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**THE ENERGY BALANCE
OF THE REPUBLIC OF MOLDOVA**
STATISTICAL COMPILATION

2018

Chisinau, 2019

FOREWORD

„The energy balance of the Republic of Moldova” is a large statistical collection, which presents the statistical indicators on the formation of primary and general resources of energy, distribution and final energy consumption on the main activities of the national economy during the period 2015-2018.

The collection is structured in 2 chapters and includes about 15 tables. Basic methodological notes are displayed for the basic indicators of the balance in the collection.

The collection is based on the annual statistical surveys carried out by the National Bureau of Statistics on enterprises, organizations, administrative authorities, other state and private institutions with legal personality.

Data on the consumption of **Biofuels and Waste** in the residential sector (population) were revised for 2015-2018. The recalculation of the data was done with the support of the Energy Community experts and was based on the results obtained in the "Research on Household Energy Consumption" conducted by the NBS for the 2015 reference year.

The research results can be found at:

http://www.statistica.md/public/files/publicatii_electronice/Consum_energie_gospoda/Consum_energie.pdf

For subsequent years, the data on the consumption of **Biofuels and Waste** in the residential sector (population) will be estimated using the same calculation method.

The publication does not include the data of the economic entities located in the territory on the left side of the river Nistru and mun.Bender.

This collection is published only in electronic version on the official website of the NBS.

Symbols used

- = not applicable
- 0 = negligible magnitude

In some cases, there may occur insignificant discrepancies between the totals and corresponding sums of the components, fact that could be explained by data approximations.

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METHODOLOGICAL NOTES

1. LEGAL FRAMEWORK

The Republic of Moldova as a full state of the Energy Community has the obligation to calculate and disseminate accurate and updated data on the quantities, types, sources, production, supply, transformation and the consumption, to monitoring the impact and consequences of its policy in the energy field. The common framework for the production, transmission, evaluation and dissemination of comparable energy statistics under the Energy Community is given by Regulation (EC) No. 1099/2008 of the European Parliament and of the Council of October 22, 2008 on energy statistics, with further changes. The Regulation applies to statistical data concerning energy products and their aggregates.

At the national level, the present methodology has been approved by the National Bureau of Statistics Board Decision No. 6/3 of December 23, 2014.

2. COVERAGE AND DATA SOURCE

Data on energy products and their aggregates are collected from annual surveys as follows:

- Specific statistical surveys addressed to producers and suppliers of electricity - 6th it; 23-H; PE.
- Specific research addressed to natural gas distributors - 1-Gas.
- Specific statistical research addressed to producers and traders of primary and transformed energy, distributors and final consumers - 1-BE.
- other sources, including administrative sources (other directions of statistical production, of NBS, ANRE, ministries, etc.)

Data collection is exhaustive for units producing electric and thermal energy also for the largest consumers of energy. In research, according to data for 2018 were included 20 040 statistical units with juridical personality.

Specific statistical surveys are addressed to all economic agents, whatever of their field of activity, according to a catalog prepared by NBS and in the basis of Classification of Activities from national economy CAEM-2. According to this classification, consumptions reported by businesses are grouped in:

- energy sector: CAEM-2. code 05, code 0892, code 06, code 0910, code 0721, code 19, code 35;
- industry and construction: CAEM-2. code 0710, code 0729, code 081, code 089, code 0990, code 10-43 (except code 19, code 35);
- transport: CAEM-2. code 49, code 50, code 51;
- agriculture: CAEM-2. Code 01, Code 02, Code 03;
- other economy branches: CAEM-2. *Section E, Section G (code 52, code 53), Section I, Section J, Section K, Section L, Section M, Section N, Section O, Section P, Section Q, Section R, Section S, Section T, Section U.*

Nomenclature of Goods, developed in accordance with the Harmonized Commodity Description and Coding System (HS-2007) and the Combined Nomenclature (CN). According to this nomenclature are classified imports and exports of energy products.

Nomenclature of industrial products and services PRODMOLD (list 2013). According to this nomenclature production (primary and transformed) of energy products is classified.

3. ENERGY PRODUCTS

Energy product	Definition
1. Solid fossil fuels and manufactured gases	
Anthracite	High rank coal used for industrial and residential applications. Generally, it has less than 10 % volatile matter and a high carbon content (about 90 % fixed carbon). Its gross calorific value is greater than 23 865 kJ/kg (5 700 kcal/kg), measured based on a mass of ash-free but moist coal.
Coking coal	Bituminous coal with a quality that allows the production of a coke suitable to support a blast furnace charge. Its gross calorific value is greater than 23 865 kJ/kg (5 700 kcal/kg) on an ash-free but moist basis.
Other bituminous coal (steam coal)	Coal used for steam raising purposes and includes all bituminous coal that is neither included under coking coal nor anthracite. It is characterised by higher volatile matter than anthracite (more than 10 %) and lower carbon content (less than 90 % fixed carbon). Its gross calorific value is greater than 23 865 kJ/kg (5 700 kcal/kg) on an ash-free but moist basis. If bituminous coal is used in coke ovens it should be reported as coking coal.
Sub-bituminous Coal	Refers to non-agglomerating coal with a gross calorific value between 17 435 kJ/kg (4 165 kcal/kg) and 23 865 kJ/kg (5 700 kcal/kg) containing more than 31 % volatile matter on a dry mineral matter free basis.
Lignite/brown coal	Non-agglomerating coal with a gross calorific value less than 17 435 kJ/kg (4 165 kcal/kg) and greater than 31 % volatile matter on a dry mineral matter free basis. Oil shale and tar sands produced and combusted directly should be reported in this category. Oil shale and tar sands used as inputs for other transformation processes should also be reported in this category. This includes the portion of the oil shale or tar sands consumed in the transformation process. Shale oil and other products derived from liquefaction should be reported on the Annual Oil Questionnaire.
Coke oven coke	The solid product obtained from carbonisation of coal, principally coking coal, at high temperature, it is low in moisture and volatile matter. Coke oven coke is used mainly in the iron and steel industry acting as energy source and chemical agent. Coke breeze and foundry coke are included in this category. Semi-coke (a solid product obtained from carbonisation of coal at low temperature) should be included in this category. Semi-coke is used as a domestic fuel or by the transformation plant itself. This heading also includes coke, coke breeze and semi-coke made from lignite/brown coal.
Patent fuel	A composition fuel manufactured from hard coal fines with the addition of a binding agent. The amount of patent fuel produced may, therefore, be slightly higher than the actual amount of coal consumed in the transformation process.
Gasworks gas	Covers all types of gases produced in public utility or private plants, whose main purpose is manufacture, transport and distribution of gas. It includes gas produced by carbonisation (including gas produced by coke ovens and transferred to gasworks gas), by total gasification with or without enrichment with oil products (LPG, residual fuel oil, etc.), and by reforming and simple mixing of gases and/or air, reported under the rows 'from other sources'. Under the transformation sector identify amounts of gasworks gas transferred to blended natural gas which will be distributed and consumed through the natural gas grid. The production of other coal gases (i.e. coke oven gas, blast furnace gas and oxygen steel furnace gas) should be reported in the columns concerning such gases, and not as production of gasworks gas. The coal gases transferred to gasworks plants should then be reported (in their own column) in the transformation sector in the gasworks plants row. The total amount of gasworks gas resulting from transfers of other coal gases should appear in the production line for gasworks gas.
Coke oven gas	Obtained as a by-product of the manufacture of coke oven coke for the production of iron and steel.
Other gases recovered	It is a secondary product resulted from production of steel in oxygen furnaces, recovered on leaving from furnace. Gases are known as converter gas, LD gas or

Energy product	Definition
	BOS gas. The amount of recovered fuel should be reported on a gross calorific value basis. It includes also not specified artificial gases which have not been mentioned above, such as fuel gases of solid carbonaceous origin recovered from chemical and manufacturing processes undefined otherwise.
Peat	<p>A combustible soft, porous or compressed, sedimentary deposit of plant origin with high water content (up to 90 % in the raw state), easily cut, of light to dark brown colour. Peat used for non-energy purposes is not included.</p> <p>This definition is without prejudice to the definition of renewable energy sources in Directive 2001/77/EC and to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.</p>
2. Natural gas	
Natural gas	<p>This data collection applies to natural gas, which comprises gases occurring in underground deposits, whether liquefied or gaseous, consisting mainly of methane. It includes both 'non-associated' gas originating from fields producing hydrocarbons only in gaseous form, and 'associated' gas produced in association with crude oil as well as methane recovered from coal mines (colliery gas) or from coal seams (coal seam gas).</p> <p>It does not include gases created by anaerobic digestion of biomass (e.g. municipal or sewage gas) nor gasworks gas.</p>
3. Oil and petroleum products	
Crude oil	Crude oil is a mineral oil of natural origin comprising a mixture of hydrocarbons and associated impurities, such as sulphur. It exists in the liquid phase under normal surface temperature and pressure and its physical characteristics (density, viscosity, etc.) are highly variable. This category includes field or lease condensate recovered from associated and non-associated gas where it is commingled with the commercial crude oil stream.
NGL	NGL are liquid or liquefied hydrocarbons recovered from natural gas in separation facilities or gas processing plants. Natural gas liquids include ethane, propane, butane (normal and iso-), (iso) pentane and pentanes plus (sometimes referred to as natural gasoline or plant condensate).
Refinery feedstocks	A refinery feedstock is a processed oil destined for further processing (e.g. straight run fuel oil or vacuum gas oil) excluding blending. With further processing, it will be transformed into one or more components and/or finished products. This definition also covers returns from the petrochemical industry to the refining industry (e.g. pyrolysis gasoline, C4 fractions, gasoil and fuel oil fractions).
Additives/oxygenates	<p>Additives are non-hydrocarbon compounds added to or blended with a product to modify fuel properties (octane, cetane, cold properties, etc.):</p> <ul style="list-style-type: none"> – oxygenates, such as alcohols (methanol, ethanol), ethers (such as MTBE (methyl tertiary butyl ether), ETBE (ethyl tertiary butyl ether), TAME (tertiary amyl methyl ether)), – esters (e.g. rapeseed or dimethylester, etc.), – chemical compounds (such as TML, TEL and detergents). <p><i>Note:</i> quantities of additives/oxygenates (alcohols, ethers, esters and other chemical compounds) reported in this category should relate to the quantities destined for blending with fuels or for fuel use.</p>
Refinery gas (not liquefied)	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. This also includes gases which are returned from the petrochemical industry.
Ethane	A naturally gaseous straight-chain hydrocarbon (C ₂ H ₆) extracted from natural gas and refinery gas streams.
Motor gasoline	<p>Motor gasoline consists of a mixture of light hydrocarbons distilling between 35 °C and 215 °C. It is used as a fuel for land based spark ignition engines. Motor gasoline may include additives, oxygenates and octane enhancers, including lead compounds such as TEL and TML.</p> <p>Includes motor gasoline blending components (excluding additives/oxygenates),</p>

