

# ANNUAL ENERGY BALANCE OF OIL, OIL DERIVATES AND NATURAL GAS

## LEGAL BASIS

The survey is regulated by the Law on Official Statistics („Official Gazette of RS”, No 104/2009) and Programme of Official Statistics over the period 2016 – 2020 („Official Gazette of RS”, No 55/15).

## METHODOLOGICAL BASIS

### Objective and scope of the survey

The production of annual energy balance of oil, oil products and natural gas.

### Survey coverage

**Questionnaire EN-4.10.1** collects data on: production, calorific value, stocks, purchase from the other in the country, import, export, returns from petrochemical industry, products transferred, interproduct transferred, input for processing, quantities to support the extraction and plant operations, quantities consumed for electricity/heat production in the refinery, losses and oil derivatives delivered to trade companies and final consumers by consumer groups.

**Questionnaire EN-4.10.a** (for petrochemical industry) collects data on: manufactured oil derivatives, stocks, purchasing from the other in the country, import, export, consumption for processing, quantities to support plant operations, quantities consumed for electricity/heat production in the petrochemical plant, losses, returns to refinery, delivered to trade companies and final consumers by consumer groups.

**Questionnaire EN-4.10.4a and EN-4.10.4b** collects data on: production of lubricants and other petroleum products, import, export, stocks, purchase from the other in the country, used for processing, losses, sale.

**Questionnaire EN-4.11** collects data on: stocks, purchasing from other in the country, import, export, domestic sale, own consumption, losses, delivered to trade companies and final consumers by consumer groups.

**Questionnaire EN-4.15** collects data on stocks and consumption of energy and fuel in industry , for energy and non-energy purpose.

### Reporting units and statistical units (*coverage*)

The reporting units for the balance of oil, oil products and natural gas are enterprises (including Public enterprises). Observational units are enterprises dealing with extraction, production, transport, distribution and turnover of oil, oil products and natural gas.

### Method, period and sources for data collection

Data are collected annual by means of reporting method.

The sources for data collection are:

1. Annual questionnaires

- Annual energy balance of production and consumption of natural gas, oil and oil derivatives – questionnaire for reporting units dealing with extraction of natural gas, crude oil and production of oil derivatives (EN-4.10.1a),
- Annual energy balance of production and consumption of natural gas, oil and oil derivatives – questionnaire for reporting units dealing with extraction of natural gas, crude oil and production of oil derivatives for service activities (EN-4.10.1b),
- Annual energy balance of production and consumption oil derivatives – questionnaire for reporting units dealing with the production of oil derivatives (EN-4.10.a),
- Annual energy balance of production and consumption of oil derivatives for reporting units dealing with the production of oil derivatives (EN-4.10.4a, EN-4.10.4b),
- Annual energy balance of production and consumption of natural gas, oil and oil derivatives – questionnaire for reporting units dealing with trade of natural gas, oil and oil derivatives (EN-4.11),
- Annual energy balance for reporting units in industry – stocks and consumption of fuels in energy and non-energy purpose (EN-4.15E).

2. Regular statistical surveys of the Unit of Construction Statistics, Division of External Trade Statistics (data of the Customs Administration of the Republic of Serbia) and Transport Statistics.

(The questionnaires are available on the website of the Statistical Office of the Republic of Serbia [www.stat.gov.rs](http://www.stat.gov.rs) )

## Obligation to protect personal data

The obligation to protect personal data is laid down in Article 3 of the provision on the protection of data providers, articles 44, 45, 46, 47, 48 and 49 of the provision of the Law on Official Statistics ("Official Gazette of RS", No 104/2009).

## List and definitions of main concepts – indicators

**Primary production** is a form of energy that has not been converted or transformed (coal, oil, natural gas, biomass, hydro power energy, geothermal energy, wind energy and solar energy).

**Imports and exports** cover quantities that crossed the national border.

**Stock changes** is difference between stocks at the beginning of the year (initial stocks) and those at the end of the year (final stocks).

**Marine bunkers** cover the quantities delivered for international navigation purposes.

**Statistical difference** is a category that includes the sum of unknown statistical differences between the production and consumption of selected fuels.

**Gross inland energy consumption** is calculated as follows:

Primary production

+ Imports

– Exports

+ Stocks changes

– Marine bunkers

– Statistical difference.

**Transformation input** is the consumption of fuels as raw materials for energy production in thermal power plants, CHP, autoproducers, district heating plants, refineries, blast furnace plants, coal transformation, wood briquettes, wood pellets and charcoals.

**Transformation output** covers the production of transformed energy forms (thermoelectricity, heat, petroleum products, blast furnace gas and oxygen steel furnace gas).

**Exchange and transfers, returns** include interproduct transfers (destillates), products transferred (hydroenergy) and recycled products (naphta, fuel oil and lubricants).

