REGULATION (EC) 1099/2008 OF 22 OCTOBER 2008 ON ENERGY STATISTICS

Incorporated and adapted by Ministerial Council Decision 2012/02/MC-EnC of 18 October 2012 concerning the implementation of the rules on energy statistics in the energy community and amended by Decision 2013/02/MC-EnC of 24 October 2013 on implementation of Regulation (EU) 147/2013 and the Decision 2015/02/MC-EnC of 16 October 2015 on implementation of Regulation 431/2014, Decision 2021/12/MC-EnC on adapting and implementing Regulation 2019/2146 amending Regulation 1099/2008 on energy statistics, Permanent High Level Group Decision 2022/01/PHLG-EnC on adapting and implementing Commission Regulation (EU) 2022/132 of 28 January 2022 amending Regulation (EC) No 1099/2008, and Permanent High Level Group Decision 2026/01/PHLG-EnC on adapting and implementing Commission Regulation (EU) 2024/264 of 17 January 2024 amending Regulation (EC) No 1099/2008 of the European Parliament and of the Council on energy statistics, as regards the implementation of updates for the annual, monthly and short-term monthly energy statistics.

The adaptations made by Ministerial Council Decisions 2012/02/MC-EnC, 2013/02/MC-EnC, 2015/02/MC-EnC and 2021/12/MC-EnC, and Permanent High Level Group Decisions 2022/01/PHLG-EnC and 2026/01/PHLG-EnC are highlighted in ***bold and blue.***

Article 1

Subject matter and scope

1. This Regulation establishes a common framework for the production, transmission, evaluation and dissemination of comparable energy statistics in the **Energy Community**.

2. This Regulation shall apply to statistical data concerning energy products and their aggregates in the **Energy Community**.

Article 2

Definitions

For the purpose of this Regulation, the following definitions shall apply:

(a) '**Energy Community** statistics' mean **quantitative, aggregated and representative information taken from the collection and systematic processing of data, produced by the national authorities of the Contracting Parties**;

(b) 'production of statistics' means **the process of encompassing all the activities necessary for the collection, storage, processing, compilation, analysis and dissemination of the statistical information**;

(c) 'Commission (Eurostat)' means the Community authority as defined in the fourth indent of Article 2 of Regulation (EC) No 322/97;

(d) 'energy products' mean combustible fuels, heat, renewable energy, electricity, or any other form of energy;

(e) 'aggregates' mean data aggregated at national level on the treatment or use of energy products, namely

production, trade, stocks, transformation, consumption, and structural characteristics of the energy system such as installed capacities for electricity generation or production capacities for oil products;

(f) 'quality of data' means the following aspects of statistical quality: relevance, accuracy, timeliness and punctuality, accessibility and clarity, comparability, coherence and completeness.

Article 3

Data sources

1. While applying the principles of maintaining a reduced burden on respondents and of administrative simplification, **Contracting Parties** shall compile data concerning energy products and their aggregates in the **Energy Community** from the following sources:

(a) specific statistical surveys addressed to the primary and transformed energy producers and traders, distributors and transporters, importers and exporters of energy products;

(b) other statistical surveys addressed to final energy users in the sectors of manufacturing industry, transport, and other sectors, including households;

(c) other statistical estimation procedures or other sources, including administrative sources, such as regulators of the electricity and gas markets.

2. **Contracting Parties** shall lay down the detailed rules concerning the reporting of the data needed for the national statistics as specified in Article 4 by undertakings and other sources.

3. The list of data sources may be modified in accordance with the regulatory procedure with scrutiny referred to in Article 11(2) **of Regulation (EC) No 1099/2008**.

Article 4

Aggregates, energy products and the transmission frequency of national statistics

1. The national statistics to be reported shall be as set out in the Annexes. They shall be transmitted with the following frequencies:

(a) annual, for the energy statistics in Annex B;

(b) monthly, for the energy statistics in Annex C;

(c) short-term monthly, for the energy statistics in Annex D.

2. Applicable clarifications or definitions of the technical terms used are provided in the individual Annexes and also in Annex A (Clarifications of terminology).

3. The data to be forwarded and the applicable clarifications or definitions may be modified in accordance with the regulatory procedure with scrutiny referred to in Article 11(2) **of Regulation (EC) No 1099/2008**.

Article 5

Transmission and dissemination

1. **Contracting Parties** shall transmit to the Commission (Eurostat) the national statistics referred to in Article 4.

2. The arrangements for their transmission, including the applicable time limits, derogations and exemptions therefrom, shall be as set out in the Annexes.

3. The arrangements for the transmission of the national statistics may be modified in accordance with the regulatory procedure with scrutiny referred in Article 11(2).

4. At the duly justified request of a **Contracting Party**, additional exemptions or derogations may be granted by the **Permanent High Level Group** for those parts of the national statistics for which the collection would lead to an excessive burden on respondents. **Before adopting such a decision in accordance with Title II of the Treaty, the Permanent High Level Group shall consult the Secretariat.**

5. **<...>**

Article 6

Quality assessment and reports

1. **Contracting Parties** shall ensure the quality of the data transmitted.

2. Every reasonable effort shall be undertaken to ensure coherence between energy data declared in accordance with Annex B and data declared in accordance with Commission Decision 2005/166/EC of 10 February 2005 laying down the rules for implementing Decision No 280/2004/EC of the European Parliament and of the Council concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol [1].

3. For the purposes of this Regulation, the following quality assessment dimensions shall apply to the data to be transmitted:

(a) 'relevance' shall refer to the degree to which statistics meet current and potential needs of the users;

(b) 'accuracy' shall refer to the closeness of estimates to the unknown true values;

(c) 'timeliness' shall refer to the delay between the availability of the information and the event or phenomenon it describes;

(d) 'punctuality' shall refer to the delay between the date of the release of the data and the target date when it should have been delivered;

(e) 'accessibility' and 'clarity' shall refer to the conditions and modalities by which users can obtain, use and interpret data;

(f) 'comparability' shall refer to the measurement of the impact of differences in applied statistical concepts and measurement tools and procedures where statistics are compared between geographical areas, sectoral domains or over time;

(g) 'coherence' shall refer to the adequacy of the data to be reliably combined in different ways and for various uses.

4. Every five years, **Contracting Parties** shall provide the Commission (Eurostat) with a report on the quality of the data transmitted as well as on any methodological changes that have been made.

1 OJ L 55, 1.3.2005, p. 57.

5. Within six months of receipt of a request from the Commission (Eurostat), and in order to allow it to assess the quality of the data transmitted, **Contracting Parties** shall send to the Commission (Eurostat) a report containing any relevant information concerning the implementation of this Regulation.

Article 7

Time reference and frequency

Contracting Parties shall compile all data specified in this Regulation from the beginning of the calendar year following the adoption of this Regulation, and shall transmit them from then onwards with the frequencies laid down in Article 4(1).

Article 8

Annual nuclear statistics

<…>

Article 9

Renewable energy statistics and final energy consumption statistics

1. **<…>**

2. The set of renewable energy statistics may be modified in accordance with the regulatory procedure with scrutiny referred to in Article 11(2) **of Regulation (EC) No 1099/2008**.

3. The set of final energy consumption statistics shall be established and may be modified in accordance with the regulatory procedure with scrutiny referred to in Article 11(2) **of Regulation (EC) No 1099/2008**.

Article 10

Implementing measures

<…>

Article 11

Committee

<…>

Article 12

Entry into force

This Decision shall enter into force upon its adoption on 1 October 2026 and is addressed to the Contracting Parties.

ANNEX

ANNEX A

CLARIFICATIONS OF TERMINOLOGY

This annex provides explanations, geographical notes and definitions of terms that are used in the other annexes, unless specified differently in these annexes.

1. GEOGRAPHICAL NOTES

For statistical reporting purposes only, the following geographical definitions apply:

— Australia excludes its external territories,

— Denmark excludes the Faeroe Islands and Greenland,

— France includes Monaco and the French overseas departments of Guadeloupe, Martinique, Guyane, Reunion and Mayotte,

— Italy includes San Marino and the Vatican (Holy See),

— Japan includes Okinawa,

— Portugal includes the Açores and Madeira,

— Spain includes the Canary Islands, the Balearic Islands, and Ceuta and Melilla,

— Switzerland does not include Liechtenstein,

— United States includes the 50 states, the District of Columbia, the US Virgin Islands, Puerto Rico and Guam.

2. AGGREGATES

Producers of electricity and heat are classified according to the purpose of production:

— main activity producers are privately- or publicly owned producers that generate electricity and/or heat for sale to third parties as their principal activity,

— autoproducers are privately- or publicly owned producers that generate electricity and/or heat wholly or partly for their own use as an activity which supports their primary activity.

Note: the Commission may further clarify the terminology by adding relevant NACE [2] references in accordance with the regulatory procedure with scrutiny referred to in Article 11(2), after a revision of the NACE classification has entered into force.

2.1. Supply

2.1.1. PRODUCTION/INDIGENOUS PRODUCTION

Quantities of fuels extracted or produced are calculated after any operation that removes inert matter.

2 Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains (OJ L 393, 30.12.2006, p. 1).

Production includes the quantities consumed by the producer during the production process (e.g. for heating or operation of equipment and auxiliaries), as well as supplies to other producers of energy for transformation or other uses.

'Indigenous production' means production from resources within a specific territory – national territory of the reporting country.

2.1.2. RECOVERED PRODUCTS

Applies to hard coal only. Slurries and waste-heap shale recovered by mines.

2.1.3. RECEIPTS FROM OTHER SOURCES

Quantities of fuels whose production is covered in other fuel reporting, but which are mixed with other fuels and consumed as a mix. Further details of this component are to be provided as:

Receipts from other sources: Coal

Receipts from other sources: Oil and petroleum products

Receipts from other sources: Natural gas

Receipts from other sources: Renewables

Receipts from other sources: Hydrogen

2.1.4. IMPORTS/EXPORTS

Unless otherwise specified, 'imports' refer to ultimate origin (the country in which the energy product was produced) for use in the country and 'exports' refer to the ultimate country of consumption of the produced energy product. Amounts are considered as imported or exported when they have crossed the political boundaries of the country, whether customs clearance has taken place or not.

If no origin or destination can be specified, 'Non-specified/Other' may be used.

2.1.5. INTERNATIONAL MARINE BUNKERS

Quantities of fuels delivered to ships of all flags that are engaged in international navigation. The international navigation may take place at sea, on inland lakes and waterways, and in coastal waters. The following are excluded:

— consumption by ships engaged in domestic navigation; the domestic/international split should be determined based on port of departure and port of arrival, and not by the flag or nationality of the ship;

— consumption by fishing vessels;

— consumption by military forces.

2.1.6. INTERNATIONAL AVIATION

Quantities of fuels delivered to aircrafts for international aviation. The domestic/international split should be determined based on departure and landing locations and not on the nationality of the airline. Excludes fuels used by airlines for their road vehicles (to be reported in 'Not elsewhere specified – Transport') and military use of aviation fuels (to be reported in 'Not elsewhere specified – Other').

2.1.7. STOCK CHANGES

The difference between the opening stock level and closing stock level for stocks held on national territory. Unless otherwise specified, a stock build is shown as a negative number and a stock draw is shown as a positive number.

2.1.8. OPENING AND CLOSING TOTAL STOCKS ON NATIONAL TERRITORY

All stocks on national territory, including stocks held by governments, by major consumers or by stockholding organisations, stocks held on board incoming ocean vessels, stocks held in bonded areas and stocks held for others, whether under bilateral government agreement or not. Opening and closing refers to the first and last day of the reporting period, respectively. Stock includes stocks held in all types of special storage facilities, either on the surface or underground.

2.1.9. DIRECT USE

Oil (Crude oil and petroleum products) used directly without being processed in petroleum refineries. Includes crude oil burned for electricity generation.

2.1.10. PRIMARY PRODUCT RECEIPTS

Includes quantities of indigenous or imported crude oil (including condensate) and indigenous NGL ([3]) used directly without being processed in a petroleum refinery, and quantities of backflows from the petrochemical industry which, although not primary fuel, are used directly.

2.1.11. GROSS REFINERY OUTPUT

Production of finished products at a refinery or blending plant. Excludes refinery losses, but includes refinery fuel.

2.1.12. RECYCLED PRODUCTS

Finished products that pass through the marketing network a second time, after having been delivered to final consumers (e.g. used lubricants which are reprocessed). These quantities should be distinguished from petrochemical backflows.

2.1.13. BACKFLOWS

Finished or semi-finished products which are returned from final consumers to refineries for processing, blending or sale. They are usually by-products of petrochemical manufacturing.

2.1.14. INTERPRODUCT TRANSFERS

Quantities reclassified either because their specification has changed or because they are blended into another product. A negative entry for one product is compensated by a positive entry (or several entries) for one or several products and vice versa; the total net effect should be zero.

2.1.15. PRODUCTS TRANSFERRED

Imported petroleum products which are reclassified as feedstocks for further processing in the refinery, without delivery to final consumers.

2.1.16. STATISTICAL DIFFERENCES

Calculated value, defined as difference between calculation from the supply perspective (top-down approach) and the calculation from the consumption perspective (bottom-up approach). Any major statistical differences should be explained by reporting countries.

2.2. Transformation sector

In the transformation sector, only quantities of fuels that were transformed into other fuels should be reported. Quantities of fuels used for heating, operation of equipment and as general support for trans-

3 Natural gas liquids.

formation should be declared in the energy sector.

2.2.1. MAIN ACTIVITY PRODUCER ELECTRICITY ONLY

Quantities of fuels used by main activity producers to produce electricity in electricity-only units/plants.

2.2.2. MAIN ACTIVITY PRODUCER COMBINED HEAT AND POWER (CHP) UNITS

Quantities of fuels used by main activity producers to produce electricity and/or heat in CHP units.

2.2.3. MAIN ACTIVITY PRODUCER HEAT ONLY

Quantities of fuels used by main activity producers to produce heat in heat-only units/plants.

2.2.4. AUTOPRODUCER ELECTRICITY ONLY

Quantities of fuels used by autoproducers to produce electricity in electricity-only units/plants.

2.2.5. AUTOPRODUCER COMBINED HEAT AND POWER (CHP) UNITS

All quantities of fuels used by autoproducers to produce electricity and the proportional part of fuels used to produce heat sold in CHP units. The proportional part of fuels used to produce heat that was not sold (auto-consumed heat) is to be reported in the relevant sector of final energy consumption based on NACE classification. Heat not sold but delivered to other entities under non-financial agreements or to entities with different ownership should be reported based on the same principle as heat sold.

2.2.6. AUTOPRODUCER HEAT ONLY

The proportional part of fuels used to produce heat sold in heat-only units/plants by autoproducers. The proportional part of fuels used to produce heat that was not sold (auto-consumed heat) is to be reported in the relevant sector of final energy consumption based on NACE classification. Heat not sold but delivered to other entities under non-financial agreements or to entities with different ownership should be reported based on the same principle as heat sold.

2.2.7. PATENT FUEL PLANTS

Quantities of fuels used in patent fuel plants to produce patent fuel.

2.2.8. COKE OVENS

Quantities of fuels used in coke ovens to produce coke oven coke and coke oven gas.

2.2.9. BKB/PB PLANTS

Quantities of fuels used to produce brown coal briquettes (BKB) in BKB plants and quantities of fuels used in peat briquette plants to produce peat briquettes (PB).

2.2.10. GAS WORKS

Quantities of fuels used to produce gas work gas in gas works and in coal gasification plants.

2.2.11. BLAST FURNACE

Quantities of fuels entering the blast furnace vessel, whether through the top along with the iron ore, or through the tuyeres in the bottom along with the heated blast air.

2.2.12. COAL LIQUEFACTION

Quantities of fuel used to produce synthetic oil.

2.2.13. GAS-TO-LIQUID PLANTS

Quantities of gaseous fuels converted to liquid fuels.

2.2.14. CHARCOAL PRODUCTION PLANT

Quantities of solid biofuels converted to charcoal.

2.2.15. PETROLEUM REFINERIES

Quantities of fuels used to produce petroleum products.

2.2.16. NATURAL GAS BLENDING PLANTS (FOR BLENDED NATURAL GAS)

Quantities of gases blended with natural gas into the gas grid (gas network).

2.2.17. FOR BLENDING WITH MOTOR GASOLINE / DIESEL / KEROSENE:

Quantities of liquid biofuels blended with their fossil counterparts. Quantities of hydrogen blended in the fuels.

2.2.18. PRODUCTION OF HYDROGEN

Quantities of fuels used to produce hydrogen.

2.2.19. NOT ELSEWHERE SPECIFIED

Quantities of fuels used for transformation activities not included elsewhere. If used, what is included under this heading should be explained in the report.

2.3. Energy sector

Quantities consumed by the energy industry to support extraction (mining, oil and gas production) or plant operations related to transformation activities. This corresponds to NACE Divisions 05, 06, 19 and 35, NACE Group 09.1 and NACE classes 07.21 and 08.92.

Excludes quantities of fuels transformed into another energy form (which should be reported under the transformation sector) or used to support the operation of oil, gas and coal slurry pipelines (which should be reported in the transport sector).

2.3.1. OWN USE OF ELECTRICITY, CHP AND HEAT PLANTS

Quantities of fuels consumed as energy for support operations at plants with electricity-only, heat-only and CHP units.

2.3.2. COAL MINES

Quantities of fuels consumed as energy to support the extraction and preparation of coal within the coal mining industry. Coal burned in pithead power stations should be reported in the transformation sector.