Energy product	Definition
	e.g. alkylates, isomerase, reformate, cracked gasoline destined for use as finished motor gasoline.
Aviation gasoline	Motor spirit prepared especially for aviation piston engines, with an octane number suited to the engine, a freezing point of - 60 °C and a distillation range usually within the limits of 30 °C and 180 °C.
Gasoline type jet fuel	Distillate used for aviation turbine power units. It has the same distillation characteristics between 150 °C and 300 °C (generally not above 250 °C) and flash point as kerosene. In addition, it has particular specifications (such as freezing point) which are established by the International Air Transport Association (IATA). Includes kerosene blending components.
Other kerosene	Refined petroleum distillate used in sectors other than aircraft transport. It distils between 150 °C and 300 °C.
Diesel oil	Diesel oil is primarily a medium distillate distilling between 180 °C and 380 °C. Includes blending components. Several grades are available depending on uses.
Lubricants	Hydrocarbons produced from distillate by-product; they are mainly used to reduce friction between bearing surfaces. Includes all finished grades of lubricating oil, from spindle oil to cylinder oil, and those used in greases, motor oils and all grades of lubricating oil base stocks.
Bitumen	Solid, semi-solid or viscous hydrocarbon with a colloidal structure, being brown to black in colour, obtained as a residue in the distillation of crude oil, by vacuum distillation of oil residues from atmospheric distillation. Bitumen is often referred to as asphalt and is primarily used for construction of roads and for roofing material. Includes fluidised and cut back bitumen.
Fuel oil	All residual (heavy) fuel oils (including those obtained by blending). Kinematic viscosity is above 10 cSt at 80 °C. The flash point is always above 50 °C and density is always more than 0,90 kg/l.
Naphtha	Naphtha is a feedstock destined for either the petrochemical industry (e.g. ethylene manufacture or aromatics production) or for gasoline production by reforming or isomerisation within the refinery. Naphtha comprises material in the 30 °C and 210 °C distillation range or part of this range.
Petroleum coke	Black solid by-product, obtained mainly by cracking and carbonising petroleum derived feedstock, vacuum bottoms, tar and pitches in processes such as delayed coking or fluid coking. It consists mainly of carbon (90 to 95 %) and has a low ash content. It is used as a feedstock in coke ovens for the steel industry, for heating purposes, for electrode manufacture and for production of chemicals. The two most important qualities are 'green coke' and 'calcinated coke'. Includes 'catalyst coke' deposited on the catalyst during refining processes; this coke is not recoverable and is usually burned as refinery fuel.
Other products	All products not specifically mentioned above, for example: tar and sulphur. Includes aromatics (e.g. BTX or benzene, toluene and xylene) and olefins (e.g. propylene) produced within refineries.

4. Renewable energy and energy from waste

Solid biomass	Covers organic, non-fossil material of biological origin which may be used as fuel for heat production or electricity generation. It comprises:
Of which: wood, wood wastes, other solid wastes	Purpose-grown energy crops (poplar, willow etc.), a multitude of woody materials generated by an industrial process (wood/paper industry in particular) or provided directly by forestry and agriculture (firewood, wood chips, wood pellets, bark, sawdust, shavings, chips, black liquor etc.) as well as wastes such as straw, rice husks, nut shells, poultry litter, crushed grape dregs etc. Combustion is the preferred technology for these solid wastes. The quantity of fuel used should be reported on a net calorific value basis.
Liquid biofuels	The quantities of liquid biofuels reported in this category should relate to the quantities of biofuel and not to the total volume of liquids into which the biofuels are blended. For the particular case of imports and exports of liquid biofuels, only trade of quantities that have not been blended with transport fuels is concerned (i.e. in their pure form).

Energy product	Definition
Biogas	A gas composed principally of methane and carbon dioxide produced by anaerobic digestion of biomass.
Hydro power	Potential and kinetic energy of water converted into electricity in hydroelectric plants. Pumped storage must be included. Production must be reported for plant sizes of < 1 MW, 1 to < 10 MW, \geq 10 MW and from pumped storage.
Solar energy	Solar radiation exploited for hot water production and electricity generation. This energy production is the heat available to the heat transfer medium, i.e. the incident solar energy less the optical and collectors' losses. Passive solar energy for the direct heating, cooling and lighting of dwellings or other buildings is not included.
Wind	Kinetic energy of wind exploited for electricity generation in wind turbines.
5. Electricity and heat	
Electrical energy	It means electrical energy from all sources of production by type of producers, installations, fuels.
Thermal energy	Thermal energy destined for sale to third parties by type of producers, installations, fuels.

4. LIST OF AGGREGATED INDICATORS

Name of aggregated indicator	Definition
Primary energy production / national production	<p>This category includes production from the exploitation of existing energy sources in nature (in subsoil assets, forests, water courses, etc.) that can be used as such or after a preliminary processing (sorting, washing, cleaning, etc.) that does not change the structure of assortment, but improves its quality for use as fuel or as feedstock for producing other combustible products or noncombustible.</p> <p><i>Coal production</i> from underground and surface mines; recovered slurries, mixed minerals and other low-grade coal products, which cannot be classified according to type of coal. This includes coal recovered from waste piles and other waste receptacles;</p> <p><i>Natural gas production</i>: dry marketable gas, obtained within national boundaries, including offshore production. Production is measured after removal of impurities and NGL extraction and of sulphur.</p> <p>Extraction losses and quantities reinserted, discharged to air or burned are not included in this item.</p> <p>Here are included quantities used in the natural gas industry, in the process of extraction of natural gas, into pipelines and in natural gas processing plants and natural gas obtained with crude oil; natural gas from fields producing hydrocarbons only in gaseous and methane produced in coal mines or extracted from coal layers, brought to the surface and consumed of collieries or transmitted by pipeline to consumers;</p> <p><i>Crude oil production</i> (including liquids products from natural gas extraction);</p> <p><i>Electricity production</i>: hydroelectric and wind energy production; is reported gross output (production measured at generator terminals), solar photovoltaic energy;</p> <p><i>Heat production</i>: heat production obtained from nuclear reactors, geothermal energy, solar thermal energy;</p> <p><i>Biomass production</i>: firewood, combustible products derived from activities other than energy production, such as wood processing cellulose and paper production, agriculture, etc;</p> <p><i>Production of other fuels</i>: biogas, non-renewable industrial waste, renewable municipal waste and biofuels.</p>
Import/export	<p>Unless provisions contrary, imports "refers to the country of initial origin (the country in which the energy product was produced) for use in the country and,, exports" to the country of final consumption of energy product . Are considered as imported or exported quantities that have passed or not customs, who have passed the political boundaries of a country.</p> <p>For electric energy are considered as imported or exported quantities of electricity, quantities that have passed or not customs, who have passed the political boundaries of a country. If the amount of electric energy is transited through a country, it should be registered as both import and export.</p> <p>For petroleum products, this category includes quantities of crude oil and products imported or exported in accordance with processing agreements (i.e. refining for account). Crude oil and NGL should be registered as coming from the origin country; in the case of refinery feedstock's and final products should be taken into account by the last country of origin. This includes any gas liquids (i.e. LPG) extracted during the regasification of imported liquefied natural gas and imported or exported petroleum products directly by the petrochemical industry.</p> <p>Re-exports of oil imported for processing within bonded areas should be included as an export of product from the processing country to the country of final destination.</p>

Name of aggregated indicator	Definition
Stock at 1 January/ Stock at 31 December	<p>Stock at the beginning of the reference period include stocks of existing primary and transformed energy stock at producers, distributors and consumers and these left in custody to the economic agents.</p> <p>Stock at the end of the reference period include the quantities of the fuels motor fuels existing at producers, distributors and consumers at the end of the reference period, regardless of their source.</p> <p>Stocks represents all stocks on national territory, including stocks held by governments, by major consumers or of organizations dealing with stock possession, stocks from incoming ocean vessels, stocks held in bonded areas and stocks held for others in accordance or not with bilateral government agreement.</p>
Stock variation	The difference between stocks of 1 January and those of 31 December.
Bunkering	Includes quantities of fuels delivered to marine ships and aircraft engaged in international voyages, regardless of their flag or nationality of the airline company. Are not included the quantities consumed by ships sailing in national waters. Quantities of fuels consumed by fishing vessels are included in consumption in agriculture.
The calculated gross domestic consumption	Total Resources + Import - Export - Bunkering \pm stock variation
Total transformation Sector - inputs	<p>Quantities of fuels used for primary or secondary energy transformation, for example:</p> <ul style="list-style-type: none"> - coal in electric energy, coke oven gas in electric energy or used for the transformation in derived energy products (eg coking coal in coke); - natural gas in electric energy or used for the transformation in derived energy products (eg natural gas in methanol); <p>Quantities of renewable energy and wastes used for the conversion of primary forms of energy to secondary forms (eg landfill gases to electric energy or used for the transformation to derived energy products (eg biogas used for blended natural gas); Quantities of oil entered in the refineries;</p>
- in stations for producing thermoelectric energy	Are included total quantities of fuels consumed for producing electric energy whatever of type of the producing station, both in the public sector (which includes economic agents of whose main activity is the producing electricity regardless of their form of ownership) and to self-producers (comprising economic agents, whatever their form of ownership, of whose main occupation is other than energy production and electricity producing mainly for domestic needs, the surplus being sold to third parties). Self-producers represents electric station in mining, food industry, refineries, non-metal materials, metallurgy, chemistry, mechanical engineering of the railways and other industries.
- in stations for producing thermal energy	<p>Are included total quantities of fuels consumed for producing thermal energy whatever of type of the producing station, in the public sector (which includes economic agents of whose main activity is the producing thermal energy regardless of their form of ownership) and for producing thermal energy by self-producers sold to third parties.</p> <p>Are not included quantities of fuels consumed in its own industrial activity for heated by direct combustion heaters and the heat consumed in own residential buildings, which are recorded on household consumption.</p> <p>Also not included own consumptions of the station, those being declared consumptions in energy sector.</p> <p>Consumptions for thermal energy produced in the means of transport are not summarized, being included in the consumption of transport.</p>
- in briquetting installations	<p>Includes quantities of coal and binder consumed for the production of charcoal briquettes.</p> <p>Excluded are quantities used for heating and for operation of equipment</p>

