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►B REGULATION (EC) No 1099/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 22 October 2008

on energy statistics

(Text with EEA relevance)

(OJ L 304, 14.11.2008, p. 1)

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		No	page	date
►M1	Commission Regulation (EU) No 844/2010 of 20 September 2010	L 258	1	30.9.2010
►M2	Commission Regulation (EU) No 147/2013 of 13 February 2013	L 50	1	22.2.2013
►M3	Commission Regulation (EU) No 431/2014 of 24 April 2014	L 131	1	1.5.2014
►M4	Commission Regulation (EU) 2017/2010 of 9 November 2017	L 292	3	10.11.2017

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REGULATION (EC) No 1099/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 22 October 2008

on energy statistics

(Text with EEA relevance)

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 Community.

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

Article 2

Definitions

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

(a) ‘Community statistics’ mean Community statistics as defined in the first indent of Article 2 of Regulation (EC) No 322/97;

(b) ‘production of statistics’ means production of statistics as defined in the second indent of Article 2 of Regulation (EC) No 322/97;

(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, Member States shall compile data concerning energy products and their aggregates in the 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;

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(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. Member States 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).

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).

Article 5

Transmission and dissemination

1. Member States 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 Member State, additional exemptions or derogations may be granted by the Commission in accordance with the regulatory procedure referred to in Article 11(3), for those parts of the national statistics for which the collection would lead to an excessive burden on respondents.

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5. The Commission (Eurostat) shall disseminate yearly energy statistics by 31 January of the second year following the reported period.

Article 6

Quality assessment and reports

1. Member States 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, Member States 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.

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, Member States shall send to the Commission (Eurostat) a report containing any relevant information concerning the implementation of this Regulation.

[1] OJ L 55, 1.3.2005, p. 57.

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Article 7

Time reference and frequency

Member States 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

The Commission (Eurostat) shall, in cooperation with the nuclear energy sector in the EU, define a set of annual nuclear statistics which shall be reported and disseminated from 2009 onwards, that year being the first reported period, without prejudice to confidentiality, where it is necessary, and avoiding any duplication of data collection, while at the same time keeping production costs low and the reporting burden reasonable.

The set of annual nuclear statistics shall be established and may be modified in accordance with the regulatory procedure with scrutiny referred to in Article 11(2).

Article 9

Renewable energy statistics and final energy consumption statistics

1. With a view to improving the quality of renewable energy and final energy consumption statistics, the Commission (Eurostat), in collaboration with the Member States, shall make sure that these statistics are comparable, transparent, detailed and flexible by:

(a) reviewing the methodology used to generate renewable energy statistics in order to make available additional, pertinent, detailed statistics on each renewable energy source, annually and in a cost-effective manner. The Commission (Eurostat) shall present and disseminate the statistics generated from 2010 (reference year) onwards;

(b) reviewing and determining the methodology used at national and Community level to generate final energy consumption statistics (sources, variables, quality, costs) based on the current situation, existing studies and feasibility pilot studies, as well as cost-benefit analyses yet to be conducted, and evaluating the findings of the pilot studies and cost-benefit analyses with a view to establishing breakdown keys for final energies by sector and main energy uses and gradually integrating the resulting elements into the statistics from 2012 (reference year) onwards.

2. The set of renewable energy statistics may be modified in accordance with the regulatory procedure with scrutiny referred to in Article 11(2).

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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).

Article 10

Implementing measures

1. The following measures necessary for implementation of this Regulation, designed to amend non-essential elements of this Regulation, inter alia, by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 11(2):

(a) modifications to the list of data sources (Article 3(3));

(b) modifications to the national statistics and to the applicable clarifications or definitions (Article 4(3));

(c) modifications to the transmission arrangements (Article 5(3));

(d) establishment of and modifications to the annual nuclear statistics (Article 8(2));

(e) modifications to the renewable energy statistics (Article 9(2));

(f) establishment of and modifications to the final energy consumption statistics (Article 9(3)).

2. Additional exemptions or derogations (Article 5(4)) shall be granted in accordance with the regulatory procedure referred to in Article 11(3).

3. Consideration is to be given to the principle that additional costs and the reporting burden remain within reasonable limits.

Article 11

Committee

1. The Commission shall be assisted by the Statistical Programme Committee.

2. Where reference is made to this paragraph, Article 5a(1) to (4) and Article 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

3. Where reference is made to this paragraph Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

The period provided for in Article 5(6) of Decision 1999/468/EC shall be three months.

Article 12

Entry into force

This Regulation shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

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ANNEX A

CLARIFICATIONS OF TERMINOLOGY

This Annex supplies explanations, geographical notes or 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 includes 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,

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

— **Autoproducers** are producers, both privately or publicly owned, 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 terminology by adding relevant NACE 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, calculated after any operation for removal of inert matter. Production includes the quantities consumed by the producer in 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 means: production from resources within the concerned territory.

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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 of which production is covered in other fuel reporting, but which are mixed in other fuel 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

2.1.4. IMPORTS/EXPORTS

Unless specified differently, ‘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.

Where no origin or destination can be reported ‘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. Excluded are:

— consumption by ships engaged in domestic navigation. The domestic/international split should be determined on the basis of 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. STOCK CHANGES

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

2.1.7. 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 to the last day of the reporting period respectively. Stock includes stocks held in all types of special storage facilities, either on surface or underground.