2.3.3. PATENT FUEL PLANTS

Quantities of fuels consumed as energy for support operations at patent fuel plants.

2.3.4. COKE OVENS

Quantities of fuels consumed as energy for support operations in coke ovens (coking plants).

2.3.5. BKB/PB PLANTS

Quantities of fuels used as energy for support operations in BKP/PB plants (briquetting plants).

2.3.6. GAS WORKS/COAL GASIFICATION WORKS

Quantities of fuels consumed as energy for support operations at gas works and coal gasification plants.

2.3.7. BLAST FURNACES

Quantities of fuels consumed as energy for support operations at blast furnaces.

2.3.8. COAL LIQUEFACTION

Quantities of fuels consumed as energy for support operations at coal liquefaction plants.

2.3.9. LIQUEFACTION (LNG) / REGASIFICATION

Quantities of fuels consumed as energy for support operations in natural gas liquefaction and regasification plants.

2.3.10. GASIFICATION PLANTS (BIOGAS)

Quantities of fuels consumed as energy for support operations in biogas gasification plants.

2.3.11. GAS-TO-LIQUID (GTL) PLANTS

Quantities of fuels consumed as energy for support operations in gas-to-liquid conversion plants.

2.3.12. CHARCOAL PRODUCTION PLANTS

Quantities of fuels consumed as energy for support operations in charcoal production plants.

2.3.13. PETROLEUM REFINERIES

Quantities of fuels consumed as energy for support operations at petroleum refineries.

2.3.14. NUCLEAR INDUSTRY

Quantities of fuels consumed as energy for support operations of nuclear industry (mining, processing, reprocessing of nuclear materials for atomic fission and fusion) and including treatment, disposal and storage of radioactive nuclear waste.

2.3.15. OIL AND GAS EXTRACTION

Quantities of fuels consumed in oil and natural gas extraction facilities. Excludes pipeline losses (to be reported as distribution losses) and energy quantities used to operate pipelines (to be reported in the transport sector).

2.3.16. HYDROGEN PRODUCTION, LIQUEFACTION AND GASIFICATION.

Quantities of fuels consumed as energy in support of the production, liquefaction and gasification of hydrogen.

2.3.17. NOT ELSEWHERE SPECIFIED – ENERGY

Quantities of fuels related to energy activities not included elsewhere. If used, what is included under this heading should be explained in the report.

2.4. Transmission and distribution losses

2.4.1. TRANSMISSION LOSSES

Quantities of fuel losses that occur due to transmission, at the part of the system operated by the transmission system operator. It includes technical and non-technical losses. For electricity, it includes losses in transformers that are not considered as integral parts of power plants. For gas, it includes venting and flaring during transmission.

2.4.2. DISTRIBUTION LOSSES

Quantities of fuel losses that occur due to distribution, at the part of the system operated by the distribution system operator. It includes technical and non-technical losses. For gas, it includes venting and flaring

during distribution.

2.5. Final non-energy consumption

Quantities of -fuels used for non-energy purposes – fuels not combusted.

2.6. Final energy consumption (end-use specifications)

2.6.1. INDUSTRY SECTOR

This refers to fuel quantities consumed by the industrial undertaking to support its primary activities.

For heat-only or CHP units, only quantities of fuels consumed for the production of heat used by the entity itself (heat auto-consumed) are to be reported. Quantities of fuels consumed for the production of heat sold and for the production of electricity should be reported under the appropriate transformation sector.

2.6.1.1. Mining and quarrying: NACE Divisions 07 (excluding 07.21) and 08 (excluding 08.92); NACE Group 09.9.

2.6.1.1.1. Mining of metal ores [NACE Division 07; excludes NACE Class 07.21 Mining of uranium and thorium ores]

2.6.1.1.2. Other mining and quarrying [NACE Div. 08; excludes NACE Class 08.92 Extraction of peat]

2.6.1.1.3. Mining support service activities [NACE Div. 09; excludes NACE Group 09.1 Support activities for petroleum and natural gas extraction]

2.6.1.2. Food, beverages and tobacco: NACE Divisions 10, 11 and 12.

2.6.1.2.1. Manufacture of food products [NACE Div. 10]

2.6.1.2.2. Manufacture of beverages [NACE Div. 11]

2.6.1.2.3. Manufacture of tobacco products [NACE Div. 12]

2.6.1.3. Textile and leather [NACE Div. 13, 14 and 15; includes the Manufacture of textiles, the Manufacture of wearing apparel and the Manufacture of leather and related products]

2.6.1.4. Wood and wood products – Manufacture of wood and of products of wood and cork, except furniture; Manufacture of articles of straw and plaiting materials [NACE Div. 16]

2.6.1.5. Pulp, paper and printing: NACE Divisions 17 and 18.

2.6.1.5.1. Manufacture of paper and paper products [NACE Div. 17]

2.6.1.5.1.1. Manufacture of pulp [NACE Class 17.11]

2.6.1.5.1.2. Other paper and paper products [NACE Class 17.12 and NACE Group 17.2]

2.6.1.5.2. Printing and reproduction of recorded media [NACE Div. 18]

2.6.1.6. Chemical and petrochemical: NACE Divisions 20 and 21.

2.6.1.6.1. Manufacture of chemicals and chemical products [NACE Div. 20]

2.6.1.6.2. Manufacture of basic pharmaceutical products and pharmaceutical preparations [NACE Div. 21]

2.6.1.7. Non-metallic minerals [NACE Div. 23]

2.6.1.7.1. Manufacture of glass and glass products [NACE Group 23.1]

2.6.1.7.2. Manufacture of cement, lime and plaster (incl. Clinker) [NACE Group 23.5]

2.6.1.7.3. Other non-metallic mineral products [NACE Groups 23.2, 23.3, 23.4, 23.6, 23.7 and 23.9]

2.6.1.8. Iron and steel [Manufacture of basic metals A: NACE Groups 24.1, 24.2 and 24.3 and Classes 24.51 and 24.52]

2.6.1.9. Non-ferrous metals industries [Manufacture of basic metals B: NACE Group 24.4 and Classes 24.53 and 24.54]

2.6.1.9.1. Aluminium production [NACE Class 24.42]

2.6.1.9.2. Other non-ferrous metals industries [NACE Group 24.4 – excl. NACE Class 24.42; NACE Classes 24.53 and 24.54]

2.6.1.10. Machinery: NACE Divisions 25, 26, 27 and 28.

2.6.1.10.1. Manufacture of fabricated metal products, except machinery and equipment [NACE Div. 25]

2.6.1.10.2. Manufacture of computer, electronic and optical products [NACE Div. 26]

2.6.1.10.3. Manufacture of electrical equipment [NACE Div. 27]

2.6.1.10.4. Manufacture of machinery and equipment n.e.c. [NACE Div. 28]

2.6.1.11. Transport equipment: Industries related to the equipment used for transport [NACE Div. 29 and 30; includes the Manufacture of motor vehicles, trailers and semi-trailers and the Manufacture of other transport equipment]

2.6.1.12. Not elsewhere specified – Industry: NACE Divisions 22, 31 and 32

2.6.1.12.1. Manufacture of rubber and plastic products [NACE Div. 22]

2.6.1.12.2. Manufacture of furniture [NACE Div. 31]

2.6.1.12.3. Other manufacturing [NACE Div. 32]

2.6.1.13. Construction [NACE Div. 41, 42 and 43]

2.6.2. TRANSPORT SECTOR

Energy used in all transport activities irrespective of the NACE category (economic sector) in which the activity occurs. Fuels used for heating and lighting at railway stations, bus stations, shipping piers and airports should be reported under 'Commercial and Public Services' and not in the transport sector.

2.6.2.1. Rail

Quantities of fuels used by rail traffic, including industrial railways and rail transport as part of urban or suburban transport systems (for example trains, trams, metros).

2.6.2.1.1. High-speed rail

Energy used by trains running on lines where speed can exceed 200 kilometres per hour.

2.6.2.1.2. Conventional rail

Energy used by rail traffic, excluding high-speed rail and metro and tram.

2.6.2.1.2.1. Passenger transport by conventional rail

Energy used by rail for the transport of passengers, meaning for the movement of passengers using railway vehicles between the place of embarkation and the place of disembarkation. passenger is any person excluding members of the train crew, who makes a trip by rail.

2.6.2.1.2.2. Freight transport by conventional rail

Energy used by rail for the transport of goods, meaning for the movement of goods using railway vehicles between the place of loading and the place of unloading.

2.6.2.1.3. Metro and tram

Energy used by metro, tram, light rail and other elevated or underground urban railway systems.

2.6.2.2. Domestic navigation

Quantities of fuels delivered to vessels of all flags not engaged in international navigation (see international marine bunkers). The domestic/international split should be determined based on the port of departure and port of arrival and not by the flag or nationality of the ship.

2.6.2.3. Road

Quantities of fuels used in road vehicles. Includes fuel used by agricultural vehicles on highways and lubricants for use in road vehicles.

Excludes energy used in stationary engines (see 'Other sector'), for non-highway use in tractors (see 'Agriculture'), military use in road vehicles (see 'Other sector – Not elsewhere specified'), bitumen used in road surfacing and energy used in engines at construction sites (see 'Industry' sub-sector 'Construction').

2.6.2.3.1. Heavy-duty vehicles carrying freight

Quantities of fuels used in trucks over 3,5t load capacity, carrying freight (categories N2 and N3 vehicles according to the European classification for vehicle category, based on UNECE standards).

2.6.2.3.2. Collective transport

Quantities of fuels used in large vehicles, carrying passengers, such as buses, coaches, large vans, etc. (categories M2 and M3 vehicles according to the European classification for vehicle category, based on UNECE standards).

2.6.2.3.3. Cars and vans

Quantities of fuels used in small vehicles, such as cars and vans, carrying passengers or freight (categories N1 and M1 vehicles according to the European classification for vehicle category, based on UNECE standards).

2.6.2.3.4. Other road transport:

Quantities of fuels used in all forms of road transport aside from heavy-duty vehicles carrying freight, collective transport and cars and vans.

2.6.2.4. Pipeline transport

Quantities of fuels used as energy to support the operation of pipelines transporting gases, liquids, slurries and other commodities. Includes energy used for pump stations and for pipeline maintenance. Excludes energy used for the pipeline distribution of natural or manufactured gas, hot water or steam from the distributor to final users (to be reported in the energy sector), energy used for the final distribution of water to households, industrial, commercial and other users (to be included in Commercial and public services) and losses occurring during the transport between distributor and final users (to be reported as distribution losses).

2.6.2.5. Domestic aviation

Quantities of fuels delivered to aircraft for domestic aviation. Includes fuel used for purposes other than flying, e.g. the bench testing of engines. The domestic/international split should be determined based on departure and landing locations and not on the nationality of the airline. This includes journeys of consid-

erable length between two airports in a country with overseas territories. Excludes fuels used by airlines for their road vehicles (to be reported in 'Not elsewhere specified – Transport') and military use of aviation fuels (to be reported in 'Not elsewhere specified – Other').

2.6.2.6. Not elsewhere specified – Transport

Quantities of fuels used for transport activities not included elsewhere. Includes fuels used by airlines for their road vehicles and fuels used in ports for ships' unloaders, various types of cranes. If used, what is included under this heading should be explained in the report.

2.6.3. OTHER SECTORS

This category covers quantities of fuels used in sectors not specifically mentioned or not belonging to transformation, energy, industry or transport.

2.6.3.1. Commercial and public services

Quantities of fuels consumed by business and offices in the public and private sectors. NACE Divisions 33, 36, 37, 38, 39, 45, 46, 47, 52, 53, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 75, 77, 78, 79, 80, 81, 82, 84 (excluding Class 84.22), 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96 and 99. Fuels used for heating and lighting at railway, bus stations, shipping piers and airports should be reported in this category. This includes fuels used for all non-transport activities of NACE Division 49, 50 and 51.

2.6.3.1.1. Repair and installation of machinery and equipment [NACE Section C division 33]

2.6.3.1.2. Water supply; sewerage, waste management and remediation activities [NACE Section E]

2.6.3.1.3. Wholesale and retail trade; repair of motor vehicles and motorcycles [NACE Section G]

2.6.3.1.3.1. Wholesale trade [NACE Section G, Division 46]

2.6.3.1.3.2. Retail trade [NACE Section G, Division 47]

2.6.3.1.4. Warehousing and support activities for transportation [NACE Section H, Division 52]

2.6.3.1.5. Postal and courier activities [NACE Section H, Division 53]

2.6.3.1.6. Accommodation and food service activities [NACE Section I]

2.6.3.1.6.1. Accommodation [NACE Section I, Division 55]

2.6.3.1.6.2. Food service activities [NACE Section I, Division 56]

2.6.3.1.7. Information and communication [NACE Section J]

2.6.3.1.8. Financial and insurance activities and Real estate activities [NACE Section K and NACE Section L]

2.6.3.1.9. Administrative and support service activities [NACE Section N]

2.6.3.1.10. Public administration and defence; compulsory social security
[NACE Section O]

2.6.3.1.11. Education [NACE Section P]

2.6.3.1.12. Human health and social work activities [NACE Section Q]

2.6.3.1.12.1. Hospital activities [NACE Section Q Group 86.1]

2.6.3.1.13. Arts, entertainment and recreation [NACE Section R]

2.6.3.1.13.1. Sports activities [NACE Section R Division 93]

2.6.3.1.14. Activities of extra-territorial organisations and bodies [NACE Section U]

2.6.3.1.15. Professional, scientific and technical activities and Other services [NACE Section M and NACE Section S]

2.6.3.1.16. Data centres. A data centre is defined as a structure or a group of structures used to house, connect and operate computer systems/servers and associated equipment for data storage, processing and/or distribution, as well as related activities.

2.6.3.2. Households

Quantities of fuels consumed by all households including 'households with employed persons'. NACE Divisions 97 and 98.

The following specific definitions apply for the households sector:

A household is a person living alone, a family, or a group of people living together in the same private dwelling and sharing utilities and other essential living expenses. The households sector, also known as the residential or domestic sector, is therefore a collective pool of all households in a country.

Collective residences, either permanent (e.g. prisons) or temporary (e.g. hospitals), should be excluded as they are covered under consumption in the service sector. Energy used in transport activities should be reported in the transport sector and not in the households sector.

Energy consumption associated with significant economic activities carried out by households should also be excluded from total household energy consumption. Such activities include agricultural economic activities on small farms and other economic activities carried out in a household's residence and should be reported in the appropriate sector of final consumption.

2.6.3.2.1. Space heating

This energy service refers to the use of energy to provide heat in an interior area of a dwelling.

2.6.3.2.2. Space cooling

This energy service refers to the use of energy for cooling in a dwelling, by a refrigeration system and/or unit.

Fans, blowers and other appliances not connected to a refrigeration unit are excluded from this section, but should be covered in the 'Lighting and electrical appliances' section.

2.6.3.2.3. Water heating

This energy service refers to the use of energy to heat water for hot running water, bathing, cleaning and other non-cooking applications.

Swimming pool heating is excluded, but should be covered in the 'Other end uses' section.

2.6.3.2.4. Cooking

This energy service refers to the use of energy to prepare meals.

Appliances for auxiliary cooking (microwave ovens, kettles, coffee makers, etc.) are excluded and should be covered in the 'Lighting and electrical appliances' section.

2.6.3.2.5. Lighting and electrical appliances (electricity only):

Use of electricity for lighting and any other electrical appliances in a dwelling not considered within other end uses.

2.6.3.2.6. Other end uses

Any other energy consumption in households, such as use of energy for outdoor and any other activities

not included into the five energy end uses mentioned above (e.g. lawn mowers, swimming pool heating, outdoor heaters, outdoor barbecues, saunas etc.).

2.6.3.3. Agriculture

Quantities of fuels consumed by users classified as crop and animal production, hunting and related service activities; NACE Division 01.

2.6.3.4. Forestry

Quantities of fuels consumed by users classified as forestry and logging; NACE Division 02.

2.6.3.5. Fishing

Quantities of fuels delivered for inland, coastal and deep-sea fishing. Fishing should cover fuels delivered to ships of all flags that have refuelled in the country (including international fishing) and energy used in the fishing industry. NACE Division 03.

2.6.3.6. Not elsewhere specified – Other

Quantities of fuels used for activities not included elsewhere (such as NACE Class 84.22). This category includes military fuel use for all mobile and stationary consumption (e.g. ships, aircraft, road and energy used in living quarters), regardless of whether the fuel delivered is for the military of that country or for the military of another country. If used, what is included under this heading should be explained in the report.

3. PRODUCTS

3.1. COAL (solid fossil fuels and manufactured gases)

3.1.1. HARD COAL

Hard coal is a product aggregate equal to the sum of anthracite, coking coal and other bituminous coal.

3.1.2. ANTHRACITE

High rank coal used for industrial and household applications. It generally has less than 10% volatile matter and a high carbon content (about 90% fixed carbon). Its gross calorific value is greater than 24 000 kJ/kg on an ash-free but moist basis.

3.1.3. COKING COAL

Bituminous coal with a quality that allows the production of a coke (coke oven coke) suitable to support a blast furnace charge. Its gross calorific value is greater than 24 000 kJ/kg on an ash-free but moist basis.

3.1.4. OTHER BITUMINOUS COAL

Coal used for steam raising purposes and includes all bituminous coal that is not 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 24 000 kJ/kg on an ash-free but moist basis.