Name of aggregated indicator	Definition
	that should not be registered here, but registered as consumption in the energy sector.
- in coke ovens	Includes quantities of coking coal consumed for the production of coke, semi-coke and of coke oven gas. Excluded are quantities used for heating and for operation of equipment that should not be registered here, but registered as consumption in the energy sector.
- in blast furnaces	Includes fuel quantities used in furnaces (coking coal and / or bituminous coal, with generic name as pulverized coal injection, metallurgical coke) for production of blast furnace gas in the process of reduction of the iron ore. These amounts are subtracted from consumption in metallurgy, to avoid double recordings. Excluded are quantities used for heating and for operation of equipment that should not be registered here, but registered as consumption in the energy sector.
- in oil refineries	Includes quantities of crude oil, gasoline and ethane from extraction scaffolds used for processing and obtaining derivative products (combustible and noncombustible products) namely: gasoline, petroleum, white spirit, diesel and aromatic extract, oil, mineral oil, petroleum coke, petroleum bitumen, paraffin waxes, greases, waxes, liquefied petroleum gas, refinery gases including propylene from refineries and other petroleum products. Are included processed oil quantities in the activity of "processing". Does not include returns from petrochemical and blanks. Excluded are quantities used for heating and for operation of equipment that should not be registered here, but registered as consumption in the energy sector.
- in other domains	Includes quantities of coal, firewood and wood waste consumed for producing generator gas and for producing charcoal.
Total energy sector - output from transformation inclusive:	Outputs from transformation represents energy production resulted from the transformation activity: products derived from coal, refined petroleum products, derived gases, thermoelectric energy and thermal energy. Productions included in this sector include own consumption of transformation installations.
- from stations for producing thermoelectric energy	The indicator includes gross thermoelectric energy production (measured at the generator terminals), inclusive that produced by mobile generator sets, regardless of the type of equipment manufacturing (condensing groups or heating groups), both in the public sector as well of the self-producers. To determine the net production, from gross production is subtracted own consumption of station.
- from stations for producing thermal energy	The indicator contains production of thermal energy achieved in stations whose main activity is producing thermal energy as well as thermal energy produced and sold by the self-producers. This includes thermal energy used by the auxiliary's installation of station which uses a hot fluid (space heating, liquid fuel heating etc.) and losses from the heat exchanges of the installation / network, as well as heat from chemical processes used as primary energy form, regardless of the type of producing station. This includes and the amount of thermal energy (hot steam) used for producing thermal energy. Not included thermal energy used for producing electric energy.
- from briquetting installations	Represents production of coal briquettes, regardless of the assortment of coal used
- from coke ovens	Represents fuel production resulting from the processing of coking of hard coal, namely: coke, semi coke, coke oven gas, coke oven pitch, etc.
- from furnaces	Represents production of blast furnace gas obtained by transforming coke in the process of reducing iron ore from blast furnaces;
- from oil refineries	Represents gross production of refined petroleum products.

Name of aggregated indicator	Definition
- from other domains	Includes production of other fuels categories other than those mentioned (production of gases of gasogen and of the charcoal).
Transfer	<p>Represents quantities of products of whose classification has changed either because their specifications were changed, either because these were mixed together to form another product..</p> <p>A negative value for one product should be compensated by one (or more) positive value for one or more products and vice versa, the total net effect should be zero.</p>
Consumption in the energy sector (for the functioning of generating installations and ensuring basic activity)	<p>This indicator includes quantities of energy carriers consumed by primary energy producers or converted for operation of their installations.</p> <p>Includes electric energy consumption of aggregates for producing electric and thermic energy, of domestic services (pumps, fans, coal mills, etc.), technological lighting and for various heating devices (relays, contactors), electric energy consumption in the transformers raising voltage in electric stations.</p> <p>Also, includes electric energy consumption of aggregates for producing electric energy, of internal services of station and for heating fuel depots. Not included thermic energy used for producing electric energy.</p> <p>Includes consumption of renewables and waste used by the energy industry to support the transformation activity. For example, renewables and wastes used for heating, lighting or operating pumps or of compressors.</p> <p>Are summarized quantities of energy products used as energy in refineries and quantities consumed as fuel in the oil extraction process and of natural gas and in installations of processing natural gas.</p> <p>Are not taken into account the quantities of fuels transformed into another energy form (which should be registered at the transformation sector) or those used to support the exploitation of the pipeline oil, gas and coal (to be reported in the Transport) and losses of the pipes (that should be reported in distribution losses).</p> <p>This sector also includes the production of chemical substances used in atomic fission and fusion and the products of these processes.</p>
Extraction of superior and inferior coal	CAEM-2 code 05 - Extraction of superior and inferior coal; CAEM-2 code 0892 - Extraction and agglomeration of peat.
Extraction of crude petroleum, natural gas and services related to extraction	CAEM-2 code 06 - Extraction of crude petroleum, natural gas (excluding prospections); CAEM-2 code 0910 – Activities of related services of oil and natural gas extraction
Extraction of uranium and thorium ores	CAEM-2 code 0721 - Extraction of uranium and thorium ores
Manufacture of coke products and of products from crude oil processing	CAEM-2 code 19 - Manufacture of coke products and of products from crude oil processing
Production and supply of electric, thermic energy, gases, hot water and air conditioning	CAEM-2 code 35 - Production and supply of electric, thermic energy, gases, hot water and air conditioning
Losses	<p>Are comprised:</p> <ul style="list-style-type: none"> - at electrical energy: technological consumption in transport installations, transformation and distribution to the point of separation between suppliers and consumers. Technological consumption from the point of separation between suppliers and consumers and and to the receivers is comprised in technological consumption in analyzed branch (industry, construction, etc.). - at thermal energy: the amount of thermal energy from the spent steam and the condensate returned in steam boilers; thermal energy in the form of hot water not returned to the source of producing hot

Name of aggregated indicator	Definition
	<p>water, exclusively hot water used in mixture exchangers. Also included quantities of thermal energy lost through the insulation of systems.</p> <p>- at fuels: quantities lost in transport, handling and storage at producers, distributors and consumers by: leaking into the atmosphere, at burning torch; leakages of transmission and distribution networks; leakages from reservoirs and other manipulations; degradation by infiltration: quantitative and qualitative losses of solid fuels in deposits.</p>
Available for final consumption (calculated)	Available for final consumption = domestic consumption - inputs in transformation + outputs from transformation ± transfer - (energy sector consumption + losses) + final non-energy consumption.
Nonenergetic	Comprise quantities of energy carriers used for purposes other than those energetic, namely as: consumption of natural gas and petroleum products to obtain chemicals; quantities of natural gas used for injection into resource: crude oil for treatment drilling fluids; products used for lubrication, washing and as insulating materials.
Final energy consumption (gross consumption observed), total	<p>Is determined by aggregating the quantities of energy carriers used by final consumers in economic activity carried out during the reference period.</p> <p>Comprise quantities of primary and transformed energy carriers used in consumer installations, after which no longer takes place any processing and energy transformation.</p> <p>However, in the case of thermal stations and of cogeneration stations of self-producers, are included here only quantities of fuels consumed for producing thermal energy used by them. Quantities of fuels consumed for producing thermal energy sold and for producing electric energy, should be registered in the relevant rubric from the transformation sector.</p> <p>Comprise consumption for lighting; heating and ventilation, water supply, intended for the production, exclusively those for administrative buildings which are classified under "Other branches of the economy."</p> <p>Distribution of final energy consumption is made according CAEM-2. as follows:</p>
In industry, total (including construction)	It refers to all activities classified as industrial (including construction) exclusively the energy sector consumption.
from which: - mining industry	CAEM-2 code 081 - Extraction of stone, sand and clay; CAEM-2 code 089 - Other mining activities (excluding code 0892); CAEM-2 code 09 - Mining support service activities;
- metallurgical industry	CAEM-2 code 24 - Metallurgical industry
- chemical and petrochemical industry	CAEM-2 code 20 - Manufacture of chemicals and chemical products; CAEM-2 code 21 - Manufacture of basic pharmaceutical products and pharmaceutical preparations;
- nonmetallic minerals	CAEM-2 code 23 - Manufacture of other products from non-metallic mineral
- transport equipment	CAEM-2 code 29 - Manufacture of motor vehicles, trailers and semi-trailers; CAEM-2 code 30 - Manufacture of other transport means
- Machine building industry	<p>CAEM-2 code 25 - The industry of metallic constructions and of metal products, except machinery and equipment;</p> <p>CAEM-2 code 26 - Manufacture of computer, of electronic products and optimal;</p> <p>CAEM-2 code 27 - Manufacture of electrical equipment;</p> <p>CAEM-2 code 28 - Manufacture of machinery and instruments equipment n.c.a.;</p> <p>CAEM-2 code 33- Preparation, maintenance and installation of machinery and equipment</p>