2.1.8. DIRECT USE

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

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2.1.9. PRIMARY PRODUCT RECEIPTS

Includes quantities of indigenous or imported crude oil (including condensate) and indigenous NGL 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.

2.1.10. GROSS REFINERY OUTPUT

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

2.1.11. RECYCLED PRODUCTS

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

2.1.12. 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.

2.1.13. 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.

2.1.14. PRODUCTS TRANSFERRED

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

2.1.15. 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). Reasons for any major statistical differences should be stated.

2.2. **Transformation sector**

Within Transformation sector, only quantities of fuels that were transformed to other fuels shall be reported. Quantities of fuels used for heating, operation of equipment and in general in support of the transformation should not be declared in transformation, but shall be declared in the Energy sector.

2.2.1. MAIN ACTIVITY PRODUCER ELECTRICITY ONLY

Quantities of fuels used to produce electricity in electricity only units/plants by Main Activity Producers.

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

Quantities of fuels used to produce electricity and/or heat in CHP units by Main Activity Producers.

2.2.3. MAIN ACTIVITY PRODUCER HEAT ONLY

Quantities of fuels used to produce heat in heat only units/plants by Main Activity Producers.

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2.2.4. AUTOPRODUCER ELECTRICITY ONLY

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

2.2.5. AUTOPRODUCER COMBINED HEAT AND POWER (CHP) UNITS

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

2.2.6. AUTOPRODUCER HEAT ONLY

The proportional part of fuels that corresponds to the quantity of 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 according to the specific sector of final energy consumption based on NACE classification. Heat not sold but delivered to other entities under non-financial agreements or entities with different ownership shall be reported 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 briquettes 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.

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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.

2.2.18. 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 the extraction (mining, oil and gas production) or plant operations of transformation activities. This corresponds to NACE Rev. 2 Divisions 05, 06, 19 and 35, NACE Rev. 2 Group 09.1 and NACE Rev. 2 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 in support of the operation of oil, gas and coal slurry pipelines (which should be reported in the Transport Sector).

Includes the manufacture of chemical materials for atomic fission and fusion and the products of these processes.

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 plant).

2.3.6. GAS WORKS/GASIFICATION WORKS

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

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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. OIL AND GAS EXTRACTION

Quantities of fuels consumed in the 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).

2.3.15. 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. **Distribution losses**

Quantities of fuel losses which occur due to transport and distribution.

2.5. **Final non-energy consumption**

Quantities of fossil 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 in support of 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.

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2.6.1.1. Iron and Steel: NACE Rev. 2 Groups 24.1, 24.2 and 24.3; and NACE Rev. 2 Classes 24.51 and 24.52.

2.6.1.2. Chemical and Petrochemical: NACE Rev. 2 Divisions 20 and 21.

2.6.1.3. Non-Ferrous Metals: NACE Rev. 2 Group 24.4; and NACE Rev. 2 Classes 24.53 and 24.54.

2.6.1.4. Non-Metallic Minerals: NACE Rev. 2 Division 23.

2.6.1.5. Transport Equipment: NACE Rev. 2 Divisions 29 and 30.

2.1.6.6. Machinery: NACE Rev. 2 Divisions 25, 26, 27 and 28.

2.6.1.7. Mining and Quarrying: NACE Rev. 2 Divisions 07 (excluding 07.21) and 08 (excluding 08.92); NACE Rev. 2 Group 09.9.

2.6.1.8. Food, Beverages and Tobacco: NACE Rev. 2 Divisions 10, 11 and 12.

2.6.1.9. Pulp, Paper and Printing: NACE Rev. 2 Divisions 17 and 18.

2.6.1.10. Wood and Wood Products: NACE Rev. 2 Division 16.

2.6.1.11. Construction: NACE Rev. 2 Division 41, 42 and 43.

2.6.1.12. Textile and Leather: NACE Rev. 2 Divisions 13, 14 and 15.

2.6.1.13. Not Elsewhere Specified — Industry: NACE Divisions 22, 31 and 32

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, bus stations, shipping piers and airports should be reported in the ‘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, metro).

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 on the basis of 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).

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2.6.2.4. Pipeline Transport

Quantities of fuels used as energy in the support and operation of pipelines transporting gases, liquids, slurries and other commodities. Includes energy used for pump stations and maintenance of the pipeline. 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 household, industrial, commercial and other users (to be included in Commercial and Public Services) and losses occurring during this transport between distributor and final users (to be reported as distribution losses).

2.6.2.5. International Aviation

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

2.6.2.6. Domestic Aviation

Quantities of fuels delivered to aircraft for domestic aviation. Includes fuel used for purposes other than flying, e.g. bench testing of engines. The domestic/international split should be determined on the basis of departure and landing locations and not by the nationality of the airline. This includes journeys of considerable length between two airports in a country with overseas territories. Excludes fuels used by airlines for their road vehicles (to be reported in the Not Elsewhere Specified — Transport) and military use of aviation fuels (to be reported in Not Elsewhere Specified — Other).

2.6.2.7. 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 remarks of 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 Rev. 2 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 and also including fuels used for all non-transport activities of NACE Rev. 2 Division 49, 50 and 51.