3.1.5. BROWN COAL

Brown coal is a product aggregate equal to the sum of sub-bituminous coal and lignite.

3.1.6. SUB-BITUMINOUS COAL

Refers to non-agglomerating coal with a gross calorific value between 20 000 kJ/kg and 24 000 kJ/kg containing more than 31% volatile matter on a dry mineral matter free basis.

3.1.7. LIGNITE

Non-agglomerating coal with a gross calorific value less than 20 000 kJ/kg and greater than 31% volatile matter on a dry mineral matter free basis.

3.1.8. 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.

3.1.9. COKE OVEN COKE

The solid product obtained from the 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 an energy source and chemical agent.

Coke breeze and foundry coke are to be reported in this category.

Semi-coke (a solid product obtained from the carbonisation of coal at a low temperature) should be included in this category. Semi-coke is used as a heating fuel or by the transformation plant itself.

This heading also includes coke, coke breeze and semi-coke made from lignite.

3.1.10. GAS COKE

By-product of hard coal used for production of town gas in gas works. Gas coke is used for heating purposes.

3.1.11. COAL TAR

A result of the destructive distillation of bituminous coal. Coal tar is the liquid by-product of the distillation of coal to make coke in the coke oven process or is produced from brown coal ('low-temperature tar').

3.1.12. BKB (BROWN COAL BRIQUETTES)

BKB is a composition fuel manufactured from lignite or sub-bituminous coal, produced by briquetting under high pressure without the addition of a binding agent, including dried lignite fines and dust.

3.1.13. MANUFACTURED GASES

Manufactured gases is a product aggregate equal to the sum of gas works gas, coke oven gas, blast furnace gas and other recovered gases.

3.1.14. GAS WORKS GAS

Covers all types of gases produced in public utility or private plants whose main purpose is the manufacture, transport and distribution of gas. It includes gas produced by carbonisation (including gas produced by coke ovens and transferred to gas works 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, including blending with natural gas which will be distributed and consumed through the natural gas grid. The amount of gas resulting from transfers of other coal gases to gas works gas should be reported as the production of the gas works gas.

3.1.15. COKE OVEN GAS

Coke oven gas is a gas obtained as a by-product of the manufacture of coke oven coke for the production of iron and steel.

3.1.16. BLAST FURNACE GAS

Blast furnace gas is produced during the combustion of coke in blast furnaces in the iron and steel industry. It is recovered and used as a fuel partly within the plant and partly in other steel industry processes or in power stations equipped to burn it.

3.1.17. OTHER RECOVERED GASES

By-product of the production of steel in an oxygen furnace, recovered on leaving the furnace. The gases are also known as converter gas, LD gas or BOS gas. The quantity of recuperated fuel should be reported on a gross calorific value basis. Also covers non-specified manufactured gases not mentioned above, such as combustible gases of solid carbonaceous origin recovered from manufacturing and chemical processes not defined elsewhere.

3.1.18. PEAT

Peat is 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 includes sod peat and milled peat. Peat used for non-energy purposes is not included.

3.1.19. PEAT PRODUCTS

Products such as peat briquettes derived directly or indirectly from sod peat and milled peat.

3.1.20. OIL SHALE AND OIL SANDS

Oil shale and oil sands are sedimentary rock that 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. Shale oil and other products derived from liquefaction should be reported as other hydrocarbons within petroleum products.

3.2. Natural gas

3.2.1. NATURAL GAS

Natural gas comprises gases occurring in underground deposits, whether liquefied or gaseous, consisting mainly of methane, independent from the extraction method (conventional and non-conventional). 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). Natural gas does not include biogas or manufactured gases. Transfers of these products to the natural gas network are to be reported separately from natural gas. Natural gas includes liquefied natural gas (LNG) and compressed natural gas (CNG).

3.3. Electricity and heat

3.3.1. ELECTRICITY

Electricity refers to the transfer of energy through the physical phenomenon involving electric charges and their effects when at rest and in motion. All electricity that is used, produced and consumed is to be reported, including off-grid and self-consumed. Off-grid electricity is produced by installations that are disconnected from the grid from the production perspective; the installation cannot inject electricity produced into the grid. Self-consumed electricity is electricity consumed by the producer before it is injected in the grid.

3.3.2. HEAT (DERIVED HEAT)

Heat refers to the energy obtained from the translational, rotational and vibrational motion of the constituents of matter as well as changes in its physical state. All heat produced, except for heat produced by autoproducers for their own use and not sold, is to be reported; all other forms of heat are reported as use of products from which the heat was produced.

3.4. OIL (Crude oil and petroleum products)

3.4.1. 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 state 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. Quantities should be reported independently from the extraction method (conventional and non-conventional). Crude oil excludes NGL.

3.4.2. NATURAL GAS LIQUIDS (NGL)

NGL are liquid or liquefied hydrocarbons recovered from natural gas in separation facilities or gas processing plants. NGL include ethane, propane, butane (normal and iso-), (iso) pentane and pentanes plus (sometimes referred to as natural gasoline or plant condensate).

3.4.3. 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).

3.4.4. ADDITIVES/OXYGENATES

Additives are non-hydrocarbon compounds added to or blended with a petroleum products to modify their properties (octane, cetane, cold properties, etc.). Additives include oxygenates (such as alcohols (methanol, ethanol), ethers (methyl tertiary butyl ether(MTBE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), etc.), esters (rapeseed oil or dimethylester, etc.), chemical compounds (such as tetramethyl lead (TML), tetraethyl lead (TEL) and detergents). Quantities of additives/oxygenates (alcohols, ethers, esters and other chemical compounds) reported in this category should relate to the quantities blended with fuels or for fuel use. This category includes biofuels that are blended with liquid fossil fuels.

3.4.5. BIOFUELS IN ADDITIVES/OXYGENATES

Quantities of liquid biofuels reported in this category relate to blended liquid biofuels and refer only to the liquid biofuel portion and not to the total volume of liquids into which the liquid biofuels are blended. Excludes all liquid biofuels that have not been blended.

3.4.6. OTHER HYDROCARBONS

Synthetic crude oil from tar sands, shale oil, etc., liquids from coal liquefaction, output of liquids from natural gas conversion into gasoline, emulsified oils (e.g. orimulsion); excludes oil shale; includes the shale oil (secondary product).

3.4.7. PETROLEUM PRODUCTS

Petroleum products are a product aggregate equal to the sum of refinery gas, ethane, liquefied petroleum

gases, naphtha, motor gasoline, aviation gasoline, gasoline type jet fuel, kerosene type jet fuel, other kerosene, gas/diesel oil, fuel oil, white spirit ad SPB, lubricants, bitumen, paraffin waxes, petroleum coke and other products.

3.4.8. REFINERY GAS

Refinery gas includes a mixture of non-condensed gases mainly consisting of hydrogen, methane, ethane and olefins obtained during the 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.

3.4.9. ETHANE

A naturally gaseous straight-chain hydrocarbon, (C_2H_6) extracted from natural gas and refinery gas streams.

3.4.10. LIQUEFIED PETROLEUM GASES (LPG)

LPG are light paraffinic hydrocarbons derived from refinery processes, crude oil stabilisation and natural gas processing plants. They consist mainly of propane (C_3H_8) and butane (C_4H_{10}) or a combination of the two. They could also include propylene, butylene, isopropylene and isobutylene. LPG are normally liquefied under pressure for transportation and storage.

3.4.11. 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.

3.4.12. MOTOR GASOLINE

Motor gasoline consists of a mixture of light hydrocarbons distilling at 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. Includes motor gasoline blending components (excluding additives/oxygenates), e.g. alkylates, isomerate, reformate, cracked gasoline destined for use as finished motor gasoline. Motor gasoline is a product aggregate equal to the sum of blended biogasoline (biogasoline in motor gasoline) and non-biogasoline.

3.4.12.1. Blended biogasoline (biogasoline in motor gasoline)

Biogasoline that was blended in motor gasoline.

3.4.12.2. Non-biogasoline

The remaining part of motor gasoline – motor gasoline excluding blended biogasoline (this is mostly motor gasoline of fossil origin).

3.4.13. 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 between 30 °C and 180 °C.

3.4.14. GASOLINE TYPE JET FUEL (NAPHTHA TYPE JET FUEL OR JP4)

This includes all light hydrocarbon oils for use in aviation turbine power units, distilling at between 100 °C and 250 °C. They are obtained by blending kerosenes and gasoline or naphthas in such a way that the aromatic content does not exceed 25% in volume, and the vapour pressure is between 13,7 kPa and 20,6 kPa.

3.4.15. KEROSENE TYPE JET FUEL

Distillate used for aviation turbine power units. It has the same distillation characteristics at 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. Includes kerosene blending components. Kerosene type jet fuel is a product aggregate equal to the sum of blended bio jet kerosene (bio jet kerosene in kerosene type jet fuel) and non-bio jet kerosene.

3.4.15.1. Blended bio jet kerosene (bio jet kerosene in kerosene type jet fuel)

Bio jet kerosene that was blended in kerosene type jet fuel.

3.4.15.2. Non-bio jet kerosene

The remaining part of kerosene type jet fuel – kerosene type jet fuel excluding blended bio jet kerosene (this is mostly kerosene type jet fuel of fossil origin).

3.4.16. OTHER KEROSENE

Refined petroleum distillate used in sectors other than aircraft transport. It distils at between 150 °C and 300 °C.

3.4.17. GAS/DIESEL OIL (DISTILLATE FUEL OIL)

Gas/diesel oil is primarily a medium distillate distilling at between 180 °C and 380 °C. Includes blending components. Several grades are available depending on uses. Gas/diesel oil includes on-road diesel oil for diesel compression ignition engines of cars and trucks. Gas/diesel oil includes light heating oil for industrial and commercial uses, marine diesel and diesel used in rail traffic, other gas oil including heavy gas oils which distil at between 380 °C and 540 °C and which are used as petrochemical feedstocks. Gas/diesel oil is a product aggregate equal to the sum of blended biodiesels (biodiesels in gas/diesel oil) and non-biodiesels.

3.4.17.1. Blended biodiesels (biodiesels in gas/diesel oil)

Biodiesels that were blended in gas/diesel oil.

3.4.17.2. Non-biodiesels

The remaining part of gas/diesel oil – gas/diesel oil excluding blended biodiesels (this is mostly gas/diesel oil of fossil origin).

3.4.18. FUEL OIL (HEAVY 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. Fuel oil is a product aggregate equal to the sum of low sulphur fuel oil and high sulphur fuel oil.

3.4.18.1. Low sulphur fuel oil (LSFO)

Fuel oil with sulphur content lower than 0,5%.

3.4.18.2. High sulphur fuel oil (HSFO)

Fuel oil with sulphur content of 0,5% or higher.

3.4.19. WHITE SPIRIT AND SBP

White spirit and SBP are defined as refined distillate intermediates with a distillation in the naphtha/kerosene range. They include industrial spirit (also called SBP; light oils distilling at between 30 °C and 200 °C in 7 or 8 grades of industrial spirit, depending on the position of the cut in the distillation range – the grades are defined according to the temperature difference between the 5% volume and 90% volume distillation points, which is not more than 60 °C) and white spirits (industrial spirit with a flash point above 30 °C and the distillation range between 135 °C and 200 °C).

3.4.20. 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.

3.4.21. 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 the construction of roads and for roofing material. Includes fluidised and cut back bitumen.

3.4.22. PARAFFIN WAXES

These are saturated aliphatic hydrocarbons. They are residues extracted when dewaxing lubricant oils. They have a crystalline structure which is more or less fine depending on the grade. Their main characteristics are as follows: they are colourless, odourless and translucent, with a melting point above 45 °C.

3.4.23. 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 (90-95 %) 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 the 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.

3.4.24. OTHER PRODUCTS

All other 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.

3.5. Renewables and waste

3.5.1. HYDRO

Potential and kinetic energy of water converted into electricity in hydroelectric plants. Hydro is a product aggregate equal to the sum of pure hydro plants, mixed hydro plants and pure pumped storage plants.

3.5.1.1. Pure hydro plants

Hydro plants that only use direct natural water inflow and have no capacity for hydro pump storage (pumping water uphill).

3.5.1.2. Mixed hydro plants

Hydro plants with natural water inflow into an upper reservoir where part or all equipment can be used for pumping water uphill; the electricity generated is a consequence of both natural water inflow and water previously pumped uphill.

3.5.1.2.1. Of which pumping

This is the portion of the electricity generated in mixed hydro plants in the pumped hydro mode (from water that was previously pumped uphill).

3.5.1.3. Pure pumped storage plants

Hydro plants with no natural water inflow into the upper reservoir; the vast majority of water that generates electricity was previously pumped uphill; excluding rainfall and snowfall.

3.5.2. GEOTHERMAL

Energy available as heat emitted from within the earth's crust, usually in the form of hot water or steam; excluding ambient heat captured by ground source heat pumps. Geothermal energy production is the difference between the enthalpy of the fluid produced in the production borehole and that of the fluid eventually disposed of.

3.5.3. SOLAR

Solar is a product aggregate equal to the sum of solar photovoltaic and solar thermal.

3.5.3.1. Solar photovoltaic

Sunlight converted into electricity by the use of solar cells which when exposed to light will generate electricity. All electricity produced is to be reported (including small-scale production and off-grid installations).

3.5.3.1.1. Rooftop

Report here the quantity of energy produced by solar photovoltaic panels located on building structures that have another primary purpose than energy production. It also includes BIPV (building integrated PV), where the PV panels are not on the roof, but e.g. attached to the building. Solar PV panels are not be considered rooftop if they are placed on a wide area, on the ground, such as consuming extra space (e.g. agricultural areas).

3.5.3.1.2. Off-grid

Report here off-grid as defined in Annex A, 3.3.1.

3.5.3.2. Solar thermal

Heat from solar radiation (sunlight) exploited for useful energy purposes. This includes, for example, solar thermal-electric plants and active systems for producing sanitary hot water or for space heating of buildings. This energy production is the heat available to the heat transfer medium, i.e. the incident solar energy less the optical and collectors losses. Solar energy captured by passive systems for heating, cooling and lighting of buildings is not to be included; only solar energy in relation to the active systems is to be included.

3.5.4. TIDE, WAVE, OCEAN

Mechanical energy derived from tidal movement, wave motion or ocean current and exploited for electricity generation.

3.5.5. WIND

Kinetic energy of wind exploited for electricity generation in wind turbines. Wind is a product aggregate equal to the sum of on-shore wind and offshore wind.

3.5.5.1. On-shore wind

Production of electricity by wind in locations on-shore (inland, including lakes and other bodies of water located inland).

3.5.5.2. Offshore wind

Production of electricity in offshore locations (e.g. sea, ocean and artificial islands). For offshore wind production outside of the territorial waters of the concerned territory, all installations located in a country's exclusive economic zone should be taken into account.

3.5.6. INDUSTRIAL WASTE (NON-RENEWABLE PORTION)

Report waste of industrial non-renewable origin combusted directly at specific installations for meaningful energy purposes. The quantity of fuel used should be reported on a net calorific value basis. Waste incinerated without any energy recovery is excluded. The renewable portion of industrial waste should be reported in the biofuels category that best describes it.

3.5.7. MUNICIPAL WASTE:

Wastes produced by households, hospitals and the tertiary sector (in general all waste that resembles household waste), combusted directly at specific installations for meaningful energy purposes. The quantity of fuel used should be reported on a net calorific value basis. Waste incinerated without any energy recovery is excluded. Municipal waste is a product aggregate equal to the sum of renewable municipal waste and non-renewable municipal waste.

3.5.7.1. Renewable municipal waste

The portion of municipal waste which is of biological origin.

3.5.7.2. Non-renewable municipal waste

The portion of municipal waste which is of non-biological origin.

3.5.8. BIOFUELS

Biofuels is a product aggregate equal to the sum of solid biofuels, biogas and liquid biofuels. Biofuels used for non-energy purposes are excluded from the scope of energy statistics (for example wood used for construction or as furniture, biolubricant for engine lubrication and biobitumen used for road surface).

3.5.8.1. Solid biofuels

Covers solid organic, non-fossil material of biological origin (also known as biomass) which may be used as fuel for heat production or electricity generation. Solid biofuels is a product aggregate equal to the sum of charcoal, fuelwood, wood residues and by-products, black liquor, bagasse, animal waste, other vegetal materials and residuals and renewable fraction of industrial waste.

3.5.8.1.1. Charcoal

Charcoal is a manufactured fuel from solid biofuels – the solid residue of the destructive distillation and pyrolysis of wood and other vegetal material.

3.5.8.1.2. 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. Included are wood residues used as fuel and in which the original composition of wood is retained; wood pellets are included. Charcoal and black liquor are excluded. The quantity of fuel used should be reported on a net calorific value basis.

3.5.8.1.2.1. Wood pellets

Wood pellets are a cylindrical product which has been agglomerated from wood residues by compression.

3.5.8.1.3. Black liquor

Energy from the alkaline-spent liquor obtained from the digesters during the production of sulphate or soda pulp required for paper manufacture. The quantity of fuel used should be reported on a net calorific value basis.

3.5.8.1.4. Bagasse

Fuel obtained from the fibre which remains after juice extraction in sugar cane processing. The quantity of fuel used should be reported on a net calorific value basis.

3.5.8.1.5. Animal waste

Energy from excreta of animals, meat and fish residues which when dry is used directly as a fuel. This excludes waste used in anaerobic fermentation plants. Fuel gases from these plants are included under biogases. The quantity of fuel used should be reported on a net calorific value basis.

