COUNTRY PRACTICE IN ENERGY STATISTICS

Topic/Statistics: ENERGY BALANCES

Institution/Organization: Statistics Lithuania

Country: Lithuania

Date: 05/04/2012

CONTENTS

A	Abstract		
1	General information	5	
1.	1.1 Name of the statistics/tonic	5	
	1.2 History and purpose	5	
	1.2. Thistory and purpose	5	
	1.4 Frequency	5	
	1.5. Dissemination	5	
	1.6. Pagional laval	5	
	1.0. Regional level	0	
	1.7. Maili useis	0 6	
	1.0. Legal having and legally himding commitments	0 6	
	1.9. Legal basis and legally binding communicities	0	
	1.10. Resource requirements	0	
	1.11. International reporting	/	
2.	Statistical concepts, methodology, variables and classifications	7	
	2.1. Scope7		
	2.2. Definitions of main concepts and variables	7	
	2.3. Measurement units	7	
	2.4. Classification scheme	8	
	2.5. Data sources	8	
	2.6. Population	8	
	2.7. Sampling frame and sample characteristics	9	
	2.8. Collection method	10	
	2.9. Survey participation/response rate	10	
3.	The statistical production process	10	
	3.1. Data capture and storage	10	
	3.2. Data editing	10	
	3.3. Imputation	11	
	3.4. Grossing up procedures	11	
	3.5. Analytical methods	11	
1	Dissomination	11	
4.	1 Dublications and additional documentation	11	
	4.1. 1 doncations and additional documentation	12	
	4.2. Neurodata	12	
	4.4 Confidentiality	12	
	4.4. Confidentiality	14	
5.	Quality	13	
	5.1. Relevance	13	
	5.2. Accuracy	13	
	5.3. Timeliness and punctuality	14	
	5.4. Accessibility	14	
	5.5. Comparability	14	
	5.6. Coherence and consistency	15	
6.	Future plans	15	
Aı	nnexesError! Bookmark not define	ed.	

Abstract

Write a short abstract of the statistics, and try to limit it to one page. The purpose of the abstract is to give the reader a general overview of the statistics/topic. It should therefore include a brief overview of the background and the purpose of the statistics, the population, the sample (if relevant), the main data sources, and the main users of the statistics. The abstract should also mention what is the most important contribution or issue addressed in the country practice (e.g. the practice deals with challenges of using administrative data, using of estimation, quality control, etc.). If there are other elements that are considered important, please feel free to include them in the abstract.

Keep in mind that all relevant aspects of the statistical production will be covered in more detail under the different chapters in the template. Therefore, the abstract should be short and focused on the key elements. What the most important elements are can vary from statistics to statistics, but as a help to write an abstract you can use the table below. The table can either replace a text or can be filled out in addition to writing a short text.

Key elements			
Name of the statistics	Energy balances.		
Background and purpose of the statistics	The main purpose of producing energy balances is the preparation of reliable and comparable statistical information on energy supply and use in compliance with the requirements of Eurostat and the International Energy Agency (IEA) and submission thereof to national and international users. Annual commodity and energy balances are compiled using the data of annual statistical energy surveys. Data are collected from enterprises according to three annual statistical questionnaires. Energy balances are available starting from 1990. Since 1991, a gradual transition from the USSR methodology to that of Eurostat and the IEA has taken place. The list (number) of reporting organisations was optimised, the number of indicators collected was increased, the definitions of the indicators and the explanations of concepts were revised in order to achieve the conformance of the statistical information collected with international standards. In 2001, the energy balances for 1990–2000 were revised and harmonised as far as possible to ensure international comparability of Lithuanian energy balances. Time series are available (without breaks in series) from 1990.		
Population, sample and data sources	The data source used to define the population frame is the Business Register. The population of the statistical surveys is sampled from the list of active economic entities on the basis of information on the number of employees and economic activity of an enterprise. The statistical survey is conducted applying purposive (entire) and cut-off sampling methods. Data sources are the questionnaires filled out by enterprises.		