2.6.3.2. Residential

Quantities of fuels consumed by all households including ‘households with employed persons’. NACE Rev. 2 Divisions 97 and 98.

The following specific definitions apply for this sector:

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Household sector:

Household means a person living alone or a group of people who live together in the same private dwelling and sharing expenditures including the joint provision of the essentials of living. The household sector, also known as the residential (or domestic) sector is therefore, a collective pool of all households in a country.

Collective residences which can be permanent (e.g. prisons) or temporary (e.g. hospitals) should be excluded as these are covered in consumption in the service sector. Energy used in all transport activities should be reported in the transport sector and not in the household sector.

Energy consumption associated with significant economic activities of households should also be excluded from the total household energy consumption. These 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 corresponding sector.

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 is referred 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 is referred 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 is referred to the use of energy to prepare meals.

Appliances for auxiliary cooking (microwave ovens, kettles, coffee makers, etc.) are excluded; they 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 the 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/Forestry

Quantities of fuels consumed by users classified as agriculture, hunting and forestry; NACE Rev. 2 Divisions 01 and 02.

2.6.3.4. 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 (include international fishing) and energy used in the fishing industry. NACE Rev. 2 Division 03.

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2.6.3.5. Not Elsewhere Specified — Other

Quantities of fuels used for activities not included elsewhere (such as NACE Rev. 2 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 remarks of 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 residential applications. It has generally 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 carbonisation of coal, principally coking coal, at high temperature, it is low in moisture and volatile matter. Coke oven coke is used mainly in the iron and steel industry acting as energy source and chemical agent.

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

Semi-coke (a solid product obtained from carbonisation of coal at low temperature) should be included in this category. Semi-coke is used as a 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 it 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 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 elsewhere defined.

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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 which contains organic matter in the form of kerogen. Kerogen is a waxy hydrocarbon-rich material regarded as a precursor of petroleum. Oil shale may be burned directly or processed by heating to extract shale oil. 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 and Manufactured gases. Transfers of such products to 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. **Electricty 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.

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 of 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 phase under normal surface temperature and pressure and its physical characteristics (density, viscosity, etc.) are highly variable. This category includes field or lease condensate recovered from associated and non-associated gas where it is commingled with the commercial crude oil stream. Report quantities independent from the extraction method (conventional and non-conventional). Crude oil excludes NGL.

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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 (such as 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 destined for blending 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 not been blended liquid biofuels.

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, hydrogen and emulsified oils (e.g. orimulsion); excludes oil shale; includes the shale oil (secondary product).

3.4.7. PETROLEUM PRODUCTS

Petroleum products is 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 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.

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3.4.10. LIQUEFIED PETROLEUM GASES (LPG)

LPG are light paraffinic hydrocarbons derived from the 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 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 within the limits of 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 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 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.

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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 between 150 °C and 300 °C.

3.4.17. GAS/DIESEL OIL (DISTILLATE FUEL OIL)

Gas/diesel oil is primarily a medium distillate distilling 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 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 1 %.

3.4.18.2. High sulphur fuel oil (HSFO)

Fuel oil with sulphur content of 1 % 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 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

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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 is 135 °C to 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 construction of roads and for roofing material. Includes fluidised and cut back bitumen.

3.4.22. PARAFFIN WAXES

These are saturated aliphatic hydrocarbons. These waxes are residues extracted when dewaxing lubricant oils. They have a crystalline structure which is more-or-less fine according to 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 to 95 %) and has a low ash content. It is used as a feedstock in coke ovens for the steel industry, for heating purposes, for electrode manufacture and for production of chemicals. The two most important qualities are ‘green coke’ and ‘calcinated coke’. Includes ‘catalyst coke’ deposited on the catalyst during refining processes; this coke is not recoverable and is usually burned as refinery fuel.

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.

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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 the 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 exposed to light will generate electricity. All electricity produced is to be reported (including small-scale production and off-grid installations).

3.5.3.2. Solar thermal

Heat from solar radiation (sunlight) exploited for useful energy purposes. By the way of example, this includes solar thermal-electric plants and active systems for the production of 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 off-shore 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. Off-shore wind

Production of electricity in locations off-shore (e.g. sea, ocean and artificial islands). In relation to off-shore wind production outside of the territorial waters of the concerned territory, all installations located in the exclusive economic zone of a country shall be taken into account.

3.5.6. INDUSTRIAL WASTE (NON-RENEWABLE PORTION)

Report wastes 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 them.

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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.

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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 wastes –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 replace liquid fuels from fossil origin. The quantities of liquid biofuels reported in this category should relate to the quantities of pure biofuel that were not blended with fossil fuels. For the particular case of imports and exports of liquid biofuels, only trade of quantities that have not been blended with transport fuels is concerned (i.e. in their pure form); trade of liquids biofuels blended to 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.

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3.5.8.3.1. Biogasoline

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

3.5.8.3.3. Bio jet kerosene

Liquid biofuels suitable to be blended with or replacing 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. The reported values shall be on the basis of the same methodology as used for reporting heat energy captured by heat pumps pursuant to Directive 2009/28/EC, however all heat pumps should be included regardless their performance level.