Name of aggregated indicator	Definition
- food, beverages, tobacco industry	CAEM-2 code 10 - Food industry; CAEM-2 code 11 - Manufacture of beverages; CAEM-2 code 12 - Manufacture of tobacco products;
- Pulp, Paper and printing activities	CAEM-2 code 17 - Manufacture of paper and paper products; CAEM-2 code 18 - Printing and reproduction on recorded media
- wood processing and furniture production	CAEM-2 code 16 - Wood processing, manufacture of wood and cork products, except furniture; manufacture of articles of straw and other plaiting materials
- Industry of textile and leather products	CAEM-2 code 13 - Manufacture of textile products; CAEM-2 code 14 - Manufacture of Clothing articles; CAEM-2 code 15 - Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear
- constructions	CAEM-2 code 41 - Construction of buildings; CAEM-2 code 42 - Civil constructions works; CAEM-2 code 43 - Special construction works
- Other industrial activities	CAEM-2 code 22 - Manufacture of rubber and plastic products CAEM-2 code 31 - Manufacture of furniture CAEM-2 code 32 - Other industrial activities n.c.a.
- transports	Comprises consumptions in transport activity (road, rail, air, sea and pipeline), inclusive internal transportation (for economic agents with main activity other than transport). Includes consumption of fuel used by the population for their own means of transport. Not included consumption of marine vessels which sailing in international waters, this is included in "marine bunkers". Consumption of fishing vessels is included in "Fishing and aquaculture". CAEM-2 code 49 - Land transport and transport via pipelines; CAEM-2 code 50 - Water transport; CAEM-2 code 51 - Air transport;
- residential sector (population)	Comprises : - to electric energy: quantity consumed for lighting and other household uses, inclusive for living spaces from the ownership and management of economic agents. - to thermal energy: quantity of thermal energy delivered to the population for heating and domestic hot water, both by the public sector as well as by self-producers. - to fuels: quantities effective delivered to population for direct flame consumption for heating and cooking and for producing thermal energy in micro stations of real estate. This also includes quantities of coal received by miners as allowances.
- Agriculture	It comprises energy consumption in registered in agriculture, forestry, logging and hunting economy and pisciculture and fishing. It also includes the energy consumption of fishing vessels. CAEM-2 code 01- Agriculture, hunting and related services CAEM-2 code 02 - Silviculture forest harvesting CAEM-2 code 03 - Fishing and aquaculture
- Other sectors of the economy	It comprises energy consumption reported by economic agents as consumed in other activities than those mentioned above, namely: CAEM-2 Section E - Water supply; sewerage, waste management and remediation activities CAEM-2 Section G - Wholesale and retail trade; repair of motor vehicles and motorcycles, CAEM-2 code 52 - Storage and support activities for transportation CAEM-2 code 53 - Postal and courier activities, CAEM-2 Section I - Accommodation and public alimentation activities, CAEM-2 Section J - Information and communication,

Name of aggregated indicator	Definition
	<p>CAEM-2 Section K - Financial and insurance activities, CAEM-2 Section L - Real estate transactions, CAEM-2 Section M - Professional, scientific and technical activities, CAEM-2 Section N - Activities of administrative services and activities of support services. CAEM-2 Section O - Public administration and defense; compulsory social security, CAEM-2 Section P - Education , CAEM-2 Section Q - Health & Social Assistance, CAEM-2 Section R - Art, recreational and leisure activities, CAEM-2 Section S - Other service activities, CAEM-2 Section T - Activities of private households as an employer of domestic personnel; activities of private households for producing goods and services for personal consumption, CAEM-2 Section U - Activities of Extra-territorial organizations and bodies</p> <p>Also included is electricity used for street lighting, respectively for lighting of streets, squares, parks and public gardens, monuments and public buildings, road signs bright, exclusively firms and advertisements.</p>
Statistical differences	<p>Is calculated as the difference between "Available for final consumption" - Of which was subtracted non-energy consumption - and "final energy consumption" observed by statistical investigation.</p> <p>Statistical differences comprising changes in stocks unregistered statistically, energy consumption for military purposes (excluding those for industrial production, comprised in industrial activities) and the differences generated by the statistical investigation system: while energy producers are registered exhaustive, consumers are investigated based on a representative sample, being admitted a margin of error.</p> <p>Statistical differences may be positive or negative as observed consumption is lower or higher than the funds available in the reference period.</p>

1.1. THE ENERGY BALANCE for 2015

thousands of tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
Primary Production	655	-	0	7	644	4	-
From other sources	283	-	-	-	-	283	-
Imports	1766	98	815	851	0	2	-
Exports	16	-	-	14	2	-	-
International bunkers	-	-	-	-	-	-	-
Stock changes	-2	4	1	-15	8	-	-
GROSS CONSUMPTION	2686	102	816	829	650	289	-
TRANSFORMATION, INPUT	415	2	365	23	21	4	-
Electricity plants	4	-	-	0	-	4	-
Main activity producer combined heat and power (CHP) plants	279	-	279	-	-	-	-
Autoproducer combined heat and power (CHP) plants	31	-	14	7	10	-	-
Main activity producer heat plants	39	-	39	-	-	-	-
Autoproducer heat plants	44	2	33	0	9	-	-
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	16	-	-	16	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	2	-	-	-	2	-	-
Not elsewhere specified - transformation	-	-	-	-	-	-	-
TRANSFORMATION, OUTPUT	331	-	-	11	-	81	239
Electricity plants	5	-	-	-	-	5	-
Main activity producer combined heat and power (CHP) plants	216	-	-	-	-	73	143
Autoproducer combined heat and power (CHP) plants	18	-	-	-	-	3	15
Main activity producer heat plants	43	-	-	-	-	-	43
Autoproducer heat plants	38	-	-	-	-	-	38
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	11	-	-	11	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	0	-	-	-	0	-	-
Not elsewhere specified — transformation	-	-	-	-	-	-	-
Energy sector	18	-	-	-	-	16	2
LOSSES	129	0	58	3	0	33	35

thousands of tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
FINAL CONSUMPTION	2455	100	393	814	629	317	202
FINAL ENERGY CONSUMPTION	2410	100	393	778	620	317	202
INDUSTRY	209	40	60	4	1	65	39
Iron and steel	0	-	-	-	-	0	-
Chemical and petrochem.	5	-	1	-	-	4	-
Non-metallic minerals	88	39	35	-	-	14	0
Machinery	4	0	0	0	-	4	0
Transport equipment	0	-	-	-	0	0	-
Mining and quarrying	2	-	-	1	-	1	-
Food and tobacco	94	1	21	-	1	34	37
Paper, pulp and print	1	-	1	-	-	-	-
Wood and wood products	1	-	-	-	-	1	0
Construction	4	-	1	3	-	-	-
Textile and leather	6	-	1	-	-	3	2
Not elsewhere specified	4	-	-	-	-	4	-
TRANSPORT	662	-	20	637	-	5	-
Domestic aviation	25	-	-	25	-	-	-
Road	621	-	13	604	-	4	-
Rail	6	-	-	6	-	-	-
Pipeline transport	8	-	7	-	-	1	-
Domestic navigation	1	-	-	1	-	-	-
Non-specified	1	-	-	1	-	-	-
OTHER	1539	60	313	137	619	247	163
Residential	1205	42	226	66	609	144	118
Comm. and public services	260	17	85	5	9	99	45
Agriculture	74	1	2	66	1	4	-
NON-ENERGY USE	45	-	-	36	9	-	-
Statistical differences	-	-	-	-	-	-	-

1.2. THE ENERGY BALANCE for 2015

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	TeraJoule	
						Electricity	Heat
Primary Production	27482	-	3	285	27001	193	-
From other sources	11879	-	-	-	-	11879	-
Imports	74076	4114	34146	35712	42	62	-
Exports	726	-	-	627	99	-	-
International bunkers	-	-	-	-	-	-	-
Stock changes	-59	174	48	-602	321	-	-
GROSS CONSUMPTION	112652	4288	34197	34768	27265	12134	-
TRANSFORMATION, INPUT	17380	70	15309	946	862	193	-
Electricity plants	214	-	1	6	14	193	-
Main activity producer combined heat and power (CHP) plants	11286	-	11286	-	-	-	-
Autoproducer combined heat and power (CHP) plants	1236	-	587	262	387	-	-
Main activity producer heat plants	2040	-	2040	-	-	-	-
Autoproducer heat plants	1872	70	1395	18	389	-	-
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	660	-	-	660	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	72	-	-	-	72	-	-
Not elsewhere specified - transformation	-	-	-	-	-	-	-
TRANSFORMATION, OUTPUT	14122	-	-	483	13	3584	10042
Electricity plants	199	-	-	-	-	199	-
Main activity producer combined heat and power (CHP) plants	9039	-	-	-	-	3046	5993
Autoproducer combined heat and power (CHP) plants	789	-	-	-	-	140	649
Main activity producer heat plants	1805	-	-	-	-	-	1805
Autoproducer heat plants	1595	-	-	-	-	-	1595
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	483	-	-	483	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	13	-	-	-	13	-	-
Not elsewhere specified — transformation	-	-	-	-	-	-	-
Energy sector	721	-	-	2	-	647	72
LOSSES	5531	2	2434	151	7	1437	1500

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
FINAL CONSUMPTION	103142	4216	16454	34152	26409	13441	8470
FINAL ENERGY CONSUMPTION	101231	4216	16454	32602	26048	13441	8470
INDUSTRY	9043	1705	2506	298	62	2782	1690
Iron and steel	8	-	-	-	-	8	-
Chemical and petrochem.	214	-	28	6	4	161	15
Non-metallic minerals	3715	1648	1469	29	-	568	1
Machinery	180	1	6	2	-	170	1
Transport equipment	3	-	-	-	1	2	-
Mining and quarrying	119	-	-	61	-	58	-
Food and tobacco	4014	56	869	41	43	1427	1578
Paper, pulp and print	108	-	55	-	-	32	21
Wood and wood products	54	-	-	5	13	36	-
Construction	201	-	37	143	-	20	1
Textile and leather	232	-	32	2	1	129	68
Not elsewhere specified	195	-	10	9	-	171	5
TRANSPORT	28133	-	873	27084	-	176	-
Domestic aviation	1008	-	-	1008	-	-	-
Road	26454	-	576	25724	-	154	-
Rail	258	-	-	258	-	-	-
Pipeline transport	319	-	297	-	-	22	-
Domestic navigation	28	-	-	28	-	-	-
Non-specified	66	-	-	66	-	-	-
OTHER	64055	2511	13075	5220	25986	10483	6780
Residential	50114	1733	9442	2312	25574	6118	4935
Comm. and public services	10952	749	3544	234	383	4198	1844
Agriculture	2989	29	89	2674	29	167	1
NON-ENERGY USE	1911	-	-	1550	361	-	-
Statistical differences	-	-	-	-	-	-	-