Main users	The main users are state institutions and agencies, international organisations, the media, business and research community, students. Statistical data are provided to Eurostat, IEA and UNECE.
Important contribution or issue addressed	

1. General information

1.1. Name of the statistics/topic

The statistics/topic could either be a specific energy statistics (e.g. electricity production) or a topic within energy statistics (e.g. energy balances). For more information, please see Section III of the Instructions.

Energy balances.

1.2. History and purpose

State when the statistics were first published.

Lithuanian energy balances were published for the first time in 1993.

Describe briefly the main purpose of producing the statistics and why it is relevant.

The main purpose of producing energy balances is the preparation of reliable and comparable statistical information on energy supply and use in compliance with the requirements of Eurostat and the International Energy Agency and submission thereof to national and international users. Energy balances illustrate the general situation regarding Lithuanian energy supply and use required for the making of fundamental political decisions and show the role of energy supply in the Lithuanian national economy. They also form a basis for the calculation of energy-related greenhouse emission in Lithuania.

1.3. Reference period

State the time period the data are collected for. Calendar year.

1.4. Frequency

Specify how often the statistics are disseminated (e.g. annually, monthly, quarterly, etc.). If the statistics are not produced at regular intervals, state at what times they have been produced in the past and the main reasons behind the irregularities.

Annually.

1.5. Dissemination

Describe how the statistics are published (e.g. printed publications, online publications, online databases, etc.). If applicable, include the web address to the main website of the statistics.

Energy balances are currently published on the website of Statistics Lithuania: in an annual publication *Energy Balance*, which is free for browsing (<u>http://www.stat.gov.lt/en/catalog/freereleaseslist</u>) and time series in the Database of Indicators (commodity balances and energy balances) <u>http://www.stat.gov.lt/en/pages/view/?id=1350</u>. Printed publications are available until 2011.

1.6. Regional level

State the lowest geographical level (e.g. administrative regions, municipalities, etc.) for which the statistics are made available to the public.

Country.

1.7. Main users

Identify the key users of the data and the main applications. Include both internal and external users, and if possible try to distinguish between end users and others.

External users – Eurostat, International Energy Agency (IEA), United Nations Commission for Europe (UNECE).

Internal users – Ministry of Energy, Ministry of Environment, Ministry of Agriculture, Energy Agency, Lithuanian Energy Institute, universities, media.

1.8. Responsible authority

Write the name of the institution and department/office with the main responsibility for disseminating the statistics (e.g.: Statistics Norway, Department of Economics, Energy and the Environment). Statistic Lithuanian.

1.9. Legal basis and legally binding commitments

State the national legal basis for the data collection. Include a complete reference to the constitutional basis, and web address to an electronic version (e.g.: The Statistics Act of 16 June 1989 No. 54, §§2-2 and 2-3, <u>http://www.ssb.no/english/about_ssb/statlaw/forskrift_en.html</u>).

of The activities Statistics Lithuania are regulated by the Law on **Statistics** http://www3.lrs.lt/pls/inter3/dokpajeska.showdoc 1?p id=411845, which consolidates the concept of official statistics and general principles of its organization, stipulates the rights and duties of respondents, defines the tasks, rights and duties of institutions managing official statistics and their liability for the violation of the law. The new version of the Law on Statistics is currently under adjustment (*.pdf) with the legal provisions of the European Union (Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics).

If applicable, give reference to national and international commitments that are legally binding (e.g. EU statistical legal acts).

Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC

1.10. Resource requirements

Specify how the production of the statistics is financed (e.g. over the ordinary budget, project based support, financial support from other institutions or organization). If applicable, state the contracting entity (e.g.: Ministry, EU Commission, OECD). A contracting entity is any entity which is ordering a survey or the compilation of a statistics, and paying for it

Energy balances are financed over the ordinary budget.

Specify the resource requirements for producing the statistics (e.g. man-labour days, number of workers involved in the statistical production process of the statistics/topic in question).

About 1000 man-days and 4 workers are involved in the statistical production process of the energy balance.

1.11. International reporting

List any international organizations and names of reporting schemes that the statistics are reported to. If available, also include the website where the reported data are published (e.g. International Energy Agency, Monthly Oil Statistics, UNSD, etc.).