**Product Transferred** – refinery products reclassified as feedstock for further processing in the refinery, without delivery to final consumers.

**Interproduct Transfers** – quantities reclassified because their specification has changed or because they are blended into another product.

**Backflow from petrochemical industry** – products or semi-finished products returned to the refinery from the process of petrochemical industry.

**Own consumption in energy sector** covers the energy used for energy sector running.

**Losses** cover losses occurred:

- for electricity: during transmission and distribution;
- for heat: during transmission and distribution;
- for solid fuels: during transport;
- for liquid fuels: during transport and distribution;
- for natural gas: during transport and distribution;
- for geothermal energy: within the distributive system, and for
- for wood fuel: during transport.

**Energy available for final consumption** is the energy intended for final consumers.

**Final consumption** covers the consumption of energy available for final consumption for energy and non-energy purposes.

**Final consumption for non-energy purposes** covers final energy consumption as raw material for production of non-energy products in technological process, while consumption in chemical industry is separated from total consumption.

**Final consumption for energy purposes** covers final consumption of available energy for energy purposes in:

**industry,**  
**construction,**  
**transport,**

**households** (all households, including “households with employed persons“),  
**agriculture,** and

**other consumers** (all other consumers, e.g. education, health, public administration, etc.).

Particularities of the energy balance of oil and oil derivatives:

It is the sum of energy balances of all primary and secondary oil products.

The whole production of crude oil includes the production within national territory and off-shore companies.

The stocks changes exclude stocks held in retail trade enterprises, households, educational facilities, health and administration institutions.

In the part of the Energy Balance *Transformation output* position “Other”, covers the manufacture of lubricants outside refineries.

*Final consumption* includes estimates of producers and wholesalers of oil derivatives and natural gas.

*Final consumption* in Transport doesn't include fuel consumption for vehicle out of (except) public road. This consumption is presented within activity where this fuel is used.

The consumption of fuel in air transport excludes fuel poured outside national territory.

The consumption of fuel for fishing boats is shown within Agriculture.

## **Level of data representativeness**

### **(territorial level and level of the Classification of Activities, 2010 (CA))**

Data are representative for the territory of the Republic of Serbia. Since 1999 the Statistical Office of the Republic of Serbia has no available data for AP Kosovo and Metohia, therefore they are not included in the data for the Republic of Serbia (total).

## **Harmonization with international recommendations, standards and practice**

The annual energy balance of petroleum, petroleum derivatives and natural gas fully complies with the recommendations of EUROSTAT and International Energy Agency.

## **DESCRIPTION OF THE SURVEY MANAGEMENT**

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### **Bodies in charge of the survey management (responsible official statistics producer)**

- Statistical Office of the Republic of Serbia: Unit of Energy Statistics in Belgrade, Division of Statistics in the Sector of Statistics in AP Vojvodina and regional divisions in Subotica, Zrenjanin, Novi Sad, Sremska Mitrovica, Pancevo, Smederevo, Sabac, Valjevo, Kraljevo, Kragujevac, Zajecar, Nis, Leskovac and Uzice.

### **Belgrade City administration, Secretariat for administration, Statistics sector Obligation to provide data**

The obligation to provide data is laid down in Article 26, and penalty provisions in case of refusal or incorrect or incomplete data provided in Article 52 of the Law on Official Statistics („Official Gazette of RS, No 104/2009).

### **Timetable of the main phases of the survey (including data publication)**

- The deadline within which the reporting unit is requested to send the filled out questionnaire to the relevant statistical body is 15 March.
- The deadline within which the Statistical Office of the Republic of Serbia shall publish the data for the previous year is defined in Regulation on defining the Plan of official statistics.

## **SURVEY INSTRUMENT (refer to data collection sources)**

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### **List of nomenclatures and classifications used for the survey**

*(along with the information where they can be found)*

- Classification of Activities CA (2010) regulated by the Regulation of the Government of the Republic of Serbia of 29 July 2010 ("Official Gazette of RS", No 54/10) according to the Law on the Classification of Activities ("Official Gazette of RS", No 104/09). Available also on the web site of the Statistical Office of the Republic of Serbia [www.stat.gov.rs](http://www.stat.gov.rs);
- Commission Regulation (EU) No 431/2014 Regulation (EC) 1099/2008 (available in the Unit of Energy Statistics of the Statistical Office of the Republic of Serbia);
- Energy Statistics Manual, publication of the International Energy Agency (available in the Unit of Energy Statistics of the Statistical Office of the Republic of Serbia).

### **List of publications in which survey methodology and results are published**

*(hard copies and/or within Internet presentations)*

Bulletin "Energy Balances".

(The publication is available on the web site of the Statistical Office of the Republic of Serbia [www.stat.gov.rs](http://www.stat.gov.rs)).

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