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ANNEX B

ANNUAL ENERGY STATISTICS

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

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

a) Reported period: The reported period of declared data shall be a calendar year (1 January to 31 December), starting at reference year 2017.

b) Frequency: Data shall be declared on annual basis.

c) Deadline for transmission of data: Data shall be transmitted by 30 November of the year following the reported year.

d) Transmission format: The transmission format shall conform to an appropriate interchange standard specified by Eurostat.

e) Transmission method: Data shall be transmitted or uploaded by electronic means to the single entry point for data at Eurostat.

Annex A applies for explanations of terms for which a specific explanation is not supplied 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 shall 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, subbituminous coal and lignite.

1.2.1.1.2. Surface production

Applicable only for anthracite, coking coal, other bituminous coal, subbituminous 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. This includes 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, subbituminous coal, lignite, peat, and oil shale and oil sands.

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1.2.1.4. Receipts from other sources: from natural gas

Not applicable for anthracite, coking coal, other bituminous coal, subbituminous 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, subbituminous coal, lignite, peat, and 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. 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. Not Elsewhere Specified — Energy

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1.2.4. DISTRIBUTION LOSSES

Distribution losses include also flaring of manufactured gases.

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, e.g. coal used to make methanol or ammonia.

1.2.5.1.1. Chemical and petrochemical sector

NACE Rev. 2 Divisions 20 and 21; Non-energy use of coal includes uses 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, Residential, 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. Residential

1.2.8.2.1. Residential: Space heating

1.2.8.2.2. Residential: Space cooling

1.2.8.2.3. Residential: Water heating

1.2.8.2.4. Residential: Cooking

1.2.8.2.5. Residential: Other end uses

1.2.8.3. Agriculture/Forestry

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1.2.8.4. Fishing

1.2.8.5. 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 shall 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 shall be declared for natural gas.

2.2.1. SUPPLY SECTOR

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

2.2.1.1. Indigenous Production

Includes off-shore production.

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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

2.2.1.3. Imports

2.2.1.4. Exports

2.2.1.5. International Marine Bunkers

2.2.1.6. Stock changes

2.2.1.7. Gross inland consumption

2.2.1.8. Recoverable gas

Opening and closing stock level shall be declared separately as stocks on national territory and respectively stocks held abroad. Stock level means quantities of gas available for delivery during any input-output cycle. 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 liquefied natural gas storage. Cushion gas shall 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

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2.2.2.8. Coke Ovens

2.2.2.9. Blast Furnaces

2.2.2.10. Gas to liquids

2.2.2.11. 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. Inputs to oil 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

2.2.3.9. Gas to Liquids

2.2.3.10. Not Elsewhere Specified — Energy

2.2.4. DISTRIBUTION LOSSES

2.2.5. TRANSPORT SECTOR

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

2.2.5.1. Road

2.2.5.2. Pipeline transport

2.2.5.3. Not Elsewhere Specified — Transport

2.2.6. INDUSTRY SECTOR

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

2.2.6.1. Iron and Steel

2.2.6.2. Chemical and Petrochemical

2.2.6.3. Non-Ferrous Metals

2.2.6.4. Non-Metallic Minerals

2.2.6.5. Transport Equipment

2.2.6.6. Machinery

2.2.6.7. Mining and Quarrying

2.2.6.8. Food, Beverages and Tobacco

2.2.6.9. Pulp, Paper and printing

2.2.6.10. Wood and Wood Products

2.2.6.11. Construction

2.2.6.12. Textile and Leather

2.2.6.13. Not Elsewhere Specified — Industry

▼**M4**

2.2.7. OTHER SECTORS

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

2.2.7.1. Commercial and Public Services

2.2.7.2. Residential

2.2.7.2.1. Residential: Space heating

2.2.7.2.2. Residential: Space cooling

2.2.7.2.3. Residential: Water heating

2.2.7.2.4. Residential: Cooking

2.2.7.2.5. Residential: Other end uses

2.2.7.3. Agriculture/Forestry

2.2.7.4. Fishing

2.2.7.5. Not Elsewhere Specified — Other

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

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

2.2.9. GAS STORAGE CAPACITIES

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

2.2.9.1. Name

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

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

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

2.2.9.3. Working Capacity

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

2.2.9.4. Peak Output

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

2.2.9.5. Regasifying or Liquefying Capacity (for the LNG terminals only)

To be reported are the Regasifying capacity for the import terminals and the Liquefying capacity for the Export terminals.

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2.3. **Units of measurement**

Quantities of natural gas shall be declared by its 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 shall be declared in kJ/m^3, assuming reference gas conditions (15 °C, 101 325 Pa).

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

Peak output, Regasifying and Liquefying Capacity shall 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 shall be declared for heat and electricity unless otherwise specified.

3.2.1. ELECTRICITY AND HEAT PRODUCTION

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

— Gross Electricity Production: the sum of the electrical energy production 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 and includes the heat used by the installation's auxiliaries which 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 from measurements of the outgoing and return flows.

The 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 plants, both gross and net electricity and heat production must be declared for electricity only, for heat only and for CHP units, separately wherever applicable.

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.