Joint annual questionnaires (Coal, Oil, Natural Gas, Renewable, Electricity and Heat) are sent to Eurostat http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/introduction, IEA http://www.iea.org/stats/index.asp, UNECE http://unstats.un.org/unsd/energy/default.htm

2. Statistical concepts, methodology, variables and classifications

2.1. Scope

Describe the scope of the statistics (e.g. the statistics cover supply and use of all energy products in Norway, classified according to International Standard Industrial Classification of All Economic Activities – ISIC).

Energy statistics cover the supply and use of all energy products in Lithuania, classified according to Annex B of Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on Energy statistics.

2.2. Definitions of main concepts and variables

Describe the main concepts (e.g.: territory principle, resident principle, net calorific value, gross calorific value).

Territory principle, net calorific value.

Describe the main variables (e.g. how are the different energy products defined in the statistics? How are production, intermediate consumption, final consumption, transformation, feed stock, the energy sector, etc. defined?).

Energy products definitions correspond to those used in the joint annual Eurostat/IEA/UNECE questionnaires reporting instructions. For the definitions of the main variables (production, final consumption, etc.), see Annex 1.

2.3. Measurement units

Describe in what unit the data is collected (e.g. physical unit (m3, metric tons), monetary unit (basic prices, market prices)). Describe in what unit the data is presented. Describe if the calorific values are collected (e.g. on a net vs. gross basis) and how they are used.

If applicable, describe the density of the energy product(s) and the estimated *thermal efficiency coefficients* of different energy products and consumer groups or by appliance. Thermal efficiency coefficient indicates the share of the energy products which is actually usable for end consumption. Descriptions of density and thermal efficiency coefficient could alternatively be put in an annex.

Statistical data on energy quantities are collected in fuel specific units, e.g. solid fossil fuel (coal, coke, peat, etc.), oil and petroleum products – in tonnes, natural gas and biogas – in thousand cubic meters (thous. m3), biomass – in cubic meters (m3), energy – in megawatt hours (MWh).

In the publication and databases, data are presented in fuel specific units, thousand tonnes of oil equivalent, terajoules.

Calorific values are an obligatory indicator only for refinery. They are collected on a net basis and are used to convert petroleum products in tonnes to energy units (tonnes of oil equivalent and terajoules).

2.4. Classification scheme

Include references to relevant international and national standard classifications. If national, give a brief description of the standards. If available, include web addresses to the electronic version of the standards).

The following classifications are used in the statistical survey:

National version (EVRK Rev. 2) of the Statistical Classification of Economic Activities in the European Community (NACE Rev. 2);

Combined Nomenclature, approved by Council Regulation (EEC) No 2658/87 on the tariff and statistical nomenclature and on the Common Customs Tariff, as last amended by Commission Regulation (EC) No 948/2009 of 30 September 2009.

http://www.stat.gov.lt/uploads/intrastat/CN_2012_EN.pdf

2.5. Data sources

Give an overview of the different data sources used in the collection and compilation of the statistics/topic (e.g. household survey, enterprise/establishment survey, administrative data/registers, foreign trade statistics, production statistics and other primary/secondary data sources).

Examples of administrative sources/registers are: business register for enterprises and establishments, population register, land register, housing and building registers, tax registers, international trade registers, etc.

1. The data required to prepare energy balances come mainly from energy statistics questionnaires received from enterprises (see Annex 2).

2. The household energy survey (not regular) is used to collect additional information for energy consumption in households.

3. Foreign trade statistics data are used as an additional source both to estimate the missing data on imports /exports and to verify (reconcile) the accuracy of data on imports/exports in the energy statistics questionnaires received from enterprises.

4. Industry statistics data are used as additional source both to estimate the missing data on energy production and to verify (reconcile) the accuracy of data on energy production in the energy statistics questionnaires received from enterprises.

2.6. Population

Describe the entire group of units which is the focus of the statistics (the population).

The Business Register is used for the identification of the population. The energy statistical survey population covers all active enterprises irrespective of type and form of ownership.