1.3. THE ENERGY BALANCE for 2015

thousands of tonnes of coal equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
Primary Production	934	-	0	10	918	6	-
From other sources	405	-	-	-	-	405	-
Imports	2522	140	1164	1216	-	2	-
Exports	24	-	-	21	3	-	-
International bunkers	-	-	-	-	-	-	-
Stock changes	-5	6	1	-23	11	-	-
GROSS CONSUMPTION	3832	146	1165	1182	926	413	-
TRANSFORMATION, INPUT	590	2	522	31	29	6	-
Electricity plants	6	-	-	0	-	6	-
Main activity producer combined heat and power (CHP) plants	398	-	398	-	-	-	-
Autoproducer combined heat and power (CHP) plants	43	-	20	9	14	-	-
Main activity producer heat plants	56	-	56	-	-	-	-
Autoproducer heat plants	63	2	48	-	13	-	-
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	22	-	-	22	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	2	-	-	-	2	-	-
Not elsewhere specified - transformation	-	-	-	-	-	-	-
TRANSFORMATION, OUTPUT	474	-	-	16	1	115	342
Electricity plants	6	-	-	-	-	6	-
Main activity producer combined heat and power (CHP) plants	308	-	-	-	-	104	204
Autoproducer combined heat and power (CHP) plants	27	-	-	-	-	5	22
Main activity producer heat plants	62	-	-	-	-	-	62
Autoproducer heat plants	54	-	-	-	-	-	54
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	16	-	-	16	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	1	-	-	-	1	-	-
Not elsewhere specified — transformation	-	-	-	-	-	-	-
Energy sector	24	-	-	-	-	22	2
LOSSES	188	-	83	5	0	49	51

thousands of tonnes of coal equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
FINAL CONSUMPTION	3504	144	560	1162	898	451	289
FINAL ENERGY CONSUMPTION	3441	144	560	1110	887	451	289
INDUSTRY	305	57	85	9	2	94	58
Iron and steel	0	-	-	-	-	0	-
Chemical and petrochem.	7	-	1	-	-	5	1
Non-metallic minerals	124	55	50	-	-	19	-
Machinery	6	0	0	0	-	6	-
Transport equipment	0	-	-	-	0	-	-
Mining and quarrying	4	-	-	2	-	2	-
Food and tobacco	138	2	30	2	2	48	54
Paper, pulp and print	4	-	2	-	-	1	1
Wood and wood products	1	0	-	-	-	1	0
Construction	7	-	1	5	-	1	-
Textile and leather	8	-	1	-	-	5	2
Not elsewhere specified	6	-	-	-	-	6	-
TRANSPORT	943	-	28	909	-	6	-
Domestic aviation	34	-	-	34	-	-	-
Road	888	-	20	863	-	5	-
Rail	9	-	-	9	-	-	-
Pipeline transport	9	-	8	-	-	1	-
Domestic navigation	1	-	-	1	-	-	-
Non-specified	2	-	-	2	-	-	-
OTHER	2193	87	447	192	885	351	231
Residential	1722	60	323	94	871	205	169
Comm. and public services	368	26	121	7	12	140	62
Agriculture	103	1	3	91	2	6	-
NON-ENERGY USE	63	-	-	52	11	-	-
Statistical differences	-	-	-	-	-	-	-

1.4. THE ENERGY BALANCE for 2016

thousands of tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
Primary Production	709	-	0	7	698	4	-
From other sources	286	-	-	-	-	286	-
Imports	1818	60	838	920	0	0	-
Exports	15	-	-	15	-	0	-
International bunkers	-	-	-	-	-	-	-
Stock changes	-2	15	-1	-16	0	-	-
GROSS CONSUMPTION	2796	75	837	896	698	290	-
TRANSFORMATION, INPUT	424	1	369	30	20	4	-
Electricity plants	4	-	-	0	-	4	-
Main activity producer combined heat and power (CHP) plants	279	-	279	-	-	-	-
Autoproducer combined heat and power (CHP) plants	32	-	12	11	9	-	-
Main activity producer heat plants	44	-	43	-	1	-	-
Autoproducer heat plants	46	1	35	1	9	-	-
Oil refineries	0	-	-	0	-	-	-
Petrochemical plants	18	-	-	18	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	1	-	-	-	1	-	-
Not elsewhere specified - transformation	-	-	-	-	-	-	-
TRANSFORMATION, OUTPUT	346	-	-	15	-	78	253
Electricity plants	4	-	-	-	-	4	-
Main activity producer combined heat and power (CHP) plants	217	-	-	-	-	70	147
Autoproducer combined heat and power (CHP) plants	22	-	-	-	-	4	18
Main activity producer heat plants	47	-	-	-	-	-	47
Autoproducer heat plants	41	-	-	-	-	-	41
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	15	-	-	15	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	0	-	-	-	0	-	-
Not elsewhere specified — transformation	-	-	-	-	-	-	-
Energy sector	19	-	-	-	-	16	3
LOSSES	128	0	50	4	0	37	37

thousands of tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
FINAL CONSUMPTION	2571	74	418	877	678	311	213
FINAL ENERGY CONSUMPTION	2525	74	418	840	669	311	213
INDUSTRY	203	24	61	9	1	64	44
Iron and steel	0	-	-	-	-	0	-
Chemical and petrochem.	5	-	1	-	-	4	-
Non-metallic minerals	69	22	33	3	-	11	0
Machinery	4	0	0	0	-	4	0
Transport equipment	0	-	-	-	0	0	-
Mining and quarrying	2	-	-	1	-	1	-
Food and tobacco	103	2	22	2	1	34	42
Paper, pulp and print	1	-	1	-	-	0	0
Wood and wood products	2	-	1	-	0	1	0
Construction	5	-	1	3	0	1	0
Textile and leather	7	-	1	-	0	4	2
Not elsewhere specified	5	-	1	-	0	4	-
TRANSPORT	717	-	25	686	-	6	-
Domestic aviation	33	-	-	33	-	-	-
Road	661	-	19	638	-	4	-
Rail	13	-	-	13	-	-	-
Pipeline transport	8	-	6	-	-	2	-
Domestic navigation	1	-	-	1	-	-	-
Non-specified	1	-	-	1	-	-	-
OTHER	1605	50	332	145	668	241	169
Residential	1257	31	236	69	658	140	123
Comm. and public services	268	18	94	4	9	97	46
Agriculture	80	1	2	72	1	4	0
NON-ENERGY USE	46	-	-	37	9	-	-
Statistical differences	-	-	-	-	-	-	-

1.5. THE ENERGY BALANCE for 2016

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	TeraJoule	
						Electricity	Heat
Primary Production	29584	-	4	273	29149	158	-
From other sources	11967	-	-	-	-	11967	-
Imports	76320	2519	35159	38623	6	13	-
Exports	634	-	-	629	5	0	-
International bunkers	-	-	-	-	-	-	-
Stock changes	-75	621	-58	-702	64	-	-
GROSS CONSUMPTION	117162	3140	35105	37565	29214	12138	-
TRANSFORMATION, INPUT	17732	74	15480	1208	812	158	-
Electricity plants	168	-	-	8	2	158	-
Main activity producer combined heat and power (CHP) plants	11278	5	11273	-	-	-	-
Autoproducer combined heat and power (CHP) plants	1222	-	387	476	359	-	-
Main activity producer heat plants	2276	-	2254	-	22	-	-
Autoproducer heat plants	2049	69	1566	44	370	-	-
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	680	-	-	680	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	59	-	-	-	59	-	-
Not elsewhere specified - transformation	-	-	-	-	-	-	-
TRANSFORMATION, OUTPUT	14495	-	-	607	16	3266	10606
Electricity plants	161	-	-	-	-	161	-
Main activity producer combined heat and power (CHP) plants	9134	-	-	-	-	2954	6180
Autoproducer combined heat and power (CHP) plants	887	-	-	-	-	151	736
Main activity producer heat plants	1981	-	-	-	-	-	1981
Autoproducer heat plants	1709	-	-	-	-	-	1709
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	607	-	-	607	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	16	-	-	-	16	-	-
Not elsewhere specified — transformation	-	-	-	-	-	-	-
Energy sector	730	-	-	1	-	653	76
LOSSES	5405	7	2115	172	1	1543	1567

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
FINAL CONSUMPTION	107790	3059	17510	36791	28417	13050	8963
FINAL ENERGY CONSUMPTION	105941	3054	17510	35256	28108	13050	8963
INDUSTRY	8598	983	2510	476	38	2703	1888
Iron and steel	7	-	-	-	-	7	-
Chemical and petrochem.	221	-	28	11	0	163	19
Non-metallic minerals	2945	916	1382	163	0	481	3
Machinery	192	2	17	3	0	166	4
Transport equipment	12	-	1	-	1	10	-
Mining and quarrying	78	-	-	33	-	45	-
Food and tobacco	4277	63	909	90	28	1426	1761
Paper, pulp and print	108	-	49	0	-	33	26
Wood and wood products	55	-	0	14	5	36	-
Construction	187	-	18	143	2	23	1
Textile and leather	243	1	33	3	1	137	68
Not elsewhere specified	273	1	73	16	1	176	6
TRANSPORT	29991	-	1067	28699	-	225	-
Domestic aviation	1410	-	-	1410	-	-	-
Road	27640	-	810	26678	-	152	-
Rail	542	-	-	542	-	-	-
Pipeline transport	330	-	257	-	-	73	-
Domestic navigation	21	-	-	21	-	-	-
Non-specified	48	-	-	48	-	-	-
OTHER	67352	2071	13933	6081	28070	10122	7075
Residential	52724	1282	9899	2912	27597	5887	5147
Comm. and public services	11250	761	3948	126	425	4064	1926
Agriculture	3378	28	86	3043	48	171	2
NON-ENERGY USE	1849	5	-	1535	309	-	-
Statistical differences	-	-	-	-	-	-	-