▼M4

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 shall be in coherence with the values declared for the 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 the country, whether customs clearance has taken place or not. If electricity is transited 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. Used for Heat Pumps (applicable only for electricity)

3.2.2.6. Used for Electric Boilers (applicable only for electricity)

3.2.2.7. Used for Pumped Storage — pure pumped storage plants (applicable only for electricity)

3.2.2.8. Used for Pumped Storage — Mixed hydro plants (applicable only for electricity)

3.2.2.9. Used for Electricity Production (applicable only for heat)

3.2.3. DISTRIBUTION LOSSES

For electricity, includes losses in transformers which are not considered as integral parts of the power plants.

3.2.4. FINAL ENERGY CONSUMPTION — TRANSPORT SECTOR

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

3.2.4.1. Rail

3.2.4.2. Pipeline transport

3.2.4.3. Road

3.2.4.4. Not Elsewhere Specified — Transport

3.2.5. FINAL ENERGY CONSUMPTION — OTHER SECTORS

3.2.5.1. Commercial and Public Services

3.2.5.2. Residential

3.2.5.2.1. Residential: Space heating

3.2.5.2.2. Residential: Space cooling

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3.2.5.2.3. Residential: Water heating

3.2.5.2.4. Residential: Cooking

3.2.5.2.5. Lighting and appliances

3.2.5.2.6. Residential: Other end uses

3.2.5.3. Agriculture/Forestry

3.2.5.4. Fishing

3.2.5.5. Not Elsewhere Specified — Other

3.2.6. ENERGY SECTOR

Excludes own use by plant, used for pumped storage, heat pumps and electric boilers.

3.2.6.1. Coal Mines

3.2.6.2. Oil and Gas Extraction

3.2.6.3. Patent Fuel Plants

3.2.6.4. Coke Ovens

3.2.6.5. BKB/PB Plants

3.2.6.6. Gas Works

3.2.6.7. Blast Furnaces

3.2.6.8. Petroleum Refineries

3.2.6.9. Nuclear Industry

3.2.6.10. Coal Liquefaction Plants

3.2.6.11. Liquefaction (LNG)/Regasification Plants

3.2.6.12. Gasification Plants (biogas)

3.2.6.13. Gas-to-Liquids

3.2.6.14. Charcoal Production Plants

3.2.6.15. Not Elsewhere Specified — Energy

3.2.7. INDUSTRY SECTOR

3.2.7.1. Iron and Steel

3.2.7.2. Chemical and Petrochemical

3.2.7.3. Non-Ferrous Metals

3.2.7.4. Non-Metallic Minerals

3.2.7.5. Transport Equipment

3.2.7.6. Machinery

3.2.7.7. Mining and Quarrying

3.2.7.8. Food, Beverages and Tobacco

3.2.7.9. Pulp, Paper and printing

3.2.7.10. Wood and Wood Products

3.2.7.11. Construction

3.2.7.12. Textile and Leather

3.2.7.13. Not Elsewhere Specified — Industry

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3.2.8. NET PRODUCTION FROM AUTOPRODUCERS

Net production of electricity and net generation of heat from autoproducers are to be declared, for electricity only, for heat only and for CHP units separately, in the following plants or activities:

3.2.8.1. Energy Sector: Coal Mines

3.2.8.2. Energy Sector: Oil and Gas Extraction

3.2.8.3. Energy Sector: Patent Fuel Plants

3.2.8.4. Energy Sector: Coke Ovens

3.2.8.5. Energy Sector: BKB/PB Plants

3.2.8.6. Energy Sector: Gas Works

3.2.8.7. Energy Sector: Blast Furnaces

3.2.8.8. Energy Sector: Petroleum Refineries

3.2.8.9. Energy Sector: Coal Liquefaction Plants

3.2.8.10. Energy Sector: Liquefaction (LNG)/Regasification Plants

3.2.8.11. Energy Sector: Gasification Plants (biogas)

3.2.8.12. Energy Sector: Gas-to-Liquids

3.2.8.13. Energy Sector: Charcoal Production Plants

3.2.8.14. Energy Sector: Not Elsewhere Specified — Energy

3.2.8.15. Industry sector: Iron and Steel

3.2.8.16. Industry sector: Chemical and Petrochemical

3.2.8.17. Industry sector: Non-Ferrous Metals

3.2.8.18. Industry sector: Non-Metallic Minerals

3.2.8.19. Industry sector: Transport Equipment

3.2.8.20. Industry sector: Machinery

3.2.8.21. Industry sector: Mining and Quarrying

3.2.8.22. Industry sector: Food, Beverages and Tobacco

3.2.8.23. Industry sector: Pulp, Paper and printing

3.2.8.24. Industry sector: Wood and Wood Products

3.2.8.25. Industry sector: Construction

3.2.8.26. Industry sector: Textile and Leather

3.2.8.27. Industry sector: Not Elsewhere Specified — Industry

3.2.8.28. Transport Sector: Rail

3.2.8.29. Transport Sector: Pipeline transport

3.2.8.30. Transport Sector: Road

3.2.8.31. Transport Sector: Not Elsewhere Specified — Transport

3.2.8.32. Other sectors: Residential

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3.2.8.32. Other sectors: Commercial and Public Services

3.2.8.32. Other sectors: Agriculture/Forestry

3.2.8.32. Other sectors: Fishing

3.2.8.32. Other sectors: Not Elsewhere Specified — Other

3.2.9. 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. Within these two types of producers, this electricity and heat production must be declared for electricity only, for heat only and for CHP units separately wherever applicable.

