576	1,703	..
	2022	56,003	21,569	14,360	11,089	6,997	1,988	..
Russian Federation	2019	1,121,492	713,955	196,510	208,984	331	1,279	433
	2020	1,089,668	655,850	214,388	215,745	1,241	2,022	421
	2021	1,159,417	713,687	216,392	223,372	3,311	2,225	430
	2022	1,151,156	719,871	199,361	223,372	5,547	2,556	449
Serbia	2019	37,600	26,490	10,198	..	898	14	..
	2020	37,956	27,219	9,749	..	976	13	..
	2021	38,236	25,153	11,984	..	1,085	14	..
	2022	35,510	25,271	9,274	..	949	16	..
Slovakia	2019	28,434	7,953	4,571	15,282	6	589	33
	2020	28,838	7,897	4,799	15,444	4	663	31
	2021	30,016	8,999	4,552	15,730	5	671	59
	2022	26,838	6,254	3,963	15,920	4	650	47
Slovenia	2019	16,100	5,287	4,683	5,821	6	303	..
	2020	17,191	5,239	5,225	6,353	6	368	..
	2021	15,877	4,715	4,997	5,706	6	453	..
	2022	13,616	3,958	3,401	5,606	6	646	..
Spain	2019	273,257	117,125	26,874	58,349	55,647	15,103	159
	2020	263,373	93,778	33,998	58,299	56,444	20,667	187
	2021	274,312	95,443	32,847	56,564	62,061	27,098	299
	2022	292,454	112,950	22,102	58,590	62,784	35,723	305
Sweden	2019	168,439	16,390	65,393	66,130	19,847	679	..
	2020	163,833	13,618	72,440	49,198	27,526	1,051	..
	2021	171,798	16,137	73,926	52,965	27,244	1,526	..
	2022	173,159	16,015	69,967	51,944	33,253	1,980	..



Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	3,423	1,506	1,621	..	296
..	..	..	..	3,386	1,615	1,448	..	322
..	..	..	..	3,781	1,444	2,010	..	327
..	..	..	..	3,322	1,551	1,444	..	328
29,060	22,950	..	6,109	92,352	77,022	74	3,910	11,346
34,526	25,722	..	8,805	88,753	69,066	46	4,087	15,554
37,216	26,439	..	10,777	84,878	61,866	88	3,828	19,095
38,105	22,508	..	15,597	83,705	56,005	50	4,156	23,494
..	..	..	..	5,870	4,581	1,164	..	125
..	..	..	..	5,347	3,929	1,277	..	141
..	..	..	..	5,532	3,926	1,452	..	154
..	..	..	..	5,933	4,389	1,345	..	200
2,721	2,380	..	341	132,185	631	126,030	..	5,525
2,177	1,806	..	371	153,018	635	142,471	..	9,913
1,183	692	..	492	156,739	600	144,368	..	11,770
1,962	1,325	..	637	144,769	593	129,366	..	14,810
17,214	16,263	3	948	146,774	129,006	2,662	..	15,107
18,795	16,741	3	2,052	139,247	120,513	2,934	..	15,800
18,997	14,977	2	4,018	160,634	141,302	3,099	..	16,234
22,295	13,922	1	8,371	157,454	134,657	3,017	..	19,780
8,678	7,998	18	662	44,477	19,689	10,225	..	14,563
8,877	7,895	18	965	44,201	17,319	13,615	..	13,267
8,495	7,432	14	1,048	42,485	14,461	13,440	..	14,584
7,675	6,189	10	1,476	41,133	16,822	8,829	..	15,482
79	53	..	26	862	777	65	..	20
70	46	..	24	913	835	47	..	31
109	57	..	52	1,022	919	68	..	35
166	46	..	120	829	715	41	..	73
6,405	5,715	270	421	53,218	18,072	15,736	11,280	8,130
7,287	6,561	269	457	48,648	13,527	15,432	11,466	8,222
8,419	7,260	312	847	51,052	14,902	17,433	11,284	7,432
8,592	7,704	221	667	47,411	13,865	14,139	11,089	8,318
76,525	75,348	1,177	..	1,044,968	638,607	195,334	208,984	2,043
71,098	69,813	1,285	..	1,018,570	586,036	213,104	215,745	3,685
80,596	79,300	1,297	..	1,078,820	634,387	215,095	223,372	5,966
81,174	79,979	1,195	..	1,069,982	639,891	198,167	223,372	8,552
470	470	..	..	37,130	26,020	10,198	..	912
474	474	..	..	37,483	26,745	9,749	..	989
527	527	..	..	37,708	24,626	11,984	..	1,098
481	480	..	1	35,029	24,791	9,274	..	964
3,089	2,556	120	413	25,345	5,397	4,451	15,282	215
3,066	2,462	128	476	25,772	5,435	4,671	15,444	222
3,261	2,630	129	502	26,755	6,369	4,423	15,730	233
3,031	2,463	106	462	23,807	3,791	3,857	15,920	239
769	261	213	295	15,331	5,026	4,470	5,821	14
851	273	218	360	16,340	4,966	5,007	6,353	15
925	256	227	442	14,952	4,459	4,770	5,706	17
1,029	228	170	631	12,586	3,730	3,231	5,606	20
38,316	37,059	897	360	234,941	80,066	25,977	58,349	70,549
35,666	34,190	972	504	227,707	59,588	33,026	58,299	76,794
37,828	35,506	881	1,441	236,484	59,937	31,966	56,564	88,017
30,823	25,635	861	4,327	261,631	87,315	21,241	58,590	94,485
6,964	6,959	5	..	161,475	9,431	65,388	66,130	20,526
6,609	6,609	..	..	157,224	7,009	72,440	49,198	28,577
6,894	6,894	..	..	164,904	9,243	73,926	52,965	28,770
8,019	6,995	..	1,024	165,140	9,020	69,967	51,944	34,209

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Switzerland	2019	73,478	3,775	40,962	26,418	146	2,178	..
	2020	71,654	3,863	41,022	24,025	145	2,599	..
	2021	66,042	3,796	39,895	19,364	145	2,842	..
	2022	65,666	3,670	33,836	24,153	150	3,858	..
Ukraine	2019	154,141	58,201	7,855	83,003	2,020	2,933	129
	2020	148,408	55,258	7,564	76,203	3,271	5,969	144
	2021	157,915	51,835	10,333	86,206	2,833	6,565	144
	2022	113,394	34,349	10,905	62,069	1,813	4,201	57
United Kingdom	2019	323,391	183,202	7,689	56,184	63,835	12,418	63
	2020	310,467	163,845	8,408	50,278	75,380	12,504	52
	2021	307,810	177,796	7,292	45,904	64,663	12,075	79
	2022	324,085	175,020	7,632	47,723	80,257	13,283	169
<b>Latin America &amp; Carib.</b>	<b>2019</b>	<b>1,674,659</b>	<b>755,267</b>	<b>739,799</b>	<b>35,246</b>	<b>95,444</b>	<b>25,847</b>	<b>23,055</b>
	<b>2020</b>	<b>1,625,477</b>	<b>714,914</b>	<b>724,775</b>	<b>36,022</b>	<b>104,810</b>	<b>34,879</b>	<b>10,077</b>
	<b>2021</b>	<b>1,754,627</b>	<b>822,222</b>	<b>706,675</b>	<b>37,458</b>	<b>126,947</b>	<b>49,058</b>	<b>12,267</b>
	<b>2022</b>	<b>1,744,220</b>	<b>692,201</b>	<b>779,050</b>	<b>33,364</b>	<b>138,297</b>	<b>76,426</b>	<b>24,881</b>
Anguilla	2019	100	97	..	..	..	3	..
	2020	90	88	..	..	..	3	..
	2021	98	95	..	..	..	3	..
	2022	106	103	..	..	..	*3	..
Antigua and Barbuda	2019	358	345	..	..	..	13	..
	2020	347	330	..	..	..	16	..
	2021	351	334	..	..	..	*17	..
	2022	*368	*351	..	..	..	*17	..
Argentina	2019	145,990	95,389	36,878	7,927	4,996	800	..
	2020	144,924	99,199	24,262	10,707	9,412	1,345	..
	2021	153,779	107,628	20,186	10,831	12,938	2,196	..
	2022	146,315	97,688	23,580	7,955	14,164	2,928	..
Aruba	2019	*973	*798	..	..	*165	*10	..
	2020	*912	*736	..	..	*165	*11	..
	2021	*955	*772	..	..	*172	*11	..
	2022	*964	*779	..	..	*174	*11	..
Bahamas	2019	1,897	1,892	..	..	1	4	..
	2020	1,798	1,793	..	..	1	5	..
	2021	1,968	1,960	..	..	1	8	..
	2022	2,175	2,167	..	..	*1	*8	..
Barbados	2019	1,083	1,031	..	..	..	52	..
	2020	1,016	947	..	..	..	69	..
	2021	1,025	940	..	..	..	85	..
	2022	1,068	959	..	..	..	108	..
Belize	2019	364	289	75	..	..	1	..
	2020	433	191	242	..	..	1	..
	2021	365	205	158	..	..	3	..
	2022	466	222	239	..	..	5	..
Bolivia (Plur. State of)	2019	10,259	6,749	3,251	..	70	188	..
	2020	9,978	6,640	2,942	..	64	332	..
	2021	10,879	7,172	3,237	..	120	351	..
	2022	11,408	7,767	2,852	..	439	351	..
Bonaire, St Eustatius, Saba	2019	145	104	..	..	33	*9	..
	2020	145	112	..	..	25	*8	..
	2021	156	119	..	..	*28	*10	..
	2022	*163	*126	..	..	*27	*10	..
Brazil	2019	626,329	149,682	397,877	16,129	55,986	6,655	..
	2020	621,198	143,017	396,328	14,053	57,050	10,750	..
	2021	656,109	189,301	362,818	14,705	72,286	16,752	247
	2022	677,372	123,467	427,114	14,559	81,632	30,126	474

Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
8,218	3,158	2,883	2,178	65,260	617	38,079	26,418	146
8,640	3,187	2,854	2,599	63,014	676	38,168	24,025	145
8,849	3,078	2,929	2,842	57,192	718	36,966	19,364	145
9,435	3,030	2,547	3,858	56,231	640	31,289	24,153	150
2,262	2,124	..	138	151,880	56,077	7,855	83,003	4,944
3,328	3,161	..	167	145,080	52,097	7,564	76,203	9,217
3,407	3,238	..	169	154,508	48,597	10,333	86,206	9,372
2,414	2,341	..	74	110,979	32,008	10,905	62,069	5,998
60,894	41,818	1,743	17,333	262,497	141,384	5,946	56,184	58,983
60,573	41,151	1,871	17,551	249,894	122,694	6,537	50,278	70,385
58,726	41,771	1,682	15,272	249,084	136,024	5,610	45,904	61,545
61,383	42,106	1,746	17,531	262,702	132,914	5,886	47,723	76,179
<b>222,248</b>	<b>182,871</b>	<b>23,968</b>	<b>15,409</b>	<b>1,452,412</b>	<b>572,397</b>	<b>715,832</b>	<b>35,246</b>	<b>128,937</b>
<b>227,451</b>	<b>187,091</b>	<b>21,937</b>	<b>18,423</b>	<b>1,398,026</b>	<b>527,822</b>	<b>702,838</b>	<b>36,022</b>	<b>131,343</b>
<b>230,908</b>	<b>186,273</b>	<b>20,867</b>	<b>23,768</b>	<b>1,523,719</b>	<b>635,949</b>	<b>685,808</b>	<b>37,458</b>	<b>164,504</b>
<b>253,675</b>	<b>170,928</b>	<b>25,354</b>	<b>57,393</b>	<b>1,490,545</b>	<b>521,273</b>	<b>753,696</b>	<b>33,364</b>	<b>182,212</b>
..	..	..	..	100	97	..	..	3
..	..	..	..	90	88	..	..	3
..	..	..	..	98	95	..	..	3
..	..	..	..	106	103	..	..	*3
*1	*1	..	..	357	344	..	..	13
*1	*1	..	..	346	329	..	..	16
*1	*1	..	..	350	333	..	..	*17
*1	*1	..	..	*367	*350	..	..	*17
14,744	14,698	46	..	131,246	80,691	36,832	7,927	5,796
13,785	13,743	42	..	131,139	85,456	24,220	10,707	10,757
13,785	13,743	42	..	139,994	93,885	20,144	10,831	15,134
12,295	12,282	13	..	134,020	85,406	23,567	7,955	17,092
..	..	..	..	*973	*798	..	..	*175
..	..	..	..	*912	*736	..	..	*176
..	..	..	..	*955	*772	..	..	*183
..	..	..	..	*964	*779	..	..	*185
*92	*92	..	..	1,805	1,800	..	..	5
*98	*98	..	..	1,700	1,695	..	..	5
*105	*105	..	..	1,863	1,855	..	..	8
*100	*100	..	..	2,075	2,067	..	..	*9
18	18	..	..	1,065	1,013	..	..	52
17	17	..	..	1,000	931	..	..	69
17	17	..	..	1,008	924	..	..	85
18	18	..	..	1,050	942	..	..	108
228	228	..	..	136	61	75	..	1
152	152	..	..	281	38	242	..	1
162	162	..	..	203	43	158	..	3
175	175	..	..	291	47	239	..	5
428	422	7	..	9,830	6,327	3,245	..	258
499	496	3	..	9,480	6,144	2,939	..	397
663	659	4	..	10,217	6,514	3,233	..	470
708	704	4	..	10,700	7,063	2,848	..	790
..	..	..	..	145	104	..	..	41
..	..	..	..	145	112	..	..	33
..	..	..	..	156	119	..	..	*38
..	..	..	..	*163	*126	..	..	*37
102,385	81,249	19,427	1,709	523,944	68,433	378,450	16,129	60,932
106,451	83,876	17,745	4,830	514,747	59,141	378,583	14,053	62,970
113,968	88,564	16,002	9,402	542,141	100,737	346,816	14,705	79,883
125,619	87,119	20,461	18,038	551,753	36,348	406,653	14,559	94,194

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
British Virgin Islands	2019	201	198	..	..	1	2	..
	2020	*205	*201	..	..	2	2	..
	2021	*209	*205	..	..	2	2	..
	2022	*212	*209	..	..	2	2	..
Cayman Islands	2019	696	696	..	..	..	..	..
	2020	668	668	..	..	..	..	..
	2021	678	678	..	..	..	..	..
	2022	698	698	..	..	..	..	..
Chile	2019	84,558	50,564	22,477	..	4,897	6,419	202
	2020	83,994	48,331	21,873	..	5,602	7,971	216
	2021	88,019	50,154	19,348	..	7,628	10,565	324
	2022	91,019	45,261	20,684	..	8,893	15,714	467
Colombia	2019	80,415	25,622	54,594	..	63	137	..
	2020	79,550	29,361	49,977	..	10	201	..
	2021	86,872	23,337	62,318	..	62	333	821
	2022	87,056	24,204	62,248	..	74	518	13
Costa Rica	2019	11,508	295	7,827	..	1,796	77	1,513
	2020	11,730	217	8,294	..	1,459	70	1,689
	2021	12,737	194	9,286	..	1,573	82	1,602
	2022	12,583	66	9,449	..	1,369	81	1,619
Cuba	2019	20,706	20,331	125	..	*65	*186	..
	2020	19,071	18,698	112	..	*68	*193	..
	2021	17,966	17,581	120	..	*69	*196	..
	2022	15,874	15,512	120	..	28	214	..
Curaçao	2019	879	646	..	..	208	25	..
	2020	839	621	..	..	191	27	..
	2021	846	622	..	..	197	27	..
	2022	867	650	..	..	189	27	..
Dominica	2019	138	117	20	..	1	0	..
	2020	142	122	19	..	1	0	..
	2021	146	125	20	..	1	0	..
	2022	147	123	23	..	*1	0	..
Dominican Republic	2019	21,200	18,820	1,298	..	793	289	..
	2020	19,495	16,533	1,575	..	1,065	323	..
	2021	21,397	17,866	1,859	..	1,223	449	..
	2022	21,420	18,302	1,298	..	1,174	646	..
Ecuador	2019	32,284	7,520	24,641	..	86	38	..
	2020	31,248	6,800	24,333	..	77	38	..
	2021	32,214	6,541	25,575	..	62	37	..
	2022	33,008	8,274	24,635	..	61	39	..
El Salvador	2019	5,921	2,538	1,522	..	..	488	1,373
	2020	6,219	1,790	2,067	..	14	899	1,450
	2021	6,361	1,888	1,817	..	132	1,073	1,452
	2022	7,584	2,512	2,234	..	135	1,122	1,581
Falkland Is. (Malvinas)	2019	18	13	..	..	5	0	..
	2020	18	14	..	..	4	0	..
	2021	19	14	..	..	4	0	..
	2022	*19	*14	..	..	5	0	..
Grenada	2019	245	241	..	..	0	4	..
	2020	227	223	..	..	0	4	..
	2021	229	225	..	..	0	*4	..
	2022	238	233	..	..	0	*5	..
Guatemala	2019	13,563	8,335	4,497	..	221	199	312
	2020	12,013	5,182	5,966	..	317	222	326
	2021	13,061	6,594	5,646	..	325	230	265
	2022	12,852	5,069	6,970	..	315	220	277

Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	201	198	..	..	3
..	..	..	..	*205	*201	..	..	3
..	..	..	..	*209	*205	..	..	4
..	..	..	..	*212	*209	..	..	4
..	..	..	..	696	696	..	..	..
..	..	..	..	668	668	..	..	..
..	..	..	..	678	678	..	..	..
..	..	..	..	698	698	..	..	..
6,525	6,488	30	8	78,033	44,076	22,447	..	11,510
6,625	6,548	58	19	77,369	41,783	21,816	..	13,770
6,628	6,402	168	59	81,391	43,752	19,180	..	18,458
6,485	6,065	189	231	84,534	39,196	20,495	..	24,843
11,039	10,872	157	10	69,377	14,749	54,437	..	191
11,008	10,858	140	10	68,541	18,503	49,837	..	201
11,309	11,080	206	23	75,563	12,257	62,113	..	1,193
11,798	11,560	195	42	75,259	12,643	62,053	..	563
267	200	..	67	11,241	96	7,827	..	3,319
254	193	..	61	11,476	24	8,294	..	3,158
264	191	..	73	12,473	3	9,286	..	3,184
137	64	..	73	12,447	2	9,449	..	2,996
844	844	..	..	19,861	19,486	125	..	*251
914	914	..	..	18,157	17,784	112	..	*261
861	861	..	..	17,105	16,720	120	..	*265
846	846	..	..	15,028	14,666	120	..	242
43	43	..	..	836	604	..	..	233
24	24	..	..	815	596	..	..	219
14	14	..	..	832	608	..	..	224
2	2	..	..	865	648	..	..	217
*44	*44	..	..	94	73	20	..	1
*44	*44	..	..	98	78	19	..	1
*44	*44	..	..	102	81	20	..	2
*45	*45	..	..	102	78	23	..	*2
3,271	3,122	..	148	17,929	15,697	1,298	..	933
1,518	1,369	..	148	17,978	15,164	1,575	..	1,240
1,592	1,414	..	178	19,805	16,452	1,859	..	1,494
1,840	1,530	..	310	19,579	16,771	1,298	..	1,510
5,914	4,254	1,660	..	26,369	3,266	22,980	..	123
5,636	4,049	1,587	..	25,612	2,751	22,747	..	115
6,243	4,451	1,792	..	25,971	2,089	23,783	..	99
6,205	4,507	1,698	..	26,804	3,767	22,937	..	99
382	29	81	273	5,538	2,508	1,442	..	1,588
510	26	81	402	5,709	1,763	1,985	..	1,961
618	21	86	510	5,744	1,867	1,731	..	2,147
693	23	87	583	6,891	2,489	2,147	..	2,255
..	..	..	..	18	13	..	..	5
..	..	..	..	18	14	..	..	4
..	..	..	..	19	14	..	..	5
..	..	..	..	*19	*14	..	..	5
7	3	..	4	238	238	..	..	..
8	3	..	4	220	220	..	..	..
*8	3	..	*5	221	221	..	..	..
*8	3	..	*5	230	230	..	..	..
1,335	1,308	27	..	12,228	7,027	4,470	..	732
891	859	32	..	11,122	4,323	5,934	..	865
1,117	1,085	32	..	11,943	5,509	5,614	..	820
827	795	32	..	12,025	4,274	6,938	..	812

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Guyana	2019	1,135	1,123	..	..	0	11	..
	2020	1,136	1,124	..	..	0	12	..
	2021	1,143	1,129	..	..	0	14	..
	2022	*1,152	*1,134	..	..	0	18	..
Haiti	2019	1,064	887	174	..	..	3	..
	2020	1,029	882	144	..	..	3	..
	2021	1,033	896	134	..	..	3	..
	2022	1,012	824	185	..	..	3	..
Honduras	2019	10,586	5,866	2,430	..	818	1,176	296
	2020	10,059	5,232	2,701	..	707	1,113	307
	2021	10,957	4,940	3,765	..	775	1,129	348
	2022	11,149	5,228	3,883	..	686	1,016	337
Jamaica	2019	4,465	3,948	155	..	272	90	..
	2020	4,939	4,399	136	..	280	124	..
	2021	4,705	4,170	139	..	264	132	..
	2022	5,243	4,652	116	..	265	209	..
Mexico	2019	344,839	267,416	23,716	11,190	16,880	7,057	18,580
	2020	317,680	245,464	26,817	11,262	19,702	9,115	5,320
	2021	381,364	294,525	34,537	11,923	20,896	13,010	6,473
	2022	343,847	236,550	35,851	10,850	20,629	20,542	19,425
Montserrat	2019	14	14	..	..	..	0	..
	2020	14	14	..	..	..	0	..
	2021	14	13	..	..	..	0	..
	2022	14	13	..	..	..	0	..
Nicaragua	2019	4,576	2,815	227	..	730	26	778
	2020	3,791	1,873	574	..	550	26	767
	2021	4,213	2,197	599	..	656	27	734
	2022	4,369	2,444	650	..	562	26	687
Panama	2019	13,667	7,423	5,196	..	725	324	..
	2020	13,394	4,963	7,502	..	584	346	..
	2021	14,289	4,522	8,625	..	530	612	..
	2022	14,166	4,743	8,116	..	579	727	..
Paraguay	2019	49,448	2	49,446	..	..	..	..
	2020	46,373	2	46,371	..	..	..	..
	2021	40,576	2	40,574	..	..	..	..
	2022	43,881	1	43,880	..	..	..	..
Peru	2019	57,038	23,088	31,462	..	1,655	833	..
	2020	52,803	19,624	30,510	..	1,814	856	..
	2021	56,833	22,261	31,890	..	1,821	861	..
	2022	59,772	27,216	29,744	..	1,932	881	..
Puerto Rico	2019	18,886	18,444	41	..	159	242	..
	2020	18,774	18,321	51	..	143	259	..
	2021	19,184	18,705	40	..	166	273	..
	2022	18,325	17,872	45	..	156	253	..
Saint Barthélemy	2019	116	116	..	..	..	0	..
	2020	121	121	..	..	..	0	..
	2021	133	133	..	..	..	0	..
	2022	140	140	..	..	..	0	..
Saint Martin (French Part)	2019	168	168	..	..	..	0	..
	2020	173	172	..	..	..	1	..
	2021	178	177	..	..	..	*1	..
	2022	182	181	..	..	..	*1	..
Sint Maarten (Dutch part)	2019	*296	*296	..	..	..	..	..
	2020	265	265	..	..	..	..	..
	2021	*286	*286	..	..	..	..	..
	2022	*291	*291	..	..	..	..	..

Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
30	30	..	..	1,105	1,094	..	..	11
24	24	..	..	1,112	1,100	..	..	12
23	23	..	..	1,120	1,106	..	..	14
17	17	..	..	*1,135	*1,117	..	..	18
22	22	..	..	1,042	865	174	..	3
21	21	..	..	1,008	861	144	..	3
21	21	..	..	1,012	875	134	..	3
21	21	..	..	992	804	185	..	3
1,991	1,931	0	60	8,595	3,935	2,430	..	2,230
1,744	1,675	0	69	8,315	3,556	2,701	..	2,058
2,183	2,114	0	69	8,774	2,826	3,765	..	2,183
2,207	2,138	0	69	8,942	3,090	3,883	..	1,970
1,549	1,187	..	362	2,916	2,761	155	..	..
*964	*560	..	404	3,975	3,839	136	..	..
*1,019	*623	..	396	3,686	3,547	139	..	..
1,065	590	..	475	4,178	4,062	116	..	..
60,545	47,129	789	12,627	284,294	220,287	22,927	11,190	29,890
66,737	53,611	808	12,318	250,943	191,853	26,009	11,262	21,819
60,080	46,403	783	12,894	321,284	248,122	33,754	11,923	27,485
72,588	34,303	899	37,386	271,258	202,246	34,952	10,850	23,210
..	..	..	..	14	14	..	..	0
..	..	..	..	14	14	..	..	0
..	..	..	..	14	13	..	..	0
..	..	..	..	14	13	..	..	0
889	888	..	1	3,686	1,927	227	..	1,533
778	775	..	3	3,013	1,098	574	..	1,340
942	939	..	3	3,271	1,259	599	..	1,414
942	939	..	3	3,427	1,506	650	..	1,272
2,024	1,896	100	29	11,642	5,527	5,096	..	1,019
2,458	2,277	152	29	10,936	2,685	7,349	..	901
2,619	2,309	283	27	11,670	2,213	8,342	..	1,115
2,650	2,347	279	24	11,516	2,396	7,838	..	1,282
..	..	..	..	49,448	2	49,446	..	..
..	..	..	..	46,373	2	46,371	..	..
..	..	..	..	40,576	2	40,574	..	..
..	..	..	..	43,881	1	43,880	..	..
2,574	1,827	693	54	54,464	21,261	30,769	..	2,434
2,130	1,454	615	61	50,673	18,169	29,895	..	2,608
2,349	1,668	622	60	54,485	20,593	31,268	..	2,623
1,958	1,319	579	60	57,814	25,897	29,164	..	2,753
*230	*230	..	..	18,656	18,214	41	..	401
*232	*232	..	..	18,542	18,089	51	..	402
*233	*233	..	..	18,951	18,472	40	..	439
*235	*235	..	..	18,090	17,637	45	..	409
..	..	..	..	116	116	..	..	0
..	..	..	..	121	121	..	..	0
..	..	..	..	133	133	..	..	0
..	..	..	..	140	140	..	..	0
..	..	..	..	168	168	..	..	0
..	..	..	..	173	172	..	..	1
..	..	..	..	178	177	..	..	*1
..	..	..	..	182	181	..	..	*1
..	..	..	..	*296	*296	..	..	..
..	..	..	..	265	265	..	..	..
..	..	..	..	*286	*286	..	..	..
..	..	..	..	*291	*291	..	..	..

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
St. Kitts-Nevis	2019	250	242	..	..	6	3	..
	2020	234	224	..	..	6	5	..
	2021	228	218	..	..	6	5	..
	2022	235	225	..	..	*6	*5	..
St. Lucia	2019	408	401	..	..	..	7	..
	2020	372	365	..	..	..	7	..
	2021	391	384	..	..	..	7	..
	2022	409	402	..	..	..	7	..
St. Vincent-Grenadines	2019	154	130	22	..	..	3	..
	2020	152	125	22	..	..	5	..
	2021	145	122	19	..	..	4	..
	2022	*154	*128	*21	..	..	4	..
Suriname	2019	1,868	906	952	..	..	10	..
	2020	1,730	1,043	674	..	..	12	..
	2021	1,594	734	847	..	..	13	..
	2022	2,097	1,155	917	..	..	25	..
Trinidad and Tobago	2019	9,188	9,183	..	..	0	5	..
	2020	9,225	9,220	..	..	0	5	..
	2021	9,262	9,256	..	..	0	6	..
	2022	9,577	9,571	..	..	0	*6	..
Turks and Caicos Islands	2019	*261	*260	..	..	..	1	..
	2020	*256	*255	..	..	..	1	..
	2021	*267	*263	..	..	..	4	..
	2022	*265	*261	..	..	..	*4	..
United States Virgin Is.	2019	637	605	..	..	0	*32	..
	2020	666	635	..	..	0	*32	..
	2021	710	675	..	..	0	*34	..
	2022	692	658	..	..	0	35	..
Uruguay	2019	16,090	2,806	8,108	..	4,752	424	..
	2020	13,557	3,526	4,094	..	5,476	462	..
	2021	15,953	5,206	5,273	..	4,991	483	..
	2022	14,759	3,787	5,686	..	4,783	503	..
Venezuela (Bolivar. Rep.)	2019	79,676	16,819	62,789	..	60	6	*1
	2020	82,471	15,254	67,190	..	20	6	*1
	2021	84,730	16,858	67,845	..	19	6	*2
	2022	88,504	19,969	68,512	..	16	6	*2
<b>Northern America</b>	<b>2019</b>	<b>5,045,070</b>	<b>2,951,806</b>	<b>692,823</b>	<b>944,527</b>	<b>331,073</b>	<b>101,232</b>	<b>23,609</b>
	<b>2020</b>	<b>4,912,714</b>	<b>2,771,119</b>	<b>695,260</b>	<b>921,345</b>	<b>377,579</b>	<b>123,403</b>	<b>24,008</b>
	<b>2021</b>	<b>5,020,580</b>	<b>2,858,469</b>	<b>658,492</b>	<b>904,180</b>	<b>418,820</b>	<b>156,439</b>	<b>24,180</b>
	<b>2022</b>	<b>5,147,943</b>	<b>2,886,794</b>	<b>677,261</b>	<b>890,908</b>	<b>476,123</b>	<b>192,810</b>	<b>24,047</b>
Bermuda	2019	613	611	..	..	..	*2	..
	2020	*590	*588	..	..	..	*2	..
	2021	*595	*593	..	..	..	*2	..
	2022	*601	*598	..	..	..	*2	..
Canada	2019	652,113	132,277	381,843	101,197	32,873	3,752	171
	2020	651,463	126,506	386,617	98,195	35,761	4,072	312
	2021	644,689	126,562	383,963	92,629	36,006	5,113	416
	2022	651,311	123,332	397,727	87,239	36,853	5,737	423
Greenland	2019	531	*122	409	..	..	..	..
	2020	566	*136	431	..	..	..	..
	2021	569	*137	433	..	..	..	..
	2022	614	*147	467	..	..	..	..
St. Pierre-Miquelon	2019	52	52	..	..	..	..	..
	2020	51	51	..	..	..	..	..
	2021	51	51	..	..	..	..	..
	2022	50	50	..	..	..	..	..



Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
*1	*1	..	..	249	241	..	..	9
*1	*1	..	..	233	223	..	..	10
*1	*1	..	..	227	217	..	..	10
*1	*1	..	..	234	224	..	..	*10
0	..	..	0	408	401	..	..	7
*1	..	..	*1	372	365	..	..	7
*1	..	..	*1	390	384	..	..	6
1	..	..	1	409	402	..	..	7
1	..	..	1	153	130	22	..	2
1	..	..	1	151	125	22	..	4
*1	..	..	*1	144	122	19	..	2
*1	..	..	*1	*152	*128	*21	..	3
1,471	519	952	..	397	387	..	..	10
1,246	572	674	..	484	471	..	..	12
1,322	475	847	..	272	259	..	..	13
1,650	721	917	12	447	435	..	..	13
76	76	..	..	9,112	9,108	..	..	5
76	76	..	..	9,149	9,144	..	..	5
76	76	..	..	9,185	9,180	..	..	6
78	78	..	..	9,499	9,493	..	..	*6
..	..	..	..	*261	*260	..	..	1
..	..	..	..	*256	*255	..	..	1
..	..	..	..	*267	*263	..	..	4
..	..	..	..	*265	*261	..	..	*4
*17	..	..	*17	620	605	..	..	15
*17	..	..	*17	649	635	..	..	14
*17	..	..	*17	693	675	..	..	17
*17	..	..	*17	675	658	..	..	18
1,702	1,668	..	34	14,388	1,138	8,108	..	5,142
1,733	1,693	..	40	11,825	1,833	4,094	..	5,898
1,768	1,723	..	46	14,185	3,483	5,273	..	5,429
1,589	1,531	..	58	13,170	2,256	5,686	..	5,228
1,556	1,552	..	4	78,120	15,267	62,789	..	63
854	849	..	4	81,618	14,405	67,190	..	23
854	849	..	4	83,876	16,009	67,845	..	22
854	849	..	4	87,651	19,120	68,512	..	19
<b>260,433</b>	<b>198,170</b>	<b>30,115</b>	<b>32,149</b>	<b>4,784,637</b>	<b>2,753,636</b>	<b>662,708</b>	<b>944,527</b>	<b>423,765</b>
<b>260,751</b>	<b>194,489</b>	<b>29,010</b>	<b>37,253</b>	<b>4,651,963</b>	<b>2,576,630</b>	<b>666,251</b>	<b>921,345</b>	<b>487,737</b>
<b>255,094</b>	<b>189,869</b>	<b>22,910</b>	<b>42,315</b>	<b>4,765,486</b>	<b>2,668,600</b>	<b>635,582</b>	<b>904,180</b>	<b>557,123</b>
<b>266,414</b>	<b>194,956</b>	<b>22,603</b>	<b>48,855</b>	<b>4,881,530</b>	<b>2,691,838</b>	<b>654,658</b>	<b>890,908</b>	<b>644,126</b>
*15	*13	..	*2	598	598	..	..	..
*15	*13	..	*2	*575	*575	..	..	..
*15	*13	..	*2	*580	*580	..	..	..
*15	*13	..	*2	*585	*585	..	..	..
60,921	29,908	28,876	2,137	591,192	102,369	352,967	101,197	34,659
60,658	30,560	27,778	2,320	590,805	95,946	358,839	98,195	37,825
53,913	30,047	21,692	2,174	590,776	96,515	362,271	92,629	39,361
54,714	30,928	21,418	2,368	596,597	92,404	376,309	87,239	40,645
..	..	..	..	531	*122	409	..	..
..	..	..	..	566	*136	431	..	..
..	..	..	..	569	*137	433	..	..
..	..	..	..	614	*147	467	..	..
..	..	..	..	52	52	..	..	..
..	..	..	..	51	51	..	..	..
..	..	..	..	51	51	..	..	..
..	..	..	..	50	50	..	..	..

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
United States	2019	4,391,761	2,818,743	310,571	843,330	298,200	97,478	23,438
	2020	4,260,044	2,643,838	308,213	823,150	341,818	119,329	23,696
	2021	4,374,676	2,731,127	274,096	811,551	382,814	151,324	23,764
	2022	4,495,368	2,762,666	279,067	803,669	439,270	187,071	23,624
Oceania	2019	<b>321,702</b>	<b>234,248</b>	<b>43,722</b>	..	<b>20,036</b>	<b>15,291</b>	<b>8,406</b>
	2020	<b>321,769</b>	<b>227,557</b>	<b>41,462</b>	..	<b>22,759</b>	<b>21,548</b>	<b>8,442</b>
	2021	<b>322,188</b>	<b>216,442</b>	<b>41,613</b>	..	<b>27,226</b>	<b>28,318</b>	<b>8,589</b>
	2022	<b>328,657</b>	<b>207,046</b>	<b>45,492</b>	..	<b>32,029</b>	<b>35,436</b>	<b>8,654</b>
American Samoa	2019	178	170	..	..	..	7	..
	2020	180	174	..	..	..	7	..
	2021	183	176	..	..	..	7	..
	2022	183	176	..	..	..	7	..
Australia	2019	264,025	215,498	15,967	..	17,712	14,848	..
	2020	265,178	208,599	15,150	..	20,396	21,033	..
	2021	265,554	198,102	15,200	..	24,535	27,717	..
	2022	271,532	190,726	17,011	..	29,108	34,687	..
Cook Islands	2019	39	29	..	..	..	10	..
	2020	34	26	..	..	..	8	..
	2021	34	27	..	..	..	7	..
	2022	38	30	..	..	..	7	..
Fiji	2019	1,074	498	559	..	3	13	..
	2020	989	417	558	..	1	*13	..
	2021	949	389	548	..	0	12	..
	2022	1,093	483	598	..	0	*12	..
French Polynesia	2019	695	494	159	..	0	43	..
	2020	668	464	159	..	0	44	..
	2021	672	482	142	..	0	47	..
	2022	680	436	194	..	0	50	..
Guam	2019	1,724	1,655	..	..	1	68	..
	2020	1,683	1,614	..	..	1	68	..
	2021	*1,712	*1,643	..	..	*1	*68	..
	2022	*1,703	*1,600	..	..	*1	*102	..
Kiribati	2019	38	33	..	..	..	5	..
	2020	*37	*32	..	..	..	*5	..
	2021	*38	*33	..	..	..	*5	..
	2022	*38	*33	..	..	..	*5	..
Marshall Islands	2019	*90	*88	..	..	..	2	..
	2020	*90	*88	..	..	..	2	..
	2021	*82	*80	..	..	..	2	..
	2022	*92	*90	..	..	..	*2	..
Micronesia (Fed. States of)	2019	*77	*71	1	..	*1	3	..
	2020	*85	*80	1	..	0	3	..
	2021	*90	*86	*1	..	0	3	..
	2022	*91	*86	*1	..	*1	*3	..
Nauru	2019	36	35	..	..	..	1	..
	2020	38	36	..	..	..	2	..
	2021	*42	*39	..	..	..	*3	..
	2022	*44	*41	..	..	..	*3	..
New Caledonia	2019	3,334	2,876	285	..	57	116	1
	2020	3,233	2,728	305	..	49	150	0
	2021	2,910	2,256	425	..	41	188	0
	2022	3,148	2,334	539	..	49	226	0
New Zealand	2019	45,148	8,859	25,596	..	2,255	128	8,310
	2020	44,531	9,454	24,266	..	2,305	161	8,346
	2021	44,611	9,035	24,232	..	2,642	208	8,493
	2022	44,691	6,714	26,274	..	2,865	281	8,557

Table 33

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
199,497	168,249	1,239	30,010	4,192,264	2,650,495	309,332	843,330	389,106
200,078	163,916	1,232	34,931	4,059,965	2,479,922	306,981	823,150	449,912
201,166	159,809	1,218	40,139	4,173,511	2,571,318	272,878	811,551	517,762
211,685	164,015	1,185	46,485	4,283,684	2,598,652	277,883	803,669	603,481
<b>43,365</b>	<b>30,475</b>	<b>213</b>	<b>12,677</b>	<b>278,337</b>	<b>203,773</b>	<b>43,509</b>	..	<b>31,056</b>
<b>46,103</b>	<b>31,077</b>	<b>309</b>	<b>14,716</b>	<b>275,666</b>	<b>196,480</b>	<b>41,153</b>	..	<b>38,033</b>
<b>50,063</b>	<b>30,735</b>	<b>309</b>	<b>19,019</b>	<b>272,125</b>	<b>185,707</b>	<b>41,304</b>	..	<b>45,114</b>
<b>55,098</b>	<b>31,319</b>	<b>213</b>	<b>23,566</b>	<b>273,559</b>	<b>175,728</b>	<b>45,280</b>	..	<b>52,552</b>
..	..	..	..	178	170	..	..	7
..	..	..	..	180	174	..	..	7
..	..	..	..	183	176	..	..	7
..	..	..	..	183	176	..	..	7
36,981	24,671	..	12,310	227,044	190,827	15,967	..	20,250
39,762	25,450	..	14,312	225,417	183,150	15,150	..	27,117
43,799	25,254	..	18,545	221,756	172,849	15,200	..	33,707
48,604	25,599	..	23,006	222,927	165,128	17,011	..	40,789
..	..	..	..	39	29	..	..	10
..	..	..	..	34	26	..	..	8
..	..	..	..	34	27	..	..	7
..	..	..	..	38	30	..	..	7
49	49	..	..	1,025	450	559	..	16
67	67	..	..	922	350	558	..	*14
61	61	..	..	888	328	548	..	12
73	73	..	..	1,020	410	598	..	*12
..	..	..	..	695	494	159	..	43
..	..	..	..	668	464	159	..	44
..	..	..	..	672	482	142	..	47
..	..	..	..	680	436	194	..	50
*16	..	..	*16	1,707	1,655	..	..	52
*16	..	..	*16	1,667	1,614	..	..	52
*16	..	..	*16	*1,695	*1,643	..	..	*52
*17	..	..	*17	*1,686	*1,600	..	..	*86
*2	*2	..	..	35	30	..	..	5
*2	*2	..	..	*35	*30	..	..	*5
*2	*2	..	..	*36	*31	..	..	*5
*2	*2	..	..	*36	*31	..	..	*5
..	..	..	..	*90	*88	..	..	2
..	..	..	..	*90	*88	..	..	2
..	..	..	..	*82	*80	..	..	2
..	..	..	..	*92	*90	..	..	*2
..	..	..	..	*77	*71	1	..	4
..	..	..	..	*85	*80	1	..	3
..	..	..	..	*90	*86	*1	..	3
..	..	..	..	*91	*86	*1	..	*4
..	..	..	..	36	35	..	..	1
..	..	..	..	38	36	..	..	2
..	..	..	..	*42	*39	..	..	*3
..	..	..	..	*44	*41	..	..	*3
2,008	1,989	..	19	1,325	886	285	..	154
1,943	1,913	..	30	1,290	815	305	..	170
1,578	1,524	..	53	1,332	731	425	..	176
1,729	1,657	..	72	1,419	677	539	..	204
1,637	1,397	4	236	43,511	7,462	25,592	..	10,457
1,562	1,296	4	262	42,969	8,158	24,262	..	10,549
1,690	1,378	4	308	42,921	7,657	24,228	..	11,035
1,651	1,272	4	375	43,039	5,442	26,270	..	11,328

Table 33

## Production of electricity - by type

Gigawatt-hours

Country or area	Year	Total producers						
		Total	Combustible fuels	Hydro	Nuclear	Wind	Solar	Other
Niue	2019	*4	*3	..	..	..	0	..
	2020	*4	*3	..	..	..	0	..
	2021	*4	*3	..	..	..	0	..
	2022	*4	*4	..	..	..	0	..
Northern Mariana Islands	2019	*392	*392	..	..	..	..	..
	2020	*293	*290	..	..	..	*3	..
	2021	*305	*300	..	..	..	*5	..
	2022	*308	*303	..	..	..	*5	..
Palau	2019	95	91	..	..	..	*4	..
	2020	*96	*92	..	..	..	*4	..
	2021	97	93	..	..	..	4	..
	2022	*97	*93	..	..	..	*4	..
Papua New Guinea	2019	*4,299	*3,104	1,095	..	..	4	96
	2020	*4,169	*3,096	972	..	..	5	96
	2021	*4,446	*3,344	1,000	..	..	5	96
	2022	*4,447	*3,515	*830	..	..	6	96
Samoa	2019	169	96	50	..	0	24	..
	2020	172	107	41	..	0	24	..
	2021	171	94	55	..	0	21	..
	2022	172	114	35	..	0	22	..
Solomon Islands	2019	107	103	1	..	..	3	..
	2020	106	102	1	..	..	3	..
	2021	106	102	1	..	..	3	..
	2022	104	100	*1	..	..	*3	..
Tonga	2019	71	64	..	..	0	6	..
	2020	73	64	..	..	3	7	..
	2021	75	66	..	..	2	6	..
	2022	77	70	..	..	2	6	..
Tuvalu	2019	9	7	..	..	..	2	..
	2020	*10	*8	..	..	..	2	..
	2021	*10	*8	..	..	..	2	..
	2022	*10	*8	..	..	..	*2	..
Vanuatu	2019	80	63	8	..	6	3	..
	2020	76	58	8	..	6	3	..
	2021	75	59	8	..	4	3	..
	2022	79	64	9	..	3	3	..
Wallis and Futuna Is.	2019	*21	*20	0	..	..	0	..
	2020	*23	*23	0	..	..	0	..
	2021	*24	*24	0	..	..	0	..
	2022	*26	*26	0	..	..	0	..