3.5.8.1.6. Other vegetal materials and residuals

Biofuels not specified elsewhere and including straw, vegetable husks, ground nut shells, pruning brushwood, olive pomace and other wastes arising from the maintenance, cropping and processing of plants. The quantity of fuel used should be reported on a net calorific value basis.

3.5.8.1.7. Renewable portion of industrial waste

Solid renewable portion of industrial waste combusted directly at specific installations for meaningful energy purposes (for example but not only, the portion of natural rubber in waste rubber tires or the portion of natural fibres in textile waste – from waste categories 07.3 and 07.6, respectively, as defined in Regulation (EC) No 2150/2002 on waste statistics). The quantity of fuel used should be reported on a net calorific value basis.

3.5.8.2. Biogas

A gas composed principally of methane and carbon dioxide produced by anaerobic digestion of biomass or by thermal processes from biomass, including biomass in waste. The quantity of fuel used should be reported on a net calorific value basis. Biogas is a product aggregate equal to the sum of landfill gas, sewage sludge gas, other biogases from anaerobic digestion and biogases from thermal processes.

3.5.8.2.1. Landfill gas

Biogas produced from the anaerobic digestion of landfill waste.

3.5.8.2.2. Sewage sludge gas

Biogas produced from the anaerobic fermentation of sewage sludge.

3.5.8.2.3. Other biogases from anaerobic digestion

Biogas produced from the anaerobic fermentation of animal slurries and of waste in abattoirs, breweries and other agro-food industries.

3.5.8.2.4. Biogases from thermal processes

Biogas produced from thermal processes (by gasification or pyrolysis) of biomass.

3.5.8.3. Liquid biofuels

This category includes all liquid fuels of natural origin (e.g. produced from biomass and/or the biodegradable fraction of waste) suitable to be blended with or to replace liquid fuels of fossil origin. The quantities of liquid biofuels reported in this category should include the quantities of pure biofuel that were not blended with fossil fuels. In the particular case of imports and exports of liquid biofuels, only trade of quantities that have not been blended with transport fuels (i.e. in their pure form) is relevant; trade of liquid biofuels blended into transport fuels should be reported within the oil category of products. Only liquid biofuels used for energy purposes – combusted directly or blended with fossil fuels – are to be reported. Liquid biofuels is a product aggregate equal to the sum of biogasoline, biodiesels, bio jet kerosene and other liquid biofuels.

3.5.8.3.1. Biogasoline

Liquid biofuels suitable to be blended with or to replace motor gasoline from fossil origin.

3.5.8.3.1.1. Bioethanol

Ethanol as part of biogasoline.

3.5.8.3.2. Biodiesels

Liquid biofuels suitable to be blended with or to replace gas/diesel oil from fossil origin.

3.5.8.3.3. Bio jet kerosene

Liquid biofuels suitable to be blended with or to replace jet kerosene from fossil origin.

3.5.8.3.4. Other liquid biofuels

Liquid biofuels not included in any of the previous categories.

3.5.9. AMBIENT HEAT

Heat energy at a useful temperature level, extracted (captured) by means of heat pumps that need electricity or other auxiliary energy to function. This heat energy can be stored in the ambient air, beneath the surface of solid earth or in surface water. Values should be reported using the same methodology as the one used for reporting heat energy captured by heat pumps under Directive 2009/28/EC and Directive (EU) 2018/2001, but all heat pumps must be included regardless of their performance level.

3.6. Hydrogen

Hydrogen used as a feedstock, a fuel or an energy carrier/storage must be reported. Hydrogen shall be reported, also when auto produced and auto consumed. Hydrogen present in mixtures is not to be reported unless extracted (separated) for energy or non-energy use.

ANNEX B

ANNUAL ENERGY STATISTICS

This annex describes the scope, units, reported period, frequency, deadline and transmission arrangements for the annual collection of energy statistics.

Unless otherwise specified, the following provisions apply to all data collections specified in this annex:

(a) Reported period: The reported period of declared data will be a calendar year (1 January to 31 December), starting at reference year 2022.

(b) Frequency: Data should be declared on an annual basis.

(c) Deadline for transmission of data: Data should be submitted by 31 October of the year following the reported year, unless otherwise specified.

(d) Transmission format: The transmission format should conform to the relevant interchange standard specified by Eurostat.

(e) Transmission method: Data should be submitted or uploaded by electronic means to Eurostat's single entry point for data.

Annex A provides explanations of terms not explained in this annex.

1. SOLID FOSSIL FUELS AND MANUFACTURED GASES

1.1. Applicable energy products

Unless otherwise specified, this data collection applies to all energy products listed in Annex A, Chapter 3.1. COAL (solid fossil fuels and manufactured gases).

1.2. List of aggregates

The following list of aggregates must be declared for all energy products listed in the previous paragraph unless otherwise specified.

1.2.1. SUPPLY

1.2.1.1. Production

1.2.1.1.1. Underground production

Applicable only for anthracite, coking coal, other bituminous coal, sub-bituminous coal and lignite.

1.2.1.1.2. Surface production

Applicable only for anthracite, coking coal, other bituminous coal, sub-bituminous coal and lignite.

1.2.1.2. Receipts from other sources

This consists of two components:

recovered slurries, middlings and other low-grade coal products, which cannot be classified according to type of coal, including coal recovered from waste piles and other waste receptacles,

receipts from other sources.

1.2.1.3. Receipts from other sources: from oil products

Not applicable for anthracite, coking coal, other bituminous coal, sub-bituminous coal, lignite, peat, and oil shale and oil sands.

1.2.1.4. Receipts from other sources: from natural gas

Not applicable for anthracite, coking coal, other bituminous coal, sub-bituminous coal, lignite, peat, and oil shale and oil sands.

1.2.1.5. Receipts from other sources: from renewables

Not applicable for anthracite, coking coal, other bituminous coal, sub-bituminous coal, lignite, peat, oil shale and oil sands.

1.2.1.6. Imports

1.2.1.7. Exports

1.2.1.8. International Marine Bunkers

1.2.1.9. Stock changes

1.2.2. TRANSFORMATION SECTOR

1.2.2.1. Main activity producer electricity only

1.2.2.2. Main activity producer combined heat and power (CHP) units

1.2.2.3. Main activity producer heat only

1.2.2.4. Autoproducer electricity only

1.2.2.5. Autoproducer combined heat and power (CHP) units

1.2.2.6. Autoproducer heat only

1.2.2.7. Patent fuel plants

1.2.2.8. Coke ovens

1.2.2.9. BKB/PB plants

1.2.2.10. Gas works

1.2.2.11. Blast furnaces

1.2.2.12. Coal liquefaction

1.2.2.13. For blended natural gas

1.2.2.14. Production of hydrogen

1.2.2.15. Not elsewhere specified – Transformation

1.2.3. ENERGY SECTOR

1.2.3.1. Electricity, CHP and heat plants

1.2.3.2. Coal mines

1.2.3.3. Patent fuel plants

1.2.3.4. Coke ovens

1.2.3.5. BKB/PB plants

1.2.3.6. Gas works

1.2.3.7. Blast furnaces

1.2.3.8. Petroleum refineries

1.2.3.9. Coal liquefaction

1.2.3.10. Hydrogen production, liquefaction and gasification

1.2.3.11. Not elsewhere specified – Energy

1.2.4. TRANSMISSION AND DISTRIBUTION LOSSES

1.2.5. NON-ENERGY USE

1.2.5.1. Industry, transformation and energy sectors

Non-energy use in all industry, transformation and energy sub-sectors.

1.2.5.1.1. Chemical and petrochemical sector

NACE Divisions 20 and 21; non-energy use of coal includes use as feedstocks to produce fertiliser and as feedstocks for other petrochemical products.

1.2.5.2. Transport sector

Non-energy use in all transport sub-sectors.

1.2.5.3. Other sectors

Non-energy use in Commercial and public services, households, agriculture and Not elsewhere specified – Other.

1.2.6. FINAL ENERGY CONSUMPTION — INDUSTRY SECTOR

1.2.6.1. Iron and steel

1.2.6.2. Chemical and petrochemical

1.2.6.3. Non-ferrous metals

1.2.6.4. Non-metallic minerals

1.2.6.5. Transport equipment

1.2.6.6. Machinery

1.2.6.7. Mining and quarrying

1.2.6.8. Food, beverages and tobacco

1.2.6.9. Pulp, paper and printing

1.2.6.10. Wood and wood products

1.2.6.11. Construction

1.2.6.12. Textile and leather

1.2.6.13. Not elsewhere specified – Industry

1.2.7. FINAL ENERGY CONSUMPTION — TRANSPORT SECTOR

1.2.7.1. Rail

1.2.7.2. Domestic Navigation

1.2.7.3. Not Elsewhere Specified — Transport

1.2.8. FINAL ENERGY CONSUMPTION — OTHER SECTORS

1.2.8.1. Commercial and public services

1.2.8.2. Households

1.2.8.3. Agriculture

1.2.8.4. Forestry

1.2.8.5. Fishing

1.2.8.6. Not elsewhere specified – Other

1.2.9. IMPORTS BY COUNTRY OF ORIGIN AND EXPORTS BY COUNTRY OF DESTINATION

Imports by country of origin and exports by country of destination should be reported. Applicable to anthracite, coking coal, other bituminous coal, sub-bituminous coal, lignite, patent fuel, coke oven coke, coal tar, BKB, peat, peat products and oil shale and oil sands.

1.2.10. CALORIFIC VALUES

Applicable for anthracite, coking coal, other bituminous coal, sub-bituminous coal, lignite, patent fuel, coke oven coke, gas coke, coal tar, BKB, peat, peat products, oil shale and oil sands.

Both gross and net calorific values are to be declared for the following aggregates:

1.2.10.1. Production

1.2.10.2. Imports

1.2.10.3. Exports

1.2.10.4. Used in coke ovens

1.2.10.5. Used in blast furnaces

1.2.10.6. Used in main activity producer electricity only, heat only and CHP units

1.2.10.7. Used in industry

1.2.10.8. For other uses

1.3. Units of measurement

Reported quantities must be declared in kt (kilo-tonnes), except for manufactured gases (gas works gas, coke oven gas, blast furnace gas, other recovered gases), where the reported quantity must be declared in TJ GCV (tera-joules based on gross calorific values). Calorific values must be declared in MJ/t (mega-joules per tonne).

1.4. Derogations and exemptions

Not applicable.

2. NATURAL GAS

2.1. Applicable energy products

This chapter covers the reporting of natural gas.

2.2. List of aggregates

The following list of aggregates must be declared for natural gas.

2.2.1. SUPPLY

Declared quantities for the supply sector must be expressed in both volume and energy units, and must include the gross and net calorific values.

2.2.1.1. Indigenous production

Includes offshore production.

2.2.1.1.1. Associated gas

Natural gas produced in association with crude oil.

2.2.1.1.2. Non-associated gas

Natural gas originating from fields producing hydrocarbons only in gaseous form.

2.2.1.1.3. Colliery gas

Methane produced at coal mines or from coal seams, piped to the surface and consumed at collieries or transmitted by pipeline to consumers.

2.2.1.2. Receipts from other sources

2.2.1.2.1. Receipts from other sources: Oil and petroleum products

2.2.1.2.2. Receipts from other sources: Coal

2.2.1.2.3. Receipts from other sources: Renewables

2.2.1.2.4. Receipts from other sources: Hydrogen

2.2.1.3. Imports

2.2.1.4. Exports

2.2.1.5. International marine bunkers

2.2.1.6. Stock changes

Opening and closing stock levels should be declared separately, as stocks on national territory and stocks held abroad, respectively. 'Stock level' means the quantity of gas available for delivery during any input-output cycle.

2.2.1.7. Inland consumption (Observed)

2.2.1.8. Recoverable gas

This refers to recoverable natural gas stored in special storage facilities (depleted gas and/or oil field, aquifer, salt cavity, mixed caverns, or other), as well as stored liquefied natural gas. Cushion gas should be excluded. The requirement of declaring calorific values is not applicable here.

2.2.1.9. Gas vented

The volume of gas released into the air on the production site or at the gas processing plant. The requirement of declaring calorific values is not applicable here.

2.2.1.10. Gas Flared

The volume of gas burned in flares on the production site or at the gas processing plant. The requirement of declaring calorific values is not applicable here.

2.2.2. TRANSFORMATION SECTOR

2.2.2.1. Main activity producer Electricity Only

2.2.2.2. Autoproducer electricity only

2.2.2.3. Main activity producer CHP units

2.2.2.4. Autoproducer CHP units

2.2.2.5. Main activity producer heat only

2.2.2.6. Autoproducer heat only

2.2.2.7. Gas works

2.2.2.8. Coke ovens

2.2.2.9. Blast furnaces

2.2.2.10. Gas to liquids

2.2.2.11. Production of hydrogen

2.2.2.12. Non specified – Transformation

2.2.3. ENERGY SECTOR

2.2.3.1. Coal mines

2.2.3.2. Oil and gas extraction

2.2.3.3. Petroleum refineries

2.2.3.4. Coke ovens

2.2.3.5. Blast furnaces

2.2.3.6. Gas works

2.2.3.7. Electricity, CHP and heat plants

2.2.3.8. Liquefaction (LNG) or gasification (GNG)

2.2.3.9. Gas to liquids

2.2.3.10. Hydrogen production, liquefaction and gasification

2.2.3.11. Not elsewhere specified – Energy

2.2.4. TRANSMISSION LOSSES

2.2.5. DISTRIBUTION LOSSES

2.2.6. TRANSPORT SECTOR

Final energy consumption and final non-energy consumption should be declared separately for the following aggregates.

2.2.6.1. Road

2.2.6.2. Pipeline transport

2.2.6.3. Domestic navigation

2.2.6.4. Not elsewhere specified – transport

2.2.7. INDUSTRY SECTOR

Final energy consumption and final non-energy consumption should be declared separately for the following aggregates.

2.2.7.1. Iron and steel

2.2.7.2. Chemical and petrochemical

2.2.7.3. Non-ferrous metals

2.2.7.4. Non-metallic minerals

2.2.7.5. Transport equipment

2.2.7.6. Machinery

2.2.7.7. Mining and quarrying

2.2.7.8. Food, beverages and tobacco

2.2.7.9. Pulp, paper and printing

2.2.7.10. Wood and wood products

2.2.7.11. Construction

2.2.7.12. Textile and leather

2.2.7.13. Not elsewhere specified – industry

2.2.8. OTHER SECTORS

Final energy consumption and final non-energy consumption should be declared separately for the following aggregates.

2.2.8.1. Commercial and public services

2.2.8.2. Households

2.2.8.3. Agriculture

2.2.8.4. Forestry

2.2.8.5. Fishing

2.2.8.6. Not elsewhere specified – Other

2.2.9. IMPORTS BY COUNTRY OF ORIGIN AND EXPORTS BY COUNTRY OF DESTINATION

Both the quantities of total natural gas and of the LNG part of it should be declared, per country of origin for imports and per country of destination for exports.

2.2.10. GAS STORAGE CAPACITIES

To be reported separately as gaseous gas storage facilities and LNG terminals (to be further distinguished as LNG import terminals or LNG export terminals).

2.2.10.1. Name

Name of the site of the storage facility or the LNG terminal.

2.2.10.2. Type (for the gaseous gas storage facilities only)

Type of storage, such as depleted gas field, aquifer, salt cavern, etc.

2.2.10.3. Working capacity

For gaseous gas storage facilities: total gas storage capacity, minus the cushion gas. The cushion gas is the total volume of gas required as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the output cycle.

For LNG terminals: total gas storage capacity expressed in gaseous gas equivalent.

2.2.10.4. Peak output

Maximum rate at which gas can be withdrawn from the storage concerned; this corresponds to the maximum withdrawal capacity.

2.2.10.5. Regasifying or liquefying capacity (for LNG terminals only)

The regasifying capacity must be reported for import terminals and the liquefying capacity must be reported for export terminals.

2.3. Units of measurement

Quantities of natural gas should be declared as their energy content, i.e. in TJ, based on the gross calorific value. Where physical quantities are required, the unit is in 10^6 m^3 assuming reference gas conditions (15 °C, 101 325 Pa).

Calorific values should be declared in kJ/m^3, assuming reference gas conditions (15 °C, 101 325 Pa).

Working capacity should be declared in 10^6 m^3, assuming reference gas conditions (15 °C, 101 325 Pa).

Peak output, regasifying capacity and liquefying capacity should be declared in 10^6 m^3/day, assuming reference gas conditions (15 °C, 101 325 Pa).

3. ELECTRICITY AND HEAT

3.1. Applicable energy products

This chapter covers heat and electricity.

3.2. List of aggregates

The following list of aggregates should be declared for heat and electricity unless otherwise specified.

3.2.1. ELECTRICITY AND HEAT PRODUCTION

The following specific definitions apply to the electricity and heat aggregates discussed in this chapter:

— Gross electricity production: the sum of the electrical energy produced by all the generating sets concerned (including pumped storage) measured at the output terminals of the main generators.

— Gross heat production: the total heat produced by the installation, including the heat used by the installation's auxiliaries that use a hot fluid (space heating, liquid fuel heating etc.) and losses in the installation/network heat exchanges, as well as heat from chemical processes used as a primary energy form.

— Net electricity production: the gross electricity production less the electrical energy absorbed by the generating auxiliaries and the losses in the main generator transformers.

— Net heat production: the heat supplied to the distribution system as determined based on measurements of the outgoing and return flows.