Specify the following statistical units:

- Reporting unit
- Observational unit

• Analytical unit

Examples of different kind of statistical units include: enterprise, enterprise group, kind-of-activity unit (KAU), local unit, establishment, homogeneous unit of production.

In most cases the reporting unit, observational unit and analytical unit are identical, but there are examples where this is not the case. In electricity statistics, you may find that energy companies (the reporting unit) provide data about different consumers like the individual household or manufacturing company (the observational unit). The analytical unit may be a group of energy consumers, defined by the ISIC.

The reporting and observation unit is an enterprise. The analytical unit is a homogeneous unit of production.

2.7. Sampling frame and sample characteristics

Describe the type of *sampling frame* used in the collection and compilation of the statistics (e.g. list, area or multiple frames). A sampling frame is the source material or device from which a sample is drawn. Note that the sampling frame might differ from the population.

The sampling frame used in the collection and compilation of energy balances is the list of active economic entities on the basis of information on the number of employees and economic activity of an enterprise.

For each survey(s) used for the compilation of the statistics, specify the *sampling design* (e.g. random, stratified, etc.). Describe the routines employed for updating the sample. Include information about the sample size, and discuss to what extent the sample covers the population (e.g. energy consumption in the sample compared to total energy use by the population).

Note that chapter 2.7: Sample frame and sample characteristics may overlap with chapter 3.4: Grossing up procedures.

Three statistical questionnaires are used for the compilation of annual energy statistics from enterprises (for brief information on the statistical questionnaires, see Annex 2).

The main statistical questionnaire "Fuel and energy balance" (EN-01) is compiled applying purposive (entire) and cut-off sampling methods. The purposive (entire) sampling method is applied for primary and secondary energy producers and suppliers (importers/exporters), the cut-off method – for final energy consumers.

Statistical data on energy products are submitted by:

• producers of primary and transformed (secondary) fuel;

• producers of electricity and heat (for sale);

• importers and exporters of fuel and energy;

• enterprises holding a licence for wholesale trade in non-packaged petroleum products;

• enterprises holding a licence for wholesale trade in non-packaged petroleum products which are supplied as fuel resources for vessels and aircraft;

enterprises obliged, under the Law on State Stocks of Petroleum Products and Crude Oil of the Republic of Lithuania, to accumulate and maintain state stocks of petroleum products and crude oil;
electricity distributors;

• enterprises consuming fuel and energy whose economic activity falls within the following: agriculture in case an enterprise has 10 and more employees; forestry and fishing, mining and quarrying, manufacturing, construction, transport and storage (except for road transport) in case an enterprise has 20 and more employees.

The statistical surveys "Electricity distribution" (EN-03) and "Oil and petroleum products balance" (EN-06) are conducted applying an entire sampling method.

The sample is updated yearly in November – after the Business Register is updated.

2.8. Collection method

For each survey used for the compilation of the statistics/topic, describe how the data are collected (e.g. face-to-face, telephone, self-administered, paper and internet-based questionnaires, or administrative data and registers).

Statistical questionnaires are prepared in paper and electronic forms. Since 2007, statistical data may be submitted electronically by using ABBYY eFormFiller program tools.

2.9. Survey participation/response rate

For each survey used for the compilation of the statistics/topic, specify the average response rate, or refer to response rates for specific surveys conducted.

The average response rate – 97–98 per cent.

3. The statistical production process

3.1. Data capture and storage

Describe how the data is captured and stored (e.g. if the respondent replies using Internet-based questionnaire, the received data are electronically transferred to the production database. Paper questionnaire responses are keyed manually to the production database).

Energy statistics questionnaires may be filled out electronically, which enables faster and safer submission of statistical data. If the respondent replies using the Internet-based questionnaire, the data received are electronically transferred to the production database. Paper questionnaire responses are entered manually into the production database.

3.2. Data editing

Describe the regular routines employed for detecting and correcting errors. This may include:

- Manual routines for detecting and correcting errors
- Automatic error-detection (and correction)
- Micro- and macro editing procedures
- Data validation procedures
- Outlier identification
- Processes and sources used for quality controls

The first data control is carried out at the time of statistical data entry if the respondent fills out energy statistics questionnaires using the Internet-based questionnaire.