1.6. THE ENERGY BALANCE for 2016

thousands of tonnes of coal equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
Primary Production	1010	-	0	9	996	5	-
From other sources	408	-	-	-	-	408	-
Imports	2597	85	1198	1314	0	0	-
Exports	22	-	-	22	0	0	-
International bunkers	-	-	-	-	-	-	-
Stock changes	-4	22	-2	-25	1	-	-
GROSS CONSUMPTION	3989	107	1196	1276	997	413	-
TRANSFORMATION, INPUT	604	2	528	41	28	5	-
Electricity plants	5	-	-	0	0	5	-
Main activity producer combined heat and power (CHP) plants	399	-	399	-	-	-	-
Autoproducer combined heat and power (CHP) plants	45	-	17	16	12	-	-
Main activity producer heat plants	63	-	62	-	1	-	-
Autoproducer heat plants	66	2	50	1	13	-	-
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	26	-	-	26	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	2	-	-	-	2	-	-
Not elsewhere specified - transformation	-	-	-	-	-	-	-
TRANSFORMATION, OUTPUT	495	-	-	22	1	111	361
Electricity plants	5	-	-	-	-	5	-
Main activity producer combined heat and power (CHP) plants	312	-	-	-	-	101	211
Autoproducer combined heat and power (CHP) plants	30	-	-	-	-	5	25
Main activity producer heat plants	67	-	-	-	-	-	67
Autoproducer heat plants	58	-	-	-	-	-	58
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	22	-	-	22	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	1	-	-	-	1	-	-
Not elsewhere specified — transformation	-	-	-	-	-	-	-
Energy sector	25	-	-	-	-	22	3
LOSSES	182	-	72	4	0	53	53

thousands of tonnes of coal equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
FINAL CONSUMPTION	3673	105	596	1253	970	444	305
FINAL ENERGY CONSUMPTION	3608	105	596	1201	957	444	305
INDUSTRY	290	35	85	14	1	92	63
Iron and steel	0	-	-	-	-	0	-
Chemical and petrochem.	6	-	1	-	-	5	0
Non-metallic minerals	101	33	47	5	-	16	-
Machinery	6	0	0	0	-	6	-
Transport equipment	0	-	-	-	0	-	-
Mining and quarrying	4	-	-	2	-	2	-
Food and tobacco	146	2	31	3	1	49	60
Paper, pulp and print	4	-	2	-	-	1	1
Wood and wood products	1	0	-	-	-	1	0
Construction	6	-	1	4	-	1	-
Textile and leather	8	-	1	-	-	5	2
Not elsewhere specified	8	-	2	-	-	6	-
TRANSPORT	1023	-	36	980	-	7	-
Domestic aviation	48	-	-	48	-	-	-
Road	942	-	27	910	-	5	-
Rail	19	-	-	19	-	-	-
Pipeline transport	11	-	9	-	-	2	-
Domestic navigation	2	-	-	2	-	-	-
Non-specified	1	-	-	1	-	-	-
OTHER	2295	70	475	207	956	345	242
Residential	1797	44	337	99	940	201	176
Comm. and public services	384	25	135	5	15	138	66
Agriculture	114	1	3	103	1	6	-
NON-ENERGY USE	65	-	-	52	13	-	-
Statistical differences	-	-	-	-	-	-	-

1.7. THE ENERGY BALANCE for 2017

thousands of tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
Primary Production	770	-	0	5	760	5	-
From other sources	195	-	-	-	-	195	-
Imports	2012	120	835	958	2	97	-
Exports	34	0	-	34	0	0	-
International bunkers	-	-	-	-	-	-	-
Stock changes	4	15	-1	-8	-2	-	-
GROSS CONSUMPTION	2939	105	836	937	764	297	-
TRANSFORMATION, INPUT	411	2	360	24	20	5	-
Electricity plants	7	-	-	-	2	5	-
Main activity producer combined heat and power (CHP) plants	260	-	260	-	-	-	-
Autoproducer combined heat and power (CHP) plants	29	-	15	9	5	-	-
Main activity producer heat plants	50	0	49	-	1	-	-
Autoproducer heat plants	49	2	36	1	10	-	-
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	14	-	-	14	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	2	-	-	-	2	-	-
Not elsewhere specified - transformation	-	-	-	-	-	-	-
TRANSFORMATION, OUTPUT	336	-	-	14	0	77	245
Electricity plants	5	-	-	-	-	5	-
Main activity producer combined heat and power (CHP) plants	213	-	-	-	-	68	145
Autoproducer combined heat and power (CHP) plants	24	-	-	-	-	4	20
Main activity producer heat plants	42	-	-	-	-	-	42
Autoproducer heat plants	38	-	-	-	-	-	38
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	14	-	-	14	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	0	-	-	-	0	-	-
Not elsewhere specified — transformation	-	-	-	-	-	-	-
Energy sector	17	-	-	-	-	15	2
LOSSES	128	0	49	2	0	37	40

thousands of tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
FINAL CONSUMPTION	2719	103	427	925	744	317	203
FINAL ENERGY CONSUMPTION	2671	102	427	889	733	317	203
INDUSTRY	218	30	59	18	0	65	46
Iron and steel	0	-	0	-	-	0	-
Chemical and petrochem.	6	-	1	-	-	4	1
Non-metallic minerals	83	29	31	12	0	11	0
Machinery	4	-	-	-	-	4	-
Transport equipment	-	-	-	-	-	-	-
Mining and quarrying	2	-	-	1	-	1	-
Food and tobacco	103	1	24	1	-	34	43
Paper, pulp and print	2	-	1	-	-	1	-
Wood and wood products	1	-	0	-	0	1	-
Construction	6	-	1	4	0	1	0
Textile and leather	7	-	0	-	-	5	2
Not elsewhere specified	4	-	1	-	-	3	-
TRANSPORT	734	-	24	703	-	7	-
Domestic aviation	47	-	-	47	-	-	-
Road	665	-	17	644	-	4	-
Rail	10	-	-	10	-	-	-
Pipeline transport	10	-	7	-	-	3	-
Domestic navigation	1	-	-	1	-	-	-
Non-specified	1	-	-	1	-	-	-
OTHER	1719	72	344	168	733	245	157
Residential	1346	54	250	66	720	141	115
Comm. and public services	266	17	92	3	12	100	42
Agriculture	107	1	2	99	1	4	0
NON-ENERGY USE	48	1	-	36	11	-	-
Statistical differences	-	-	-	-	-	-	-

1.8. THE ENERGY BALANCE for 2017

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	TeraJoule	
						Electricity	Heat
Primary Production	32315	-	4	222	31885	204	-
From other sources	8208	-	-	-	-	8208	-
Imports	84351	5017	35006	40157	85	4086	-
Exports	1403	1	-	1401	1	0	-
International bunkers	-	-	-	-	-	-	-
Stock changes	236	625	-52	-315	-22	-	-
GROSS CONSUMPTION	123235	4391	35062	39293	31991	12498	-
TRANSFORMATION, INPUT	17165	74	15039	1117	731	204	-
Electricity plants	299	-	-	11	84	204	-
Main activity producer combined heat and power (CHP) plants	10883	-	10883	-	-	-	-
Autoproducer combined heat and power (CHP) plants	1238	-	628	412	198	-	-
Main activity producer heat plants	2042	5	2014	-	23	-	-
Autoproducer heat plants	1975	69	1514	27	365	-	-
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	667	-	-	667	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	61	-	-	-	61	-	-
Not elsewhere specified - transformation	-	-	-	-	-	-	-
TRANSFORMATION, OUTPUT	14130	-	-	635	14	3230	10251
Electricity plants	229	-	-	-	-	229	-
Main activity producer combined heat and power (CHP) plants	8904	-	-	-	-	2831	6073
Autoproducer combined heat and power (CHP) plants	990	-	-	-	-	170	820
Main activity producer heat plants	1750	-	-	-	-	-	1750
Autoproducer heat plants	1608	-	-	-	-	-	1608
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	635	-	-	635	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	14	-	-	-	14	-	-
Not elsewhere specified — transformation	-	-	-	-	-	-	-
Energy sector	709	-	6	-	-	634	69
LOSSES	5403	12	2058	126	2	1546	1659

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
FINAL CONSUMPTION	114088	4305	17959	38685	31272	13344	8523
FINAL ENERGY CONSUMPTION	111962	4287	17959	37097	30752	13344	8523
INDUSTRY	9243	1212	2513	768	43	2749	1958
Iron and steel	6	-	0	-	-	6	-
Chemical and petrochem.	247	-	29	-	2	161	55
Non-metallic minerals	3446	1161	1318	488	1	478	0
Machinery	187	2	10	3	-	168	4
Transport equipment	13	-	2	-	1	10	-
Mining and quarrying	91	-	-	39	-	52	-
Food and tobacco	4385	49	1021	49	33	1437	1796
Paper, pulp and print	99	-	41	-	-	35	23
Wood and wood products	44	-	0	5	3	36	-
Construction	231	-	24	174	-	32	1
Textile and leather	305	-	40	3	1	187	74
Not elsewhere specified	189	-	28	7	2	147	5
TRANSPORT	30779	-	1052	29430	0	297	-
Domestic aviation	1999	-	-	1999	-	-	-
Road	27830	-	738	26936	-	156	-
Rail	437	-	-	437	-	-	-
Pipeline transport	455	-	314	-	-	141	-
Domestic navigation	20	-	-	20	-	-	-
Non-specified	38	-	-	38	0	-	-
OTHER	71940	3075	14394	6899	30709	10298	6565
Residential	56254	2254	10476	2642	30165	5895	4822
Comm. and public services	11165	773	3830	98	495	4227	1742
Agriculture	4521	48	88	4159	49	176	1
NON-ENERGY USE	2126	18	-	1588	520	-	-
Statistical differences	-	-	-	-	-	-	-