Aggregates 3.2.1.1 to 3.2.1.11 must be declared separately for main activity producers and for autoproducers. Within these two types of plant, both gross and net electricity and heat production must be declared for electricity-only, heat-only and CHP units, separately wherever applicable. For gross electricity produced in CHP units, the subcategory of which in full CHP-mode should be declared. For net heat produced in CHP units, a separate item on auto-consumed heat should be declared.

3.2.1.1. Nuclear

3.2.1.2. Hydro (applicable only for electricity)

3.2.1.3. Geothermal

3.2.1.4. Solar

3.2.1.5. Tide, wave, ocean (applicable only for electricity)

3.2.1.6. Wind (applicable only for electricity)

3.2.1.7. Combustible fuels

Fuels capable of igniting or burning, i.e. reacting with oxygen to produce a significant rise in temperature, and combusted directly for the production of electricity and/or heat.

3.2.1.8. Heat pumps (applicable only for heat)

3.2.1.9. Electric boilers (applicable only for heat)

3.2.1.10. Heat from chemical processes

Heat originating from processes without input energy, such as a chemical reaction. Excludes waste heat originating from energy-driven processes, which should be reported as heat produced from the corresponding fuel.

3.2.1.11. Other sources

3.2.2. SUPPLY

For 3.2.2.1 and 3.2.2.2., quantities declared should be coherent with the values declared for aggregates 3.2.1.1 to 3.2.1.11.

3.2.2.1. Total gross production

3.2.2.2. Total net production

3.2.2.3. Imports

Amounts of electricity are considered as imported or exported when they have crossed the political boundaries of a country, whether customs clearance has taken place or not. If electricity transits through a country, the amount should be reported as both an import and an export.

3.2.2.4. Exports

See explanation under 3.2.2.3. 'Imports'.

3.2.2.5. International marine bunkers

3.2.2.6. Used for heat pumps (applicable only for electricity)

3.2.2.7. Used for electric boilers (applicable only for electricity)

3.2.2.8. Used for pumped storage – pure pumped storage plants (applicable only for electricity)

3.2.2.9. Used for pumped storage – Mixed hydro plants (applicable only for electricity)

3.2.2.10. Used for electricity production (applicable only for heat)

3.2.2.11. Used for hydrogen production (transformation)

3.2.3. TRANSMISSION LOSSES

3.2.4. DISTRIBUTION LOSSES

3.2.5. FINAL ENERGY CONSUMPTION – TRANSPORT SECTOR

Final energy consumption and final non-energy consumption should be declared separately for the following aggregates.

3.2.5.1. Rail

3.2.5.2. Pipeline transport

3.2.5.3. Road

3.2.5.4. Domestic navigation

3.2.5.5. Not elsewhere specified – Transport

3.2.6. FINAL ENERGY CONSUMPTION – OTHER SECTORS

3.2.6.1. Commercial and public services

3.2.6.2. Households

3.2.6.3. Agriculture

3.2.6.4. Forestry

3.2.6.5. Fishing

3.2.6.6. Not elsewhere specified – Other

3.2.7. ENERGY SECTOR

Excludes plants' own use for pumped storage, heat pumps and electric boilers.

3.2.7.1. Coal mines

3.2.7.2. Oil and gas extraction

3.2.7.3. Patent fuel plants

3.2.7.4. Coke ovens

3.2.7.5. BKB/PB plants

3.2.7.6. Gas works

3.2.7.7. Blast furnaces

3.2.7.8. Petroleum refineries

3.2.7.9. Nuclear industry

3.2.7.10. Coal liquefaction plants

3.2.7.11. Liquefaction (LNG)/Regasification (GNG) plants

3.2.7.12. Gasification plants (biogas)

3.2.7.13. Gas to liquids

3.2.7.14. Hydrogen production, liquefaction and gasification of hydrogen.

3.2.7.16. Charcoal production plants

3.2.7.17. Not elsewhere specified – Energy

3.2.8. INDUSTRY SECTOR

3.2.8.1. Iron and steel

3.2.8.2. Chemical and petrochemical

3.2.8.3. Non-ferrous metals

3.2.8.4. Non-metallic minerals

3.2.8.5. Transport equipment

3.2.8.6. Machinery

3.2.8.7. Mining and quarrying

3.2.8.8. Food, beverages and tobacco

3.2.8.9. Pulp, paper and printing

3.2.8.10. Wood and wood products

3.2.8.11. Construction

3.2.8.12. Textile and leather

3.2.8.13. Not elsewhere specified – Industry

3.2.9. IMPORTS AND EXPORTS

Imports and exports of quantities of electricity and heat by country of origin and destination, respectively, have to be reported. See explanation under 3.2.2.3. 'Imports'.

3.2.10. NET PRODUCTION FROM AUTOPRODUCERS

For the following plants or activities, net production of electricity and net generation of heat from auto-

producers should be declared separately for electricity-only, heat-only and CHP units:

3.2.10.1. Energy sector: Coal mines

3.2.10.2. Energy sector: Oil and gas extraction

3.2.10.3. Energy sector: Patent fuel plants

3.2.10.4. Energy sector: Coke ovens

3.2.10.5. Energy sector: BKB/PB plants

3.2.10.6. Energy sector: Gas works

3.2.10.7. Energy sector: Blast furnaces

3.2.10.8. Energy sector: Petroleum refineries

3.2.10.9. Energy sector: Coal liquefaction plants

3.2.10.10. Energy sector: Liquefaction (LNG)/Regasification plants

3.2.10.11. Energy sector: Gasification plants (biogas)

3.2.10.12. Energy sector: Gas to liquids

3.2.10.13. Energy sector: Charcoal production plants

3.2.10.14. Energy sector: Hydrogen production, liquefaction, gasification.

3.2.10.15. Energy sector: Not elsewhere specified – Energy

3.2.10.16. Industry sector: Iron and steel

3.2.10.17. Industry sector: Chemical and petrochemical

3.2.10.18. Industry sector: Non-ferrous metals

3.2.10.19. Industry sector: Non-metallic minerals

3.2.10.20. Industry sector: Transport equipment

3.2.10.21. Industry sector: Machinery

3.2.10.22. Industry sector: Mining and quarrying

3.2.10.23. Industry sector: Food, beverages and tobacco

3.2.10.24. Industry sector: Pulp, paper and printing

3.2.10.25. Industry sector: Wood and wood products

3.2.10.26. Industry sector: Construction

3.2.10.27. Industry sector: Textile and leather

3.2.10.28. Industry sector: Not elsewhere specified – Industry

3.2.10.29. Transport Sector: Rail

3.2.10.30. Transport Sector: Pipeline transport

3.2.10.31. Transport Sector: Road

3.2.10.32. Transport Sector: Not elsewhere specified – Transport

3.2.10.33. Other sectors: Households

3.2.10.34. Other sectors: Commercial and public services

3.2.10.35. Other sectors: Agriculture/Forestry

3.2.10.36. Other sectors: Fishing

3.2.10.37. Other sectors: Not elsewhere specified – Other

3.2.11. NET PRODUCTION OF ELECTRICITY BY SECTOR

Total net production of electricity and the part that is auto-consumed (without splitting between main activity producer and autoproducer) must be declared separately for households, commercial and public services, energy sector, industry sector and other sectors for each of the following groups of fuels:

3.2.11.1. Solar PV

3.2.11.2. Solid, liquid and gaseous biofuels

3.2.11.3. Other renewables

3.2.11.4. Natural gas

3.2.11.5. Other (non-renewables)

3.2.12. GROSS ELECTRICITY AND HEAT PRODUCTION FROM COMBUSTIBLE FUELS

The gross electricity produced, the heat sold and the fuel quantities used, including their corresponding total energy from the combustibles listed below, must be declared separately for main activity producers and for autoproducers. For these two types of producer, electricity and heat production must be declared separately wherever applicable for electricity-only, heat-only and CHP units.

3.2.12.1. Anthracite

3.2.12.2. Coking Coal

3.2.12.3. Other bituminous coal

3.2.12.4. Sub-bituminous coal

3.2.12.5. Lignite

3.2.12.6. Peat

3.2.12.7. Patent fuel

3.2.12.8. Coke oven coke

3.2.12.9. Gas coke

3.2.12.10. Coal tar

3.2.12.11. BKB (brown coal briquettes)

3.2.12.12. Gas works gas

3.2.12.13. Coke oven gas

3.2.12.14. Blast furnace gas

3.2.12.15. Other recovered gases

3.2.12.16. Peat products

3.2.12.17. Oil shale and oil sands

3.2.12.18. Crude oil

3.2.12.19. NGL

3.2.12.20. Refinery gas

3.2.12.21. LPG

3.2.12.22. Naphtha

3.2.12.23. Kerosene type jet fuel

3.2.12.24. Other kerosene

3.2.12.25. Gas/Diesel oil

3.2.12.26. Fuel oil

3.2.12.27. Bitumen

3.2.12.28. Petroleum coke

3.2.12.29. Other oil products

3.2.12.30. Natural gas

3.2.12.31. Industrial waste

3.2.12.32. Renewable municipal waste

3.2.12.33. Non-renewable municipal waste

3.2.12.34. Solid biofuels

3.2.12.35. Biogases

3.2.12.36. Biodiesels

3.2.12.37. Biogasolines

3.2.12.38. Other liquid biofuels

3.2.12.39. Hydrogen

3.2.13. NET MAXIMUM ELECTRICAL CAPACITY

The capacity should be declared as on 31 December of the relevant reported year and for the fuels indicated below. Includes electrical capacity of both electricity-only and CHP units. The net maximum electrical capacity must be declared for both main activity producers and autoproducers. It is the sum of the net maximum capacities of all stations taken individually over a given period of operation. The period of operation assumed for present purposes is continuous running: in practice 15 hours or more per day. The net maximum capacity is the maximum power assumed to be solely active power that can be supplied, continuously, with the whole plant running, at the point of outlet to the network.

3.2.13.1. Nuclear

3.2.13.2. Pure hydro plants

3.2.13.3. Mixed hydro plants

3.2.13.4. Pure pumped storage plants

3.2.13.5. Geothermal

3.2.13.6. Solar photovoltaic

3.2.13.7. Solar thermal

3.2.13.8. Tide, wave, ocean

3.2.13.9. Wind

3.2.13.10. Combustible fuels

3.2.13.10.1. Type of generation: Steam

3.2.13.10.2. Type of generation: Internal combustion

3.2.13.10.3. Type of generation: Gas turbine

3.2.13.10.4. Type of generation: Combined cycle

3.2.13.10.5. Type of generation: Other

3.2.13.11. Hydrogen fuel cells

3.2.13.12. Other sources

3.2.14. NET MAXIMUM ELECTRICAL CAPACITY OF COMBUSTIBLE FUELS

Net maximum electrical capacity of combustible fuels must be declared for both main activity producers and autoproducers, and separately for each type of single-fired or multi-fired plant mentioned below. Multi-fired systems include only units which can burn more than one fuel type on a continuous basis. Stations which have separate units using different fuels should be divided into the appropriate single-fuel categories. Indications on which type of fuel is used as primary and alternate must be added for each category of multi-fired plants.

3.2.14.1. Single-fuel fired (for all categories of primary fuels)

3.2.14.2. Multi-fired solids and liquids

3.2.14.3. Multi-fired solids and natural gas

3.2.14.4. Multi-fired liquids and natural gas

3.2.14.5. Multi-fired solids, liquids and natural gas

3.2.15. NEWLY INSTALLED AND DECOMMISSIONED ELECTRICAL CAPACITY

Newly installed capacity is the net maximum electrical capacity of the generation units that become operational in the reference year. Decommissioned capacity is the net maximum electrical capacity that is no longer operational during the reference year.

For all fuels indicated under 3.2.13 and 3.2.14, the newly installed and decommissioned capacity should be reported for the reference year.

3.2.16. BATTERIES

The storage capacity or energy capacity of a battery is the total quantity of energy that the battery can store. The rated power capacity is the maximum rate of discharge that the battery can achieve, starting from a fully charged state. The information below should be declared for batteries connected to the grid and used as storing/balancing element. Only batteries with a storage capacity equal to or above 1 MWh and only exchanges with the grid need to be declared.

3.2.16.1. Storage capacity of batteries

3.2.16.2. Rated power capacity of batteries

3.2.16.3. Electricity injected in the grid from batteries

3.2.16.4. Electricity used from the grid to charge batteries

Each of the elements above should be split in the following size groups of storage capacity:

— From 1 MWh to 10 MWh

— From more than 10 MWh to 100 MWh

— More than 100 MWh.

3.3. Units of measurement

Electricity should be declared in GWh (giga-watt hours), heat in TJ (tera-joules) and capacity in MW (megawatts). For batteries, storage capacity should be declared in MWh and rated power capacity in MW.

If reporting of other fuels is required, the applicable units are defined in the relevant chapters of this annex.

4. OIL AND PETROLEUM PRODUCTS

4.1. Applicable energy products

Unless otherwise specified, this data collection applies to all energy products listed in Annex A, Chapter 3.4. OIL (crude oil and petroleum products)

4.2. List of aggregates

The following list of aggregates should be declared for all energy products listed in the previous paragraph, unless otherwise specified.

4.2.1. SUPPLY OF CRUDE OIL, NGL, REFINERY FEEDSTOCKS, ADDITIVES AND OTHER HYDROCARBONS

The following aggregates should be declared for crude oil, NGL, refinery feedstocks, additives/oxygenates, biofuels in additives/oxygenates and other hydrocarbons:

4.2.1.1. Indigenous production

Not applicable for refinery feedstocks and for biofuels.

4.2.1.2. Receipts from other sources.

Not applicable for crude oil, NGL and refinery feedstocks.

4.2.1.2.1. Receipts from other sources: from coal

4.2.1.2.2. Receipts from other sources: from natural gas

4.2.1.2.3. Receipts from other sources: from renewables

4.2.1.2.4. Receipts from other sources: from hydrogen

4.2.1.3. Backflows from petrochemical sector

Only applicable for refinery feedstocks.

4.2.1.4. Products transferred

Only applicable for refinery feedstocks.

4.2.1.5. Imports

Includes quantities of crude oil and products imported or exported under processing agreements (i.e. refining on account). Crude oil and NGLs should be reported as coming from the country of ultimate origin; refinery feedstocks and finished products should be reported as coming from the country of last consignment. Includes any gas liquids (e.g. LPG) extracted during the regasification of imported liquefied natural gas and petroleum products imported or exported directly by the petrochemical industry. Note:

all trade of biofuels which have not been blended with transport fuels (i.e. in their pure form) should not be reported here. Re-exports of oil imported for processing within bonded areas should be included as an export of product from the processing country to the final destination.

4.2.1.6. Exports

The note for imports (4.2.1.5.) also applies to exports.

4.2.1.7. Direct Use

4.2.1.8. Stock changes

4.2.1.9. Observed refinery intake

Amounts measured as input to refineries

4.2.1.10. Refinery losses

The difference between refinery intake (observed) and gross refinery output. Losses may occur during the distillation processes due to evaporation. Reported losses are positive. There may be volumetric gains but no gains in mass.

4.2.1.11. Opening total stocks on national territory

4.2.1.12. Closing total stocks on national territory

4.2.1.13. Net calorific value

4.2.1.13.1. Production (not applicable for refinery feedstocks and Biofuels in Additives/Oxygenates)

4.2.1.13.2. Imports (not applicable for biofuels in additives/oxygenates)

4.2.1.13.3. Exports (not applicable for biofuels in additives/oxygenates)

4.2.1.13.4. Overall average

4.2.2. SUPPLY OF OIL PRODUCTS

The following aggregates apply to finished products (refinery gas, ethane, LPG, naphtha, motor gasoline as well as its part of biogasoline, aviation gasoline, gasoline type jet fuel, kerosene type jet fuel as well as its bio part, other kerosene, gas/diesel oil, low and high sulphur fuel oil, white spirit and SBP, lubricants, bitumen, paraffin waxes, petroleum coke and other products). Crude oil and NGL used for direct burn should be included in deliveries of finished products and interproduct transfers.

4.2.2.1. Primary product receipts

4.2.2.2. Gross refinery output

4.2.2.3. Recycled products

4.2.2.4. Refinery fuel (petroleum refineries)

Fuels used for production at refineries of electricity and heat sold should also be included in this category.

4.2.2.4.1. Used in electricity only units/plants

4.2.2.4.2. Used in CHP units

4.2.2.4.3. Used in heat only units/plants

4.2.2.5. Imports

The note for imports in Section 4.2.1.5. also applies here.

4.2.2.6. Exports

The note for imports in Section 4.2.1.5. also applies here.

4.2.2.7. International marine bunkers

4.2.2.8. Interproduct transfers

4.2.2.9. Products transferred

4.2.2.10. Stock changes

4.2.2.11. Opening stock levels

4.2.2.12. Closing stock levels

4.2.2.13. Stock changes at main activity producers

Changes in stocks which are held by public utilities and are not included in stock levels and stock changes reported elsewhere. A stock build is shown as a negative number and a stock draw is shown as a positive number.

4.2.2.14. Average net calorific values

4.2.3. DELIVERIES TO THE PETROCHEMICAL SECTOR

The observed delivery of finished petroleum products from primary sources (e.g. refineries, blending plants, etc.) to the inland market.

4.2.3.1. Gross deliveries to the petrochemical sector

4.2.3.2. Energy use in the petrochemical sector

Quantities of oil used as fuel for petrochemical processes such as steam cracking.

