MONTENEGRO
STATISTICAL OFFICE
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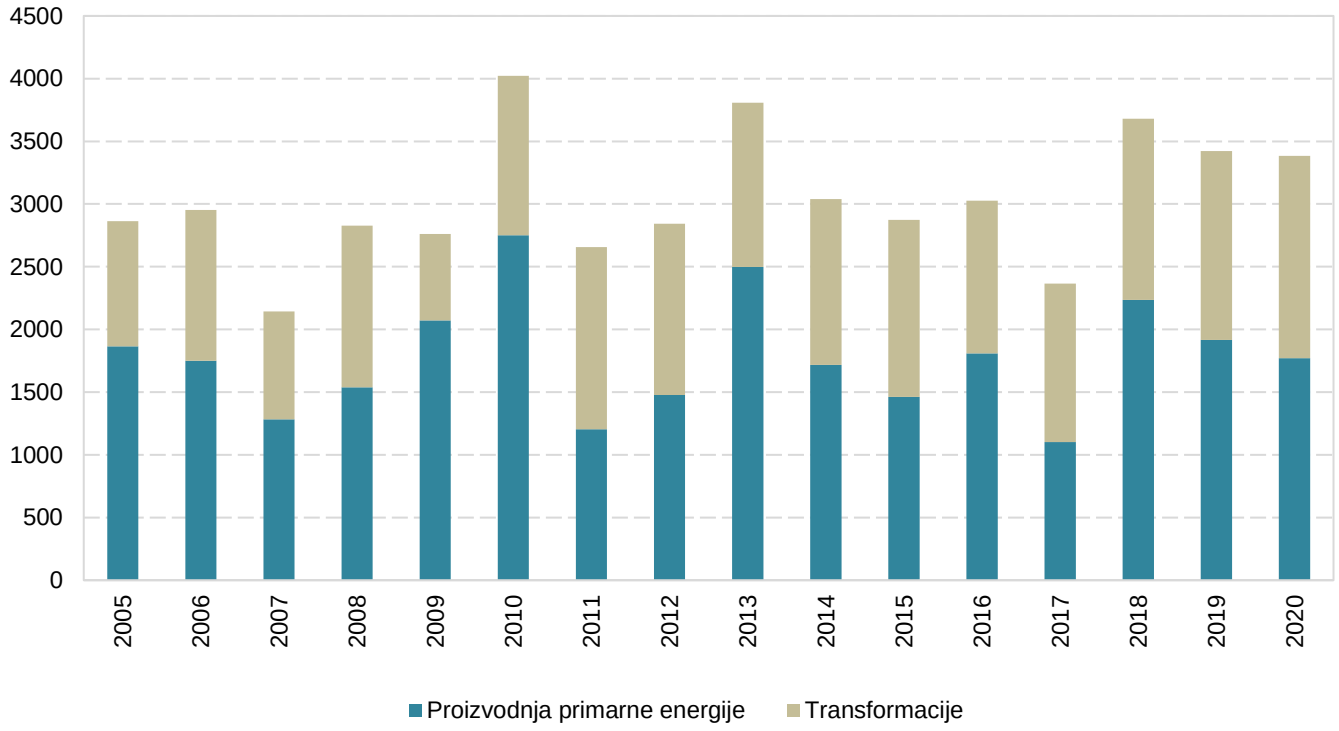
# Balance of electricity
*2020*

Primary production of electricity in Montenegro in 2020 was 1 770.2 GWh, transformation output was 1 615.4 GWh. Total import of electricity was 5 943.0GWh and total export was 5 864,0 GWh. Consumption of the energy branch was 141.0 GWh and distribution losses 486.9 GWh.

Total final consumption of electricity in 2020 was 2 836.7 GWh. The highest ratio in total consumption of electricity was in households 43.8%, in other sectors 31.5% and industrial activities 24.7%.