## Production of electricity - by type

Gigawatt-hours

Autoproducers				Main activity producers				
Total	Combustible fuels	Hydro	Other	Total	Combustible fuels	Hydro	Nuclear	Other
..	..	..	..	*4	*3	..	..	0
..	..	..	..	*4	*3	..	..	0
..	..	..	..	*4	*3	..	..	0
..	..	..	..	*4	*4	..	..	0
..	..	..	..	*392	*392	..	..	..
..	..	..	..	*293	*290	..	..	*3
..	..	..	..	*305	*300	..	..	*5
..	..	..	..	*308	*303	..	..	*5
*12	*12	..	..	83	79	..	..	*4
*12	*12	..	..	*84	*80	..	..	*4
*12	*12	..	..	85	81	..	..	4
*12	*12	..	..	*85	*81	..	..	*4
*2,657	*2,352	209	96	1,642	752	886	..	4
*2,735	*2,333	306	96	1,434	763	667	..	5
*2,902	*2,500	306	96	1,544	844	694	..	5
*3,005	*2,700	*209	96	*1,442	*815	*621	..	6
0	..	..	0	169	96	50	..	24
0	..	..	0	172	107	41	..	24
0	..	..	0	171	94	55	..	22
0	..	..	0	172	114	35	..	22
3	3	..	..	104	99	1	..	3
*3	*3	..	..	103	99	1	..	3
*4	*4	..	..	103	99	1	..	3
*3	*3	..	..	101	97	*1	..	*3
..	..	..	..	71	64	..	..	6
..	..	..	..	73	64	..	..	9
..	..	..	..	75	66	..	..	9
..	..	..	..	77	70	..	..	7
..	..	..	..	9	7	..	..	2
..	..	..	..	*10	*8	..	..	2
..	..	..	..	*10	*8	..	..	2
..	..	..	..	*10	*8	..	..	*2
..	..	..	..	80	63	8	..	10
..	..	..	..	76	58	8	..	9
..	..	..	..	75	59	8	..	7
..	..	..	..	79	64	9	..	5
..	..	..	..	*21	*20	0	..	0
..	..	..	..	*23	*23	0	..	0
..	..	..	..	*24	*24	0	..	0
..	..	..	..	*26	*26	0	..	0



### Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

#### Table Notes

**Supply** is calculated as **Production** plus **Imports** minus **Exports**.

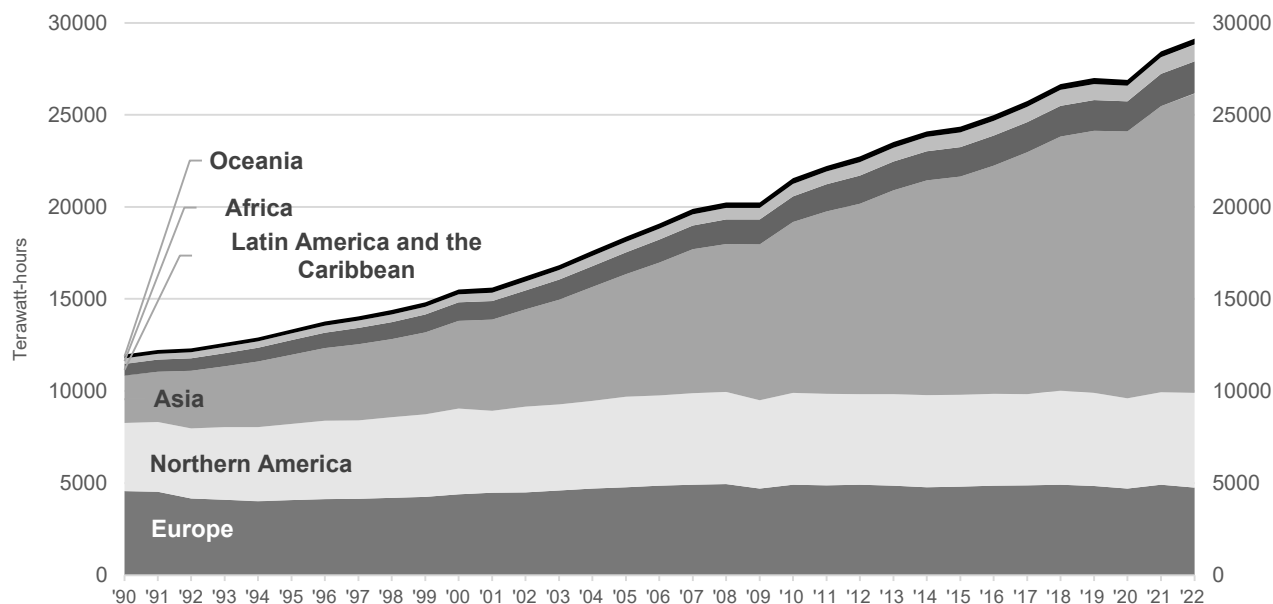
**EIOU and losses** refers to energy industries own use of electricity, including for pumped storage, and losses.

**Total Final Consumption (TFC)** refers to final energy consumption of electricity.

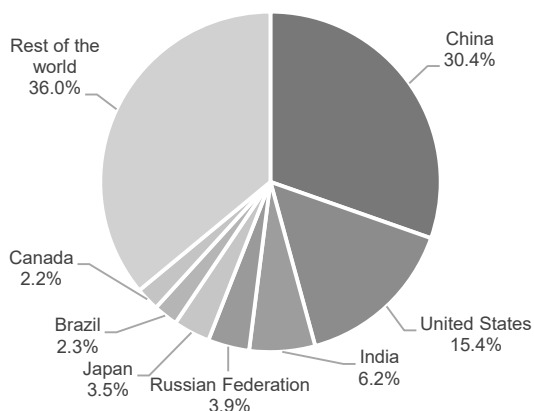
Figures may not add up due to statistical differences, or for some countries quantities transformed into heat in heat pumps and/or electric boilers

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 84: World electricity generation by region, 1990-2022**



**Figure 85: Major electricity producing countries, 2022**



**Figure 86: Major electricity consuming countries, 2022**

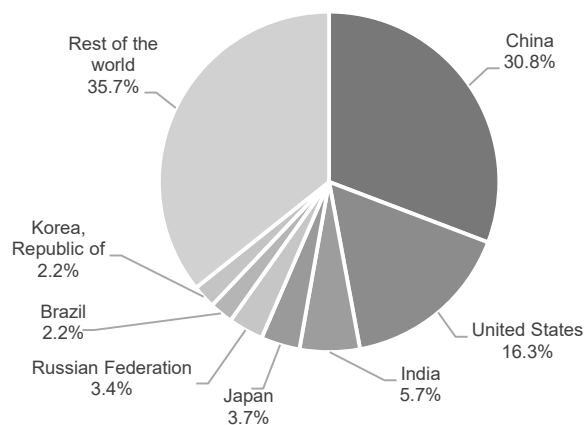


Table 34

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
World	2019	26,993,822	752,525	730,234	27,016,113	3,459	4,446,565	22,646,529
	2020	26,900,048	782,333	752,767	26,929,613	3,415	4,359,036	22,612,830
	2021	28,445,024	814,302	778,844	28,480,481	3,581	4,572,435	23,846,157
	2022	29,146,341	821,051	831,289	29,136,102	3,633	4,548,887	24,547,496
Africa	2019	863,430	35,788	37,842	861,376	640	178,055	695,054
	2020	851,704	38,973	38,690	851,987	618	179,587	685,367
	2021	890,542	38,565	40,000	889,107	630	184,640	706,782
	2022	912,310	42,724	40,908	914,125	633	187,441	733,476
Algeria	2019	81,531	531	673	81,389	1,880	19,200	62,184
	2020	79,155	513	574	79,094	1,796	20,197	58,898
	2021	85,391	379	1,529	84,241	1,882	20,798	63,442
	2022	91,231	181	2,753	88,659	1,950	21,153	67,506
Angola	2019	14,247	64	..	14,311	442	2,129	*12,182
	2020	14,488	60	..	14,547	435	*2,258	*12,289
	2021	14,741	59	..	14,799	429	*2,214	*12,585
	2022	15,983	31	..	16,014	449	*2,196	*13,818
Benin	2019	529	974	2	1,501	118	363	1,256
	2020	989	574	2	1,561	119	346	1,205
	2021	1,127	694	2	1,819	136	394	1,409
	2022	1,002	834	2	1,834	133	385	1,480
Botswana	2019	3,277	1,101	86	4,292	1,840	1,085	3,778
	2020	2,182	2,087	42	4,227	1,787	947	3,861
	2021	2,409	1,662	2	4,069	1,695	870	3,762
	2022	2,550	1,798	15	4,333	1,776	943	3,947
Burkina Faso	2019	*1,576	1,087	..	*2,663	*127	117	2,474
	2020	*1,442	1,486	..	2,928	136	*315	*2,556
	2021	1,672	1,381	..	3,053	139	*323	*2,668
	2022	*1,532	1,492	..	*3,024	*134	*329	*2,695
Burundi	2019	269	*100	..	369	30	*71	*298
	2020	276	*89	..	365	29	*71	*294
	2021	262	*101	..	363	28	*69	*295
	2022	305	*100	..	405	30	*74	*331
Cabo Verde	2019	512	..	..	512	996	122	*389
	2020	454	..	..	454	882	122	*331
	2021	475	..	..	475	919	124	*350
	2022	544	..	..	544	1,046	126	*417
Cameroon	2019	8,483	53	..	8,537	335	2,111	6,488
	2020	8,650	58	..	8,708	332	2,153	6,616
	2021	9,484	65	..	9,549	355	2,361	7,254
	2022	9,974	57	..	10,031	363	2,483	7,628
Central African Rep.	2019	142	..	..	142	29	*21	93
	2020	141	..	..	141	28	*21	99
	2021	141	..	..	141	28	*21	99
	2022	142	..	..	142	28	*22	*100
Chad	2019	317	..	..	317	19	*67	*249
	2020	336	..	..	336	20	*74	*259
	2021	336	..	..	336	19	*76	*256
	2022	*336	..	..	*336	*18	*71	*262
Comoros	2019	*108	..	..	*108	*138	*27	*81
	2020	*130	..	..	*130	*162	*33	*98
	2021	*136	..	..	*136	*166	*34	*102
	2022	*139	..	..	*139	*167	*36	*103



## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Congo	2019	3,655	23	44	3,634	647	2,032	1,577
	2020	3,840	18	16	3,843	668	2,146	1,539
	2021	4,103	26	49	4,080	692	2,281	1,565
	2022	5,013	23	31	5,005	829	2,796	1,912
Côte d'Ivoire	2019	10,697	77	1,255	9,518	338	1,813	7,297
	2020	11,274	152	1,333	10,093	349	1,985	8,143
	2021	11,579	199	889	10,889	367	2,036	9,016
	2022	12,460	214	971	11,704	385	2,049	9,611
Dem. Rep. of the Congo	2019	11,491	1,005	69	12,428	134	1,057	11,563
	2020	12,460	1,189	50	13,599	142	1,152	*12,166
	2021	13,135	1,189	50	14,274	144	2,072	*12,166
	2022	13,200	1,164	50	14,314	140	1,372	*12,942
Djibouti	2019	126	480	..	606	556	*104	*502
	2020	102	526	..	628	568	*111	*517
	2021	196	528	..	724	645	*116	*608
	2022	*199	609	..	808	710	*154	*654
Egypt	2019	194,279	74	360	193,993	1,804	38,009	156,340
	2020	197,201	95	885	196,411	1,797	39,036	157,435
	2021	204,637	176	1,643	203,169	1,831	37,994	158,046
	2022	214,050	95	1,589	212,556	1,887	*40,201	172,355
Equatorial Guinea	2019	*1,912	..	..	*1,912	*1,145	*195	*1,717
	2020	*2,038	..	..	*2,038	*1,187	*206	*1,832
	2021	*1,770	..	..	*1,770	*1,006	*206	*1,564
	2022	*1,750	..	..	*1,750	*970	*213	*1,537
Eritrea	2019	362	..	..	362	112	63	297
	2020	372	..	..	372	113	65	306
	2021	383	..	..	383	114	67	315
	2022	400	..	..	400	117	70	329
Eswatini	2019	585	942	..	1,527	1,294	193	1,343
	2020	543	1,044	..	1,587	1,331	240	1,406
	2021	652	914	..	1,567	1,299	156	1,532
	2022	653	902	..	1,555	1,276	176	1,361
Ethiopia	2019	15,068	..	1,145	13,922	120	3,289	10,933
	2020	15,823	..	1,637	14,186	119	3,138	11,016
	2021	15,503	..	1,665	13,838	113	3,649	10,231
	2022	17,338	..	1,750	15,588	124	4,061	11,208
Gabon	2019	2,859	..	..	2,859	1,261	653	2,263
	2020	3,053	..	..	3,053	1,314	670	2,274
	2021	3,034	..	..	3,034	1,276	677	2,323
	2022	3,300	..	..	3,300	1,357	780	2,398
Gambia	2019	462	..	..	462	188	*116	*347
	2020	485	..	..	485	193	*160	*325
	2021	516	..	..	516	201	*178	*338
	2022	592	..	..	592	225	*208	*384
Ghana	2019	18,368	127	1,430	17,065	546	1,364	15,232
	2020	20,170	58	1,801	18,427	578	1,286	16,531
	2021	22,051	44	1,734	20,360	626	2,293	18,067
	2022	23,163	37	2,215	20,986	633	3,470	17,516
Guinea	2019	2,020	..	..	2,020	155	*338	*1,682
	2020	2,420	..	..	2,420	181	*368	*2,051
	2021	3,036	..	..	3,036	221	*501	*2,535
	2022	3,263	..	..	3,263	232	*508	*2,755

Table 34

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Guinea-Bissau	2019	*108	..	..	*108	*55	*13	*95
	2020	*184	..	..	*184	*91	*21	*163
	2021	*202	..	..	*202	*98	*22	*180
	2022	*196	..	..	*196	*93	22	*174
Kenya	2019	11,621	212	16	11,816	231	2,836	8,854
	2020	11,604	137	17	11,724	225	2,911	8,955
	2021	12,377	288	18	12,646	238	2,926	9,734
	2022	12,962	316	0	13,278	245	3,269	10,008
Lesotho	2019	393	542	1	934	423	130	791
	2020	427	442	1	868	388	88	673
	2021	533	427	1	958	424	103	689
	2022	482	508	1	989	432	134	854
Liberia	2019	*418	*20	..	*438	*87	*154	*284
	2020	*446	*20	..	*466	*91	*162	*304
	2021	478	20	..	498	95	*181	*317
	2022	468	25	..	493	92	*175	*318
Libya	2019	34,629	776	..	35,405	5,093	7,787	27,618
	2020	29,499	1,259	..	30,758	4,366	6,785	23,973
	2021	34,786	784	..	35,570	4,985	7,885	27,684
	2022	35,106	719	..	35,826	4,959	7,973	27,852
Madagascar	2019	2,178	..	..	2,178	77	*178	*1,999
	2020	2,167	..	..	2,167	75	*170	*1,997
	2021	2,245	..	..	2,245	76	*165	*2,080
	2022	2,274	..	..	2,274	75	*166	*2,108
Malawi	2019	1,937	..	20	1,917	101	*341	1,696
	2020	2,191	10	20	2,181	112	385	1,817
	2021	2,401	17	20	2,398	120	664	1,795
	2022	2,115	19	15	2,119	103	650	1,716
Mali	2019	3,535	604	560	3,579	170	*476	3,103
	2020	3,728	766	615	3,880	179	*519	3,361
	2021	*3,969	402	533	*3,839	*171	*538	3,301
	2022	*4,209	489	899	*3,798	*165	*567	3,231
Mauritania	2019	1,477	204	..	1,681	376	*312	1,369
	2020	*1,461	*225	..	*1,686	*366	*296	1,390
	2021	*1,364	*200	..	*1,564	*330	*244	1,320
	2022	1,510	394	..	1,904	390	*221	1,682
Mauritius	2019	3,237	..	..	3,237	2,516	227	3,001
	2020	2,883	..	..	2,883	2,246	189	2,683
	2021	2,992	..	..	2,992	2,338	244	2,748
	2022	3,119	..	..	3,119	2,444	232	2,887
Morocco	2019	41,650	526	1,453	40,723	1,125	7,272	33,451
	2020	40,057	856	624	40,289	1,101	7,386	32,903
	2021	42,562	688	851	42,399	1,147	7,860	34,539
	2022	42,723	1,868	471	44,119	1,182	8,101	36,018
Mozambique	2019	18,981	8,276	10,771	16,487	552	3,131	12,836
	2020	19,026	8,100	11,511	15,616	507	3,126	12,339
	2021	18,863	8,133	11,189	15,807	499	3,248	12,484
	2022	19,559	8,259	11,450	16,367	501	3,709	12,538
Namibia	2019	1,402	3,161	119	4,444	1,677	*410	*4,040
	2020	2,012	2,785	593	4,204	1,541	*443	*3,759
	2021	1,467	2,825	382	3,910	1,391	*387	*3,521
	2022	1,180	2,917	169	3,928	1,359	*522	3,235

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Niger	2019	626	1,057	..	1,683	73	443	1,239
	2020	635	1,108	..	1,742	73	502	1,297
	2021	*658	1,122	..	1,780	73	*411	1,368
	2022	*669	1,164	..	1,832	72	*436	1,396
Nigeria	2019	33,110	..	2,327	30,783	147	6,160	27,162
	2020	35,059	..	2,433	32,626	152	6,505	27,627
	2021	36,038	..	2,433	33,604	154	6,629	28,335
	2022	37,916	..	2,317	35,599	160	6,527	32,245
Rwanda	2019	798	99	6	892	70	170	*722
	2020	838	28	6	860	66	*167	693
	2021	976	31	9	998	75	*201	788
	2022	1,101	32	9	1,124	82	*213	926
Sao Tome and Principe	2019	110	..	..	110	513	*41	*69
	2020	*110	..	..	*110	*508	41	*70
	2021	*106	..	..	*106	*478	41	*65
	2022	*110	..	..	*110	*487	32	*78
Senegal	2019	*4,491	324	..	*4,814	*294	854	3,960
	2020	5,804	356	..	6,160	367	978	4,585
	2021	6,380	315	..	6,695	389	1,067	5,400
	2022	7,550	486	..	8,035	455	1,030	6,789
Seychelles	2019	540	..	..	540	4,590	61	479
	2020	535	..	..	535	4,446	53	482
	2021	536	..	..	536	4,356	*53	483
	2022	550	..	..	550	4,386	*54	*497
Sierra Leone	2019	378	..	..	378	49	*104	*274
	2020	422	..	..	422	53	*117	*305
	2021	467	..	..	467	58	*129	*338
	2022	495	..	..	495	60	*153	*342
Somalia	2019	522	..	..	522	33	*53	*469
	2020	520	..	..	520	31	*56	*464
	2021	534	..	..	534	31	*59	*475
	2022	*560	..	..	*560	*31	*63	*497
South Africa	2019	252,644	9,804	14,977	247,471	4,153	58,099	198,947
	2020	239,521	9,829	13,647	235,703	3,892	57,260	191,107
	2021	244,381	10,137	13,705	240,813	3,915	55,366	193,072
	2022	234,850	10,761	12,270	233,341	3,741	51,661	186,258
South Sudan	2019	557	..	..	557	53	38	521
	2020	558	..	..	558	52	38	507
	2021	566	..	..	566	52	38	524
	2022	538	..	..	538	49	36	514
St. Helena and Depend.	2019	12	..	..	12	2,182	*2	10
	2020	11	..	..	11	2,065	*2	10
	2021	11	..	..	11	1,993	1	9
	2022	10	..	..	10	1,962	2	9
Sudan	2019	16,814	*207	..	17,021	374	*3,794	*12,639
	2020	17,642	1,318	..	18,961	405	3,367	*15,593
	2021	*16,781	993	..	*17,774	*370	*3,896	*13,877
	2022	16,771	882	..	17,653	357	4,392	*13,261
Togo	2019	718	837	118	1,437	170	117	1,328
	2020	699	815	..	1,514	175	113	1,378
	2021	618	1,071	..	1,689	190	267	1,419
	2022	821	1,126	..	1,946	214	215	1,727