Further statistical data control is carried out with the ORACLE data entry program capable of error check. Logical relations between values, arithmetic errors as well as missing values are searched for. At the beginning of the year, fuel resources in the reporting year are compared to the previous year's resources at the end of the year (the data should match)

Requirements for statistical data entry are described in the technical programming task prepared, revised and tested by the specialists of the Energy Statistics Division. On the basis of the micro-level errors described, an error classification is compiled including information on the code of errors, text of errors and a note indicating whether the error needs to be corrected or it might be ignored.

In order to ensure the quality of statistical data, the specialists of the Energy Statistics Division carry out an additional check of the primary statistical database. Foreign trade statistics data as well as industry statistics data by each enterprise are used to verify (reconcile) the accuracy of data on imports/exports or production in the energy statistics questionnaires received from enterprises.

The protocol of errors and the exhaustiveness and reliability of the data entered is reviewed, links between indicators are analysed.

Respondents are consulted on errors. For outliers or influential data, we tried to recontact the respondent to confirm the information given.

3.3. Imputation

Describe the principles for imputation and the assumptions that these principles are based on. Note that this chapter may overlap with chapter 3.2: Data editing and chapter 5.2: Accuracy

For the verification and editing of statistical data and search for missing values, statistical data on the imports and exports of fuel prepared by the Foreign Trade Statistics Division and data on the production of fuel prepared by the Industry Statistics Division are used.

3.4. Grossing up procedures

Describe how the population is divided into strata and what statistical models the estimations in the strata are based on. Describe how sub-indices are combined into aggregate indices and how uncertainty is estimated.

Not applicable. The energy statistics survey is conducted applying purposive (entire) and cut-off sampling methods.

3.5. Analytical methods

Give a description of any analytical methods used to adjust the data (e.g.: seasonal adjustment and temperature adjustment). A more detailed description of the analytical method can also be included as an annex.

Not applicable.

4. Dissemination

4.1. Publications and additional documentation

Describe the form of dissemination of the statistics/topics in question (e.g. printed publications, website, etc.). Please provide relevant website link(s) if available.

Energy balances are currently published on the website of Statistics Lithuania: an annual publication *Energy Balance*, which is free for browsing, provides data on the last reference year and revision for the year before (<u>http://www.stat.gov.lt/en/catalog/freereleaseslist</u>). Printed publications are available until 2011.

Give a complete reference to publicly available statistics databases where data from the statistics can be extracted. Include web addresses if available online.

The time series are available in the Database of Indicators (commodity balances and energy balances since 1990), at http://www.stat.gov.lt/en/pages/view/?id=1350.

4.2. Revisions

Describe the current revision policies. E.g.: Is historical data revised when new methodology, new definitions, new classifications etc. are taken into use? Is the data continuously revised, or is the data revised at certain points in times (e.g. every third year, annually, etc.)?

The revisions of statistical data are executed according to the internal document of Statistics Lithuania "The description of the documentation of revisions of statistical data" (available only in Lithuanian). The Lithuanian Energy Balances are adapted continuously to increasing demands, changing data availability and new findings.

If applicable, describe any major conceptual or methodological revisions that have been carried out for this statistic/topic in the past.

In 2001, the energy balances for 1990–2000 were revised and harmonised as far as possible to ensure international comparability of Lithuanian balances.

In 2010, Statistics Lithuania conducted a household energy consumption survey. Based on the survey results, firewood and wood waste data in energy balances for 2000–2009 were revised.

4.3. Microdata

Describe how microdata are stored.

Microdata are stored in Oracle database.

Specify if microdata are available for scientific and/or public use. If so, describe under what conditions these are made available.

The Description of Procedures for the Provision of Confidential Statistical Data for Scientific Purposes, approved on 18 April 2008 by the Order No 106 of the Director General of Statistics Lithuania, regulates the confidentiality of statistical data for scientific purposes. According to the said Description of Procedures, confidential statistical data can be provided for use for scientific purposes only in such a way that the respondents could not be directly identified from the data.