3.2.9.1. Anthracite

3.2.9.2. Coking Coal

3.2.9.3. Other Bituminous Coal

3.2.9.4. Sub-Bituminous Coal

3.2.9.5. Lignite

3.2.9.6. Peat

3.2.9.7. Patent Fuel

3.2.9.8. Coke Oven Coke

3.2.9.9. Gas Coke

3.2.9.10. Coal Tar

3.2.9.11. BKB (Brown Coal Briquettes)

3.2.9.12. Gas Works Gas

3.2.9.13. Coke Oven Gas

3.2.9.14. Blast Furnace Gas

3.2.9.15. Other recovered Gases

3.2.9.16. Peat products

3.2.9.17. Oil shale and oil sands

3.2.9.18. Crude Oil

3.2.9.19. NGL

3.2.9.20. Refinery Gas

3.2.9.21. LPG

3.2.9.22. Naphtha

3.2.9.23. Kerosene Type Jet Fuel

3.2.9.24. Other Kerosene

3.2.9.25. Gas/Diesel oil

3.2.9.26. Fuel Oil

3.2.9.27. Bitumen

3.2.9.28. Petroleum Coke

3.2.9.29. Other Oil Products

3.2.9.30. Natural Gas

3.2.9.31. Industrial Waste

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3.2.9.32. Renewable Municipal Waste

3.2.9.33. Non-Renewable Municipal Waste

3.2.9.34. Solid biofuels

3.2.9.35. Biogases

3.2.9.36. Biodiesels

3.2.9.37. Biogasolines

3.2.9.38. Other Liquid Biofuels

3.2.10. NET MAXIMUM ELECTRICAL CAPACITY

The capacity shall be declared as of 31 December of the relevant reported year. 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. The Net Maximum Electrical Capacity is the sum of the net maximum capacities of all stations taken individually throughout 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 all plant running, at the point of outlet to the network.

3.2.10.1. Nuclear

3.2.10.2. Pure hydro plants

3.2.10.3. mixed hydro plants

3.2.10.4. pure pumped storage plants

3.2.10.5. Geothermal

3.2.10.6. Solar photovoltaic

3.2.10.7. Solar thermal

3.2.10.8. Tide, wave, ocean

3.2.10.9. Wind

3.2.10.10. Combustible fuels

3.2.10.10.1. Type of generation: Steam

3.2.10.10.2. Type of generation: Internal combustion

3.2.10.10.3. Type of generation: Gas turbine

3.2.10.10.4. Type of generation: Combined cycle

3.2.10.10.5. Type of generation: Other

3.2.10.11. Other sources

3.2.11. 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 fuels must be added for all cases of multi-fired plants.

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3.2.11.1. Single Fuel Fired (for all categories of primary fuels)

3.2.11.2. Multi-Fired solids and liquids

3.2.11.3. Multi-Fired solids and natural gas

3.2.11.4. Multi-Fired liquids and natural gas

3.2.11.5. Multi-Fired solids, liquids and natural gas

3.3. **Units of measurement**

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

If reporting of other fuels is required, units for reporting of these fuels apply as defined in 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 shall 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 shall 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

4.2.1.3. 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)

▼M4

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.) analogically 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 the production at the 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

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4.2.2.5. Imports

The note for imports (4.2.1.5.) applies.

4.2.2.6. Exports

The note for imports (4.2.1.5.) applies.

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 not included in the 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

Both the quantities involved for energy use and non-energy use shall 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

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4.2.4.10. Blast Furnaces

4.2.4.11. Petrochemical Industry

4.2.4.12. Patent Fuel Plants

4.2.4.13. Not Elsewhere Specified — Transformation

4.2.5. ENERGY SECTOR

Both the quantities involved for 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. Not Elsewhere Specified — Energy

4.2.6. DISTRIBUTION LOSSES

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

4.2.7. FINAL ENERGY CONSUMPTION — INDUSTRY SECTOR

Both the quantities involved for energy use and non-energy use shall 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

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

4.2.8.1. International Aviation

4.2.8.2. Domestic Aviation

4.2.8.3. Road

4.2.8.4. Rail

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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

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

4.2.9.1. Commercial and Public Services

4.2.9.2. Residential

4.2.9.2.1. Residential: Space heating

4.2.9.2.2. Residential: Space cooling

4.2.9.2.3. Residential: Water heating

4.2.9.2.4. Residential: Cooking

4.2.9.2.5. Residential: Other end uses

4.2.9.3. Agriculture/Forestry

4.2.9.4. Fishing

4.2.9.5. Not Elsewhere Specified — Other

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

Imports by country of origin, and exports by country of destination shall be declared. The note for imports (4.2.1.5) applies.

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 shall 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 defined in Section 4.2.9 (Final energy consumption — Other Sectors); only the total values shall be applicable. Cyprus is exempted from reporting the non-energy use in 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).

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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: electricity and heat generation, combustion with energy recovery, used in mobile engines in transport and for use in stationary engines) is to be reported. Quantities used for non-energy purposes shall be excluded from reporting (for example: wood in construction and for producing furniture, use of biolubricants for lubrication, use of biobitumen for road surface). Also passive thermal energy shall be excluded from reporting (for example: passive solar thermal heating of buildings).