4.2.3.3. Non-energy use in the petrochemical sector

Quantities of oil used in the petrochemical sector for the purpose of producing ethylene, propylene, butylene, synthesis gas, aromatics, butadiene and other hydrocarbon-based raw materials in processes such as steam cracking, aromatics plants and steam reforming. Excludes amounts of oil used for fuel purposes.

4.2.3.4. Backflows from petrochemical sector to refineries

4.2.4. TRANSFORMATION SECTOR

The quantities involved in both energy use and non-energy use must be declared.

4.2.4.1. Main activity producer electricity only

4.2.4.2. Autoproducer electricity only

4.2.4.3. Main activity producer CHP units

4.2.4.4. Autoproducer CHP units

4.2.4.5. Main activity producer heat Only

4.2.4.6. Autoproducer heat only

4.2.4.7. Gas works/Gasification plants

4.2.4.8. Blended natural gas

4.2.4.9. Coke ovens

4.2.4.10. Blast furnaces

4.2.4.11. Petrochemical industry

4.2.4.12. Patent fuel plants

4.2.4.13. Production of hydrogen

4.2.4.14. Not elsewhere specified – Transformation

4.2.5. ENERGY SECTOR

Both the quantities involved in energy use and non-energy use shall be declared.

4.2.5.1. Coal Mines

4.2.5.2. Oil and Gas Extraction

4.2.5.3. Coke Ovens

4.2.5.4. Blast Furnaces

4.2.5.5. Gas Works

4.2.5.6. Own use Electricity, CHP and heat plants

4.2.5.7. Hydrogen production, liquefaction and gasification.

4.2.5.8. Not Elsewhere Specified – Energy

4.2.6. TRANSMISSION AND DISTRIBUTION LOSSES

The quantities involved both in energy use and non-energy use must be declared.

4.2.7. FINAL ENERGY CONSUMPTION – INDUSTRY SECTOR

The quantities involved both in energy use and non-energy use must be declared.

4.2.7.1. Iron and steel

4.2.7.2. Chemical and petrochemical

4.2.7.3. Non-ferrous metals

4.2.7.4. Non-metallic minerals

4.2.7.5. Transport equipment

4.2.7.6. Machinery

4.2.7.7. Mining and quarrying

4.2.7.8. Food, beverages and tobacco

4.2.7.9. Pulp, paper and printing

4.2.7.10. Wood and wood products

4.2.7.11. Construction

4.2.7.12. Textile and leather

4.2.7.13. Not elsewhere specified – Industry

4.2.8. FINAL ENERGY CONSUMPTION – TRANSPORT SECTOR

The quantities involved in both energy use and non-energy use must be declared.

4.2.8.1. International aviation

4.2.8.2. Domestic aviation

4.2.8.3. Road

4.2.8.4. Rail

4.2.8.5. Domestic navigation

4.2.8.6. Pipeline transport

4.2.8.7. Not elsewhere specified – Transport

4.2.9. FINAL ENERGY CONSUMPTION – OTHER SECTORS

The quantities involved in both energy use and non-energy use must be declared.

4.2.9.1. Commercial and public services

4.2.9.2. Households

4.2.9.3. Agriculture

4.2.9.4. Forestry

4.2.9.5. Fishing

4.2.9.6. Not elsewhere specified – Other

4.2.10. IMPORTS BY COUNTRY OF ORIGIN AND EXPORTS BY COUNTRY OF DESTINATION

Imports should be declared by country of origin and exports by country of destination. The note for imports in Section 4.2.1.5 also applies here.

4.2.11. REFINERY CAPACITY

Report the national total refining capacity and the breakdown of annual capacity by refinery in thousand metric tons per year. The following items should be reported:

4.2.11.1. Name/Location

4.2.11.2. Atmospheric distillation

4.2.11.3. Vacuum distillation

4.2.11.4. Cracking (thermal)

4.2.11.4.1. Of which visbreaking

4.2.11.4.2. Of which coking

4.2.11.5. Cracking (catalytic)

4.2.11.5.1. Of which fluid catalytic cracking (FCC)

4.2.11.5.2. Of which hydro-cracking (HCK)

4.2.11.6. Reforming

4.2.11.7. Desulphurisation

4.2.11.8. Alkylation, polymerisation, isomeration

4.2.11.9. Etherification

4.3. Units of measurement

Reported quantities must be declared in kt (kilo-tonnes). Calorific values must be declared in MJ/t (mega-joules per tonne).

4.4. Exemptions

Cyprus is exempted from reporting the aggregates specified in Section 4.2.9 (Final energy consumption – Other sectors); only the total values should be reported. Cyprus is also exempted from reporting non-energy use under Sections 4.2.4 (Transformation sector), 4.2.5 (Energy sector), 4.2.7 (Industry), 4.2.7.2 (Industry sector – of which chemical and petrochemical), 4.2.8 (Transport) and 4.2.9 (Other sectors).

5. RENEWABLE ENERGY AND ENERGY FROM WASTE

5.1. Applicable energy products

Unless otherwise specified, this data collection applies to all energy products listed in Annex A, Chapter 3.5. RENEWABLES AND WASTE. Only quantities of fuels used for energy purposes (for example in electricity and heat generation, combustion with energy recovery, in mobile engines in transport and for use in stationary engines) should be reported. Quantities of renewable energy products used to replace fossil fuels for non-energy purposes should be reported in Section 5.2.9, but they should not be included in the rest of sections in this chapter. Renewable products that have not been developed to replace fossil fuels should be excluded from reporting in Section 5.2.9, such as solid biofuels used for furniture, construction and paper/cardboard production, alcohols used in food industry and cotton/natural fibres used in textile industry. Passive thermal energy should be excluded from reporting in Chapter 5 (for example, passive solar thermal heating of buildings).

5.2. List of aggregates

Unless otherwise specified, the following list of aggregates should be declared for all energy products listed in the previous paragraph. Ambient heat (heat pumps) only needs to be reported for the following sectors: Transformation (only for aggregates related to heat sold), Energy (only total, no subcategories), Industry total (only total, no subcategories), Commercial and public services, Households and Not elsewhere specified – Other. For ambient heat (heat pumps), the subcategories Aerothermal, Geothermal and Hydrothermal should be declared under indigenous production. For each of these three categories, the subcategory Of which from heat pumps with SPF above the threshold should be declared. The SPF (seasonal performance factor) threshold should be in accordance with Directive 2009/28/EC and Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources.

5.2.1. GROSS ELECTRICITY AND HEAT PRODUCTION

The definitions offset out in Chapter 3.2.1. apply. The aggregates 5.2.1.1 to 5.2.1.18 must be declared separately for main activity producers and for autoproducers. For these two types of plant, gross electricity and gross heat production must be declared for electricity-only, heat-only and CHP units, separately wherever applicable.

5.2.1.1. Pure hydro plants (applicable only for electricity)

5.2.1.2. Mixed hydro plants (applicable only for electricity)

5.2.1.2.1. Of which pumping (applicable only for electricity)

5.2.1.3. Pure pumped storage plants (applicable only for electricity)

5.2.1.4. Geothermal

5.2.1.5. Solar photovoltaic (applicable only for electricity)

The following size subcategories should be declared for solar photovoltaic:

5.2.1.5.1. Less than 30 kW

5.2.1.5.2. From 30 to 1 000 kW

5.2.1.5.3. More than 1 000 kW

For 5.2.1.5.1 to 5.2.1.5.3, the subcategories rooftop and off-grid should be declared. The off-grid category is mandatory only if it accounts for 1% or more of the photovoltaic capacity in its respective size category.

5.2.1.6. Solar thermal

5.2.1.7. Tide, wave, ocean (applicable only for electricity)

5.2.1.8. Wind (applicable only for electricity)

5.2.1.9. On-shore wind

5.2.1.10. Offshore wind

5.2.1.11. Renewable municipal waste

5.2.1.12. Non-renewable municipal waste

5.2.1.13. Solid biofuels

5.2.1.14. Biogases

5.2.1.15. Biodiesels

5.2.1.16. Biogasolines

5.2.1.17. Other liquid biofuels

5.2.1.18. Heat pumps (applicable only for heat)

5.2.2. SUPPLY

5.2.2.1. Production

5.2.2.2. Imports

5.2.2.3. Exports

5.2.2.4. International marine bunkers

5.2.2.5. Stock changes

5.2.3. TRANSFORMATION SECTOR

5.2.3.1. Main activity producer electricity only

5.2.3.2. Main activity producer combined heat and power (CHP) units

5.2.3.3. Main activity producer heat only

5.2.3.4. Autoproducer electricity only

5.2.3.5. Autoproducer combined heat and power (CHP) units

5.2.3.6. Autoproducer heat only

5.2.3.7. Patent fuel plants

5.2.3.8. BKB/PB plants

5.2.3.9. Blast Furnaces

5.2.3.10. Blended in the gas grid (e.g. Natural gas blending plants)

5.2.3.11. Blended with liquid fossil fuels (e.g. motor gasoline / diesel / kerosene)

5.2.3.12. Charcoal production plants

5.2.3.13. Production of hydrogen

5.2.3.14. Not elsewhere specified – Transformation

5.2.4. ENERGY SECTOR

5.2.4.1. Gasification plants (biogas)

5.2.4.2. Electricity, CHP and heat plants

5.2.4.3. Coal mines

5.2.4.4. Patent fuel plants

5.2.4.5. Coke ovens

5.2.4.6. Petroleum refineries

5.2.4.7. BKB/PB plants

5.2.4.8. Gas works

5.2.4.9. Blast furnaces

5.2.4.10. Charcoal production plants

5.2.4.11. Hydrogen production, liquefaction and gasification

5.2.4.12. Not elsewhere specified – Energy

5.2.5. TRANSMISSION AND DISTRIBUTION LOSSES

5.2.6. FINAL ENERGY CONSUMPTION – INDUSTRY SECTOR

5.2.6.1. Iron and steel

5.2.6.2. Chemical and petrochemical

5.2.6.3. Non-ferrous metals

5.2.6.4. Non-metallic minerals

5.2.6.5. Transport equipment

5.2.6.6. Machinery

5.2.6.7. Mining and quarrying

5.2.6.8. Food, beverages and tobacco

5.2.6.9. Pulp, paper and printing

5.2.6.10. Wood and wood products

5.2.6.11. Construction

5.2.6.12. Textile and leather

5.2.6.13. Not elsewhere specified – Industry

5.2.7. FINAL ENERGY CONSUMPTION – TRANSPORT SECTOR

5.2.7.1. Rail

5.2.7.2. Road

5.2.7.3. Domestic navigation

5.2.7.4. Domestic aviation

5.2.7.5. International aviation

5.2.7.6. Not elsewhere specified – Transport

5.2.8. FINAL ENERGY CONSUMPTION – OTHER SECTORS

5.2.8.1. Commercial and public services

5.2.8.2. Households

5.2.8.3. Agriculture

5.2.8.4. Forestry

5.2.8.5. Fishing

5.2.8.6. Not elsewhere specified – Other

5.2.9. FINAL CONSUMPTION – NON-ENERGY USE

For the following items:

5.2.9.1. Transport sector

5.2.9.2. Industry sector

5.2.9.3. Other sectors

The final consumption – non-energy use should be declared for the following groups of fuels:

5.2.9.4. Solid biofuels

5.2.9.5. Liquid biofuels

5.2.9.6. Biogases

The first reference year to declare the elements in Section 5.2.9 is 2024. Until reference year 2027 only the aggregate total final consumption – non-energy use can be declared instead of items 5.2.9.1 to 5.2.9.3 separately. The quantities reported in 5.2.9 should not be included in 5.2.2 to 5.2.8.

5.2.10. NET MAXIMUM ELECTRICAL CAPACITY

Capacity should be declared as on 31 December of the relevant reported year. Includes the electrical capacity of both electricity-only and CHP units. The net maximum electrical capacity is the sum of the net maximum capacities of all stations taken individually over a specific period of operation. The period of operation assumed for present purposes is continuous running: in practice 15 hours or more per day. The net maximum capacity is the maximum power assumed to be solely active power that can be supplied, continuously, with the whole plant running, at the point of outlet to the network.

5.2.10.1. Pure hydro plants

5.2.10.2. Mixed hydro plants

5.2.10.3. Pure pumped storage plants

5.2.10.4. Geothermal

5.2.10.5. Solar photovoltaic

The following size subcategories should be declared for solar photovoltaic:

5.2.10.5.1. Less than 30 kW

5.2.10.5.2. Between 30 and 1 000 kW

5.2.10.5.3. More than 1 000 kW

For 5.2.10.5.1 to 5.2.10.5.3, the subcategories rooftop and off-grid should be declared. The off-grid category is mandatory only if it accounts for 1% or more of the capacity in its respective size category.

5.2.10.6. Solar thermal

5.2.10.7. Tide, wave, ocean

5.2.10.8. On-shore wind

5.2.10.9. Offshore wind

5.2.10.10. Industrial waste

5.2.10.11. Municipal waste

5.2.10.12. Solid biofuels

5.2.10.13. Biogases

5.2.10.14. Biodiesels

5.2.10.15. Biogasolines

5.2.10.16. Other liquid biofuels

5.2.11. TECHNICAL CHARACTERISTICS

5.2.11.1. Solar collector surface

The total surface area of the installed solar collectors is to be declared. The solar collector surface relates only to solar collectors used for the production of solar thermal heat; solar collector surface used for electricity generation does not have to be reported here (solar PV and concentrated solar power). The surface area of all solar collectors should be included: glazed and unglazed collectors, flat-plate and vacuum tube with a liquid or air as the energy carrier.

5.2.11.2. Production capacity for Biogasoline

5.2.11.3. Production capacity for Biodiesels

5.2.11.4. Production capacity for Bio jet kerosene

5.2.11.5. Production capacity for Other liquid biofuels

5.2.11.6. Average net calorific value for Biogasoline

5.2.11.7. Average net calorific value for Bioethanol

5.2.11.8. Average net calorific value for Biodiesels

5.2.11.9. Average net calorific value for Bio jet kerosene

5.2.11.10. Average net calorific value for Other liquid biofuels

5.2.11.11. Average net calorific value for Charcoal

5.2.11.12. Thermal capacity of heat pumps: Aerothermal

5.2.11.12.1. Thermal capacity of heat pumps: Aerothermal Air-Air

5.2.11.12.2. Thermal capacity of heat pumps: Aerothermal Air-Water

5.2.11.12.3. Thermal capacity of heat pumps: Aerothermal Air-Air (reversible)

5.2.11.12.4. Thermal capacity of heat pumps: Aerothermal Air-Water (reversible)

5.2.11.12.5. Thermal capacity of heat pumps: Aerothermal Exhaust Air-Air

5.2.11.12.6. Thermal capacity of heat pumps: Aerothermal Exhaust Air-Water

5.2.11.13. Thermal capacity of heat pumps: Geothermal energy

5.2.11.13.1. Thermal capacity of heat pumps: Geothermal energy Ground-Air

5.2.11.13.2. Thermal capacity of heat pumps: Geothermal energy Ground-Water

5.2.11.14. Thermal capacity of heat pumps: Hydrothermal heat

5.2.11.14.1. Thermal capacity of heat pumps: Hydrothermal heat Water-Air

5.2.11.14.2. Thermal capacity of heat pumps: Hydrothermal heat Water-Water

For all items from 5.2.11.12 to 5.2.11.14.2, the subcategory Of which from heat pumps with SPF above the threshold should be declared. The SPF (seasonal performance factor) threshold should be in accordance with Directives 2009/28/EC and (EU) 2018/2001 on the promotion of the use of energy from renewable sources.

5.2.12. PRODUCTION OF SOLID BIOFUELS AND BIOGASES

The total production of solid biofuels (excluding charcoal) should be split among the following fuels:

5.2.12.1. Fuelwood, wood residues and by-products

5.2.12.1.1. Wood pellets as part of Fuelwood, wood residues and by-products

5.2.12.2. Black liquor

5.2.12.3. Bagasse

5.2.12.4. Animal waste

5.2.12.5. Other vegetal materials and residues

5.2.12.6. Renewable fraction of industrial waste

The total production of biogas should be split among the following production methods:

5.2.12.7. Biogases from anaerobic fermentation: landfill gas

5.2.12.8. Biogases from anaerobic fermentation: sewage sludge gas

5.2.12.9. Biogases from anaerobic fermentation: other biogases from anaerobic fermentation

5.2.12.10. Biogases from thermal processes

5.2.13. IMPORTS BY COUNTRY OF ORIGIN AND EXPORTS BY COUNTRY OF DESTINATION

Imports should be reported by country of origin and exports by country of destination. Applicable to biogasolines, bioethanol, bio jet kerosene, biodiesels, other liquid biofuels, wood pellets.

5.3. Units of measurement

Electricity must be declared in GWh (giga-watt hours), heat in TJ (tera-joules) and electrical capacity in MW (megawatts).

Reported quantities must be declared in TJ NCV (tera-joules based on net calorific value), except for charcoal, biogasoline, bioethanol, bio jet kerosenese, biodiesels, and other liquid biofuels which must be declared in kt (kilo-tonnes).

Calorific values must be declared in MJ/t (mega-joules per tonne).

Solar collector surface must be declared in 1 000 m^2.

Production capacity must be declared in kt (kilo-tonnes) per year.