1.9. THE ENERGY BALANCE for 2017

thousands of tonnes of coal equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
Primary Production	1100	-	0	7	1086	7	-
From other sources	279	-	-	-	-	279	-
Imports	2874	171	1193	1368	3	139	-
Exports	48	0	-	48	0	0	-
International bunkers	-	-	-	-	-	-	-
Stock changes	10	22	-2	-9	-1	-	-
GROSS CONSUMPTION	4195	149	1195	1336	1090	425	-
TRANSFORMATION, INPUT	584	2	513	36	26	7	-
Electricity plants	10	-	-	-	3	7	-
Main activity producer combined heat and power (CHP) plants	371	-	371	-	-	-	-
Autoproducer combined heat and power (CHP) plants	42	-	21	14	7	-	-
Main activity producer heat plants	70	0	69	-	1	-	-
Autoproducer heat plants	68	2	52	1	13	-	-
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	21	-	-	21	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	2	-	-	-	2	-	-
Not elsewhere specified - transformation	-	-	-	-	-	-	-
TRANSFORMATION, OUTPUT	481	-	-	21	-	110	350
Electricity plants	8	-	-	-	-	8	-
Main activity producer combined heat and power (CHP) plants	303	-	-	-	-	96	207
Autoproducer combined heat and power (CHP) plants	34	-	-	-	-	6	28
Main activity producer heat plants	60	-	-	-	-	-	60
Autoproducer heat plants	55	-	-	-	-	-	55
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	21	-	-	21	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-	-	-
Not elsewhere specified — transformation	-	-	-	-	-	-	-
Energy sector	25	-	0	-	-	22	3
LOSSES	185	0	70	5	0	53	57

thousands of tonnes of coal equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
FINAL CONSUMPTION	3882	147	612	1316	1064	453	290
FINAL ENERGY CONSUMPTION	3812	146	612	1263	1048	453	290
INDUSTRY	308	42	85	22	1	92	66
Iron and steel	0	-	0	-	-	0	-
Chemical and petrochem.	8	-	1	-	0	5	2
Non-metallic minerals	117	40	45	16	0	16	0
Machinery	5	0	0	0	-	5	0
Transport equipment	0	-	0	-	0	0	-
Mining and quarrying	3	-	-	1	-	2	-
Food and tobacco	149	2	35	1	1	49	61
Paper, pulp and print	3	-	1	-	-	1	1
Wood and wood products	1	-	0	0	0	1	-
Construction	6	-	1	4	-	1	0
Textile and leather	10	-	1	0	0	7	2
Not elsewhere specified	6	-	1	0	0	5	0
TRANSPORT	1050	-	36	1004	0	10	-
Domestic aviation	67	-	-	67	-	-	-
Road	950	-	25	920	-	5	-
Rail	15	-	-	15	-	-	-
Pipeline transport	16	-	11	-	-	5	-
Domestic navigation	1	-	-	1	-	-	-
Non-specified	1	-	-	1	0	-	-
OTHER	2454	104	491	237	1047	351	224
Residential	1916	75	357	91	1028	201	164
Comm. and public services	384	27	131	4	18	144	60
Agriculture	154	2	3	142	1	6	0
NON-ENERGY USE	70	1	-	53	16	-	-
Statistical differences	-	-	-	-	-	-	-

1.10. THE ENERGY BALANCE for 2018

thousands of tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
Primary Production	798	-	0	5	787	6	-
From other sources	219	-	-	-	-	219	-
Imports	2109	85	913	1026	3	82	-
Exports	27	-	-	27	-	0	-
International bunkers	-	-	-	-	-	-	-
Stock changes	12	5	2	2	3	-	-
GROSS CONSUMPTION	3087	80	911	1002	787	307	-
TRANSFORMATION, INPUT	430	1	381	19	23	6	-
Electricity plants	10	-	-	0	4	6	-
Main activity producer combined heat and power (CHP) plants	285	-	285	-	-	-	-
Autoproducer combined heat and power (CHP) plants	28	-	18	6	4	-	-
Main activity producer heat plants	41	0	40	-	1	-	-
Autoproducer heat plants	53	1	38	1	13	-	-
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	12	-	-	12	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	1	-	-	-	1	-	-
Not elsewhere specified - transformation	-	-	-	-	-	-	-
TRANSFORMATION, OUTPUT	345	-	-	8	0	82	255
Electricity plants	7	-	-	-	-	7	-
Main activity producer combined heat and power (CHP) plants	224	-	-	-	-	71	153
Autoproducer combined heat and power (CHP) plants	21	-	-	-	-	4	17
Main activity producer heat plants	43	-	-	-	-	-	43
Autoproducer heat plants	42	-	-	-	-	-	42
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	8	-	-	8	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	0	-	-	-	0	-	-
Not elsewhere specified — transformation	-	-	-	-	-	-	-
Energy sector	16	-	0	0	-	14	2
LOSSES	124	0	44	3	0	38	39

thousands of tonnes of oil equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
FINAL CONSUMPTION	2862	79	486	988	764	331	214
FINAL ENERGY CONSUMPTION	2786	79	486	925	751	331	214
INDUSTRY	251	24	76	37	1	67	46
Iron and steel	0	0	0	0	-	0	-
Chemical and petrochem.	6	-	1	0	0	4	1
Non-metallic minerals	102	23	42	25	0	12	0
Machinery	5	0	1	0	-	4	0
Transport equipment	1	-	0	-	0	1	-
Mining and quarrying	5	-	-	4	-	1	-
Food and tobacco	107	1	28	1	1	33	43
Paper, pulp and print	2	-	1	-	0	1	-
Wood and wood products	1	-	0	0	0	1	0
Construction	9	-	1	7	0	1	-
Textile and leather	8	-	1	0	0	5	2
Not elsewhere specified	5	-	1	0	0	4	-
TRANSPORT	758	-	25	727	-	6	-
Domestic aviation	55	-	-	55	-	-	-
Road	688	-	19	665	-	4	-
Rail	6	-	-	6	-	-	-
Pipeline transport	8	-	6	-	-	2	-
Domestic navigation	0	-	-	0	-	-	-
Non-specified	1	-	-	1	-	-	-
OTHER	1777	55	385	161	750	258	168
Residential	1385	36	286	62	737	142	122
Comm. and public services	283	18	96	1	12	110	46
Agriculture	109	1	3	98	1	6	0
NON-ENERGY USE	76	0	-	63	13	-	-
Statistical differences	-	-	-	-	-	-	-

1.11. THE ENERGY BALANCE for 2018

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	TeraJoule	
						Electricity	Heat
Primary Production	33409	-	4	218	32934	253	-
From other sources	9166	-	-	-	-	9166	-
Imports	88433	3579	38250	43074	86	3444	-
Exports	1161	-	-	1161	-	0	-
International bunkers	-	-	-	-	-	-	-
Stock changes	453	242	97	7	107	-	-
GROSS CONSUMPTION	129394	3337	38157	42124	32913	12863	-
TRANSFORMATION, INPUT	18009	72	15930	836	918	253	-
Electricity plants	411	-	-	8	150	253	-
Main activity producer combined heat and power (CHP) plants	11949	-	11949	-	-	-	-
Autoproducer combined heat and power (CHP) plants	1179	-	743	273	163	-	-
Main activity producer heat plants	1709	3	1674	-	32	-	-
Autoproducer heat plants	2187	69	1564	32	522	-	-
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	523	-	-	523	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	51	-	-	-	51	-	-
Not elsewhere specified - transformation	-	-	-	-	-	-	-
TRANSFORMATION, OUTPUT	14464	-	-	354	12	3440	10658
Electricity plants	293	-	-	-	-	293	-
Main activity producer combined heat and power (CHP) plants	9384	-	-	-	-	2980	6404
Autoproducer combined heat and power (CHP) plants	869	-	-	-	-	167	702
Main activity producer heat plants	1808	-	-	-	-	-	1808
Autoproducer heat plants	1744	-	-	-	-	-	1744
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	354	-	-	354	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	12	-	-	-	12	-	-
Not elsewhere specified — transformation	-	-	-	-	-	-	-
Energy sector	691	-	2	1	-	618	70
LOSSES	5214	6	1861	131	1	1590	1625

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
FINAL CONSUMPTION	119944	3259	20364	41510	32006	13842	8963
FINAL ENERGY CONSUMPTION	116663	3257	20364	38782	31455	13842	8963
INDUSTRY	10576	990	3199	1568	66	2780	1973
Iron and steel	8	0	0	0	-	8	-
Chemical and petrochem.	237	-	30	1	3	150	53
Non-metallic minerals	4292	929	1777	1077	1	508	0
Machinery	216	1	25	3	-	176	11
Transport equipment	36	-	7	-	1	28	-
Mining and quarrying	211	-	-	156	-	55	-
Food and tobacco	4520	60	1186	44	49	1371	1810
Paper, pulp and print	124	-	51	-	4	48	21
Wood and wood products	41	-	0	5	5	31	0
Construction	355	-	38	276	-	41	-
Textile and leather	306	-	50	-	1	182	73
Not elsewhere specified	230	-	35	6	2	182	5
TRANSPORT	31722	-	1038	30427	-	257	-
Domestic aviation	2324	-	-	2324	-	-	-
Road	28733	-	762	27806	-	165	-
Rail	236	-	-	236	-	-	-
Pipeline transport	368	-	276	-	-	92	-
Domestic navigation	18	-	-	18	-	-	-
Non-specified	43	-	-	43	-	-	-
OTHER	74365	2267	16127	6787	31389	10805	6990
Residential	57953	1474	12004	2610	30827	5916	5122
Comm. and public services	11833	753	4001	48	510	4654	1867
Agriculture	4579	40	122	4129	52	235	1
NON-ENERGY USE	3281	2	-	2728	551	-	-
Statistical differences	-	-	-	-	-	-	-

1.12. THE ENERGY BALANCE for 2018

thousands of tonnes of coal equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
Primary Production	1137	-	0	7	1122	8	-
From other sources	312	-	-	-	-	312	-
Imports	3013	121	1303	1469	3	117	-
Exports	40	-	-	40	-	0	-
International bunkers	-	-	-	-	-	-	-
Stock changes	12	6	3	-1	4	-	-
GROSS CONSUMPTION	4410	115	1300	1437	1121	437	-
TRANSFORMATION, INPUT	613	2	543	28	32	8	-
Electricity plants	13	-	-	0	5	8	-
Main activity producer combined heat and power (CHP) plants	407	-	407	-	-	-	-
Autoproducer combined heat and power (CHP) plants	40	-	25	9	6	-	-
Main activity producer heat plants	58	0	57	-	1	-	-
Autoproducer heat plants	75	2	54	1	18	-	-
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	18	-	-	18	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	2	-	-	-	2	-	-
Not elsewhere specified - transformation	-	-	-	-	-	-	-
TRANSFORMATION, OUTPUT	493	-	-	12	-	118	363
Electricity plants	10	-	-	-	-	10	-
Main activity producer combined heat and power (CHP) plants	320	-	-	-	-	102	218
Autoproducer combined heat and power (CHP) plants	30	-	-	-	-	6	24
Main activity producer heat plants	62	-	-	-	-	-	62
Autoproducer heat plants	59	-	-	-	-	-	59
Oil refineries	-	-	-	-	-	-	-
Petrochemical plants	12	-	-	12	-	-	-
Liquefaction plants	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-	-	-
Not elsewhere specified — transformation	-	-	-	-	-	-	-
Energy sector	23	-	0	-	-	21	2
LOSSES	177	-	63	5	-	54	55

thousands of tonnes of coal equivalent

SUPPLY AND CONSUMPTION	Total products	Coal	Natural gas	Oil products	Biofuels and waste	Electricity	Heat
FINAL CONSUMPTION	4090	113	694	1416	1089	472	306
FINAL ENERGY CONSUMPTION	3981	113	694	1325	1071	472	306
INDUSTRY	357	33	109	53	1	96	65
Iron and steel	0	-	0	0	0	0	-
Chemical and petrochem.	8	-	1	-	-	6	1
Non-metallic minerals	146	31	61	37	0	17	0
Machinery	7	-	1	0	-	6	-
Transport equipment	1	-	-	-	-	1	-
Mining and quarrying	7	-	-	5	-	2	-
Food and tobacco	153	2	40	2	1	47	61
Paper, pulp and print	5	-	2	-	-	2	1
Wood and wood products	1	-	0	0	0	1	0
Construction	11	-	1	9	0	1	-
Textile and leather	11	-	2	-	-	7	2
Not elsewhere specified	7	-	1	-	-	6	-
TRANSPORT	1083	-	35	1039	-	9	-
Domestic aviation	80	-	-	80	-	-	-
Road	981	-	26	949	-	6	-
Rail	8	-	-	8	-	-	-
Pipeline transport	12	-	9	-	-	3	-
Domestic navigation	1	-	-	1	-	-	-
Non-specified	1	-	-	1	-	-	-
OTHER	2541	80	550	233	1070	367	241
Residential	1979	53	409	89	1051	202	175
Comm. and public services	406	26	137	2	18	157	66
Agriculture	156	1	4	142	1	8	0
NON-ENERGY USE	109	0	-	91	18	-	-
Statistical differences	-	-	-	-	-	-	-