5.2. List of aggregates

Unless otherwise specified, the following list of aggregates shall be declared for all energy products listed in the previous paragraph. Ambient heat (heat pumps) shall be reported only for the following sectors: Transformation sector (only for aggregates related to heat sold), Energy sector (only total, no subcategories), Industry total (only total, no subcategories), Commercial and Public Services, Residential and Not elsewhere specified — Other.

5.2.1. GROSS ELECTRICITY AND HEAT PRODUCTION

The definitions of 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. Within these two types of plants, gross electricity and gross heat production must be declared for electricity only, for heat only and for 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)

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

5.2.1.4. Geothermal

5.2.1.5. Solar photovoltaic (applicable only for electricity)

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. Off-shore 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

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5.2.2.3. Exports

5.2.2.4. 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. Gas Works

5.2.3.10. Blast Furnaces

5.2.3.11. Natural gas blending plants

5.2.3.12. For Blending with motor gasoline/diesel/kerosene:

5.2.3.13. Charcoal production plants

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. Not Elsewhere Specified — Energy

5.2.5. 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

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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. Not Elsewhere Specified — Transport

5.2.8. FINAL ENERGY CONSUMPTION — OTHER SECTORS

5.2.8.1. Commercial and Public Services

5.2.8.2. Residential

5.2.8.2.1. Residential: Space heating

5.2.8.2.2. Residential: Space cooling

5.2.8.2.3. Residential: Water heating

5.2.8.2.4. Residential: Cooking

5.2.8.2.5. Residential: Other end uses

5.2.8.3. Agriculture/Forestry

5.2.8.4. Fishing

5.2.8.5. Not Elsewhere Specified — Other

5.2.9. NET MAXIMUM ELECTRICAL CAPACITY

The capacity shall be declared as of 31 December of the relevant reported year. Includes 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 throughout 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 all plant running, at the point of outlet to the network.

5.2.9.1. Pure hydro plants

5.2.9.2. Mixed hydro plants

5.2.9.3. Pure pumped storage plants

5.2.9.4. Geothermal

5.2.9.5. Solar photovoltaic

5.2.9.6. Solar thermal

5.2.9.7. Tide, wave, ocean

5.2.9.8. On-shore wind

5.2.9.9. Off-shore wind

5.2.9.10. Industrial waste

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5.2.9.11. Municipal waste

5.2.9.12. Solid biofuels

5.2.9.13. Biogases

5.2.9.14. Biodiesels

5.2.9.15. Biogasolines

5.2.9.16. Other liquid biofuels

5.2.10. TECHNICAL CHARACTERISTICS

5.2.10.1. Solar collectors surface

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

5.2.10.2. Production capacity for Biogasoline

5.2.10.3. Production capacity for Biodiesels

5.2.10.4. Production capacity for Bio jet kerosene

5.2.10.5. Production capacity for Other Liquid Biofuels

5.2.10.6. Average net calorific value for Biogasoline

5.2.10.7. Average net calorific value for Bioethanol

5.2.10.8. Average net calorific value for Biodiesels

5.2.10.9. Average net calorific value for Bio jet kerosene

5.2.10.10. Average net calorific value for Other Liquid Biofuels

5.2.10.11. Average net calorific value for Charcoal

5.2.11. PRODUCTION OF SOLID BIOFUELS AND BIOGASES

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

5.2.11.1. Fuelwood, wood residues and by-products

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

5.2.11.2. Black liquor

5.2.11.3. Bagasse

5.2.11.4. Animal waste

5.2.11.5. Other vegetal materials and residues

5.2.11.6. Renewable fraction of industrial waste

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

5.2.11.7. Biogases from anaerobic fermentation: landfill gas

5.2.11.8. Biogases from anaerobic fermentation: sewage sludge gas

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

5.2.11.10. Biogases from thermal processes

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

Imports by country of origin and exports by country of destination shall be reported. Applicable to Biogasolines, Bioethanol, Bio jet kerosene, Biodiesels, other liquid biofuels, wood pellets.

5.3. **Units of measurement**

Electricity shall 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 on the basis of net calorific value), except for charcoal, biogasoline, bioethanol, bio jet kerosenese, biodiesels, and other liquid biofuels which shall be declared in kt (kilo-tonnes).

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

Solar collectors surface shall be declared in 1 000 m^2.

Production capacity shall 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 fuel 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 the nuclear reactors during the concerned reference year. 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 during the reference year in reprocessing plants.

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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.

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ANNEX C

MONTHLY ENERGY STATISTICS

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

Annex A applies for explanations of terms for which a specific explanation is not supplied in this Annex.

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

a) Reported period: The reported period of declared data shall be a calendar month.

b) Frequency: Data shall be declared on monthly basis.

c) Transmission format: The transmission format shall conform to an appropriate interchange standard specified by Eurostat.

d) Transmission method: Data shall be transmitted or uploaded by electronic means to the single entry point for data at Eurostat.