6. ANNUAL NUCLEAR STATISTICS

The following data concerning the civil use of nuclear energy must be declared:

6.1. List of aggregates

6.1.1. ENRICHMENT CAPACITY

The annual separative work capacity of operational enrichment plants (isotopic separation of uranium).

6.1.2. PRODUCTION CAPACITY OF FRESH FUEL ELEMENTS

The annual production capacity of fuel fabrication plants. MOX fuel fabrication plants are excluded.

6.1.3. PRODUCTION CAPACITY OF MOX FUEL FABRICATION PLANTS

The annual production capacity of MOX fuel fabrication plants.

MOX is a fuel that contains a mixture of plutonium and uranium (mixed oxide).

6.1.4. PRODUCTION OF FRESH FUEL ELEMENTS

Production of finished fresh fuel elements in nuclear fuel fabrication plants. Rods or other partial products are not included. Fabrication plants producing MOX fuel are also excluded.

6.1.5. PRODUCTION OF MOX FUEL ELEMENTS

Production of finished fresh fuel elements in MOX fuel fabrication plants. Rods or other partial products are not included.

6.1.6. PRODUCTION OF NUCLEAR HEAT

The total amount of heat generated by nuclear reactors for the production of electricity or for other useful applications of heat.

6.1.7. ANNUAL AVERAGE BURNUP OF DEFINITIVELY DISCHARGED IRRADIATED FUEL ELEMENTS

Calculated average of the burnup of the fuel elements which have been definitively discharged from nuclear reactors during the reference year concerned. Excludes fuel elements which are temporarily discharged and are likely to be reloaded again later.

6.1.8. PRODUCTION OF URANIUM AND PLUTONIUM IN REPROCESSING PLANTS Uranium and plutonium produced in reprocessing plants during the reference year.

6.1.9. CAPACITY (URANIUM AND PLUTONIUM) OF REPROCESSING PLANTS

Annual reprocessing capacity of uranium and plutonium.

6.2. Units of measurement

tSWU (tonnes of separative work units) for 6.1.1.

tHM (tonnes of heavy metal) for 6.1.4, 6.1.5., 6.1.8.

tHM (tonnes of heavy metal) per year for 6.1.2., 6.1.3, 6.1.9

TJ (tera-joules) for 6.1.6.

GWd/tHM (gigawatt-day per tonne of heavy metal) for 6.1.7.

7. HYDROGEN

The following data concerning hydrogen must be declared for the first time for reference year 2024:

7.1. List of aggregates

7.1.1. SUPPLY

7.1.1.1. Indigenous production

7.1.1.1.1. From natural gas

7.1.1.1.2. From oil and petroleum products

7.1.1.1.3. From solid fuels

7.1.1.1.4. From renewables (including renewable waste)

7.1.1.1.5. From non-renewable waste

7.1.1.1.6. From electrolysis

7.1.1.1.6.1. Of which: electricity from renewables – direct transmission line

7.1.1.1.6.2. Of which: electricity from nuclear – direct transmission line

7.1.1.1.6.3. Of which: electricity from fossil fuels – direct transmission line

7.1.1.1.7. From electricity – Others

7.1.1.1.8. From other sources (Others)

7.1.1.2. Imports

7.1.1.3. Exports

7.1.1.4. Stock changes

7.1.1.5. International marine bunkers

7.1.1.6. International aviation

7.1.2. TRANSFORMATION SECTOR

7.1.2.1. Main activity producer electricity

7.1.2.2. Autoproducer electricity

7.1.2.3. Main activity producer CHP

7.1.2.4. Autoproducer CHP

7.1.2.5. Main activity producer heat

7.1.2.6. Autoproducer heat

7.1.2.7. Gas works (and other conversion to gases)

7.1.2.8. Petroleum refineries

7.1.2.9. Natural gas blending plans

7.1.2.10. For blending with motor gasoline/diesel/kerosene

7.1.2.11. For blending with renewables

7.1.2.12. Hydrogen blended with renewable fuels

7.1.2.13. Not elsewhere specified (Transformation)

7.1.3. ENERGY SECTOR

7.1.3.1. Coal mines

7.1.3.2. Oil and gas extraction

7.1.3.3. Petroleum refineries

7.1.3.4. Coke ovens (Energy)

7.1.3.5. Blast furnaces (Energy)

7.1.3.6. Gas works (Energy)

7.1.3.7. Electricity, CHP and heat

7.1.3.8. Hydrogen production, liquefaction and gasification

7.1.3.10. Not elsewhere specified (Energy)

7.1.4. TRANSMISSION AND DISTRIBUTION LOSSES

7.1.5. FINAL NON-ENERGY CONSUMPTION – INDUSTRY SECTOR

7.1.5.1. Iron and steel

7.1.5.2. Chemical and petrochemical

7.1.5.3. Non-ferrous metals

7.1.5.4. Non-metallic minerals

7.1.5.5. Transport equipment

7.1.5.6. Machinery

7.1.5.7. Mining and quarrying

7.1.5.8. Food, beverages and tobacco

7.1.5.9. Paper, pulp and printing

7.1.5.10. Wood and wood products

7.1.5.11. Construction

7.1.5.12. Textiles and leather

7.1.5.13. Not elsewhere specified (Industry)

7.1.5.14. Other sectors

7.1.6. FINAL ENERGY CONSUMPTION – INDUSTRY SECTOR

7.1.6.1. Iron and steel

7.1.6.2. Chemical and petrochemical

7.1.6.3. Non-ferrous metals

7.1.6.4. Non-metallic minerals

7.1.6.5. Transport equipment

7.1.6.6. Machinery

7.1.6.7. Mining and quarrying

7.1.6.8. Food, beverages and tobacco

7.1.6.9. Paper, pulp and printing

7.1.6.10. Wood and wood products

7.1.6.11. Construction

7.1.6.12. Textiles and leather

7.1.6.13. Not elsewhere specified (Industry)

7.1.7. FINAL ENERGY CONSUMPTION – TRANSPORT SECTOR

7.1.7.1. Domestic aviation

7.1.7.2. Road

7.1.7.3. Rail

7.1.7.4. Domestic navigation

7.1.7.5. Pipeline transport

7.1.7.6. Not elsewhere specified (Transport)

7.1.8. FINAL ENERGY CONSUMPTION – OTHER SECTOR

7.1.8.1. Commercial and public services

7.1.8.2. Households

7.1.8.3. Agriculture

7.1.8.4. Forestry

7.1.8.5. Fishing

7.1.8.6. Not elsewhere specified (Other)

7.2. Production capacity

Hydrogen production capacity on 31 December of the reference year must be declared with the same level of details as for production (items 7.1.1.1 to 7.1.1.1.8).

7.3. Units of measurement

Quantities must be declared in TJ (NCV) and production capacity in TJ (NCV) per year.

8. DETAILED STATISTICS ON FINAL ENERGY CONSUMPTION

The following disaggregated data concerning final energy consumption must be declared.

8.1. List of aggregates

8.1.1. INDUSTRY SECTOR

To be reported as per the definitions provided in Section 2.6.1 of Annex A.

8.1.1.1. Mining and quarrying

8.1.1.1.1. Mining of metal ores

8.1.1.1.2. Other mining and quarrying

8.1.1.1.3. Mining support service activities

8.1.1.2. Food, beverages and tobacco

8.1.1.2.1. Manufacture of food products

8.1.1.2.2. Manufacture of beverages

8.1.1.2.3. Manufacture of tobacco products

8.1.1.3. Textile and leather

8.1.1.4. Wood and wood products

8.1.1.5. Pulp, paper and printing

8.1.1.5.1. Manufacture of paper and paper products

8.1.1.5.1.1. Manufacture of pulp

8.1.1.5.1.2. Other paper and paper products

8.1.1.5.2. Printing and reproduction of recorded media

8.1.1.6. Chemical and petrochemical

8.1.1.6.1. Manufacture of chemicals and chemical products

8.1.1.6.2. Manufacture of basic pharmaceutical products and pharmaceutical preparations

8.1.1.7. Non-metallic minerals

8.1.1.7.1. Manufacture of glass and glass products

8.1.1.7.2. Manufacture of cement, lime and plaster (incl. Clinker)

8.1.1.7.3. Other non-metallic mineral products

8.1.1.8. Iron and steel [Manufacture of basic metals A]

8.1.1.9. Non-ferrous metals industries [Manufacture of basic metals B]

8.1.1.9.1. Aluminium production

8.1.1.9.2. Other non-ferrous metals industries

8.1.1.10. Machinery

8.1.1.10.1. Manufacture of fabricated metal products, except machinery and equipment

8.1.1.10.2. Manufacture of computer, electronic and optical products

8.1.1.10.3. Manufacture of electrical equipment

8.1.1.10.4. Manufacture of machinery and equipment n.e.c.

8.1.1.11. Transport equipment

8.1.1.12. Not elsewhere specified – Industry

8.1.1.12.1. Manufacture of rubber and plastic products

8.1.1.12.2. Manufacture of furniture

8.1.1.12.3. Other manufacturing

8.1.2. TRANSPORT SECTOR

To be reported as per the definitions provided in Section 2.6.2 of Annex A.

8.1.2.1. Rail

8.1.2.1.1. High-speed rail

8.1.2.1.2. Conventional rail

8.1.2.1.2.1. Passenger transport by conventional rail

8.1.2.1.2.2. Freight transport by conventional rail

8.1.2.1.3. Metro and tram

8.1.2.2. Road

8.1.2.2.1. Heavy-duty vehicles carrying freight

8.1.2.2.2. Collective transport

8.1.2.2.3. Cars and vans

8.1.2.2.4. Other road transport

8.1.3. COMMERCIAL AND PUBLIC SERVICES SECTOR

To be reported as per the definitions provided in Section 2.6.3.1 of Annex A.

8.1.3.1. Repair and installation of machinery and equipment

8.1.3.2. Water supply; sewerage, waste management and remediation activities

8.1.3.3. Wholesale and retail trade; repair of motor vehicles and motorcycles

8.1.3.3.1. Wholesale trade

8.1.3.3.2. Retail trade

8.1.3.4. Warehousing and support activities for transportation

8.1.3.5. Postal and courier activities

8.1.3.6. Accommodation and food service activities

8.1.3.6.1. Accommodation

8.1.3.6.2. Food service activities

8.1.3.7. Information and communication

8.1.3.8. Financial and insurance activities and real estate activities

8.1.3.9. Administrative and support service activities

8.1.3.10. Public administration and defence; compulsory social security

8.1.3.11. Education

8.1.3.12. Human health and social work activities

8.1.3.12.1. Hospital activities

8.1.3.13. Arts, entertainment and recreation

8.1.3.13.1. Sports activities

8.1.3.14. Activities of extra-territorial organisations and bodies

8.1.3.15. Professional, scientific and technical activities and other services

8.1.3.16. Data centres.

Only data centres hosted by reporting units (regardless of their NACE code) with a total power capacity of 1 MW or more need to be declared. The first mandatory reporting for this item is reference year 2024.

8.1.4. HOUSEHOLDS SECTOR

To be reported as per the definitions provided in Section 2.6.3.2 of Annex A.

8.1.4.1. Households: Space heating

8.1.4.2. Households: Space cooling

8.1.4.3. Households: Water heating

8.1.4.4. Households: Cooking

8.1.4.5. Households: Lighting and appliances

Only concerns electricity

8.1.4.6. Households: Other end uses

8.2. Applicable energy products

Unless otherwise specified, this data collection applies to all energy products listed in Annex A.

Eurostat will specify the actual list of energy products for which data covered by point 7 of Annex B should be reported in the reporting template, as a subset of those listed in point 3 of Annex A.

8.3. Units of measurement

Quantities of solid fossil fuels must be declared in kt (kilo-tonnes).

Quantities of crude oil and petroleum products must be declared in kt (kilo-tonnes).

Quantities of natural gas and manufactured gases (gas works gas, coke oven gas, blast furnace gas, other recovered gases) must be declared by energy content, in TJ GCV (tera-joules based on gross calorific values).

Electricity must be declared in GWh (giga-watt hours).

Quantities of heat must be declared in TJ (tera-joules based on net calorific values).

Quantities of renewables and waste must be declared in TJ NCV (tera-joules based on net calorific value), except for charcoal, biogasoline, bioethanol, bio jet kerosenese, biodiesels, and other liquid biofuels, which must be declared in kt (kilo-tonnes).

Calorific values for solid fossil fuels, crude oil and petroleum products and renewables and waste must be declared in MJ/t (mega-joules per tonne).

Calorific values for natural gas and manufactured gases must be declared in kJ/m^3, assuming reference gas conditions (15 °C, 101 325 Pa).

For other energy products for which reporting is required, the applicable units are defined in the relevant chapters of this annex.

8.4. Deadline for transmission of data:

Data should be submitted by 31 March of the second year following the reported year.

8.5. Exemptions

Cyprus is exempted from reporting the disaggregated final energy consumption of crude oil and petroleum products (as defined in Section 3.4 of Annex A) for all aggregates covered by Section 8.1.4 of this annex (Households).

9. PRELIMINARY ANNUAL DATA

9.1. Applicable energy products

This data collection applies to all products described in sections 1.1., 2.1., 3.1., 4.1. and 5.1. of this Annex.

9.2. List of aggregates

The following list of aggregates must be declared:

9.2.1. For solid fossil fuels and manufactured gases: 1.2.1.1., 1.2.1.2., 1.2.1.6., 1.2.1.7., 1.2.1.8., 1.2.1.9. as defined in Chapter 1 of this annex.

9.2.2. For natural gas: 2.2.1.1., 2.2.1.2., 2.2.1.3., 2.2.1.4., 2.2.1.5., 2.2.1.6., 2.2.9. as defined in Chapter 2 of this annex.

9.2.3. For electricity and heat: gross production by product for all individual products, own use, total of transmission and distribution losses (3.2.3. and 3.2.4.) and 3.2.2.3., 3.2.2.4, 3.2.2.5, 3.2.2.6., 3.2.2.7., 3.2.2.8., 3.2.2.9. as defined in Chapter 3 of this annex.

9.2.4. For oil and petroleum products: 4.2.1.1., 4.2.1.2., 4.2.1.3., 4.2.1.4., 4.2.1.5., 4.2.1.6., 4.2.1.7., 4.2.1.8., 4.2.1.9., 4.2.1.10., 4.2.2.1., 4.2.2.2., 4.2.2.3., 4.2.2.4., 4.2.2.5., 4.2.2.6., 4.2.2.7., 4.2.2.8., 4.2.2.9., 4.2.2.10. as defined in Chapter 4 of this annex.

9.2.5. For renewable energy and energy from waste: 5.2.2.1., 5.2.2.2., 5.2.2.3., 5.2.2.4., 5.2.10.1., 5.2.10.2., 5.2.10.3., 5.2.10.8., 5.2.10.9. as defined in Chapter 5 of this annex.

9.3. Units of measurement

Quantities must be declared in units defined in Sections 1.3., 2.3., 3.3., 4.3. and 5.3. of this annex.

9.4. Deadline for transmission of data

Data should be submitted by 31 May of the year following the reported year.

ANNEX C

MONTHLY ENERGY STATISTICS

This annex describes the scope, units, reported period, frequency, deadline and transmission arrangements for the monthly collection of energy statistics.

Annex A provides explanations of terms not explained in this annex.

The following provisions apply to all data collections specified in this Annex:

(a) Reported period: The reported period of declared data will be one calendar month.

(b) Frequency: Data should be declared on a monthly basis.

(c) Transmission format: The transmission format should conform to the relevant interchange standard specified by Eurostat.

(d) Transmission method: Data should be submitted or uploaded by electronic means to the Eurostat's

single entry point for data.

1. SOLID FUELS

1.1. Applicable energy products

This chapter covers the reporting of:

1.1.1. Hard coal

1.1.2. Brown coal

1.1.3. Peat

1.1.4. Oil shale and oil sands

1.1.5. Coke oven coke

1.2. List of aggregates

1.2.1. The following aggregates must be declared for hard coal:

1.2.1.1. Production

1.2.1.2. Recovered products

1.2.1.3. Imports

1.2.1.4. Imports from outside EU

1.2.1.5. Exports

1.2.1.6. Opening total stocks on national territory

These are the quantities held by mines, importers and consumers who import directly.

1.2.1.7. Closing total stocks on national territory

These are the quantities held by mines, importers and consumers who import directly.

1.2.1.8. Deliveries to main activity producers

1.2.1.9. Deliveries to coke ovens

Excludes hard coal consumed as energy for support operations to coke ovens, to be reported in 'Deliveries to total industry'.

1.2.1.10. Deliveries to total industry

Includes hard coal delivered to the transformation sector (except hard coal reported in 'Deliveries to main activity producers' and 'Deliveries to coke ovens'), the energy sector, and final energy consumption of hard coal in the industry sector.

1.2.1.10.1. Deliveries to iron and steel industry

Includes hard coal entering blast furnaces as defined in Annex A, Article 2.2.11, and the final energy consumption of hard coal in the Iron and steel sector as defined in Annex A, Article 2.6.1.8.

Excludes hard coal consumed as energy for support operations at blast furnaces, to be reported in 'Deliveries to total industry'.

1.2.1.11. Other deliveries (services, households, etc.).

The amount of hard coal delivered to sectors not specifically mentioned.

1.2.2. The following aggregates must be declared for brown coal, peat and oil shale and oil sands:

1.2.2.1. Production

1.2.2.2. Imports

1.2.2.3. Exports

1.2.2.4. Opening total stocks on national territory

These are the quantities held by mines, importers and consumers who import directly.