2. THE ENERGY BALANCE, TOTAL PRODUCTS

2.1. THE ENERGY BALANCE for 2015-2018

thousands of tonnes of oil equivalent				
SUPPLY AND CONSUMPTION	2015	2016	2017	2018
Primary Production	655	709	770	798
From other sources	283	286	195	219
Imports	1766	1818	2012	2109
Exports	16	15	34	27
International bunkers	-	-	-	-
Stock changes	-2	-2	4	12
GROSS CONSUMPTION	2686	2796	2939	3087
TRANSFORMATION, INPUT	415	424	411	430
Electricity plants	4	4	7	10
Main activity producer combined heat and power (CHP) plants	279	279	260	285
Autoproducer combined heat and power (CHP) plants	31	32	29	28
Main activity producer heat plants	39	44	50	41
Autoproducer heat plants	44	46	49	53
Oil refineries	-	0	-	-
Petrochemical plants	16	18	14	12
Liquefaction plants	-	-	-	-
Charcoal production plants	2	1	2	1
Not elsewhere specified - transformation	-	-	-	-
TRANSFORMATION, OUTPUT	331	346	336	345
Electricity plants	5	4	5	7
Main activity producer combined heat and power (CHP) plants	216	217	213	224
Autoproducer combined heat and power (CHP) plants	18	22	24	21
Main activity producer heat plants	43	47	42	43
Autoproducer heat plants	38	41	38	42
Oil refineries	-	-	-	-
Petrochemical plants	11	15	14	8
Liquefaction plants	-	-	-	-
Charcoal production plants	0	0	0	0
Not elsewhere specified — transformation	-	-	-	-
Energy sector	18	19	17	16
LOSSES	129	128	128	124

thousands of tonnes of oil equivalent

SUPPLY AND CONSUMPTION	2015	2016	2017	2018
FINAL CONSUMPTION	2455	2571	2719	2862
FINAL ENERGY CONSUMPTION	2410	2525	2671	2786
INDUSTRY	209	203	218	251
Iron and steel	0	0	0	0
Chemical and petrochem.	5	5	6	6
Non-metallic minerals	88	69	83	102
Machinery	4	4	4	5
Transport equipment	0	0	-	1
Mining and quarrying	2	2	2	5
Food and tobacco	94	103	103	107
Paper, pulp and print	1	1	2	2
Wood and wood products	1	2	1	1
Construction	4	5	6	9
Textile and leather	6	7	7	8
Not elsewhere specified	4	5	4	5
TRANSPORT	662	717	734	758
Domestic aviation	25	33	47	55
Road	621	661	665	688
Rail	6	13	10	6
Pipeline transport	8	8	10	8
Domestic navigation	1	1	1	0
Non-specified	1	1	1	1
OTHER	1539	1605	1719	1777
Residential	1205	1257	1346	1385
Comm. and public services	260	268	266	283
Agriculture	74	80	107	109
NON-ENERGY USE	45	46	48	76
Statistical differences	-	-	-	-

2.2. THE ENERGY BALANCE for 2015-2018

	TeraJoule			
SUPPLY AND CONSUMPTION	2015	2016	2017	2018
Primary Production	27482	29584	32315	33409
From other sources	11879	11967	8208	9166
Imports	74076	76320	84351	88433
Exports	726	634	1403	1161
International bunkers	-	-	-	-
Stock changes	-59	-75	236	453
GROSS CONSUMPTION	112652	117162	123235	129394
TRANSFORMATION, INPUT	17380	17732	17165	18009
Electricity plants	214	168	299	411
Main activity producer combined heat and power (CHP) plants	11286	11278	10883	11949
Autoproducer combined heat and power (CHP) plants	1236	1222	1238	1179
Main activity producer heat plants	2040	2276	2042	1709
Autoproducer heat plants	1872	2049	1975	2187
Oil refineries	-	-	-	-
Petrochemical plants	660	680	667	523
Liquefaction plants	-	-	-	-
Charcoal production plants	72	59	61	51
Not elsewhere specified - transformation	-	-	-	-
TRANSFORMATION, OUTPUT	14122	14495	14130	14464
Electricity plants	199	161	229	293
Main activity producer combined heat and power (CHP) plants	9039	9134	8904	9384
Autoproducer combined heat and power (CHP) plants	789	887	990	869
Main activity producer heat plants	1805	1981	1750	1808
Autoproducer heat plants	1595	1709	1608	1744
Oil refineries	-	-	-	-
Petrochemical plants	483	607	635	354
Liquefaction plants	-	-	-	-
Charcoal production plants	13	16	14	12
Not elsewhere specified — transformation	-	-	-	-
Energy sector	721	730	709	691
LOSSES	5531	5405	5403	5214

SUPPLY AND CONSUMPTION	2015	2016	2017	2018
FINAL CONSUMPTION	103142	107790	114088	119944
FINAL ENERGY CONSUMPTION	101231	105941	111962	116663
INDUSTRY	9043	8598	9243	10576
Iron and steel	8	7	6	8
Chemical and petrochem.	214	221	247	237
Non-metallic minerals	3715	2945	3446	4292
Machinery	180	192	187	216
Transport equipment	3	12	13	36
Mining and quarrying	119	78	91	211
Food and tobacco	4014	4277	4385	4520
Paper, pulp and print	108	108	99	124
Wood and wood products	54	55	44	41
Construction	201	187	231	355
Textile and leather	232	243	305	306
Not elsewhere specified	195	273	189	230
TRANSPORT	28133	29991	30779	31722
Domestic aviation	1008	1410	1999	2324
Road	26454	27640	27830	28733
Rail	258	542	437	236
Pipeline transport	319	330	455	368
Domestic navigation	28	21	20	18
Non-specified	66	48	38	43
OTHER	64055	67352	71940	74365
Residential	50114	52724	56254	57953
Comm. and public services	10952	11250	11165	11833
Agriculture	2989	3378	4521	4579
NON-ENERGY USE	1911	1849	2126	3281
Statistical differences	-	-	-	-

2.3. THE ENERGY BALANCE for 2015-2018

thousands of tonnes of coal equivalent

SUPPLY AND CONSUMPTION	2015	2016	2017	2018
Primary Production	934	1010	1100	1137
From other sources	405	408	279	312
Imports	2522	2597	2874	3013
Exports	24	22	48	40
International bunkers	-	-	-	-
Stock changes	-5	-4	10	12
GROSS CONSUMPTION	3832	3989	4195	4410
TRANSFORMATION, INPUT	590	604	584	613
Electricity plants	6	5	10	13
Main activity producer combined heat and power (CHP) plants	398	399	371	407
Autoproducer combined heat and power (CHP) plants	43	45	42	40
Main activity producer heat plants	56	63	70	58
Autoproducer heat plants	63	66	68	75
Oil refineries	-	-	-	-
Petrochemical plants	22	26	21	18
Liquefaction plants	-	-	-	-
Charcoal production plants	2	2	2	2
Not elsewhere specified - transformation	-	-	-	-
TRANSFORMATION, OUTPUT	474	495	481	493
Electricity plants	6	5	8	10
Main activity producer combined heat and power (CHP) plants	308	312	303	320
Autoproducer combined heat and power (CHP) plants	27	30	34	30
Main activity producer heat plants	62	67	60	62
Autoproducer heat plants	54	58	55	59
Oil refineries	-	-	-	-
Petrochemical plants	16	22	21	12
Liquefaction plants	-	-	-	-
Charcoal production plants	1	1	-	-
Not elsewhere specified — transformation	-	-	-	-
Energy sector	24	25	25	23
LOSSES	188	182	185	177

thousands of tonnes of coal equivalent

SUPPLY AND CONSUMPTION	2015	2016	2017	2018
FINAL CONSUMPTION	3504	3673	3882	4090
FINAL ENERGY CONSUMPTION	3441	3608	3812	3981
INDUSTRY	305	290	308	357
Iron and steel	0	0	0	0
Chemical and petrochem.	7	6	8	8
Non-metallic minerals	124	101	117	146
Machinery	6	6	5	7
Transport equipment	0	0	0	1
Mining and quarrying	4	4	3	7
Food and tobacco	138	146	149	153
Paper, pulp and print	4	4	3	5
Wood and wood products	1	1	1	1
Construction	7	6	6	11
Textile and leather	8	8	10	11
Not elsewhere specified	6	8	6	7
TRANSPORT	943	1023	1050	1083
Domestic aviation	34	48	67	80
Road	888	942	950	981
Rail	9	19	15	8
Pipeline transport	9	11	16	12
Domestic navigation	1	2	1	1
Non-specified	2	1	1	1
OTHER	2193	2295	2454	2541
Residential	1722	1797	1916	1979
Comm. and public services	368	384	384	406
Agriculture	103	114	154	156
NON-ENERGY USE	63	65	70	109
Statistical differences	-	-	-	-