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 shall 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 coking plants

1.2.1.10. Deliveries to total industry

1.2.1.11. Deliveries to iron and steel industry

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1.2.1.12. Other deliveries (services, households, …). The amount of hard coal delivered to sectors not specifically mentioned or not belonging to transformation, energy, industry or transport.

1.2.2. The following aggregates shall 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, instead of Opening and Closing total stocks, declaration can be made for stock changes.

1.2.2.7. Deliveries to main activity producers

1.2.3. The following aggregates shall be declared for Coke oven coke:

1.2.3.1. Production

1.2.3.3. Imports

1.2.3.4. Imports from outside EU

1.2.3.5. Exports

1.2.3.6. Opening Total Stocks On National Territory

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

1.2.3.7. Closing Total Stocks On National Territory

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

1.2.3.8. Deliveries to iron and steel industry

1.3. **Units of measurement**

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

1.4. **Deadline for transmission of data**

Within 3 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 shall be declared for electricity:

2.2.1. Net electricity production from nuclear plants

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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 3 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).

Category ‘Other Products’ includes both the quantities that correspond to the definition in Annex A Chapter 3.4 and in addition the quantities of white spirit and SBP, lubricants, bitumen and paraffin waxes; these products must not be declared separately.

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3.2. **List of aggregates**

The following aggregates shall 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

The following aggregates shall 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 which are returned from final consumers 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 which 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 the 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 shall 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:

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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)

Note: note for imports and exports in section 3.2.1. shall be applicable.

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 by country of origin and exports by country of destination shall be reported. Note for imports and exports in section 3.2.1. shall be applicable.

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 member country (if their cargo is to be

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discharged at the port), inland ship bunkers. Exclude 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 the 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 held within the national territory by government, which 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 stock holding 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

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3.2.4.10.3. Of which: Other stocks

3.2.4.11. Stocks held abroad designated definitely for import stocks

Stocks not included in category 10 which belonging to the reporting state but which are held in another state and 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 the 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.

By opening stocks are meant the stocks on the last day of the month preceding the reported one. By closing stocks are meant 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 of 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 shall 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.

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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 inputs '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 the liquefied form.

4.2.11. OWN USE AND LOSSES OF THE NATURAL GAS INDUSTRY

Own used quantities 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) by country of origin and exports (exits) by country of destination shall be reported. Note for imports and exports in section 4.2.3 is applicable. Imports and exports are to be declared only for the neighbouring country or country with direct pipeline connection and for the country where the gas has been loaded on the transport ship in the case of LNG.

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.

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ANNEX D

SHORT TERM MONTHLY STATISTICS

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

Annex A applies for explanations of terms for which a specific explanation is not supplied in this Annex.

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

a) Reported period: The reported period of declared data shall be a calendar month.

b) Frequency: Data shall be declared on monthly basis.

c) Transmission format: The transmission format shall conform to an appropriate interchange standard specified by Eurostat.

d) Transmission method: Data shall be transmitted or uploaded by electronic means to the single entry point for data at Eurostat.

1. NATURAL GAS

1.1. Applicable energy products

This chapter covers the reporting of natural gas.

1.2. List of aggregates

The following aggregates shall be declared.

1.2.1. Production

1.2.2. Imports

1.2.3. Exports

1.2.4. Stock change

1.2.5. Total closing stocks on national territory

1.3. Units of measurement

Reported quantities must be declared in TJ (tera-joules), based on the gross calorific value (GCV).

1.4. Deadline for transmission of data

Within one calendar month 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 shall be declared.

2.2.1. TOTAL ELECTRICITY PRODUCTION

Total gross quantity of electricity generated.

Includes own consumption of power plants.

2.2.2. IMPORTS

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

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2.2.3. EXPORTS

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

2.3. **Units of measurement**

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

2.4. **Deadline for transmission of data**

Within one calendar month following the reported month.

2.5. **Derogations and exemptions**

Germany is exempted from this data collection.

3. **OIL AND PETROLEUM PRODUCTS**

3.1. **Applicable energy products**

This chapter covers the reporting of:

3.1.1. Crude oil

3.1.2. LPG

3.1.3. Gasoline (which is the sum of motor gasoline and aviation gasoline)

3.1.4. Kerosene (which is the sum of kerosene type jet fuel and other kerosene)

3.1.5. Gas/diesel oil

3.1.6. Fuel oil.

3.1.7. 'Total oil', by which is meant the sum of all the above listed products except crude oil, and must also include all other petroleum products defined in Annex A (such as refinery gas, ethane, naphtha, petroleum coke, white spirit and SBP, paraffin waxes, bitumen, lubricants and others).

3.2. **List of aggregates**

The following aggregates shall be declared for all energy products listed in the previous paragraph.

3.2.1. Production for crude oil and refinery output (gross output, including refinery fuel) for all other products listed in section 3.1.

3.2.2. Imports

3.2.3. Exports

3.2.4. Closing stocks

3.2.5. Stock change

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

3.2.6. Refinery Intake (Observed refinery throughput) for crude oil and Demand for all other products that are listed in section 3.1.

Demand is defined as deliveries or sales to the inland market (domestic consumption) plus Refinery Fuel plus International Marine and Aviation Bunkers. Demand for Total Oil includes Crude Oil.

3.3. **Units of measurement**

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

3.4. **Deadline for transmission of data**

Within 25 days following the reported month.