4.4. Confidentiality

Describe the legal authority that regulates confidentiality, and what restrictions are applied to the publication of the statistics.

The requirements for data confidentiality are determined by national legislation, i.e. the Law on Statistics of the Republic of Lithuania. Statistics Lithuania provides data to Eurostat for the production of specific Community statistics and to other European Statistical System (ESS) institutions following the provisions of Article 21 of Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics.

Describe the criteria used to suppress sensitive data in statistical tables (cell suppression).

Information from individual reporting units is treated as strictly confidential and is used solely for the purposes of producing official statistics. Data are confidential if they were reported by less than 3 reporting units.

Describe how confidential data are handled.

The data used for the production of statistics are considered confidential when they allow statistical units to be identified, either directly or indirectly. Rules for the secure management of electronic information in the statistical information system, approved on 12 March 2008 by Order No 76 of the Director General of Statistics Lithuania, regulate the confidentiality of statistical data and statistical information.

Describe any confidentiality standards that go beyond what is legally required. The data that do not meet the requirements listed above can be released or provided when a written permission of a statistical unit (respondent) is available.

5. Quality

5.1. Relevance

State to which degree the statistical information meet the real needs of clients/users. User satisfaction surveys are not available.

5.2. Accuracy

State the closeness of computations or estimates to the exact or true values that the statistics were intended to measure.

Energy balance covers many indicators and types of fuel. The level of accuracy of those indicators is different. The calculated value of the indicators which make up the country's resources (production, imports, exports) is close to the real value because information is collected from all enterprises (entire sampling), and then it is checked against and compared with other data sources. Meanwhile, it is hard to determine the level of accuracy of data on energy consumption in the final energy consumption sector because the survey is conducted applying a so-called cut-off method (see point 2.7). Energy consumption in the service sector usually is estimated as a "difference" from other components of the energy balance; therefore, it is the weakest part of the balance.

Measurement and processing errors

Discuss the measurement and processing errors that are relevant for the statistics. Try as far as possible to give an estimation of the size and scope of the errors.

Measurement and processing errors are not relevant.

Non-response errors

State the size of the unit non-response and the item non-response, distributed by important variables in the population (e.g. region, industry). Consider if the non-response errors are systematic, and if so, describe the methods used to correct it. Indicate whether the effects of correcting non-response errors on the results have been analysed, and, if so, describe them.

Energy surveys are mandatory for enterprises. The number of non-reporting units is insignificant. The non-respondent units are mostly small enterprises and it does not have a great influence on the final results.

The reasons for non-response are: no contacts or refusal, temporarily not active, reorganised and not active.

Sampling errors

Discuss the size of the sampling errors. Compare the population and sample with regards to important properties (e.g. coefficient of variance).

Not available.

Other sources of error

Discuss other sources of errors that might be relevant for the statistics. E.g.: Model assumption errors, coverage errors

Not available.

5.3. Timeliness and punctuality

Specify the time between the end of the reference period and publication.

If the statistics are published both as preliminary and final figures, specify the time between publication of preliminary and final figures. You should also point out whether the publication date is set according to certain rules (e.g. advance release calendar, a specific day or prior to other publications).

The time between the end of the reference period and publication is 6 month. The advance release calendar provides the dates of the publications of indicators. The main indicators are first published in press releases and in the Database of Indicators (in the middle of June), and at the end of July more detailed information by various sections is provided in a publication *Energy Balance* and in the Database of Indicators.

Point out if there have been any major discrepancies between the planned publication date and the actual publication date in recent years. If so, state the length of this discrepancy and its cause.

There have not been any discrepancies between the planned publication date and the actual publication date in recent years.

5.4. Accessibility

Describe how easily accessible the statistics are. In particular, is there an advance release calendar to inform the users about when and where the data will be available and how to access them?

Are metadata and other user support services easily available? Are there particular groups that don't have access to the published statistics (e.g.: visually disadvantaged)?