Table 34

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Tunisia	2019	22,014	472	631	21,855	1,840	4,503	17,313
	2020	21,449	369	969	20,850	1,741	4,618	16,269
	2021	21,890	1,331	302	22,920	1,902	5,412	17,446
	2022	21,422	2,726	154	23,995	1,980	5,438	18,478
Uganda	2019	4,364	104	299	4,169	97	826	3,233
	2020	4,447	21	222	4,246	95	811	3,269
	2021	4,769	24	393	4,400	96	1,089	3,581
	2022	5,502	*22	*309	5,215	110	*1,272	*3,943
United Rep. of Tanzania	2019	7,775	113	..	7,888	133	1,277	6,583
	2020	7,834	114	..	7,948	130	1,305	6,506
	2021	8,650	129	..	8,779	140	1,393	7,207
	2022	9,626	152	..	9,778	151	2,018	7,648
Zambia	2019	15,115	198	976	14,338	774	*1,997	12,341
	2020	15,237	130	1,340	14,028	736	*2,525	11,504
	2021	17,718	18	2,152	15,584	795	*2,753	12,831
	2022	19,783	18	3,073	16,728	830	*2,950	13,778
Zimbabwe	2019	8,402	1,612	504	9,510	623	1,714	8,061
	2020	6,673	2,337	355	8,655	557	1,552	7,336
	2021	8,454	2,194	450	10,199	646	1,854	8,645
	2022	9,016	2,304	395	10,925	680	1,332	9,219
<b>Asia</b>	<b>2019</b>	<b>14,241,164</b>	<b>131,115</b>	<b>99,141</b>	<b>14,273,137</b>	<b>3,068</b>	<b>2,334,056</b>	<b>12,041,433</b>
	<b>2020</b>	<b>14,492,608</b>	<b>148,467</b>	<b>113,094</b>	<b>14,527,981</b>	<b>3,099</b>	<b>2,357,820</b>	<b>12,193,029</b>
	<b>2021</b>	<b>15,552,174</b>	<b>160,573</b>	<b>115,364</b>	<b>15,597,383</b>	<b>3,306</b>	<b>2,490,971</b>	<b>13,102,970</b>
	<b>2022</b>	<b>16,255,971</b>	<b>136,040</b>	<b>129,316</b>	<b>16,262,694</b>	<b>3,425</b>	<b>2,507,107</b>	<b>13,690,300</b>
Afghanistan	2019	1,626	4,912	..	6,538	173	*759	*5,777
	2020	1,371	5,152	..	6,523	167	*759	*5,760
	2021	*1,409	*5,100	..	*6,509	*163	*760	*5,749
	2022	*1,414	*5,200	..	*6,614	*163	*764	*5,850
Armenia	2019	7,680	293	1,251	6,721	2,314	882	5,839
	2020	7,839	320	1,333	6,826	2,361	935	5,890
	2021	7,879	368	995	7,252	2,527	910	6,343
	2022	9,190	124	1,571	7,743	2,688	1,018	6,725
Azerbaijan	2019	26,073	137	1,491	24,719	2,445	6,024	18,666
	2020	25,839	137	1,151	24,825	2,438	5,783	19,019
	2021	27,889	152	1,673	26,367	2,576	5,954	20,386
	2022	29,041	137	2,997	26,181	2,543	5,901	20,259
Bahrain	2019	34,445	727	652	34,520	23,235	2,227	30,310
	2020	34,769	681	954	34,496	23,260	2,999	31,752
	2021	35,444	522	388	35,579	23,691	2,455	33,842
	2022	36,954	449	584	36,818	24,010	2,789	34,444
Bangladesh	2019	85,046	6,786	..	91,832	557	14,311	79,198
	2020	85,500	6,674	..	92,174	554	14,480	79,881
	2021	90,847	8,103	..	98,950	590	4,722	87,831
	2022	94,886	7,712	..	102,598	606	4,760	92,838
Bhutan	2019	8,858	96	6,147	2,808	3,672	256	2,279
	2020	11,371	82	9,260	2,193	2,849	241	1,961
	2021	11,371	98	8,076	3,393	4,376	267	2,455
	2022	10,961	204	7,240	3,924	5,026	298	2,467
Brunei Darussalam	2019	4,933	..	..	4,933	11,143	1,028	3,906
	2020	5,736	..	..	5,736	12,820	972	4,732
	2021	5,700	..	..	5,700	12,618	1,017	4,797
	2022	5,602	..	..	5,602	12,303	979	4,553

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Cambodia	2019	8,995	3,063	..	12,058	732	1,360	10,191
	2020	9,092	3,820	..	12,912	772	1,524	11,304
	2021	10,208	3,385	..	13,593	801	1,675	11,816
	2022	10,643	4,799	..	15,442	898	1,897	13,424
China	2019	7,503,458	4,860	21,650	7,486,668	5,259	1,187,949	6,298,689
	2020	7,779,060	4,750	21,790	7,762,020	5,443	1,194,448	6,567,566
	2021	8,534,273	5,940	20,180	8,520,033	5,973	1,266,148	7,253,888
	2022	8,848,707	7,138	20,088	8,835,757	6,200	1,284,057	7,551,705
China, Hong Kong SAR	2019	36,911	12,381	..	49,292	6,585	4,373	44,919
	2020	35,189	12,699	..	47,888	6,393	3,687	44,201
	2021	37,071	12,555	..	49,626	6,630	3,812	45,813
	2022	36,186	12,348	..	48,534	6,501	3,674	44,861
China, Macao SAR	2019	830	4,976	..	5,806	8,653	257	5,550
	2020	562	4,853	..	5,415	7,928	223	5,192
	2021	496	5,192	..	5,688	8,191	234	5,454
	2022	609	4,874	..	5,483	7,785	230	5,252
Cyprus	2019	5,141	..	..	5,141	3,996	419	4,724
	2020	4,849	..	..	4,849	3,724	446	4,377
	2021	5,119	..	..	5,119	3,886	469	4,650
	2022	5,268	..	..	5,268	3,957	393	4,859
Georgia	2019	11,857	1,763	380	13,240	3,487	1,181	12,059
	2020	11,160	1,712	256	12,616	3,324	1,137	11,479
	2021	12,645	3,190	1,575	14,260	3,764	1,142	13,119
	2022	14,247	4,693	4,131	14,809	3,902	1,423	13,386
India	2019	1,576,740	6,351	9,491	1,573,600	1,133	381,279	1,291,493
	2020	*1,533,307	*9,318	*9,426	*1,533,199	*1,093	*380,951	*1,182,189
	2021	*1,610,082	*9,548	*9,574	*1,610,056	*1,138	*425,226	*1,206,619
	2022	1,816,815	7,843	10,253	1,814,405	1,273	426,499	1,403,400
Indonesia	2019	281,248	..	..	281,248	1,032	37,751	258,092
	2020	276,504	..	..	276,504	1,006	38,021	250,204
	2021	289,471	..	..	289,471	1,046	36,722	258,511
	2022	344,244	..	..	344,244	1,235	50,886	294,156
Iran (Islamic Rep. of)	2019	326,672	1,342	8,206	319,807	3,674	50,462	274,079
	2020	342,427	2,674	9,470	335,631	3,826	53,611	287,361
	2021	355,912	3,019	5,723	353,207	3,993	49,867	303,467
	2022	367,669	3,019	5,723	364,965	4,077	51,336	314,929
Iraq	2019	87,370	34,396	..	121,766	2,956	*82,653	*42,087
	2020	85,433	38,814	..	124,247	2,950	*78,509	44,499
	2021	86,164	41,464	..	127,628	2,963	71,439	52,325
	2022	115,530	6,089	..	121,619	2,760	*65,335	56,284
Israel	2019	72,351	..	6,311	66,040	7,628	6,083	59,889
	2020	72,285	..	6,243	66,042	7,504	6,433	60,049
	2021	73,796	..	6,523	67,273	7,523	6,659	60,706
	2022	75,964	..	7,016	68,948	7,574	6,746	63,601
Japan	2019	1,038,532	..	..	1,038,532	8,197	111,056	927,139
	2020	1,016,901	..	..	1,016,901	8,051	112,149	913,432
	2021	1,049,662	..	..	1,049,662	8,352	118,088	923,730
	2022	1,018,606	..	..	1,018,606	8,149	109,690	906,725
Jordan	2019	20,995	239	98	21,137	1,981	2,739	17,910
	2020	20,952	632	190	21,394	1,969	2,784	18,570
	2021	21,289	395	173	21,511	1,944	2,801	18,916
	2022	22,065	263	192	22,136	1,967	*2,670	19,330

Table 34

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Kazakhstan	2019	106,878	1,935	2,419	106,394	5,539	24,884	71,955
	2020	110,890	1,569	2,323	110,136	5,653	26,216	70,122
	2021	115,078	2,071	2,639	114,510	5,800	27,652	86,869
	2022	113,461	3,694	2,243	114,911	5,736	31,723	83,162
Korea, Dem.Ppl's.Rep.	2019	23,853	28	33	23,847	916	6,029	17,818
	2020	24,053	9	7	24,055	920	6,081	17,975
	2021	25,565	0	413	25,153	959	6,397	18,755
	2022	26,465	0	517	25,948	986	6,608	19,340
Korea, Republic of	2019	568,414	..	..	568,414	10,980	59,775	523,815
	2020	574,095	..	..	574,095	11,070	59,291	512,695
	2021	609,460	..	..	609,460	11,755	70,880	535,962
	2022	613,888	..	..	613,888	11,855	71,886	541,727
Kuwait	2019	75,203	451	580	75,074	16,900	31,468	43,605
	2020	74,956	451	135	75,272	17,107	31,718	43,554
	2021	80,757	325	338	80,744	18,516	33,564	47,180
	2022	83,529	130	172	83,487	18,191	34,577	48,910
Kyrgyzstan	2019	15,100	269	271	15,098	2,325	2,742	12,356
	2020	15,404	352	302	15,454	2,319	3,266	12,188
	2021	14,815	1,683	548	15,950	2,339	3,036	12,914
	2022	13,883	2,806	550	16,139	2,320	3,006	13,133
Lao People's Dem. Rep.	2019	31,133	1,345	*22,460	10,018	1,384	*3,424	6,596
	2020	*39,971	*1,331	*29,933	*11,369	*1,548	*3,202	*8,144
	2021	*44,931	*1,358	*33,678	*12,611	*1,692	*2,926	*9,688
	2022	51,031	873	*38,465	13,439	1,778	2,388	11,068
Lebanon	2019	23,869	3	..	23,871	4,120	*2,321	21,637
	2020	19,772	2	..	19,774	3,468	2,123	17,650
	2021	15,879	1	..	15,880	2,777	*1,635	*14,245
	2022	*11,419	..	..	*11,419	*1,988	*1,208	*10,211
Malaysia	2019	178,440	41	1,699	176,782	5,286	18,449	158,709
	2020	174,224	18	1,572	172,671	5,095	18,020	152,131
	2021	180,070	35	977	179,128	5,225	18,623	155,400
	2022	187,398	31	1,416	186,013	5,361	19,382	164,228
Maldives	2019	830	..	..	830	1,702	*71	*759
	2020	745	..	..	745	1,484	*70	*675
	2021	1,195	..	..	1,195	2,316	*100	*1,096
	2022	1,227	..	..	1,227	2,341	*106	*1,121
Mongolia	2019	6,900	1,723	24	8,599	2,660	1,752	6,847
	2020	6,970	1,685	42	8,613	2,617	1,796	6,817
	2021	7,825	1,823	24	9,624	2,882	1,906	7,755
	2022	8,035	2,107	25	10,117	2,988	2,022	8,095
Myanmar	2019	23,778	122	1,281	22,619	430	3,939	18,681
	2020	23,643	129	1,637	22,135	418	4,447	19,196
	2021	22,075	140	852	21,363	400	4,802	17,273
	2022	21,539	203	1,678	20,063	373	4,414	17,125
Nepal	2019	6,134	1,729	107	7,756	273	1,216	6,536
	2020	6,189	2,806	38	8,957	309	1,538	7,415
	2021	9,668	1,543	494	10,717	364	1,709	8,935
	2022	10,583	1,833	1,346	11,070	373	1,731	9,100
Oman	2019	37,550	..	..	37,550	8,179	3,754	33,796
	2020	38,449	..	..	38,449	8,502	5,332	33,169
	2021	41,122	..	..	41,122	9,137	5,461	35,661
	2022	41,374	..	..	41,374	8,747	4,847	36,527

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Other Asia	2019	274,179	..	..	274,179	11,581	28,559	246,145
	2020	279,974	..	..	279,974	11,831	28,788	251,933
	2021	290,936	..	..	290,936	12,350	27,642	264,540
	2022	288,154	..	..	288,154	12,304	28,603	260,464
Pakistan	2019	134,818	499	..	135,317	586	21,642	113,546
	2020	144,049	514	..	144,563	615	29,876	114,687
	2021	144,435	498	..	144,933	605	*26,235	118,698
	2022	127,875	504	..	128,379	527	22,434	106,340
Philippines	2019	106,057	..	..	106,057	957	18,868	87,118
	2020	101,773	..	..	101,773	908	18,530	83,243
	2021	106,131	..	..	106,131	938	18,714	88,636
	2022	111,533	..	..	111,533	979	20,201	91,333
Qatar	2019	49,873	..	..	49,873	17,825	6,212	43,660
	2020	49,259	..	..	49,259	17,571	6,208	43,089
	2021	51,641	..	..	51,641	18,345	6,237	45,404
	2022	54,623	..	..	54,623	18,885	6,419	48,199
Saudi Arabia	2019	367,816	337	33	368,120	12,080	65,363	288,570
	2020	367,498	464	832	367,130	11,846	67,636	289,304
	2021	379,045	308	352	379,001	12,098	*70,700	301,562
	2022	437,654	308	352	437,610	13,601	71,228	320,854
Singapore	2019	54,552	..	..	54,552	9,622	2,172	51,730
	2020	53,582	..	..	53,582	9,534	2,299	50,780
	2021	56,524	..	..	56,524	10,191	2,559	53,483
	2022	58,349	..	..	58,349	10,327	2,795	54,885
Sri Lanka	2019	16,630	..	..	16,630	742	1,876	14,818
	2020	15,801	..	..	15,801	700	2,254	14,656
	2021	17,363	..	..	17,363	765	2,319	15,629
	2022	16,680	..	..	16,680	730	2,141	14,962
State of Palestine	2019	811	6,249	..	7,060	1,424	847	6,213
	2020	840	6,519	..	7,359	1,452	883	6,476
	2021	917	6,678	..	7,595	1,465	911	6,683
	2022	1,021	7,212	..	8,233	1,552	988	7,245
Syrian Arab Republic	2019	22,300	..	347	21,953	1,079	7,242	16,040
	2020	21,000	..	317	20,683	983	6,822	15,112
	2021	21,677	..	346	21,330	986	7,038	15,585
	2022	20,062	..	361	19,701	877	6,505	14,395
Tajikistan	2019	20,676	281	3,175	17,782	1,866	2,642	14,167
	2020	19,734	379	1,870	18,243	1,871	2,860	14,965
	2021	20,624	883	3,307	18,200	1,826	4,371	13,777
	2022	21,399	797	3,341	18,855	1,852	4,142	14,596
Thailand	2019	191,576	25,547	2,882	214,241	2,995	17,113	193,176
	2020	189,645	29,551	2,611	216,585	3,023	17,016	196,706
	2021	*187,758	33,358	1,969	*219,147	*3,055	19,936	199,212
	2022	199,382	35,473	2,060	232,795	3,245	16,428	217,038
Timor-Leste	2019	518	..	..	518	398	*134	384
	2020	505	..	..	505	381	*136	370
	2021	510	..	..	510	378	*131	380
	2022	*522	..	..	*522	*381	*133	*390
Türkiye	2019	303,898	2,212	2,789	303,320	3,554	50,113	253,207
	2020	306,703	1,890	2,484	306,109	3,556	47,384	258,725
	2021	334,723	2,334	4,186	332,871	3,840	50,284	282,587
	2022	328,379	6,439	3,713	331,105	3,803	48,825	282,280

Table 34

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Turkmenistan	2019	22,500	..	1,731	20,769	3,053	7,366	13,404
	2020	25,763	..	4,444	21,319	3,067	7,560	13,758
	2021	28,400	..	6,479	21,921	3,091	7,774	14,147
	2022	32,600	..	9,000	23,600	3,264	8,370	15,230
United Arab Emirates	2019	*138,454	245	257	*138,442	*14,763	*18,513	119,941
	2020	*137,310	206	235	*137,282	*14,529	*19,087	118,223
	2021	149,053	868	657	149,263	15,248	20,025	129,028
	2022	156,120	504	613	156,011	15,232	21,514	134,606
Uzbekistan	2019	63,021	3,379	2,067	64,334	1,952	4,891	54,175
	2020	66,516	5,207	2,687	69,037	2,056	12,232	51,951
	2021	71,414	6,232	2,644	75,002	2,190	14,623	55,632
	2022	74,268	4,977	2,703	76,542	2,191	6,881	56,622
Viet Nam	2019	*232,602	2,401	1,311	*233,692	*2,405	26,643	207,049
	2020	240,543	3,067	1,555	242,055	2,468	24,251	215,743
	2021	253,498	1,403	582	254,320	2,571	31,740	223,529
	2022	276,372	3,257	965	278,664	2,796	33,559	225,448
Yemen	2019	3,041	..	..	3,041	87	987	2,182
	2020	2,606	..	..	2,606	72	807	2,159
	2021	2,359	..	..	2,359	64	676	2,308
	2022	2,544	..	..	2,544	67	697	2,620
<b>Europe</b>	<b>2019</b>	<b>4,847,797</b>	<b>468,316</b>	<b>469,447</b>	<b>4,846,666</b>	<b>6,448</b>	<b>901,891</b>	<b>3,932,717</b>
	<b>2020</b>	<b>4,695,775</b>	<b>473,548</b>	<b>476,753</b>	<b>4,692,570</b>	<b>6,242</b>	<b>870,438</b>	<b>3,808,820</b>
	<b>2021</b>	<b>4,904,913</b>	<b>511,306</b>	<b>514,530</b>	<b>4,901,689</b>	<b>6,528</b>	<b>878,896</b>	<b>4,000,024</b>
	<b>2022</b>	<b>4,757,241</b>	<b>530,872</b>	<b>543,789</b>	<b>4,744,324</b>	<b>6,333</b>	<b>874,634</b>	<b>3,872,915</b>
Albania	2019	5,206	3,177	770	7,612	2,638	1,429	6,183
	2020	5,313	3,239	963	7,589	2,642	1,273	6,316
	2021	8,963	2,252	2,800	8,415	2,953	1,749	6,666
	2022	7,003	3,044	2,123	7,924	2,802	1,336	6,587
Andorra	2019	118	465	0	583	7,617	71	490
	2020	153	375	0	529	6,833	60	447
	2021	109	426	0	535	6,827	65	448
	2022	100	461	0	561	7,045	67	472
Austria	2019	74,234	26,047	22,918	77,363	8,711	13,818	63,512
	2020	72,558	24,522	22,327	74,754	8,379	13,184	61,532
	2021	70,757	26,436	18,893	78,300	8,732	13,800	64,453
	2022	69,228	28,595	19,890	77,933	8,597	14,043	63,866
Belarus	2019	40,465	3,059	5,398	38,126	4,041	7,196	30,930
	2020	38,548	4,277	4,777	38,048	4,069	7,192	30,856
	2021	41,240	4,300	4,600	40,940	4,425	7,932	33,008
	2022	39,400	4,000	4,700	38,700	4,219	7,509	31,192
Belgium	2019	93,646	12,734	14,589	91,791	7,988	10,313	81,705
	2020	89,455	13,722	14,055	89,122	7,723	9,880	78,883
	2021	100,465	15,194	23,070	92,589	8,002	10,383	81,362
	2022	95,944	16,350	23,877	88,417	7,595	10,443	76,557
Bosnia and Herzegovina	2019	17,493	2,825	6,565	13,753	4,111	2,760	10,993
	2020	16,874	3,266	7,317	12,823	3,887	2,887	9,936
	2021	18,536	3,259	8,014	13,781	4,247	2,952	10,830
	2022	16,384	3,828	6,856	13,356	4,167	2,738	10,618
Bulgaria	2019	44,277	3,045	8,855	38,466	5,515	8,853	30,215
	2020	40,754	3,707	7,115	37,346	5,386	8,062	28,610
	2021	47,568	1,857	10,635	38,790	5,640	8,209	30,970
	2022	50,499	1,470	13,665	38,305	5,612	8,408	30,719



## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Croatia	2019	12,760	11,401	5,268	18,893	4,740	2,738	16,155
	2020	13,385	10,491	5,852	18,025	4,559	2,809	15,215
	2021	15,210	11,505	7,544	19,171	4,885	2,676	16,495
	2022	14,221	11,920	7,225	18,915	4,841	2,671	16,245
Czechia	2019	87,035	11,026	24,123	73,939	7,005	14,340	58,416
	2020	81,525	13,368	23,521	71,372	6,765	13,709	57,100
	2021	85,016	15,153	26,228	73,940	7,021	13,072	59,983
	2022	84,848	16,726	30,255	71,319	6,682	12,602	58,632
Denmark	2019	29,517	15,982	10,171	35,328	6,076	4,122	30,750
	2020	28,729	18,594	11,711	35,611	6,107	4,458	30,240
	2021	33,051	20,120	15,251	37,920	6,474	4,494	32,107
	2022	35,129	18,752	17,390	36,492	6,182	4,535	30,604
Estonia	2019	7,616	4,861	2,704	9,773	7,365	1,985	7,317
	2020	6,078	7,367	3,723	9,722	7,312	1,497	7,180
	2021	7,204	7,332	4,703	9,833	7,384	1,985	7,884
	2022	8,937	7,183	6,172	9,948	7,368	2,807	7,142
Faeroe Islands	2019	386	..	..	386	7,447	*36	350
	2020	407	..	..	407	7,736	36	371
	2021	424	..	..	424	7,952	36	388
	2022	434	..	..	434	8,036	39	395
Finland	2019	68,650	23,938	3,896	88,692	16,062	6,989	81,310
	2020	69,268	21,774	6,670	84,372	15,258	7,062	76,898
	2021	72,121	24,492	6,724	89,889	16,222	7,197	82,094
	2022	72,221	19,397	6,880	84,738	15,215	7,244	76,867
France	2019	570,775	15,632	73,299	513,108	7,551	77,104	431,705
	2020	532,255	19,536	64,575	487,216	7,150	73,612	411,359
	2021	555,082	24,334	69,227	510,190	7,467	77,160	433,072
	2022	474,744	52,437	37,493	489,689	7,146	73,630	414,700
Germany	2019	606,917	40,126	72,793	574,250	6,872	77,735	496,515
	2020	575,462	47,853	66,882	556,433	6,654	74,205	482,227
	2021	592,799	51,731	70,306	574,224	6,861	74,485	499,738
	2022	580,266	49,331	76,587	553,010	6,577	75,264	477,745
Gibraltar	2019	220	..	..	220	6,193	11	209
	2020	215	..	..	215	5,933	11	204
	2021	223	..	..	223	6,053	11	212
	2022	211	..	..	211	5,606	11	200
Greece	2019	48,626	11,067	1,123	58,570	5,464	8,373	50,197
	2020	48,252	9,831	967	57,116	5,338	9,587	47,529
	2021	54,744	7,581	3,897	58,428	5,523	8,695	49,242
	2022	52,670	7,751	4,304	56,117	5,389	8,357	48,128
Guernsey	2019	165	204	..	369	5,870	22	348
	2020	23	347	..	370	5,860	*32	338
	2021	27	355	..	382	6,032	*19	*364
	2022	29	337	..	366	5,751	*21	*346
Hungary	2019	34,291	19,853	7,269	46,875	4,798	6,607	40,222
	2020	34,930	19,176	7,499	46,607	4,780	6,300	40,046
	2021	36,120	19,967	7,213	48,874	5,035	6,113	41,716
	2022	35,775	21,589	9,437	47,927	4,949	5,844	41,346
Iceland	2019	19,489	..	..	19,489	54,031	1,075	18,227
	2020	19,127	..	..	19,127	52,173	1,069	17,869
	2021	19,614	..	..	19,614	52,635	1,112	18,345
	2022	20,120	..	..	20,120	52,899	1,121	18,873

Table 34

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Ireland	2019	30,956	2,180	1,535	31,600	6,405	3,575	28,431
	2020	32,267	1,761	1,913	32,115	6,445	3,743	28,653
	2021	31,862	2,451	863	33,449	6,652	3,883	30,017
	2022	33,856	1,582	1,330	34,108	6,675	3,773	30,768
Isle of Man	2019	581	*23	192	412	4,907	*46	366
	2020	552	*24	168	408	4,847	62	352
	2021	360	*151	103	408	4,856	*62	342
	2022	577	50	194	433	5,149	*60	363
Italy	2019	293,853	43,975	5,834	331,994	5,518	40,061	291,933
	2020	280,531	39,790	7,590	312,731	5,217	37,531	275,200
	2021	289,074	46,572	3,782	331,863	5,553	39,663	292,200
	2022	283,961	47,391	4,404	326,948	5,481	39,947	286,988
Jersey	2019	44	630	..	675	6,559	40	632
	2020	43	610	..	653	6,334	39	613
	2021	33	641	..	675	6,529	44	633
	2022	41	606	..	647	6,254	38	607
Kosovo	2019	6,348	928	905	6,372	3,631	1,643	4,714
	2020	6,713	966	1,283	6,395	3,651	1,497	4,894
	2021	6,892	3,336	2,649	7,579	4,352	1,670	5,802
	2022	6,998	3,687	3,139	7,546	4,393	1,492	5,713
Latvia	2019	6,438	4,611	3,493	7,556	3,947	918	6,637
	2020	5,725	4,173	2,548	7,350	3,866	826	6,524
	2021	5,846	4,666	2,894	7,619	4,041	879	6,739
	2022	4,997	5,308	2,997	7,309	3,885	846	6,462
Liechtenstein	2019	103	307	..	410	10,666	0	410
	2020	104	299	..	402	10,377	0	402
	2021	107	311	..	418	10,696	0	418
	2022	103	309	..	412	10,484	0	412
Lithuania	2019	3,972	13,268	3,924	13,315	4,764	2,771	10,541
	2020	5,518	12,013	4,105	13,426	4,802	3,068	10,355
	2021	5,079	12,479	3,435	14,122	5,054	2,965	11,154
	2022	4,783	12,934	4,366	13,350	4,739	2,685	10,663
Luxembourg	2019	1,908	6,818	939	7,787	12,557	1,390	6,397
	2020	2,234	6,543	1,079	7,699	12,209	1,579	6,120
	2021	2,211	6,758	1,037	7,932	12,389	1,540	6,393
	2022	2,238	7,146	1,639	7,745	11,855	1,585	6,143
Malta	2019	2,060	657	20	2,696	5,349	222	2,474
	2020	2,143	420	4	2,559	4,938	196	2,363
	2021	2,215	547	36	2,726	5,199	224	2,502
	2022	2,293	646	7	2,933	5,552	239	2,694
Montenegro	2019	3,423	1,196	943	3,676	6,009	622	3,054
	2020	3,386	5,943	5,864	3,465	5,699	628	2,837
	2021	3,781	5,318	5,489	3,610	5,979	633	2,978
	2022	3,322	5,352	5,487	3,188	5,186	583	2,604
Netherlands (Kingd. of the)	2019	121,411	20,403	19,548	122,266	6,972	14,336	107,640
	2020	123,279	19,773	22,433	120,620	6,839	13,126	106,351
	2021	122,093	20,885	20,632	122,346	6,900	13,790	106,756
	2022	121,810	18,544	22,811	117,544	6,565	13,821	103,786
North Macedonia	2019	5,870	6,882	5,054	7,698	4,056	1,457	6,241
	2020	5,347	6,734	4,408	7,674	4,099	1,449	6,225
	2021	5,532	7,407	4,930	8,009	4,327	1,445	6,564
	2022	5,933	7,074	5,662	7,346	3,992	1,456	5,890

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Norway	2019	134,907	12,353	12,309	134,951	25,235	17,889	116,207
	2020	155,196	4,496	24,968	134,724	25,045	17,604	116,190
	2021	157,922	8,235	25,819	140,338	25,950	17,102	122,226
	2022	146,731	13,271	25,792	134,210	24,595	18,438	115,056
Poland	2019	163,989	17,868	7,245	174,611	4,568	34,200	140,411
	2020	158,043	20,624	7,357	171,310	4,488	33,988	137,321
	2021	179,631	15,100	14,212	180,519	4,745	36,830	143,687
	2022	179,748	15,238	16,915	178,071	4,639	36,599	141,471
Portugal	2019	53,154	8,099	4,700	56,553	5,468	8,674	47,880
	2020	53,078	7,553	6,097	54,535	5,259	8,214	46,254
	2021	50,980	9,544	4,791	55,733	5,364	8,338	47,321
	2022	48,808	12,315	3,061	58,061	5,574	9,397	48,664
Republic of Moldova	2019	941	3,501	..	4,442	1,427	629	3,813
	2020	983	3,418	..	4,401	1,434	594	3,807
	2021	1,131	3,607	..	4,738	1,567	610	4,128
	2022	995	3,751	94	4,652	1,530	611	4,041
Romania	2019	59,623	5,493	3,975	61,141	3,135	15,545	45,573
	2020	55,935	8,252	5,459	58,727	3,028	14,668	44,024
	2021	59,470	8,697	6,499	61,669	3,204	15,041	46,048
	2022	56,003	8,653	7,429	57,226	2,986	13,635	42,730
Russian Federation	2019	1,121,492	1,618	20,049	1,103,061	7,528	344,218	755,636
	2020	1,089,668	1,378	12,116	1,078,930	7,371	328,580	747,462
	2021	1,159,417	1,564	22,903	1,138,078	7,804	326,999	807,621
	2022	1,151,156	1,574	17,970	1,134,760	7,795	330,188	822,819
Serbia	2019	37,600	5,417	5,341	37,676	5,408	9,682	27,994
	2020	37,956	5,070	5,675	37,351	5,407	9,471	27,881
	2021	38,236	6,984	6,333	38,886	5,689	9,687	29,200
	2022	35,510	8,447	5,696	38,261	5,634	9,281	28,981
Slovakia	2019	28,434	13,538	11,838	30,134	5,529	4,907	25,192
	2020	28,838	13,289	12,970	29,157	5,345	5,323	23,813
	2021	30,016	13,884	13,110	30,790	5,657	5,220	25,549
	2022	26,838	16,743	15,331	28,250	5,162	5,358	22,870
Slovenia	2019	16,100	9,021	9,340	15,781	7,574	2,102	13,679
	2020	17,191	7,120	9,123	15,188	7,224	2,236	12,951
	2021	15,877	8,387	8,658	15,607	7,384	2,148	13,459
	2022	13,616	10,198	8,752	15,061	7,120	2,021	13,041
Spain	2019	273,257	18,721	11,859	280,119	5,905	44,912	234,529
	2020	263,373	17,928	14,649	266,653	5,593	46,550	219,655
	2021	274,312	17,411	16,559	275,164	5,764	47,200	227,880
	2022	292,454	8,032	27,833	272,652	5,701	47,985	224,366
Sweden	2019	168,439	9,070	35,231	142,278	13,841	16,230	124,542
	2020	163,833	11,827	36,824	138,836	13,409	14,040	122,985
	2021	171,798	8,341	33,909	146,230	14,039	16,913	127,531
	2022	173,159	6,181	39,400	139,940	13,344	15,994	122,769
Switzerland	2019	73,478	29,505	35,765	67,218	7,837	10,021	57,197
	2020	71,654	26,988	32,548	66,094	7,649	10,380	55,714
	2021	66,042	31,532	29,119	68,455	7,862	10,341	58,114
	2022	65,666	33,117	29,734	69,049	7,853	12,019	57,031
Ukraine	2019	154,141	2,238	6,283	150,096	3,339	32,919	116,689
	2020	148,408	2,720	5,139	145,989	3,267	31,655	113,510
	2021	157,915	1,458	3,497	155,875	3,519	29,196	118,680
	2022	113,394	4,101	6,100	111,395	2,714	23,942	80,487

Table 34

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
United Kingdom	2019	323,391	24,556	3,385	344,562	5,134	47,305	298,156
	2020	310,467	22,391	4,481	328,377	4,876	46,468	283,208
	2021	307,810	28,743	4,166	332,387	4,912	44,329	286,709
	2022	324,085	15,451	20,793	318,742	4,675	43,954	274,261
Latin America & Carib.	2019	1,674,659	44,921	43,385	1,676,195	2,614	302,640	1,349,927
	2020	1,625,477	50,111	42,674	1,632,914	2,529	294,343	1,362,086
	2021	1,754,627	37,674	34,701	1,757,600	2,706	315,113	1,405,337
	2022	1,744,220	40,328	36,113	1,748,436	2,676	320,749	1,436,324
Anguilla	2019	100	..	..	100	6,721	11	*88
	2020	90	..	..	90	6,094	10	*80
	2021	98	..	..	98	6,771	*12	*86
	2022	106	..	..	106	7,461	*20	*86
Antigua and Barbuda	2019	358	..	..	358	3,923	54	*305
	2020	347	..	..	347	3,776	46	307
	2021	351	..	..	351	3,799	*47	*304
	2022	*368	..	..	*368	*3,964	*53	*315
Argentina	2019	145,990	10,946	261	156,675	3,484	24,995	125,619
	2020	144,924	7,802	3,089	149,637	3,311	25,399	124,522
	2021	153,779	6,348	3,850	156,277	3,449	27,121	129,064
	2022	146,315	12,906	31	159,190	3,506	35,587	124,413
Aruba	2019	*973	..	..	*973	*9,088	*158	809
	2020	*912	..	..	*912	*8,487	*155	743
	2021	*955	..	..	*955	*8,883	*155	783
	2022	*964	..	..	*964	*8,942	*156	793
Bahamas	2019	1,897	..	..	1,897	4,806	*282	1,615
	2020	1,798	..	..	1,798	4,543	275	1,523
	2021	1,968	..	..	1,968	4,965	*369	1,599
	2022	2,175	..	..	2,175	5,472	*468	1,708
Barbados	2019	1,083	..	..	1,083	3,851	139	944
	2020	1,016	..	..	1,016	3,607	122	894
	2021	1,025	..	..	1,025	3,632	120	903
	2022	1,068	..	..	1,068	3,782	130	939
Belize	2019	364	384	..	748	1,938	96	608
	2020	433	270	..	703	1,800	94	557
	2021	365	380	..	745	1,885	95	579
	2022	466	323	..	789	1,960	105	622
Bolivia (Plur. State of)	2019	10,259	..	..	10,259	879	1,284	8,680
	2020	9,978	..	..	9,978	844	1,341	8,365
	2021	10,879	..	..	10,879	911	1,454	9,011
	2022	11,408	..	..	11,408	945	1,652	9,505
Bonaire, St Eustatius, Saba	2019	145	..	..	145	5,655	*34	*110
	2020	145	..	..	145	5,485	*34	*111
	2021	156	..	..	156	5,717	*35	*121
	2022	*163	..	..	*163	*5,687	*38	*125
Brazil	2019	626,329	25,156	199	651,286	3,139	138,411	512,874
	2020	621,198	25,113	395	645,916	3,096	137,369	508,548
	2021	656,109	23,147	44	679,212	3,241	146,627	532,585
	2022	677,372	17,887	4,979	690,280	3,282	139,139	550,942
British Virgin Islands	2019	201	..	..	201	5,522	35	166
	2020	*205	..	..	*205	*5,507	*36	*168
	2021	*209	..	..	*209	*5,519	*37	*172
	2022	*212	..	..	*212	*5,542	*38	*175

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Cayman Islands	2019	696	..	..	696	10,332	6	689
	2020	668	..	..	668	9,721	3	665
	2021	678	..	..	678	9,677	2	677
	2022	698	..	..	698	9,748	7	691
Chile	2019	84,558	..	..	84,558	4,405	6,775	74,097
	2020	83,994	..	..	83,994	4,336	6,277	74,514
	2021	88,019	..	..	88,019	4,524	6,775	76,320
	2022	91,019	..	..	91,019	4,655	7,586	79,357
Colombia	2019	80,415	312	0	80,727	1,618	14,645	67,488
	2020	79,550	1,302	251	80,600	1,592	14,935	65,907
	2021	86,872	479	364	86,987	1,699	18,991	68,826
	2022	87,056	159	465	86,750	1,677	15,136	70,198
Costa Rica	2019	11,508	340	323	11,525	2,305	1,301	10,190
	2020	11,730	118	624	11,224	2,229	1,318	9,905
	2021	12,737	6	1,009	11,734	2,319	1,285	10,363
	2022	12,583	54	774	11,864	2,335	1,300	10,430
Cuba	2019	20,706	449	..	21,155	1,888	5,372	15,691
	2020	19,071	1,402	..	20,473	1,832	5,425	14,972
	2021	17,966	1,385	..	19,350	1,740	5,483	13,739
	2022	15,874	2,591	..	18,465	1,670	5,160	13,226
Curaçao	2019	879	..	..	879	4,639	114	765
	2020	839	..	..	839	4,536	109	730
	2021	846	..	..	846	4,566	110	736
	2022	867	..	..	867	4,677	112	754
Dominica	2019	138	..	..	138	2,037	*13	*126
	2020	142	..	..	142	2,103	*13	*129
	2021	146	..	..	146	2,177	*12	*134
	2022	147	..	..	147	2,202	*13	*134
Dominican Republic	2019	21,200	..	..	21,200	1,946	3,497	16,816
	2020	19,495	..	..	19,495	1,771	3,216	16,746
	2021	21,397	..	..	21,397	1,924	2,958	18,764
	2022	21,420	..	..	21,420	1,907	2,720	19,312
Ecuador	2019	32,284	6	1,827	30,463	1,757	4,659	25,816
	2020	31,248	251	1,341	30,158	1,719	4,737	25,418
	2021	32,214	364	524	32,054	1,813	4,915	26,976
	2022	33,008	466	192	33,282	1,867	5,289	27,797
El Salvador	2019	5,921	1,450	158	7,213	1,159	1,031	6,343
	2020	6,219	774	131	6,861	1,101	990	5,988
	2021	6,361	1,316	34	7,644	1,222	1,302	6,571
	2022	7,584	706	338	7,952	1,266	1,042	7,162
Falkland Is. (Malvinas)	2019	18	..	..	18	5,108	*1	*17
	2020	18	..	..	18	5,214	*1	*17
	2021	19	..	..	19	5,333	*1	*17
	2022	*19	..	..	*19	*5,509	*1	*18
Grenada	2019	245	..	..	245	2,115	22	223
	2020	227	..	..	227	1,953	23	204
	2021	229	..	..	229	1,964	22	207
	2022	238	..	..	238	2,033	24	214
Guatemala	2019	13,563	1,141	2,190	12,514	732	1,853	10,660
	2020	12,013	1,085	1,156	11,942	688	1,560	10,381
	2021	13,061	1,141	1,116	13,086	744	1,712	11,760
	2022	12,852	1,481	1,104	13,229	741	1,978	11,252

Table 34

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Guyana	2019	1,135	..	..	1,135	1,405	269	869
	2020	1,136	..	..	1,136	1,407	255	881
	2021	1,143	..	..	1,143	1,402	255	883
	2022	*1,152	..	..	*1,152	*1,402	*255	*892
Haiti	2019	1,064	..	..	1,064	96	178	918
	2020	1,029	..	..	1,029	92	172	*856
	2021	1,033	..	..	1,033	91	173	890
	2022	1,012	..	..	1,012	88	170	878
Honduras	2019	10,586	260	6	10,839	1,090	3,210	7,639
	2020	10,059	292	0	10,351	1,023	3,596	6,766
	2021	10,957	204	3	11,159	1,084	3,418	7,757
	2022	11,149	195	5	11,340	1,084	3,596	7,605
Jamaica	2019	4,465	..	..	4,465	1,581	1,189	3,409
	2020	4,939	..	..	4,939	1,745	1,244	3,873
	2021	4,705	..	..	4,705	1,658	1,275	3,646
	2022	5,243	..	..	5,243	1,847	1,273	3,380
Mexico	2019	344,839	3,907	3,084	345,662	2,749	50,618	280,076
	2020	317,680	9,965	5,955	321,690	2,537	46,213	299,959
	2021	381,364	1,737	2,693	380,408	2,980	50,549	295,041
	2022	343,847	2,147	2,421	343,573	2,671	56,789	299,995
Montserrat	2019	14	..	..	14	3,190	2	12
	2020	14	..	..	14	3,121	1	12
	2021	14	..	..	14	3,017	1	11
	2022	14	..	..	14	3,035	1	11
Nicaragua	2019	4,576	434	0	5,010	773	1,568	3,769
	2020	3,791	1,071	0	4,862	741	1,464	3,653
	2021	4,213	1,005	0	5,219	785	1,582	3,879
	2022	4,369	1,062	..	5,432	807	1,364	3,903
Panama	2019	13,667	77	427	13,317	3,145	2,238	12,345
	2020	13,394	117	567	12,944	3,015	2,018	12,896
	2021	14,289	63	502	13,851	3,187	1,789	14,402
	2022	14,166	235	392	14,009	3,183	983	14,874
Paraguay	2019	49,448	..	31,748	17,700	2,717	4,860	12,840
	2020	46,373	..	28,005	18,368	2,781	4,649	13,719
	2021	40,576	..	21,719	18,857	2,821	5,151	13,706
	2022	43,881	..	23,995	19,886	2,941	5,493	14,433
Peru	2019	57,038	60	..	57,099	1,760	7,267	49,831
	2020	52,803	37	..	52,841	1,609	7,194	45,647
	2021	56,833	43	..	56,876	1,715	7,295	49,490
	2022	59,772	32	..	59,804	1,787	7,585	52,146
Puerto Rico	2019	18,886	..	..	18,886	5,744	*1,803	16,077
	2020	18,774	..	..	18,774	5,731	*1,759	16,035
	2021	19,184	..	..	19,184	5,897	*1,846	16,269
	2022	18,325	..	..	18,325	5,654	*1,749	15,683
Saint Barthélemy	2019	116	..	..	116	11,258	*8	*108
	2020	121	..	..	121	11,490	*8	*113
	2021	133	..	..	133	12,360	*9	*124
	2022	140	..	..	140	12,843	*9	*131
Saint Martin (French Part)	2019	168	..	..	168	4,900	*11	*157
	2020	173	..	..	173	5,449	*12	*161
	2021	178	..	..	178	5,951	*12	*166
	2022	182	..	..	182	6,318	*12	*170