**Graph 1. Production of Electricity - Montenegro, GWh**



## Table 1. Balance of electricity in Montenegro, 2020

| | Electricity | Hydro energy | Solar energy | Wnd energy | Electricity | Hydro energy | Solar energy | Wnd energy |
|---|---|---|---|---|---|---|---|---|
| | GWh | | | | TJ | | | |
| Production | - | 1 447.8 | 2.3 | 320.1 | - | 5 212 | 8 | 1 152 |
| Imports | 5 943.0 | - | - | - | 21 395 | - | - | - |
| Exports | -5 864.0 | - | - | - | -21 110 | - | - | - |
| Intl. marine bunkers | - | - | - | - | - | - | - | - |
| Stock change | - | - | - | - | - | - | - | - |
| **Domestic supply** | **79.0** | **1 447.8** | **2.3** | **320.1** | **284** | **5 212** | **8** | **1 152** |
| Transfers | 1770.2 | 1 447.8 | 2.3 | 320.1 | 6 373 | 5 212 | 8 | 1 152 |
| Statistical difference | - | - | - | - | - | - | - | - |
| **Transformations** | **1 615.4** | **-** | **-** | **-** | **5 815** | **-** | **-** | **-** |
| Thermal power plants (Main producers) | 1 615.4 | - | - | - | 5 815 | - | - | - |
| Thermal power plants (Autoproducers) | - | - | - | - | - | - | - | - |
| Cogeneration CHP (Main producers) | - | - | - | - | - | - | - | - |
| Cogeneration CHP (Autoproducers) | - | - | - | - | - | - | - | - |
| Heat-only plants (Main producers) | - | - | - | - | - | - | - | - |
| Heat-only plants (Autoproducers) | - | - | - | - | - | - | - | - |
| Patent fuel, briquetting and coke plants | - | - | - | - | - | - | - | - |
| Oil refineries | - | - | - | - | - | - | - | - |
| Other transformation sector | - | - | - | - | - | - | - | - |
| **Energy sector** | **141.0** | **-** | **-** | **-** | **508** | **-** | **-** | **-** |
| Coal mines | - | - | - | - | - | - | - | - |
| Thermal power plants and CHPs | 127.9 | - | - | - | 460 | - | - | - |
| Patent fuel, briquetting and coke plants | - | - | - | - | - | - | - | - |
| Hydro power plants | 8.3 | - | - | - | 30 | - | - | - |
| Wind power plants | 4.7 | - | - | - | 17 | - | - | - |
| Solar power plants | 0.1 | - | - | - | 0 | - | - | - |
| **Distribution losses** | **486.9** | **-** | **-** | **-** | **1 753** | **-** | **-** | **-** |
| **Final consumption** | **2 836.7** | **-** | **-** | **-** | **10 212** | **-** | **-** | **-** |
| **Industry sector** | 700.2 | - | - | - | **2 521** | **-** | **-** | **-** |
| Iron and steel | 27.4 | - | - | - | 99 | - | - | - |
| Chemical and petrochemical | 4.4 | - | - | - | 16 | - | - | - |
| Non-ferrous metals | 577.7 | - | - | - | 2 080 | - | - | - |
| Non-metallic minerals | 7.7 | - | - | - | 28 | - | - | - |
| Transport equipment | - | - | - | - | - | - | - | - |
| Machinery | 4.8 | - | - | - | 17 | - | - | - |
| Mining and Quarrying | 9.5 | - | - | - | 34 | - | - | - |
| Food and tobacco | 36.2 | - | - | - | 130 | - | - | - |
| Paper, pulp and print | 3.3 | - | - | - | 12 | - | - | - |
| Wood and wood products | 14.3 | - | - | - | 51 | - | - | - |
| Construction materials | - | - | - | - | - | - | - | - |
| Textile and Leather | 0.4 | - | - | - | 1 | - | - | - |
| Non-specified | 14.5 | - | - | - | 52 | - | - | - |
| **Transport** | **12.3** | **-** | **-** | **-** | **44** | **-** | **-** | **-** |
| International civil aviation | - | - | - | - | - | - | - | - |
| Domestic air | - | - | - | - | - | - | - | - |
| Road | (0) | - | - | - | - | - | - | - |
| Rail | 12.3 | - | - | - | 44 | - | - | - |
| Pipeline transport | - | - | - | - | - | - | - | - |
| Internal navigation | - | - | - | - | - | - | - | - |
| Non-specified | - | - | - | - | - | - | - | - |
| **Agriculture, residental and other** | **2 124.2** | **-** | **-** | **-** | **7 647** | **-** | **-** | **-** |
| Agriculture | 15.0 | - | - | - | 54 | - | - | - |
| Residential | 1241.1 | - | - | - | 4 468 | - | - | - |
| Other | 868.1 | - | - | - | 3 125 | - | - | - |

## METHODOLOGICAL EXPLANATIONS

Bilance of electricity contains annual data on production, import, export, transformation, consumption and distribution of electricity in Montenegro in 2019. Data are presented in the natural units of measure and in TJ (terajoule).

The methodology for calculation of balance of electricity, definitions and statistical terminology are harmonized with the international IEA/OECD/EUROSTAT standards.

### Data sources (coverage)

The reporting units for balance of electricity are companies engaging in the production and distribution of electricity. Balance of electricity also covers the data from statistical surveys in the area of energy, foreign trade, industry, transport and agriculture.

### Method of data collection

The data are processed using the compilation method.

### Definition

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

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

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

*Statistical differences* are 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
+ Stock changes
– Marine bunkers

*Transformation - input* is the consumption of fuels as raw materials for energy production in thermal power plants, CHP, auto producers, district heating plants, refineries, blast furnace plants and coal transformation.

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

*Exchange and transfers* include inter product transferred (distillates), products transferred (hydro energy) and recycled products (naphtha, fuel oil and lubricants).

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

*Distribution losses* include losses incurred in transmission and distribution of energy.

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

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

- industry (iron and steel, non-ferrous metal, chemical industry, non-metal minerals, mining and quarrying, food, drink and tobacco industry, textile, leather and clothing, paper and printing, engineering and other metal industry, other industries);
- transport (rail, road, air, inland, other);
- households, agriculture and other sectors (e.g. education, health, administration, etc.).

**Conversion Equivalents between Units of Energy**

Conversion factors for converting energy into various energy units are published in the Manual of Energy Statistics IEA / OECD / Eurostat.

Conversion refers to particular energy unit are shown in Table:

| | TJ | Gcal | Mtoe | GWh |
|---|---|---|---|---|
| **TJ** | 1 | 238,8 | $2{,}388 \times 10^{-5}$ | 0.2778 |
| **Gcal** | $4{,}1868 \times 10^{-3}$ | 1 | $10^{-7}$ | $1{,}163 \times 10^{-3}$ |
| **Mtoe** | $4{,}1868 \times 10^{-4}$ | $10^{7}$ | 1 | 11630 |
| **GWh** | 3,6 | 860 | $8{,}6 \times 10^{-5}$ | 1 |

**Unit of measure:**

TJ = terajoule
Gcal = gigacalorie
Mtoe = milion tones of oil equivalent
GWh = gigawatt hour
t = tonne

**Znaci:**

- = no occurence of event
... = data not available

(0) = statistics irelevant data (small data value)

1) = footnote

It may happen that the total sum does not match the number of individual data, and that the cumulative data is not always equal to the sum of individual quarterly results due to rounding of numbers.

(0) - statistics irelevant data (small data value)

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