The **advance release calendar** provides precise dates of the publication of indicators. The main indicators are first published in press releases and in the Database of Indicators, and later more detailed information by various sections is provided in publications and in the Database of Indicators. Metadata and other user support services are easily available at:

- Statistics (pre-defined tables). This website includes press releases (available only in Lithuanian), publication, methodology (short), quality report (a few indicators), at

http://www.stat.gov.lt/en/pages/view/?id=1349;

- Database of Indicators. The system contains various information on energy statistics;

- Annual publication *Energy Balance* (free for browsing), at

http://www.stat.gov.lt/en/catalog/freereleaseslist.

5.5. Comparability

Discuss the comparability of the statistics over time, geographical areas and other domains.

Comparability over time

Discuss comparability over time and include information about whether there have been any breaks in the time series of the statistics and why. Also describe any major changes in the statistical methodology that may have had an impact on comparability over time.

Comparable time series are available from the period when the statistics were compiled for the first time to the latest reference year, i.e. from 1990 to 2011. There are no breaks in time series.

Comparability over region

Discuss comparability over geographical areas, and include information about whether the statistics are comparable to relevant statistics published by other countries and/or international organisations.

Energy statistics data are collected and annual energy balance is compiled in compliance with Regulation (EC) No 1099/2008 of 22 October 2008 on energy statistics; therefore, the data are comparable with the respective statistics published by other countries and/or international organisations.

5.6. Coherence and consistency

Discuss the coherence/consistency between preliminary and final figures.

Preliminary figures are published in the middle of June in the Database of Indicators, and final data are published in the middle of July in the Database of Indicators and annual publication *Energy Balance*. Discrepancies between preliminary and final figures are insignificant.

Discuss the coherence/consistency between monthly, quarterly or yearly statistics within the same subject area. Can the results of different frequencies for the same reference period be combined in a reliable manner?

Monthly energy statistics are available only on the supply part of the main energy commodities. Discrepancies between monthly and yearly data are insignificant.

Discuss the coherence/consistency with other related statistics (also those produced by other institutions/organisations on the same subject).

There is no other institution producing energy balances.

6. Future plans

Are there any current or emerging issues that will need to be addressed in the future? These could include gaps in collection, timeliness issues, data quality concerns, funding risks, confidentiality concerns, simplifications to reduce respondents' burden etc.?

Energy consumption in the service sector usually is estimated; therefore, it is the weakest part of the balance. Our future plans are to include (or organize) a new data collection in the service sector. It would be a sample survey.

Annex1

DEFINITIONS

Gross inland consumption is defined as the production of primary energy plus recovered products, plus imports, minus exports, minus international marine bunkers, plus/minus changes in stocks.

Primary energy means the energy contained in natural resources such as fossil fuel (oil, peat, biomass, etc.), potential water energy, wind energy, geothermal energy, energy from chemical processes, energy released in nuclear reactions. Nuclear power is treated as indigenous energy irrespective of whether nuclear fuel is imported.

Gross consumption is defined as production of primary and/or secondary energy plus recovered products, plus/minus interproduct transfers, plus imports, minus exports, minus international marine bunkers, plus/minus changes in stocks.

Production (extraction) refers to the quantities of fuels extracted or produced.

Recovered products are finished products which pass for the second time through the marketing network, after having been once delivered to final consumers (e.g. reprocessed used lubricants, heavy fuel oil spilled over the time of reloading and collected, treated and resold thereafter).

Imports and exports comprise the amounts which have crossed the state border, irrespective of whether or not customs clearance has taken place. Fuel transit and fuel with which vehicles (cars, aircraft, ships, etc.) were fuelled abroad is not recorded.

International marine bunkers is defined as fuel delivered to ships of all flags that are engaged in international navigation. Fuel consumption by ships engaged in fishing and domestic navigation vessels is excluded.

Change in stocks reflects the difference between the opening stock level and closing stock level for stocks within the national territory. It is negative if over the year stocks have increased and positive if they have decreased.

Transformation means the conversion of fuel and energy into another kind of energy (e.g. crude oil to petroleum products, fuel to electricity or heat, etc.).