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Sint Maarten (Dutch part)	2019	*296	..	..	*296	*7,322	*9	*274
	2020	265	..	..	265	6,450	*8	*257
	2021	*286	..	..	*286	*6,873	*9	*277
	2022	*291	..	..	*291	*6,915	*10	*281
St. Kitts-Nevis	2019	250	..	..	250	5,331	*43	*207
	2020	234	..	..	234	4,997	*44	*191
	2021	228	..	..	228	4,885	*44	*185
	2022	235	..	..	235	5,039	*44	*191
St. Lucia	2019	408	..	..	408	2,299	39	369
	2020	372	..	..	372	2,088	36	336
	2021	391	..	..	391	2,190	38	353
	2022	409	..	..	409	2,290	36	374
St. Vincent-Grenadines	2019	154	..	..	154	1,478	15	138
	2020	152	..	..	152	1,471	14	140
	2021	145	..	..	145	1,409	15	138
	2022	*154	..	..	*154	*1,504	*15	*145
Suriname	2019	1,868	..	..	1,868	3,084	439	1,430
	2020	1,730	..	..	1,730	2,825	376	1,354
	2021	1,594	..	..	1,594	2,579	285	1,309
	2022	2,097	..	..	2,097	3,365	297	1,800
Trinidad and Tobago	2019	9,188	..	..	9,188	6,188	759	8,429
	2020	9,225	..	..	9,225	6,229	759	8,463
	2021	9,262	..	..	9,262	6,225	759	8,497
	2022	9,577	..	..	9,577	6,402	922	8,656
Turks and Caicos Islands	2019	*261	..	..	*261	*6,050	*20	*241
	2020	*256	..	..	*256	*5,778	*20	*237
	2021	*267	..	..	*267	*5,894	*23	*244
	2022	*265	..	..	*265	*5,791	*20	*246
United States Virgin Is.	2019	637	..	..	637	7,126	*57	*579
	2020	666	..	..	666	7,598	*60	*606
	2021	710	..	..	710	8,136	*66	*644
	2022	692	..	..	692	8,001	*67	*626
Uruguay	2019	16,090	0	3,011	13,079	3,850	1,876	11,321
	2020	13,557	515	1,148	12,924	3,802	1,685	11,347
	2021	15,953	55	2,844	13,165	3,876	1,752	11,529
	2022	14,759	84	1,416	13,427	3,960	1,788	11,749
Venezuela (Bolivar. Rep.)	2019	79,676	0	152	79,524	2,748	21,373	58,152
	2020	82,471	0	14	82,458	2,899	*19,268	63,189
	2021	84,730	0	0	84,730	3,001	*19,129	*65,601
	2022	88,504	0	0	88,504	3,137	20,519	67,987
<b>Northern America</b>	<b>2019</b>	<b>5,045,070</b>	<b>72,385</b>	<b>80,419</b>	<b>5,037,036</b>	<b>13,407</b>	<b>676,164</b>	<b>4,359,728</b>
	<b>2020</b>	<b>4,912,714</b>	<b>71,233</b>	<b>81,556</b>	<b>4,902,391</b>	<b>12,978</b>	<b>602,421</b>	<b>4,296,843</b>
	<b>2021</b>	<b>5,020,580</b>	<b>66,183</b>	<b>74,248</b>	<b>5,012,514</b>	<b>13,235</b>	<b>647,769</b>	<b>4,364,817</b>
	<b>2022</b>	<b>5,147,943</b>	<b>71,086</b>	<b>81,163</b>	<b>5,137,866</b>	<b>13,504</b>	<b>602,357</b>	<b>4,543,689</b>
Bermuda	2019	613	..	..	613	9,564	*57	554
	2020	*590	..	..	*590	*9,164	*72	518
	2021	*595	..	..	*595	*9,197	*72	523
	2022	*601	..	..	*601	*9,274	*74	*527
Canada	2019	652,113	13,333	60,411	605,035	16,013	75,225	528,841
	2020	651,463	9,784	67,421	593,826	15,557	72,752	518,135
	2021	644,689	13,016	60,393	597,312	15,533	71,887	525,684
	2022	651,311	14,116	65,405	600,022	15,456	71,881	536,509

Table 34

## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Greenland	2019	531	..	..	531	9,467	*26	331
	2020	566	..	..	566	10,101	*27	351
	2021	569	..	..	569	10,157	*29	353
	2022	614	..	..	614	10,966	*28	*398
St. Pierre-Miquelon	2019	52	..	..	52	8,871	3	*49
	2020	51	..	..	51	8,788	3	*49
	2021	51	..	..	51	8,774	2	*49
	2022	50	..	..	50	8,673	2	*48
United States	2019	4,391,761	59,052	20,008	4,430,805	13,117	600,853	3,829,952
	2020	4,260,044	61,449	14,135	4,307,358	12,690	529,568	3,777,790
	2021	4,374,676	53,167	13,855	4,413,988	12,976	575,779	3,838,209
	2022	4,495,368	56,970	15,758	4,536,580	13,283	530,372	4,006,208
<b>Oceania</b>	<b>2019</b>	<b>321,702</b>	<b>..</b>	<b>..</b>	<b>321,702</b>	<b>7,395</b>	<b>53,759</b>	<b>267,670</b>
	<b>2020</b>	<b>321,769</b>	<b>..</b>	<b>..</b>	<b>321,769</b>	<b>7,300</b>	<b>54,427</b>	<b>266,685</b>
	<b>2021</b>	<b>322,188</b>	<b>..</b>	<b>..</b>	<b>322,188</b>	<b>7,231</b>	<b>55,045</b>	<b>266,228</b>
	<b>2022</b>	<b>328,657</b>	<b>..</b>	<b>..</b>	<b>328,657</b>	<b>7,296</b>	<b>56,599</b>	<b>270,792</b>
American Samoa	2019	178	..	..	178	3,536	22	*155
	2020	180	..	..	180	3,626	23	*157
	2021	183	..	..	183	3,720	24	*160
	2022	183	..	..	183	3,787	20	*159
Australia	2019	264,025	..	..	264,025	10,361	47,507	216,518
	2020	265,178	..	..	265,178	10,301	48,521	216,657
	2021	265,554	..	..	265,554	10,231	49,178	216,376
	2022	271,532	..	..	271,532	10,363	50,691	220,841
Cook Islands	2019	39	..	..	39	2,425	*2	*37
	2020	34	..	..	34	2,178	*2	*32
	2021	34	..	..	34	2,217	*2	*32
	2022	38	..	..	38	2,548	2	*36
Fiji	2019	1,074	..	..	1,074	1,174	*124	950
	2020	989	..	..	989	1,081	*115	874
	2021	949	..	..	949	1,035	*120	829
	2022	1,093	..	..	1,093	1,189	*132	961
French Polynesia	2019	695	..	..	695	2,492	38	652
	2020	668	..	..	668	2,392	39	623
	2021	672	..	..	672	2,401	39	633
	2022	680	..	..	680	2,427	37	643
Guam	2019	1,724	..	..	1,724	10,652	155	1,568
	2020	1,683	..	..	1,683	10,378	160	1,523
	2021	*1,712	..	..	*1,712	*10,455	157	1,555
	2022	*1,703	..	..	*1,703	*10,307	152	*1,550
Kiribati	2019	38	..	..	38	303	6	*32
	2020	*37	..	..	*37	*296	4	*33
	2021	*38	..	..	*38	*294	6	*32
	2022	*38	..	..	*38	*293	*5	*33
Marshall Islands	2019	*90	..	..	*90	*2,045	12	*78
	2020	*90	..	..	*90	*2,107	*13	*77
	2021	*82	..	..	*82	*1,985	*13	*69
	2022	*92	..	..	*92	*2,296	*13	*79
Micronesia (Fed. States of)	2019	*77	..	..	*77	*695	*24	*53
	2020	*85	..	..	*85	*765	*25	*60
	2021	*90	..	..	*90	*806	25	*65
	2022	*91	..	..	*91	*815	*24	*67



## Electricity supply and consumption

Gigawatt-hours and kilowatt-hours per capita

Country or area	Year	Production	Imports	Exports	Supply		Consumption	
					Total	Per capita	EIOU+losses	TFC
Nauru	2019	36	..	..	36	3,118	6	30
	2020	38	..	..	38	3,271	*7	30
	2021	*42	..	..	*42	*3,613	*6	*36
	2022	*44	..	..	*44	*3,712	*7	*37
New Caledonia	2019	3,334	..	..	3,334	11,754	61	3,273
	2020	3,233	..	..	3,233	11,376	67	3,166
	2021	2,910	..	..	2,910	10,202	66	2,844
	2022	3,148	..	..	3,148	10,965	56	3,092
New Zealand	2019	45,148	..	..	45,148	9,049	5,282	39,595
	2020	44,531	..	..	44,531	8,783	4,968	38,778
	2021	44,611	..	..	44,611	8,734	4,918	38,892
	2022	44,691	..	..	44,691	8,709	4,970	38,558
Niue	2019	*4	..	..	*4	*2,164	*1	*3
	2020	*4	..	..	*4	*2,157	0	*3
	2021	*4	..	..	*4	*2,140	0	*3
	2022	*4	..	..	*4	*2,186	0	*4
Northern Mariana Islands	2019	*392	..	..	*392	*8,145	*86	*306
	2020	*293	..	..	*293	*6,165	*63	*230
	2021	*305	..	..	*305	*6,492	*66	*239
	2022	*308	..	..	*308	*6,684	*63	*245
Palau	2019	95	..	..	95	5,310	*10	*85
	2020	*96	..	..	*96	*5,396	*10	*86
	2021	97	..	..	97	5,455	*10	*87
	2022	*97	..	..	*97	*5,462	*10	*87
Papua New Guinea	2019	*4,299	..	..	*4,299	*447	373	3,930
	2020	*4,169	..	..	*4,169	*425	361	3,944
	2021	*4,446	..	..	*4,446	*444	361	3,972
	2022	*4,447	..	..	*4,447	*436	*361	*3,986
Samoa	2019	169	..	..	169	807	18	152
	2020	172	..	..	172	814	16	157
	2021	171	..	..	171	798	19	152
	2022	172	..	..	172	798	19	154
Solomon Islands	2019	107	..	..	107	147	*18	*88
	2020	106	..	..	106	143	*18	*88
	2021	106	..	..	106	139	*19	*87
	2022	104	..	..	104	134	*20	*84
Tonga	2019	71	..	..	71	668	8	*63
	2020	73	..	..	73	693	8	*65
	2021	75	..	..	75	710	8	*67
	2022	77	..	..	77	735	8	*70
Tuvalu	2019	9	..	..	9	850	2	7
	2020	*10	..	..	*10	*916	*1	9
	2021	*10	..	..	*10	*945	*3	*7
	2022	*10	..	..	*10	*981	*3	*7
Vanuatu	2019	80	..	..	80	276	6	75
	2020	76	..	..	76	253	5	69
	2021	75	..	..	75	244	4	68
	2022	79	..	..	79	251	4	76
Wallis and Futuna Is.	2019	*21	..	..	*21	*1,776	*1	*20
	2020	*23	..	..	*23	*2,016	*2	*22
	2021	*24	..	..	*24	*2,089	*2	*22
	2022	*26	..	..	*26	*2,277	*2	*24



### Production of heat – by type

Terajoules

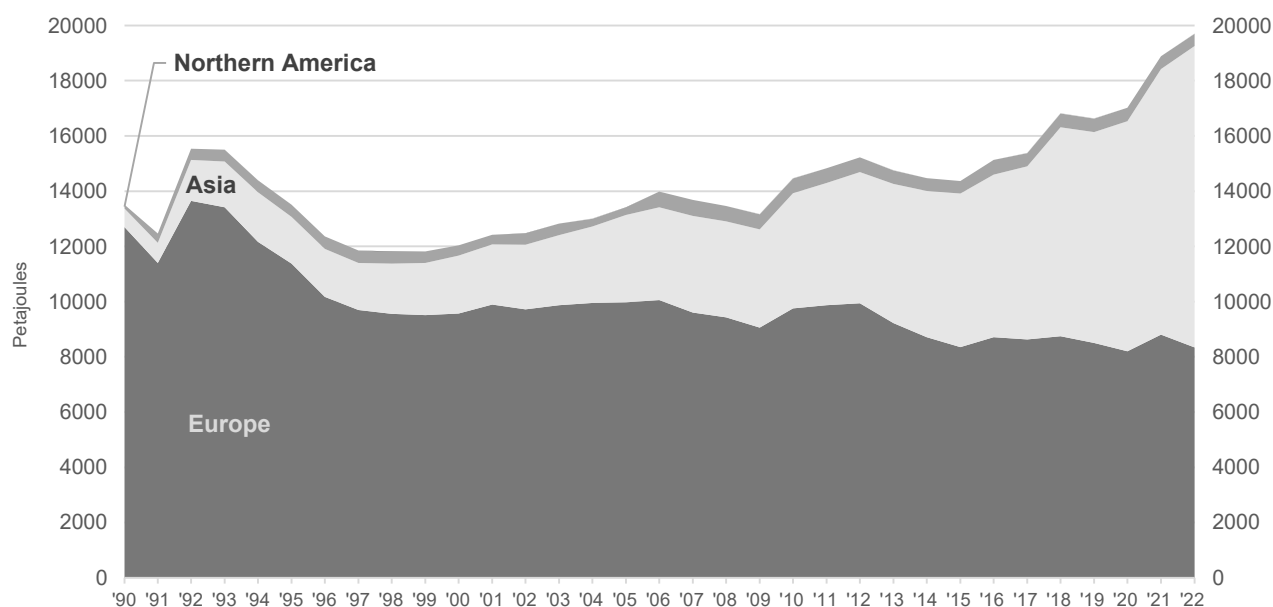
#### Table Notes

**Direct use geothermal** represents heat used directly for district heating, agriculture etc. without a commercial transaction taking place.

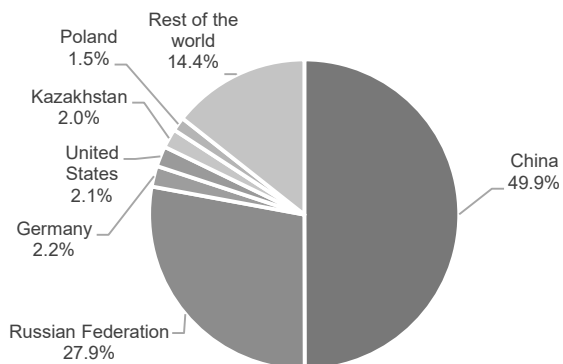
**Direct use solar thermal** represents heat used for the production of domestic hot water or for the seasonal heating of swimming pools (e.g. flat plate collectors, mainly of the thermosyphon type) without a commercial transaction taking place.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

**Figure 87: Heat production by region, 1990-2022**



**Figure 88: Major heat producing countries, 2022**



**Figure 89: World heat production by type, 2022**

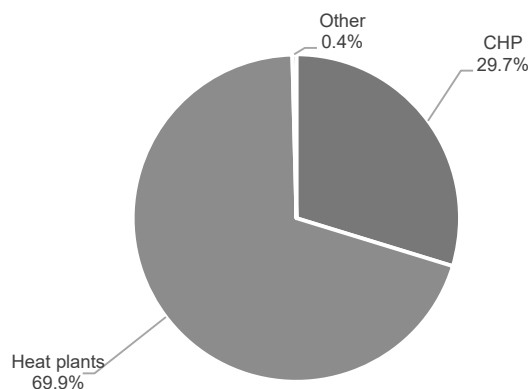


Table 35

## Production of heat - by type

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
<b>World</b>	<b>2019</b>	<b>15,948,967</b>	<b>51,386</b>	<b>8,387</b>	<b>25,647</b>	<b>76,533</b>	<b>67,533</b>	<b>455,496</b>	<b>146,421</b>	<b>342,515</b>
	<b>2020</b>	<b>16,367,642</b>	<b>49,412</b>	<b>8,921</b>	<b>25,012</b>	<b>49,585</b>	<b>67,612</b>	<b>455,392</b>	<b>144,977</b>	<b>354,941</b>
	<b>2021</b>	<b>18,179,308</b>	<b>50,224</b>	<b>8,741</b>	<b>26,137</b>	<b>52,421</b>	<b>71,030</b>	<b>499,142</b>	<b>147,477</b>	<b>407,309</b>
	<b>2022</b>	<b>19,039,364</b>	<b>49,614</b>	<b>9,357</b>	<b>24,071</b>	<b>46,641</b>	<b>67,972</b>	<b>472,018</b>	<b>150,508</b>	<b>428,973</b>
<b>Africa</b>	<b>2019</b>	..	..	..	..	<b>4,880</b>	..	..	..	<b>8,091</b>
	<b>2020</b>	..	..	..	..	<b>3,629</b>	..	..	..	<b>7,885</b>
	<b>2021</b>	..	..	..	..	<b>3,651</b>	..	..	..	<b>11,262</b>
	<b>2022</b>	..	..	..	..	<b>3,527</b>	..	..	..	<b>11,464</b>
Botswana	2019	..	..	..	..	..	..	..	..	54
	2020	..	..	..	..	..	..	..	..	55
	2021	..	..	..	..	..	..	..	..	63
	2022	..	..	..	..	..	..	..	..	68
Morocco	2019	..	..	..	..	..	..	..	..	..
	2020	..	..	..	..	..	..	..	..	..
	2021	..	..	..	..	..	..	..	..	3,035
	2022	..	..	..	..	..	..	..	..	3,142
Namibia	2019	..	..	..	..	..	..	..	..	166
	2020	..	..	..	..	..	..	..	..	177
	2021	..	..	..	..	..	..	..	..	191
	2022	..	..	..	..	..	..	..	..	204
Senegal	2019	..	..	..	..	630	..	..	..	..
	2020	..	..	..	..	469	..	..	..	..
	2021	..	..	..	..	392	..	..	..	..
	2022	..	..	..	..	392	..	..	..	..
South Africa	2019	..	..	..	..	..	..	..	..	5,295
	2020	..	..	..	..	..	..	..	..	4,979
	2021	..	..	..	..	..	..	..	..	5,214
	2022	..	..	..	..	..	..	..	..	5,313
Tunisia	2019	..	..	..	..	4,250	..	..	..	2,576
	2020	..	..	..	..	3,160	..	..	..	2,673
	2021	..	..	..	..	3,259	..	..	..	2,759
	2022	..	..	..	..	3,135	..	..	..	2,737
<b>Asia</b>	<b>2019</b>	<b>7,585,314</b>	..	<b>5,925</b>	..	<b>2,170</b>	<b>22,564</b>	<b>20,213</b>	<b>97,266</b>	<b>81,709</b>
	<b>2020</b>	<b>8,276,259</b>	..	<b>6,078</b>	..	<b>2,164</b>	<b>21,498</b>	<b>24,731</b>	<b>97,857</b>	<b>84,168</b>
	<b>2021</b>	<b>9,573,819</b>	..	<b>6,252</b>	..	<b>2,160</b>	<b>18,167</b>	<b>24,529</b>	<b>98,670</b>	<b>84,480</b>
	<b>2022</b>	<b>10,861,587</b>	..	<b>6,418</b>	..	<b>1,744</b>	<b>17,213</b>	<b>24,084</b>	<b>99,339</b>	<b>85,063</b>
Armenia	2019	27	..	..	..	..	..	..	..	358
	2020	38	..	..	..	..	..	..	..	600
	2021	11	..	..	..	..	..	..	..	651
	2022	..	..	..	..	..	..	..	..	705
Azerbaijan	2019	14,013	..	..	..	..	3	..	..	..
	2020	13,661	..	..	..	..	2	..	..	..
	2021	14,678	..	..	..	..	8	..	..	..
	2022	14,104	..	..	..	..	22	..	..	..
China	2019	6,617,368	..	..	..	..	..	..	..	..
	2020	7,246,757	..	..	..	..	..	..	..	..
	2021	8,523,782	..	..	..	..	..	..	..	..
	2022	9,843,350	..	..	..	..	..	..	..	..
Cyprus	2019	51	..	..	..	..	..	..	..	3,062
	2020	37	..	..	..	..	..	..	..	3,114
	2021	37	..	..	..	..	..	..	..	3,168
	2022	40	..	..	..	..	..	..	..	3,218

Table 35

## Production of heat - by type

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Georgia	2019	..	..	..	..	..	..	..	680	130
	2020	..	..	..	..	..	..	..	591	131
	2021	..	..	..	..	..	..	..	628	141
	2022	..	..	..	..	..	..	..	637	152
Israel	2019	..	..	..	..	..	..	..	..	15,100
	2020	..	..	..	..	..	..	..	..	16,379
	2021	..	..	..	..	..	..	..	..	17,090
	2022	..	..	..	..	..	..	..	..	17,463
Japan	2019	12,462	..	..	..	..	7,586	2,590	5,367	7,736
	2020	11,673	..	..	..	..	6,508	3,081	5,367	7,063
	2021	18,607	..	..	..	..	6,197	3,111	5,367	6,460
	2022	18,071	..	..	..	..	6,266	3,121	5,367	5,961
Jordan	2019	..	..	..	..	..	..	..	..	9,098
	2020	..	..	..	..	..	..	..	..	9,131
	2021	..	..	..	..	..	..	..	..	9,224
	2022	..	..	..	..	..	..	..	..	8,570
Kazakhstan	2019	347,364	..	..	..	..	..	..	..	..
	2020	381,860	..	..	..	..	..	..	..	..
	2021	393,611	..	..	..	..	..	..	..	..
	2022	394,765	..	..	..	..	..	..	..	..
Korea, Republic of	2019	258,021	..	..	..	2,170	..	..	9,409	1,848
	2020	261,085	..	..	..	2,164	..	..	10,089	1,812
	2021	277,645	..	..	..	2,160	..	..	10,854	1,781
	2022	258,480	..	..	..	1,744	..	..	11,515	1,748
Kyrgyzstan	2019	12,424	..	..	..	..	..	..	..	..
	2020	13,332	..	..	..	..	..	..	..	..
	2021	13,637	..	..	..	..	..	..	..	..
	2022	13,515	..	..	..	..	..	..	..	..
Lebanon	2019	..	..	..	..	..	..	..	..	1,060
	2020	..	..	..	..	..	..	..	..	*1,060
	2021	..	..	..	..	..	..	..	..	*1,060
	2022	..	..	..	..	..	..	..	..	*1,060
Mongolia	2019	55,589	..	..	..	..	..	..	..	..
	2020	59,124	..	..	..	..	..	..	..	..
	2021	59,383	..	..	..	..	..	..	..	..
	2022	62,688	..	..	..	..	..	..	..	..
Nepal	2019	..	..	..	..	..	..	..	..	4,081
	2020	..	..	..	..	..	..	..	..	4,760
	2021	..	..	..	..	..	..	..	..	5,083
	2022	..	..	..	..	..	..	..	..	5,368
Other Asia	2019	91,765	..	..	..	..	..	..	..	4,231
	2020	93,319	..	..	..	..	..	..	..	4,372
	2021	99,348	..	..	..	..	..	..	..	3,352
	2022	88,305	..	..	..	..	..	..	..	3,985
State of Palestine	2019	..	..	5,925	..	..	..	..	..	..
	2020	..	..	6,078	..	..	..	..	..	..
	2021	..	..	6,252	..	..	..	..	..	..
	2022	..	..	6,418	..	..	..	..	..	..
Tajikistan	2019	3,519	..	..	..	..	..	..	..	..
	2020	3,612	..	..	..	..	..	..	..	..
	2021	3,695	..	..	..	..	..	..	..	..
	2022	3,695	..	..	..	..	..	..	..	..