1.2.2.5. Closing total stocks on national territory

These are the quantities held by mines, importers and consumers who import directly.

1.2.2.6. For peat, stock changes can be declared instead of opening and closing total stocks.

1.2.2.7. Deliveries to main activity producers

1.2.3. The following aggregates must be declared for coke oven coke:

1.2.3.1. Production

1.2.3.2. Imports

1.2.3.3. Imports from outside the EU

1.2.3.4. Exports

1.2.3.5. Opening total stocks on national territory

These are the quantities held by producers, importers and consumers who import directly.

1.2.3.6. Closing total stocks on national territory

These are the quantities held by producers, importers and consumers who import directly.

1.2.3.7. Deliveries to iron and steel industry

Includes coke oven coke entering blast furnaces as defined in Annex A, Article 2.2.11, and the final energy consumption of coke oven coke in the Iron and steel sector as defined in Annex A, Article 2.6.1.8.

Excludes coke oven coke consumed as energy for support operations at blast furnaces.

1.3. Units of measurement

Reported quantities must be declared in kt (kilo-tonnes).

1.4. Deadline for transmission of data

Within two calendar months following the reported month.

2. ELECTRICITY

2.1. Applicable energy products

This chapter covers the reporting of electricity.

2.2. List of aggregates

The following aggregates must be declared for electricity:

2.2.1. Net electricity production from nuclear plants

2.2.2. Net electricity production from conventional thermal power generation using coal

2.2.3. Net electricity production from conventional thermal power generation using oil

2.2.4. Net electricity production from conventional thermal power generation using gas

2.2.5. Net electricity production from conventional thermal power generation using combustible renewables (such as solid biofuels, biogases, liquid biofuels, renewable municipal waste)

2.2.6. Net electricity production from conventional thermal power generation using other non-renewable combustible fuels (such as non-renewable industrial and non-renewable municipal waste)

2.2.7. Net electricity production from pure hydro plants

2.2.8. Net electricity production from mixed hydro plants

2.2.9. Net electricity production from pure pumped storage hydro plants

2.2.10. Net electricity production from wind installations on shore

2.2.11. Net electricity production from wind installations off shore

2.2.12. Net electricity production from solar PV installations

2.2.13. Net electricity production from solar thermal installations

2.2.14. Net electricity production from geothermal power generation

2.2.15. Net electricity production from other renewable sources (such as tide, wave, ocean and other non-combustible renewable sources)

2.2.16. Net electricity production from non-specified origin

2.2.17. Imports

2.2.17.1. Of which from the EU

2.2.18. Exports

2.2.18.1. Of which to the EU

2.2.19. Electricity used for pumped storage

2.3. Units of measurement

Reported quantities must be declared in GWh (giga-watt hours).

2.4. Deadline for transmission of data

Within two calendar months following the reported month.

3. OIL AND PETROLEUM PRODUCTS

3.1. Applicable energy products

Unless otherwise specified, this data collection applies to all energy products listed in Annex A, Chapter 3.4. OIL (crude oil and petroleum products).

The 'Other products' category includes both the quantities that correspond to the definition in Annex A Chapter 3.4 and the quantities of white spirit and SBP, lubricants, bitumen and paraffin waxes; these products should not be declared separately.

3.2. List of aggregates

The following aggregates must be declared for all energy products listed in the previous paragraph unless otherwise specified.

3.2.1. SUPPLY OF CRUDE OIL, NGL, REFINERY FEEDSTOCKS, ADDITIVES AND OTHER HYDROCARBONS

Note for additives and biofuels: include here not only already blended volumes, but also all quantities destined for blending.

The following aggregates must be declared for crude oil, NGL, refinery feedstocks, additives/oxygenates, biofuels and other hydrocarbons:

3.2.1.1. Indigenous Production (not applicable for refinery feedstocks and biofuels).

3.2.1.2. Receipts from other sources (not applicable for crude oil, NGL, refinery feedstocks)

3.2.1.3. Backflows

Finished or semi-finished products final consumers return to refineries for processing, blending or sale. They are usually by-products of petrochemical manufacturing. Only applicable for refinery feedstocks.

3.2.1.4. Products transferred

Imported petroleum products that are reclassified as feedstocks for further processing in the refinery, without delivery to final consumers. Only applicable for refinery feedstocks.

3.2.1.5. Imports

3.2.1.6. Exports

Note for import and exports: Includes quantities of crude oil and products imported or exported under processing agreements (i.e. refining on account). Crude oil and NGLs should be reported as coming from the country of ultimate origin; refinery feedstocks and finished products should be reported as coming from the country of last consignment. Includes any gas liquids (e.g. LPG) extracted during the regasification of imported liquefied natural gas and petroleum products imported or exported directly by the petrochemical industry.

3.2.1.7. Direct use

3.2.1.8. Stock changes

A stock build is shown as a positive number and a stock draw is shown as a negative number.

3.2.1.9. Observed refinery intake

This is defined as the total amount of oil (including Other hydrocarbons and Additives) observed to have entered the refinery process (input to refineries).

3.2.1.10. Refinery losses

The difference between observed refinery intake and gross refinery output. Losses may occur during distillation processes due to evaporation. Reported losses are positive. There may be volumetric gains but no gains in mass.

3.2.2. SUPPLY OF FINISHED PRODUCTS

The following aggregates must be declared for Crude oil, NGL, Refinery gas, Ethane, LPG, Naphtha, Biogasoline, Non-biogasoline, Aviation gasoline, Gasoline type jet fuel, Bio jet kerosene, Non-bio jet Kerosene, Other kerosene, Biodiesels, Non-bio gas/diesel oil, LSFO, HSFO, Petroleum coke, and Other products:

3.2.2.1. Primary product receipts

3.2.2.2. Gross refinery output (not applicable for crude oil and NGL)

3.2.2.3. Recycled products (not applicable for crude oil and NGL)

3.2.2.4. Refinery Fuel (not applicable for crude oil and NGL)

Annex A Chapter 2.3. Energy sector – Petroleum refineries; Includes fuels used at the refineries for the production of electricity and heat sold.

3.2.2.5. Imports (not applicable for crude oil, NGL and refinery gas)

3.2.2.6. Exports (not applicable for crude oil, NGL and refinery gas)

The note made for imports and exports in Section 3.2.1. also applies here.

3.2.2.7. International marine bunkers (not applicable for crude oil and NGL)

3.2.2.8. Interproduct transfers

3.2.2.9. Products transferred (not applicable for crude oil and NGL)

3.2.2.10. Stock changes (not applicable for crude oil, NGL and refinery gas)

A stock build is shown as a positive number and a stock draw is shown as a negative number.

3.2.2.11. Observed gross inland deliveries

The observed delivery of finished petroleum products from primary sources (e.g. refineries, blending plants, etc.) to the inland market.

3.2.2.11.1. International aviation (applicable only for Aviation gasoline, Gasoline type jet fuel, Bio jet kerosene, Non-bio jet kerosene)

3.2.2.11.2. Main activity producer power plants

3.2.2.11.3. Road (applicable only for LPG)

3.2.2.11.4. Domestic navigation and Rail (applicable only for Biodiesels, Non-bio gas/diesel oil)

3.2.2.12. Petrochemical

3.2.2.13. Backflow to refineries (not applicable for crude oil and NGL)

3.2.3. IMPORTS BY ORIGIN – EXPORTS BY DESTINATION

Imports should be reported by country of origin and exports by country of destination. The note made for imports and exports in Section 3.2.1. also applies here.

3.2.4. STOCK LEVELS

The following opening and closing stocks must be declared for all energy products, including for additives/oxygenates but except for refinery gas:

3.2.4.1. Stocks on national territory

Stocks in the following locations: refinery tanks, bulk terminals, pipeline tankage, barges and coastal tankers (when port of departure and destination are in the same country), tankers in a port of a **Contracting Party** (if their cargo is to be discharged at the port), inland ship bunkers. Excludes stocks of oil held in pipelines, in rail tanks cars, in truck tanks cars, in sea-going ships' bunkers, in service stations, in retail stores and in bunkers at sea.

3.2.4.2. Stocks held for other countries under bilateral government agreements

Stocks on national territory which belong to another country and to which access is guaranteed by an agreement between the respective governments.

3.2.4.3. Stocks with known foreign destination

Stocks not included in point 3.2.4.2 on national territory which belong to and are destined for another country. These stocks may be located inside or outside bonded areas.

3.2.4.4. Other stocks held in bonded areas

Includes stocks not included in point 3.2.4.2 nor 3.2.4.3 irrespective of whether they have received customs clearance or not.

3.2.4.5. Stocks held by major consumers

Include stocks which are subject to government control. This definition does not include other consumer stocks.

3.2.4.6. Stocks held on board incoming ocean vessels in port or at mooring

Stocks irrespective of whether they have been cleared by customs or not. This category excludes stocks on board vessels at high seas.

Includes oil in coastal tankers if both their port of departure and destination are in the same country. In the case of incoming vessels with more than one port of unloading, only report the amount to be unloaded in the reporting country.

3.2.4.7. Stocks held by government on national territory

Includes non-military stocks that are held by the government within the national territory, and are government-owned or controlled and held exclusively for emergency purposes.

Excludes stocks held by state oil companies or electric utilities or stocks held directly by oil companies on behalf of governments.

3.2.4.8. Stocks held by stockholding organisation on national territory

Stocks held by both public and private corporations established to maintain stocks exclusively for emergency purposes.

Excludes mandatory stocks held by private companies.

3.2.4.9. All other stocks held on national territory

All other stocks satisfying the conditions described in point 3.2.4.1 above.

3.2.4.10. Stocks held abroad under bilateral government agreements

Stocks belonging to the reporting country but held in another country, to which access is guaranteed by an agreement between the respective governments.

3.2.4.10.1. Of which: Government stocks

3.2.4.10.2. Of which: Holding organisation's stocks

3.2.4.10.3. Of which: Other stocks

3.2.4.11. Stocks held abroad designated definitely for import stocks

Stocks that are not included in category 10 and that belong to the reporting state but are held in another state and are awaiting import there.

3.2.4.12. Other stocks in bonded areas

Other stocks in the national territory not included in the above categories.

3.2.4.13. Pipeline fill

Oil (crude oil and petroleum products) contained in pipelines, necessary to maintain flow in the pipelines.

In addition, a breakdown of quantities per corresponding country must be declared for:

3.2.4.13.1. closing stocks held for other countries under official agreement, by beneficiary,

3.2.4.13.2. closing stocks held for other countries under official agreement, of which held as stock tickets, by beneficiary,

3.2.4.13.3. closing stocks with known foreign destination, by beneficiary,

3.2.4.13.4. closing stocks held abroad under official agreement, by location,

3.2.4.13.5. closing stocks held abroad under official agreement, of which held as stock tickets, by location,

3.2.4.13.6. closing stocks held abroad designated definitely for import into the declarer's country, by location.

'Opening stocks' means the stocks on the last day of the month preceding the reported one. 'Closing stocks' means the stocks on the last day of the reported month.

3.3. Units of measurement

Reported quantities must be declared in kt (kilo-tonnes).

3.4. Deadline for transmission of data

Within 55 days following the reported month.

3.5. Geographical notes

For statistical reporting purposes only, the clarifications in Annex A Chapter 1 apply with the following specific exception: Switzerland includes Liechtenstein.

4. NATURAL GAS

4.1. Applicable energy products

This chapter covers the reporting of natural gas.

4.2. List of aggregates

The following aggregates must be declared for natural gas.

4.2.1. INDIGENOUS PRODUCTION

All dry marketable production within national boundaries, including offshore production. Production is measured after purification and extraction of NGLs and sulphur. Excludes extraction losses and quantities reinjected, vented or flared. Includes quantities used within the natural gas industry, in gas extraction, pipeline systems and processing plants.

4.2.2. IMPORTS (ENTRIES)

4.2.3. EXPORTS (EXITS)

Note for imports and exports: Report all natural gas volumes which have physically crossed the national boundaries of the country, whether customs clearance has taken place or not. This includes quantities transiting your country; transit volumes should be included as an import and as an export. Imports of liquefied natural gas should cover only the dry marketable equivalent, including amounts used as own consumption in the regasification process. The amounts used as own consumption during regasification should be reported under Own use and losses of the natural gas industry (see 4.2.11). Any gas liquids (e.g. LPG) extracted during the regasification process of imported LNG should be reported under 'Receipts from other sources' of 'Other hydrocarbons' as defined in Chapter 3 of this annex (OIL AND PETROLEUM PRODUCTS).

4.2.4. STOCK CHANGES

A stock build is shown as a positive number and a stock draw is shown as a negative number.

4.2.5. OBSERVED GROSS INLAND DELIVERIES

This category represents deliveries of marketable gas to the inland market, including gas used by the gas industry for heating and operation of their equipment (i.e. consumption in gas extraction, in the pipeline system and in processing plants); losses in transmission and distribution should also be included.

4.2.6. OPENING LEVELS OF STOCKS HELD ON NATIONAL TERRITORY

4.2.8. CLOSING LEVELS OF STOCKS HELD ON NATIONAL TERRITORY

4.2.9. OPENING LEVELS OF STOCKS HELD ABROAD

4.2.10. CLOSING LEVELS OF STOCKS HELD ABROAD

Note for levels of stocks: includes natural gas stored in gaseous form as well as in liquefied form.

4.2.11. OWN USE AND LOSSES OF THE NATURAL GAS INDUSTRY

Quantities used by the gas industry for heating and operation of its equipment (i.e. consumption in gas extraction, in the pipeline system and in processing plants); includes losses in transmission and distribution.

4.2.12. IMPORTS (ENTRIES) BY ORIGIN AND EXPORTS (EXITS) BY DESTINATION

Imports (entries) should be reported by country of origin and exports (exits) by country of destination. The note made for imports and exports in section 4.2.3 also applies here.

Imports and exports are to be declared only for the neighbouring country or country with a direct pipeline connection or, in the case of LNG, for the country where the gas has been loaded onto the transport ship.

4.2.13. DELIVERIES TO POWER GENERATION

4.3. Units of measurement

Quantities must be declared in two units:

4.3.1. in physical quantity, in million m^3 (million cubic metres) assuming reference gas conditions (15 C, 101 325 Pa),

4.3.2. in energy content, in TJ (tera-joules), based on the gross calorific value.

4.4. Deadline for transmission of data

Within 55 days following the reported month.

ANNEX D

SHORT-TERM MONTHLY STATISTICS

This annex describes the scope, units, reported period, frequency, deadline and transmission arrangements for the short-term monthly collection of statistical data.

Annex A provides explanations of terms not explained in this annex.

The following provisions apply to all data collections specified in this annex:

(a) Reported period: The reported period of declared data will be one calendar month.

(b) Frequency: Data should be declared on a monthly basis.

(c) Transmission format: The transmission format should conform to the relevant interchange standard specified by Eurostat.

(d) Transmission method: Data should be submitted or uploaded by electronic means to Eurostat's single entry point for data.

1. CRUDE OIL IMPORTS AND SUPPLY

1.1. Applicable energy products

This chapter covers the reporting of crude oil.

1.2. Definitions

1.2.1. Imports

Imports cover every quantity of crude oil which either enters the customs territory of the **Contracting Party** or comes from another **Contracting Party** for purposes other than transit. Crude oil used for stock building must be included.

Oil extracted from the seabed over which a **Contracting Party** exercises exclusive rights for the purposes of exploitation and entering the customs territory of the **Contracting Party** should be excluded from imports.

1.2.2. Supply:

Supply covers the crude oil imported and the crude oil produced in the **Contracting Party** during the reference period. The provision of crude oil from previously built stocks is excluded.

1.2.3. CIF price:

The CIF (cost, insurance and freight) price includes the FOB (free on board) price, which is the price actually invoiced at the port/place of loading in addition to the cost of transport, insurance and charges linked to crude oil transfer operations.

The CIF price of the crude oil produced in a **Contracting Party** is to be calculated free at port of discharge or free at frontier, i.e. at the moment when the crude oil falls under the customs jurisdiction of the importing country.

1.2.4. API gravity:

The API gravity is a measure of how heavy/light crude oil is compared to water. The API gravity is to be reported according to the following formula, with respect to the specific gravity (SG): $API = (141{,}5 \div SG) - 131{,}5$

1.3. List of aggregates

1.3.1. The following list of aggregates must be declared for crude oil imports split by type and geographical area of production:

1.3.1.1. the designation of the crude oil

1.3.1.2. the average API gravity

1.3.1.3. the average sulphur content

1.3.1.4. the total volume imported

1.3.1.5. the total CIF price

1.3.1.6. the number of reporting entities.

1.3.2. The following list of aggregates must be declared for crude oil supply:

1.3.2.1. the volume supplied

1.3.2.2. the weighted average CIF price

1.4. Units of measurement

bbl (barrel) for 2.3.1.4. and 2.3.2.1.

kt (thousand tonnes) for 2.3.2.1.

% (percentage) for 2.3.1.3.

° (degrees) for 2.3.1.2.

$ (US Dollar) per barrel for 1.3.1.5. and 1.3.2.2.

$ (US Dollar) per tonne for 1.3.2.2.

1.5. Applicable provisions

1. Reported period:

One calendar month.

2. Frequency:

Monthly.

3. Deadline for transmission of data:

Within one calendar month following the reported month.

4. Transmission format:

The transmission format should conform to the relevant interchange standard specified by Eurostat.

5. Transmission method:

Data should be submitted or uploaded by electronic means to Eurostat's single entry point for data.