Transformation input is the energy transformed into other forms of energy (including transformation losses).

Transformation output is the fuel and energy produced as a result of the transformation process.

Interproduct transfers (reclassification) refers to fuel reclassified due to changes in the specification or because it has been blended with another product.

Consumption in the energy sector refers to the quantities of the fuel or energy consumed by the energy industry to support extraction (mining, oil and gas production) or plant operations of transformation activities, as well as for pumped water storage in hydropower stations. The quantities of fuels transformed into another form of energy are excluded. Energy enterprises are those which, under the

international energy methodology, are subsumed under the following activities according to the national version (EVRK Rev. 2) of the Statistical Classification of Economic Activities in the European Community (NACE Rev. 2):

- 1. Extraction of crude petroleum;
- 2. Extraction of peat;
- 3. Support activities for petroleum and natural gas extraction;
- 4. Manufacture of refined petroleum products;
- 5. Electricity, gas, steam and air conditioning supply.

Non-energy use covers energy resources used in various activities as raw materials or materials, i.e. products which are neither used as fuel nor converted into another kind of fuel.

Final consumption is defined as fuel and energy supplied to final consumers: industrial, construction, agricultural and other enterprises and households.

Consumption in industry refers to fuel and energy consumed by industrial enterprises in support of their primary activities. Industrial enterprises are those which, under the international energy methodology, are subsumed under the following activities according to EVRK Rev. 2 (excluding activities subsumed under the energy sector):

- 1. Mining and quarrying;
- 2. Manufacturing.

Consumption in the transport sector includes fuel and energy consumed by all means of transport: railways, inland waterways (excluding fishing), air (international, domestic and military aviation), road (fuel used in road vehicles including fuel used by agricultural vehicles on highways), pipeline system and other transport, irrespective of the kind of enterprise (industrial, construction, transport, agricultural, commercial or public) the transport facility belongs to. Moreover, fuel consumed by personal transport facilities is included. Fuel with which vehicles (cars, aircraft, ships, etc.) were fuelled abroad is not recorded.

Consumption in agriculture encompasses fuel and energy consumed by enterprises whose economic activity is related to agriculture, hunting and forestry.

Consumption in fishing encompasses fuels delivered for inland, coastal and deep-sea fishing vessels of all flags that are refuelled in the country (including international fishing) and fuel and energy used in the fishing industry.

Consumption in the service sector encompasses fuel and energy consumed in other economic activities not mentioned above, i.e. for heating and lighting premises meant for trade, education, health, commercial services, administration, etc.

Consumption in households encompasses fuel and energy supplied to the population for heating, lighting, cooking. Fuel consumed for individual transport is subsumed under the item "Consumption in transport".

Annex 2

Statistical questionnaires on annual energy statistics

Annual energy data are collected through three annual statistical questionnaires:

- Fuel and energy balance annual statistical questionnaire EN-01 is submitted by all fuel and energy producers and suppliers regardless of the number of employees and enterprises consuming fuel or energy depending on the number of employees. The questionnaire has the format of a balance sheet. In the questionnaire, statistical data are presented in original units: solid fossil fuel, oil and petroleum products in tonnes, natural gas and biogas in thousand cubic metres, biomass in cubic metres, energy in megawatt hours. In the statistical questionnaires, the respondents submit statistical data on the stocks of fuel at the beginning and end of the year, production, inter-product transfers, imports and exports, purchase and sale on the domestic market, consumption broken down by trend.
- In addition, data on electricity generation and heat production by various technologies and type of operator (as the main activity or by autoproducers) are collected for a power plant:
- enterprises producing heat in heat plants submit an additional questionnaire "Structure of heat production in heat-only plants EN-001";
- enterprises producing electricity and/or heat for sale in power plants and other facilities using energy from chemical processes submit an additional questionnaire "Structure of electricity and heat production in cogeneration plants EN-002";
- Electricity distribution annual statistical questionnaire EN-03, submitted by the Lithuanian distribution network operators.
- Oil and petroleum products balance annual statistical questionnaire EN-06, submitted by the refinery.