Table 35

## Production of heat - by type

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Thailand	2019	..	..	..	..	..	..	..	..	423
	2020	..	..	..	..	..	..	..	..	444
	2021	..	..	..	..	..	..	..	..	456
	2022	..	..	..	..	..	..	..	..	458
Türkiye	2019	42,991	..	..	..	..	..	17,623	81,810	34,583
	2020	45,601	..	..	..	..	..	21,651	81,810	35,295
	2021	43,364	..	..	..	..	..	21,418	81,819	36,006
	2022	39,327	..	..	..	..	..	20,963	81,819	36,367
Turkmenistan	2019	10,861	..	..	..	..	..	..	..	..
	2020	12,436	..	..	..	..	..	..	..	..
	2021	13,708	..	..	..	..	..	..	..	..
	2022	15,736	..	..	..	..	..	..	..	..
Uzbekistan	2019	*118,859	..	..	..	..	..	*14,975	..	..
	2020	133,726	..	..	..	..	..	*14,988	..	..
	2021	112,313	..	..	..	..	..	*11,962	..	..
	2022	109,512	..	..	..	..	..	*10,926	..	..
Viet Nam	2019	..	..	..	..	..	..	..	..	..
	2020	..	..	..	..	..	..	..	..	7
	2021	..	..	..	..	..	..	..	..	7
	2022	..	..	..	..	..	..	..	..	7
<b>Europe</b>	<b>2019</b>	<b>7,878,316</b>	<b>51,386</b>	<b>2,462</b>	<b>25,647</b>	<b>69,483</b>	<b>44,393</b>	<b>434,116</b>	<b>27,017</b>	<b>101,268</b>
	<b>2020</b>	<b>7,610,894</b>	<b>49,412</b>	<b>2,843</b>	<b>25,012</b>	<b>43,792</b>	<b>45,514</b>	<b>429,644</b>	<b>26,191</b>	<b>105,191</b>
	<b>2021</b>	<b>8,151,432</b>	<b>50,224</b>	<b>2,490</b>	<b>26,137</b>	<b>44,508</b>	<b>52,264</b>	<b>473,506</b>	<b>27,355</b>	<b>105,947</b>
	<b>2022</b>	<b>7,734,427</b>	<b>49,614</b>	<b>2,939</b>	<b>24,071</b>	<b>37,327</b>	<b>50,158</b>	<b>446,914</b>	<b>28,886</b>	<b>112,910</b>
Albania	2019	..	..	..	..	..	..	..	..	590
	2020	..	..	..	..	..	..	..	..	564
	2021	..	..	..	..	..	..	..	..	569
	2022	..	..	..	..	..	..	..	..	624
Andorra	2019	37	..	..	..	..	..	..	..	..
	2020	43	..	..	..	..	..	..	..	..
	2021	72	..	..	..	..	..	..	..	..
	2022	111	..	..	..	..	..	..	..	..
Austria	2019	82,904	470	91	..	91	384	..	476	7,393
	2020	83,277	515	91	..	71	435	..	493	7,518
	2021	91,235	552	97	..	84	656	..	429	7,279
	2022	81,336	560	97	..	72	323	..	360	7,316
Belarus	2019	247,488	..	..	..	..	..	..	..	..
	2020	243,739	..	..	..	..	..	..	..	..
	2021	261,579	..	..	..	..	..	..	..	..
	2022	248,681	..	..	..	..	..	..	..	..
Belgium	2019	20,590	56	..	..	9,901	..	..	..	1,089
	2020	20,063	59	..	..	9,970	..	..	..	1,129
	2021	20,647	67	..	..	9,679	..	..	..	1,089
	2022	17,860	65	..	..	9,431	..	..	..	1,168
Bosnia and Herzegovina	2019	5,571	..	..	..	..	..	..	..	..
	2020	5,850	..	..	..	..	..	..	..	..
	2021	6,011	..	..	..	..	..	..	..	..
	2022	5,728	..	..	..	..	..	..	..	..
Bulgaria	2019	35,920	..	..	660	2,217	..	..	1,470	1,092
	2020	36,055	..	..	548	2,426	..	..	1,495	1,147
	2021	38,059	..	..	653	2,294	..	..	1,512	1,222
	2022	33,296	..	..	608	2,503	..	..	1,532	1,341

Table 35

## Production of heat - by type

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Croatia	2019	13,182	..	..	..	..	..	..	301	647
	2020	13,851	..	..	..	..	..	..	303	684
	2021	15,553	..	..	..	..	..	..	208	715
	2022	14,414	..	..	..	..	..	..	198	672
Czechia	2019	113,717	..	..	853	669	125	1,027	..	767
	2020	110,303	..	..	787	595	116	1,160	..	789
	2021	118,789	..	..	863	581	154	1,039	..	810
	2022	107,610	..	..	866	526	166	1,019	..	838
Denmark	2019	123,496	34	2,347	..	..	2,019	4,375	..	611
	2020	116,655	23	2,661	..	..	3,749	5,412	..	611
	2021	127,306	27	2,276	..	..	5,967	5,958	..	611
	2022	115,099	41	2,715	..	..	6,261	5,160	..	611
Estonia	2019	21,958	..	..	..	..	..	..	..	..
	2020	20,933	..	..	..	..	..	..	..	..
	2021	22,727	..	..	..	..	..	..	..	..
	2022	23,785	..	..	..	..	..	..	..	..
Finland	2019	165,855	..	..	..	4,567	4,283	10,570	..	91
	2020	149,472	..	..	..	4,241	4,250	13,069	..	100
	2021	168,978	..	..	..	4,144	5,865	15,197	..	110
	2022	159,067	..	..	..	3,928	5,541	13,266	..	110
France	2019	163,966	6,481	..	..	..	1,325	4,439	1,681	8,675
	2020	162,051	6,751	..	..	..	1,375	3,868	1,681	9,033
	2021	176,865	7,075	..	..	..	1,795	5,270	1,681	9,411
	2022	169,297	6,302	..	..	..	2,553	5,281	1,681	9,800
Germany	2019	449,842	1,732	13	..	..	..	6,341	3,390	30,525
	2020	416,246	1,940	41	..	..	10	7,297	3,426	32,016
	2021	460,506	1,928	68	..	..	11	7,106	3,963	30,716
	2022	419,415	3,021	77	..	..	7	5,066	3,906	34,974
Greece	2019	2,203	..	..	..	..	..	..	432	11,968
	2020	2,199	..	..	..	..	..	..	235	12,272
	2021	1,971	..	..	..	..	..	..	181	12,724
	2022	1,507	..	..	..	..	..	..	332	13,381
Hungary	2019	41,801	2,864	..	585	..	81	3,069	2,832	560
	2020	42,508	2,772	..	504	..	165	2,626	2,609	627
	2021	45,789	2,940	..	388	..	45	3,000	2,881	650
	2022	40,409	3,133	..	378	..	129	2,886	3,343	669
Iceland	2019	16	38,442	..	..	..	941	..	2,103	..
	2020	18	36,026	..	..	..	942	..	2,440	..
	2021	15	36,145	..	..	..	830	..	2,946	..
	2022	99	34,956	..	..	..	802	..	3,413	..
Ireland	2019	..	..	..	..	..	..	..	..	573
	2020	..	..	..	..	..	..	..	..	589
	2021	..	..	..	..	..	..	..	..	587
	2022	..	..	..	..	..	..	..	..	589
Italy	2019	230,526	870	6	..	..	..	..	5,477	9,544
	2020	228,030	872	8	..	..	..	..	5,014	9,887
	2021	91,776	1,072	10	..	..	..	..	4,815	10,323
	2022	84,279	1,074	9	..	..	136	511	4,591	11,010
Kosovo	2019	28	..	..	..	..	830	..	..	16
	2020	16	..	..	..	..	961	..	..	16
	2021	17	..	..	..	..	1,059	..	..	17
	2022	17	..	..	..	..	1,044	..	..	15

Table 35

## Production of heat - by type

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Latvia	2019	28,604	..	3	..	..	5	..	..	..
	2020	27,006	..	40	..	..	4	..	..	..
	2021	31,198	..	36	..	..	4	..	..	..
	2022	27,778	..	39	..	..	3	..	..	..
Liechtenstein	2019	..	..	..	..	..	..	..	..	36
	2020	..	..	..	..	..	..	..	..	36
	2021	..	..	..	..	..	..	..	..	34
	2022	..	..	..	..	..	..	..	..	33
Lithuania	2019	31,735	..	..	..	11,034	9	..	..	..
	2020	29,752	..	..	..	8,160	7	..	..	..
	2021	35,903	..	..	..	8,663	10	..	..	..
	2022	32,758	..	..	..	3,615	9	..	..	..
Luxembourg	2019	4,033	..	0	..	..	..	..	..	101
	2020	5,646	..	0	..	..	..	..	..	107
	2021	6,122	..	0	..	..	..	..	..	113
	2022	5,633	..	0	..	..	..	..	..	119
Malta	2019	1	..	..	..	..	..	..	..	212
	2020	..	..	..	..	..	..	..	..	214
	2021	..	..	..	..	..	..	..	..	151
	2022	..	..	..	..	..	..	..	..	134
Netherlands (Kingd. of the)	2019	104,713	..	..	..	9,031	..	..	5,564	1,180
	2020	93,673	..	..	..	12,419	..	..	6,185	1,176
	2021	98,898	..	..	..	11,811	..	..	6,327	1,164
	2022	92,531	..	..	..	10,773	7	..	6,798	1,168
North Macedonia	2019	2,057	..	..	..	..	..	..	205	..
	2020	2,533	..	..	..	..	..	..	196	..
	2021	2,678	..	..	..	..	..	..	195	121
	2022	2,068	..	..	..	..	..	..	185	121
Norway	2019	18,418	..	..	..	3,581	4,824	763	..	..
	2020	16,409	..	..	..	3,154	5,023	756	..	..
	2021	20,363	..	..	..	4,178	5,461	997	..	..
	2022	20,253	..	..	..	5,064	4,244	958	..	..
Poland	2019	286,234	..	..	..	528	3	286	1,050	3,009
	2020	285,225	..	..	..	456	5	189	1,073	3,355
	2021	307,313	..	..	..	774	5	280	1,189	3,566
	2022	285,600	..	..	..	495	5	258	1,318	3,801
Portugal	2019	20,927	..	..	..	..	..	..	72	4,033
	2020	20,546	..	..	..	..	..	..	55	4,216
	2021	16,673	..	..	..	..	..	..	57	4,416
	2022	11,538	..	..	..	..	..	..	75	4,628
Republic of Moldova	2019	9,670	..	..	..	..	..	..	..	..
	2020	9,365	..	..	..	..	..	..	..	..
	2021	10,518	..	..	..	..	..	..	..	..
	2022	8,848	..	..	..	..	..	..	..	..
Romania	2019	61,203	243	..	..	..	..	..	1,045	30
	2020	58,834	255	..	..	..	..	..	245	32
	2021	60,983	261	..	..	..	..	..	378	49
	2022	50,982	266	..	..	..	..	..	473	33
Russian Federation	2019	4,914,229	..	..	14,246	..	13,209	380,746	..	..
	2020	4,714,085	..	..	14,097	..	10,150	374,896	..	..
	2021	5,179,115	..	..	14,595	..	12,156	411,892	..	..
	2022	5,087,802	..	..	14,595	..	12,156	391,861	..	..



Table 35

## Production of heat - by type

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Serbia	2019	33,021	..	..	..	..	..	..	219	..
	2020	36,053	..	..	..	..	..	..	212	..
	2021	37,537	..	..	..	..	..	..	63	..
	2022	33,504	..	..	..	..	..	..	63	..
Slovakia	2019	29,079	175	2	1,882	..	130	14	58	316
	2020	28,617	181	2	1,848	..	87	16	30	334
	2021	30,233	136	2	2,009	..	81	18	30	358
	2022	26,524	174	2	1,836	..	108	16	30	380
Slovenia	2019	9,124	19	..	..	..	..	..	582	443
	2020	9,266	19	..	..	..	..	..	439	430
	2021	10,064	21	..	..	..	..	..	452	426
	2022	8,921	21	..	..	..	..	..	532	419
Spain	2019	..	..	..	..	..	..	..	8	13,170
	2020	..	..	..	..	..	..	..	8	13,716
	2021	..	..	..	..	..	..	..	8	14,116
	2022	..	..	..	..	..	..	..	8	14,408
Sweden	2019	170,111	..	..	..	..	16,175	21,301	..	446
	2020	154,890	..	..	..	..	18,191	20,354	..	436
	2021	184,605	..	..	..	..	17,133	22,749	..	425
	2022	172,599	..	..	..	..	15,635	20,631	..	410
Switzerland	2019	22,743	..	..	1,380	..	..	..	18	2,642
	2020	22,559	..	..	1,420	..	..	..	17	2,659
	2021	24,366	..	..	1,520	..	..	..	6	2,662
	2022	22,330	..	..	1,390	..	..	..	14	2,650
Ukraine	2019	346,992	..	..	6,041	27,865	52	1,185	..	..
	2020	378,863	..	..	5,809	2,300	45	..	..	..
	2021	380,840	..	..	6,109	2,300	1,031	..	..	..
	2022	257,830	..	..	4,398	920	1,031	..	..	..
United Kingdom	2019	66,323	..	..	..	..	..	..	34	1,507
	2020	66,263	..	..	..	..	..	..	34	1,497
	2021	66,127	..	..	..	..	..	..	34	1,512
	2022	64,917	..	..	..	..	..	..	34	1,488
<b>Latin America &amp; Carib.</b>	<b>2019</b>	..	..	..	..	..	..	..	<b>102</b>	<b>18,525</b>
	<b>2020</b>	..	..	..	..	..	..	..	<b>102</b>	<b>21,044</b>
	<b>2021</b>	..	..	..	..	<b>2,103</b>	..	..	<b>102</b>	<b>60,991</b>
	<b>2022</b>	..	..	..	..	<b>4,042</b>	..	..	<b>102</b>	<b>64,938</b>
Brazil	2019	..	..	..	..	..	..	..	..	..
	2020	..	..	..	..	..	..	..	..	..
	2021	..	..	..	..	2,103	..	..	..	38,939
	2022	..	..	..	..	4,042	..	..	..	41,877
Chile	2019	..	..	..	..	..	..	..	..	2,919
	2020	..	..	..	..	..	..	..	..	2,919
	2021	..	..	..	..	..	..	..	..	3,051
	2022	..	..	..	..	..	..	..	..	3,051
Dominican Republic	2019	..	..	..	..	..	..	..	..	328
	2020	..	..	..	..	..	..	..	..	330
	2021	..	..	..	..	..	..	..	..	335
	2022	..	..	..	..	..	..	..	..	*340
Ecuador	2019	..	..	..	..	..	..	..	*102	..
	2020	..	..	..	..	..	..	..	*102	..
	2021	..	..	..	..	..	..	..	*102	..
	2022	..	..	..	..	..	..	..	102	..

Table 35

## Production of heat - by type

Terajoules

Country or area	Year	Combustible fuels	Geo-thermal	Solar thermal	Nuclear	Chemical sources	Heat pumps and electric boilers	Other sources	Direct use geothermal	Direct use solar thermal
Mexico	2019	..	..	..	..	..	..	..	..	13,796
	2020	..	..	..	..	..	..	..	..	16,280
	2021	..	..	..	..	..	..	..	..	17,083
	2022	..	..	..	..	..	..	..	..	18,066
Peru	2019	..	..	..	..	..	..	..	..	1,482
	2020	..	..	..	..	..	..	..	..	1,515
	2021	..	..	..	..	..	..	..	..	1,583
	2022	..	..	..	..	..	..	..	..	1,604
<b>Northern America</b>	<b>2019</b>	<b>485,336</b>	..	..	..	..	<b>576</b>	..	<b>14,096</b>	<b>114,732</b>
	<b>2020</b>	<b>480,488</b>	..	..	..	..	<b>600</b>	..	<b>13,057</b>	<b>117,616</b>
	<b>2021</b>	<b>454,057</b>	..	..	..	..	<b>600</b>	..	<b>13,964</b>	<b>124,362</b>
	<b>2022</b>	<b>443,350</b>	..	..	..	..	<b>600</b>	..	<b>14,879</b>	<b>132,679</b>
Canada	2019	22,258	..	..	..	..	..	..	..	1,810
	2020	22,456	..	..	..	..	..	..	..	1,782
	2021	23,040	..	..	..	..	..	..	..	1,448
	2022	23,700	..	..	..	..	..	..	..	1,397
Greenland	2019	*625	..	..	..	..	*576	..	..	..
	2020	*700	..	..	..	..	*600	..	..	..
	2021	*700	..	..	..	..	*600	..	..	..
	2022	*700	..	..	..	..	*600	..	..	..
St. Pierre-Miquelon	2019	32	..	..	..	..	..	..	..	..
	2020	36	..	..	..	..	..	..	..	..
	2021	42	..	..	..	..	..	..	..	..
	2022	*48	..	..	..	..	..	..	..	..
United States	2019	462,421	..	..	..	..	..	..	14,096	112,922
	2020	457,296	..	..	..	..	..	..	13,057	115,834
	2021	430,274	..	..	..	..	..	..	13,964	122,914
	2022	418,901	..	..	..	..	..	..	14,879	131,282
<b>Oceania</b>	<b>2019</b>	..	..	..	..	..	..	<b>1,167</b>	<b>7,940</b>	<b>18,190</b>
	<b>2020</b>	..	..	..	..	..	..	<b>1,016</b>	<b>7,770</b>	<b>19,038</b>
	<b>2021</b>	..	..	..	..	..	..	<b>1,107</b>	<b>7,386</b>	<b>20,266</b>
	<b>2022</b>	..	..	..	..	..	..	<b>1,020</b>	<b>7,302</b>	<b>21,920</b>
Australia	2019	..	..	..	..	..	..	..	..	17,603
	2020	..	..	..	..	..	..	..	..	18,449
	2021	..	..	..	..	..	..	..	..	19,675
	2022	..	..	..	..	..	..	..	..	21,328
French Polynesia	2019	..	..	..	..	..	..	..	..	80
	2020	..	..	..	..	..	..	..	..	81
	2021	..	..	..	..	..	..	..	..	83
	2022	..	..	..	..	..	..	..	..	84
New Caledonia	2019	..	..	..	..	..	..	..	..	141
	2020	..	..	..	..	..	..	..	..	141
	2021	..	..	..	..	..	..	..	..	141
	2022	..	..	..	..	..	..	..	..	141
New Zealand	2019	..	..	..	..	..	..	1,167	7,940	364
	2020	..	..	..	..	..	..	1,016	7,770	364
	2021	..	..	..	..	..	..	1,107	7,386	364
	2022	..	..	..	..	..	..	1,020	7,302	364
Samoa	2019	..	..	..	..	..	..	..	..	*3
	2020	..	..	..	..	..	..	..	..	*3
	2021	..	..	..	..	..	..	..	..	*3
	2022	..	..	..	..	..	..	..	..	*3





**Production of uranium (uranium content)**

Metric tons

**Table Notes**

Data are primarily based on country submissions and Table 1.18 of the NEA and IAEA publication *Uranium 2022: Resources, Production and Demand*, OECD Publishing, available at <https://doi.org/10.1787/2c4e111b-en>

These sources are complemented with data from the World Nuclear Association, available at <http://www.world-nuclear.org/information-library/nuclear-fuel-cycle/mining-of-uranium/world-uranium-mining-production.aspx>.

Production for France and Hungary comes from mine rehabilitation efforts only.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

Table 36

## Production of uranium (uranium content)

Metric tons

Country or area	2019	2020	2021	2022
<b>World</b>	<b>54,746</b>	<b>47,740</b>	<b>47,847</b>	<b>49,355</b>
<b>Africa</b>	<b>8,804</b>	<b>8,655</b>	<b>8,227</b>	<b>7,833</b>
Namibia	5,476	5,413	5,753	5,613
Niger	2,982	2,992	2,282	2,020
South Africa	346	250	192	200
<b>Northern America</b>	<b>6,996</b>	<b>3,891</b>	<b>4,701</b>	<b>7,426</b>
Canada	6,938	3,885	4,693	7,351
United States	58	6	8	75
<b>Latin America &amp; Carib.</b>	<b>0</b>	<b>20</b>	<b>29</b>	<b>43</b>
Brazil	0	20	29	43
<b>Asia</b>	<b>28,617</b>	<b>25,378</b>	<b>27,605</b>	<b>26,892</b>
China	1,885	1,885	1,600	1,700
India	308	400	600	600
Iran (Islamic Rep. of)	71	71	21	20
Kazakhstan	22,808	19,477	21,819	21,227
Pakistan	45	45	45	45
Uzbekistan	3,500	3,500	3,520	3,300
<b>Europe</b>	<b>3,716</b>	<b>3,593</b>	<b>3,093</b>	<b>2,608</b>
France	2	0	0	0
Hungary	3	*3	*3	0
Russian Federation	2,911	2,846	2,635	2,508
Ukraine	800	744	455	100
<b>Oceania</b>	<b>6,613</b>	<b>6,203</b>	<b>4,192</b>	<b>4,553</b>
Australia	6,613	6,203	4,192	4,553







## Selected energy resources and reserves

Million metric tons unless otherwise indicated

### Table Notes

Based on country submissions and the publication *World Energy Resources - 2016*, World Energy Council (WEC), available at <https://www.worldenergy.org/publications/2016/world-energy-resources-2016/>.

These sources are complemented with data from BP, Statistical Review of World Energy 2022, available at <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html>.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description /classification, and xvi to xvii for the descriptions of relevant flows.

Table 37

## Selected energy resources and reserves

Million metric tons unless otherwise indicated

Country or area	Bituminous coal / Anthracite			Sub-bituminous coal / Lignite			Peat	
	Proved amount in place	Proved recoverable reserves	Estimated additional amount in place	Proved amount in place	Proved recoverable reserves	Estimated additional amount in place	Proved amount in place	Proved recoverable reserves
Afghanistan	66	66	400	..	..	..	..	..
Albania	..	..	..	727	522	..	..	155
Algeria	223	59	164	..	..	..	..	..
Angola	..	..	..	..	..	..	..	..
Argentina	800	500	..	7,300	500	273	90	*80
Armenia	317	163	..	..	..	..	..	..
Australia	1,598,761	62,095	125,000	443,431	44,164	215,000	..	..
Austria	1	..	3	333	25	61	..	..
Azerbaijan	..	..	..	..	..	..	..	..
Bahrain	..	..	..	..	..	..	..	..
Bangladesh	3,260	293	..	3	..	..	*138	..
Barbados	..	..	..	..	..	..	..	..
Belarus	..	..	..	1,500	100	..	323	323
Belgium	4,100	410	1,400	..	..	..	..	..
Belize	..	..	..	..	..	..	..	..
Benin	..	..	..	..	..	..	..	..
Bhutan	..	..	..	..	..	..	..	..
Bolivia (Plur. State of)	1	1	..	..	..	..	..	..
Bosnia and Herzegovina	..	484	..	5,274	2,264	..	..	..
Botswana	21,240	40	205,253	..	..	..	..	..
Brazil	6,212	1,547	..	17,636	5,049	15,319	..	..
Brunei Darussalam	..	..	..	..	..	..	..	..
Bulgaria	4,112	192	1,200	4,574	2,174	2,618	5	5
Burkina Faso	..	..	..	..	..	..	..	..
Burundi	..	..	..	..	..	..	56	56
Cambodia	..	..	..	..	..	..	..	..
Cameroon	..	..	..	..	..	..	..	..
Canada	187,606	4,346	26,045	120,506	2,236	31,990	1,092	..
Central African Rep.	..	..	..	3	3	..	..	..
Chad	..	..	..	..	..	..	..	..
Chile	5,316	1,181	125	7	155	5,000	..	..
China	5,462,672	124,059	363,200	332,652	7,555	304,700	4,687	328
Colombia	14,809	4,881	13,173	411	380	3,176	..	..
Congo	..	..	..	..	..	..	..	..
Costa Rica	17	..	..	27	..	22	48	..
Côte d'Ivoire	..	..	..	..	..	..	..	..
Croatia	4	4	..	300	33	..	..	..
Cuba	..	..	..	..	..	..	..	..
Cyprus	..	..	..	..	..	..	..	..
Czechia	16,526	1,107	..	9,767	2,604	..	..	..
Dem. Rep. of the Congo	988	88	..	..	..	..	..	..
Denmark	..	..	..	63	..	..	..	..
Dominica	..	..	..	..	..	..	..	..
Dominican Republic	..	..	..	84	..	..	..	..
Ecuador	..	..	..	24	24	6	..	..
Egypt	182	16	..	27	22	52	..	..
El Salvador	..	..	..	..	..	..	..	..
Equatorial Guinea	..	..	..	..	..	..	..	..
Estonia	..	..	..	..	..	..	2,000	2,000
Eswatini	4,644	144	793	..	..	..	..	..
Ethiopia	..	..	..	23	11	..	..	..
Faeroe Islands	..	..	..	..	..	..	..	..
Falkland Is. (Malvinas)	..	..	..	..	..	..	..	..
Fiji	..	..	..	..	..	..	..	..
Finland	..	..	..	..	..	..	850	420
France	160	95	200	114	21	165	..	..
French Guiana	..	..	..	..	..	..	..	..
French Polynesia	..	..	..	..	..	..	..	..
Gabon	..	..	..	..	..	..	..	..
Georgia	901	201	..	..	..	..	..	..

Table 37

Peat	Proved recoverable reserves				Uranium (metric tons)		Hydropower (Gross theoretical capability) (GWh/Year)
	Estimated additional amount in place	Natural gas (billions cubic metres)	Crude oil and NGL	Oil shale	Bituminous sands	Reasonably assured resources	
..	*50	..	..	..	..	..	394,000
..	*1	*26	..	..	5	..	40,000
..	4,504	1,537	..	..	..	19,500	12,000
..	*308	1,050	..	..	74	..	150,000
50	332	342	..	57	..	8,600	11,000
..	*18	..	..	44	..	..	354,000
..	3,471	263	4,531	..	..	..	22,000
..	*10	*7	1	..	..	..	265,000
..	1,148	959	..	..	20	..	150,000
..	172	*15	..	..	..	..	44,000
*138	232	*4	..	..	..	..	..
..	0	0	..	..	..	..	4,000
1,479	*3	*27	1,000	..	..	..	..
..	0	..	..	..	..	..	8,000
..	..	0	..	..	..	..	1,000
..	*1	*1	..	..	..	..	1,000
..	..	..	..	..	..	..	2,000
..	281	*22	..	..	..	..	263,000
..	..	..	..	..	..	..	178,000
..	..	..	..	..	..	..	70,000
..	..	..	..	..	23,100	59,100	..
487	424	1,733	11,734	..	155,100	121,000	3,040,000
..	276	150	..	..	..	..	..
..	*6	*2	18	..	..	..	27,000
..	..	..	..	..	..	..	1,000
..	..	..	..	..	..	..	6,000
..	..	..	..	..	..	..	88,000
..	*150	*18	..	..	..	..	294,000
336,908	1,987	27,060	2,192	27,134	357,500	192,500	2,067,000
..	..	..	..	..	12,000	..	7,000
..	..	216	..	..	..	..	150
..	*40	*20	3	..	700	1,200	227,000
952	3,841	3,542	47,600	120	120,000	56,600	6,083,000
..	135	294	..	..	5	..	1,000,000
..	115	407	..	..	81	..	50,000
22	..	..	..	..	..	..	224,000
..	28	*14	..	..	..	..	46,000
..	*25	*7	..	..	..	..	20,000
280	*71	*3	..	..	8	..	3,000
..	*142	..	..	..	..	..	59,000
..	4	*2	..	..	1,300	100	13,000
..	*1	*24	14,310	..	1,400	1,300	1,397,000
..	31	57	..	..	..	..	120
..	..	..	..	..	..	..	200
..	..	..	..	..	..	..	50,000
..	*11	191	..	..	7	..	169,000
..	1,846	413	816	8	..	1,900	125,000
..	..	..	..	..	..	..	7,000
..	*37	149	..	..	..	..	..
..	..	..	2,494	..	..	..	2,000
..	..	..	..	..	..	..	4,000
..	*25	0	..	..	..	..	650,000
..	..	..	..	..	..	..	1,000
28	..	..	..	..	..	..	..
..	..	..	..	..	..	..	3,000
2,200	..	..	..	..	1,100	..	31,000
..	*10	*11	1,002	..	11,500	100	270,000
..	..	..	..	..	..	..	2,000
..	..	..	..	..	..	..	1,000
..	*28	274	..	..	4,800	1,000	200,000
..	*9	*5	..	0	..	..	136,000

Table 37

## Selected energy resources and reserves

Million metric tons unless otherwise indicated

Country or area	Bituminous coal / Anthracite			Sub-bituminous coal / Lignite			Peat	
	Proved amount in place	Proved recoverable reserves	Estimated additional amount in place	Proved amount in place	Proved recoverable reserves	Estimated additional amount in place	Proved amount in place	Proved recoverable reserves
Germany	82,982	21	8,065	76,800	36,300	34,100	157	96
Ghana	..	..	..	..	..	..	..	..
Greece	..	..	..	6,430	2,876	..	4,000	..
Greenland	383	183	..	183	183	200	..	..
Grenada	..	..	..	..	..	..	..	..
Guatemala	..	..	..	..	..	..	..	..
Guinea	..	..	..	..	..	..	..	..
Guinea-Bissau	..	..	..	..	..	..	..	..
Guyana	..	..	..	..	..	..	..	..
Haiti	..	..	..	40	..	27	..	..
Honduras	..	..	..	21	..	..	..	..
Hungary	5,351	276	298	5,337	2,633	2,630	..	..
Iceland	..	..	..	..	..	..	..	..
India	260,544	85,562	157,435	42,645	4,714	32,893	..	..
Indonesia	109,825	17,394	6,035	40,639	8,274	38,704	49,000	..
Iran (Islamic Rep. of)	41,203	1,203	..	2,295	..	..	..	..
Iraq	..	..	..	..	..	..	..	..
Ireland	40	14	26	..	9	..	154	106
Israel	..	..	..	..	..	..	500	386
Italy	610	10	..	29	7	600	..	..
Jamaica	..	..	..	..	..	..	200	32
Japan	13,883	340	6,298	1,036	10	7,122	..	..
Jordan	..	..	..	..	..	..	..	..
Kazakhstan	148,695	25,605	..	..	12,100	..	..	..
Kenya	..	..	..	..	..	..	..	..
Korea, Dem.Ppl's.Rep.	10,600	600	2,700	300	300	2,200	..	..
Korea, Republic of	1,686	326	272	209	126	812	..	..
Kuwait	..	..	..	..	..	..	..	..
Kyrgyzstan	28,499	971	..	..	812	..	..	..
Lao People's Dem. Rep.	62	4	..	521	499	..	..	..
Latvia	..	..	..	..	..	..	190	94
Lebanon	..	..	..	..	..	..	..	..
Lesotho	..	..	..	..	..	..	..	..
Liberia	..	..	..	..	..	..	..	..
Libya	..	..	..	..	..	..	..	..
Lithuania	..	..	..	..	..	..	937	269
Madagascar	150	..	..	37	..	..	..	..
Malawi	802	2	..	..	2	..	..	..
Malaysia	1,209	141	78	451	39	575	..	..
Mali	..	..	..	3	..	3	..	..
Mauritania	..	..	..	..	..	..	..	..
Mauritius	..	..	..	..	..	..	..	..
Mexico	4,160	1,160	1,960	51	51	213	..	..
Mongolia	41,024	1,170	..	120,776	1,350	..	..	..
Montenegro	337	142	..	..	..	..	..	..
Morocco	96	14	..	40	..	2	..	..
Mozambique	23,636	1,792	155	..	..	..	..	..
Myanmar	252	3	120	5	3	80	..	..
Namibia	350	..	..	..	..	..	..	..
Nepal	8	1	..	1	1	7	..	..
Netherlands (Kingd. of the)	3,247	497	2,750	..	..	..	120	120
New Caledonia	2	2	8	..	..	..	..	..
New Zealand	3,175	825	942	11,350	6,750	11,902	1,640	..
Nicaragua	..	..	..	..	..	..	..	..
Niger	90	70	..	6	6	..	..	..
Nigeria	2,144	287	21	377	57	1,000	..	..
North Macedonia	..	..	..	632	332	..	..	..
Norway	93	2	..	64	5	100	745	350
Oman	..	..	..	..	..	..	..	..
Pakistan	5,996	207	5	179,596	2,857	68,068	..	..

Table 37

Peat	Proved recoverable reserves				Uranium (metric tons)		Hydropower (Gross theoretical capability) (GWh/Year)
	Estimated additional amount in place	Natural gas (billions cubic metres)	Crude oil and NGL	Oil shale	Bituminous sands	Reasonably assured resources	
200	39	*31	286	..	3,000	4,000	120,000
..	*23	*90	..	..	..	..	28,000
..	*1	*1	..	..	1,000	6,000	80,000
..	..	..	..	..	..	134,700	550,000
..	..	..	..	..	..	..	38
..	3	*11	..	..	..	..	59,000
..	..	232	..	..	..	..	26,000
..	..	..	..	..	..	..	1,000
..	..	..	..	..	..	..	81,000
..	..	..	..	..	..	..	4,000
..	..	..	..	..	..	..	16,000
238	*8	*4	8	..	..	8,600	10,000
..	..	..	..	..	..	..	184,000
..	1,489	603	..	..	77,000	27,900	2,638,000
..	2,839	337	..	67	8,400	2,200	2,147,000
..	34,020	21,676	..	..	700	1,800	448,000
..	3,694	19,571	..	..	..	..	225,000
140	*10	..	..	..	..	..	1,000
1,000	181	*2	550	0	..	..	0
2,500	45	80	10,446	48	4,800	1,300	190,000
..	..	..	..	..	..	..	1,000
..	*21	*4	..	..	6,600	..	718,000
..	*6	0	5,242	5	0	33,800	4,000
..	936	3,932	400	6,689	285,600	417,300	170,000
..	..	..	..	..	..	..	24,000
..	..	..	..	..	..	..	..
..	6	..	..	..	..	..	52,000
..	1,784	13,981	..	..	..	..	..
..	*6	*5	..	..	..	..	163,000
..	..	..	..	..	..	..	233,000
760	..	..	..	..	..	..	7,000
..	..	..	..	..	..	..	2,000
..	..	..	..	..	..	..	5,000
..	..	..	..	..	..	..	28,000
..	1,505	6,297	..	..	..	..	..
..	..	*1	..	..	..	..	6,000
..	2	..	5	35	..	..	321,000
..	..	..	..	..	8,200	5,700	15,000
..	*1,169	358	..	..	..	..	230,000
..	..	..	..	..	..	..	12,000
..	*28	*3	..	..	..	..	..
..	..	..	..	..	..	..	150
..	324	864	..	0	2,800	0	430,000
..	..	*35	42	..	30,600	25,100	57,000
..	..	..	..	..	..	..	27,000
..	*1	0	8,167	..	..	..	12,000
..	*2,832	*2	..	..	..	..	103,000
..	528	*3	286	..	..	..	348,000
..	*62	..	..	..	248,200	155,500	23,000
..	0	..	..	..	..	..	733,000
..	675	*30	..	..	..	..	11,000
..	..	..	..	..	..	..	2,000
..	*28	*17	3	..	..	..	205,000
..	..	..	..	..	..	..	33,000
..	..	*20	..	..	325,000	104,900	3,000
..	5,111	4,978	..	91	..	..	43,000
..	..	..	..	..	..	..	9,000
7,015	1,857	1,007	..	..	..	..	600,000
..	688	729	..	..	..	..	..
..	543	*50	..	..	..	..	475,000

Table 37

## Selected energy resources and reserves

Million metric tons unless otherwise indicated

Country or area	Bituminous coal / Anthracite			Sub-bituminous coal / Lignite			Peat	
	Proved amount in place	Proved recoverable reserves	Estimated additional amount in place	Proved amount in place	Proved recoverable reserves	Estimated additional amount in place	Proved amount in place	Proved recoverable reserves
Panama	..	..	..	..	..	..	..	..
Papua New Guinea	..	..	..	..	..	..	..	..
Paraguay	..	..	..	..	..	..	..	..
Peru	1,567	102	..	100	100	..	..	..
Philippines	1,223	211	8	1,017	105	37	..	..
Poland	178,913	16,203	27,405	227,886	5,429	11,837	890	..
Portugal	3	3	..	66	33	..	..	..
Qatar	..	..	..	..	..	..	..	..
Republic of Moldova	..	..	..	..	..	..	..	..
Romania	2,446	11	2,143	9,920	280	8,177	25	13
Russian Federation	2,727,915	69,634	200,000	1,379,623	90,730	200,000	17,680	11,554
Rwanda	..	..	..	..	..	..	..	..
Samoa	..	..	..	..	..	..	..	..
Saudi Arabia	..	..	..	..	..	..	..	..
Senegal	..	..	..	..	..	..	40	24
Serbia	855	402	..	20,186	7,112	..	..	..
Serbia and Montenegro	..	..	..	..	..	..	..	..
Sierra Leone	..	..	..	2	..	..	..	..
Slovakia	19	2	..	1,073	135	..	..	..
Slovenia	95	56	..	656	315	40	..	..
Solomon Islands	..	..	..	..	..	..	..	..
Somalia	..	..	..	..	..	..	..	..
South Africa	213,560	9,893	5,000	30	..	100	47	30
South Sudan	..	..	..	..	..	..	..	..
Spain	4,231	868	3,000	319	319	1,260	94	70
Sri Lanka	..	..	..	..	..	..	5	5
Sudan	..	..	..	..	..	..	..	..
Sudan (former)	..	..	..	..	..	..	..	..
Suriname	..	..	..	..	..	..	..	..
Sweden	5	1	..	4	1	20	700	70
Switzerland	..	..	..	..	..	..	..	..
Syrian Arab Republic	..	..	..	..	..	..	..	..
Tajikistan	4,075	375	..	..	..	..	..	..
Thailand	..	..	..	1,889	1,063	2,857	..	..
Timor-Leste	..	..	..	..	..	..	..	..
Togo	..	..	..	..	..	..	..	..
Trinidad and Tobago	..	..	..	..	..	..	..	..
Tunisia	..	..	..	..	..	..	..	..
Türkiye	1,182	380	249	12,828	12,466	296	..	..
Turkmenistan	800	..	..	..	..	..	..	..
Uganda	800	..	..	..	..	..	..	..
Ukraine	81,045	32,039	5,170	7,717	2,336	6,174	2,160	684
United Arab Emirates	..	..	..	..	..	..	..	..
United Kingdom	186,770	70	190	1,000	500	..	..	..
United Rep. of Tanzania	1,410	269	*1,500	..	..	..	..	..
United States	6,680,329	222,641	445,346	1,398,360	30,483	667,415	26,000	13,000
Uruguay	..	..	..	..	..	..	..	..
Uzbekistan	10,852	1,375	..	..	1,853	..	..	..
Venezuela (Bolivar. Rep.)	6,712	731	4,528	..	..	..	..	..
Viet Nam	6,635	3,116	..	200,120	244	..	..	..
Yemen	..	..	..	..	..	..	..	..
Zambia	945	45	..	69	55	18	..	..
Zimbabwe	25,502	502	5,820	965	..	..	..	..

Table 37

Peat	Proved recoverable reserves				Uranium (metric tons)		Hydropower (Gross theoretical capability) (GWh/Year)
	Estimated additional amount in place	Natural gas (billions cubic metres)	Crude oil and NGL	Oil shale	Bituminous sands	Reasonably assured resources	
..	..	..	..	..	..	..	26,000
..	141	*24	..	..	..	..	175,000
200	..	..	..	..	..	..	111,000
..	414	88	..	1	1,300	1,300	1,577,000
..	*99	*15	..	..	..	..	47,000
2,300	95	*15	7	..	..	..	25,000
..	..	..	..	..	6,000	1,000	32,000
..	24,528	2,646	..	..	..	..	..
..	..	..	..	..	..	..	2,000
10	110	80	..	1	3,100	3,600	70,000
168,320	32,271	14,768	35,470	4,518	216,500	432,000	2,295,000
2,000	*57	..	..	..	..	..	2,000
..	..	..	..	..	..	..	140
..	8,325	40,869	..	..	..	..	..
52	10	0	..	..	..	..	11,000
..	31	*7	..	..	..	..	27,000
..	45	22	..	..	..	..	118,000
..	..	*60	..	..	..	..	11,000
..	*14	*1	..	..	0	9,000	10,000
..	0	0	..	..	1,700	7,500	19,000
..	..	..	..	..	..	..	3,000
..	*6	..	..	..	5,000	2,600	2,000
..	10	*2	19	..	175,300	179,200	73,000
..	..	472	..	..	..	..	..
..	*3	*19	40	..	14,000	0	162,000
46	..	..	..	..	..	..	21,000
..	..	202	..	..	..	..	..
..	85	682	..	..	..	..	48,000
..	..	*12	..	..	..	..	39,000
..	..	..	875	..	5,000	8,500	200,000
..	..	..	..	..	..	..	125,000
..	285	341	..	..	..	..	11,000
..	*6	*2	..	..	..	..	527,000
..	220	30	916	..	..	..	18,000
..	..	*59	..	..	..	..	..
..	..	..	..	..	..	..	4,000
..	326	33	..	1	..	..	..
..	*65	55	..	..	..	..	1,000
..	*7	*46	284	..	7,300	..	433,000
..	17,479	82	1,100	..	..	..	24,000
..	*14	*136	..	..	..	..	33,000
1,846	604	*54	600	..	84,800	81,300	45,000
..	6,091	12,976	..	..	..	..	..
..	206	333	501	12	..	..	35,000
..	*1,317	..	..	..	30,100	15,600	39,000
..	10,441	8,203	536,931	3	207,400	..	2,040,000
46	..	..	..	..	..	..	32,000
..	1,086	81	1,200	..	59,400	31,900	88,000
..	5,617	48,035	..	9,212	..	..	731,000
..	617	595	..	..	1,000	5,400	300,000
..	266	393	..	..	..	..	..
..	..	..	..	..	9,900	5,700	53,000
..	..	..	..	..	1,400	..	44,000