

MONTENEGRO STATISTICAL OFFICE **RELEASE** No. 195 Podgorica, 01 November 2019

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# Balance of electricity 2018 (p)

Primary production of electricity in Montenegro in 2018 was 2 235.3 GWh, transformation output was 1 444.0 GWh. Total import of electricity was 780.0 GWh and total export was 976.0 GWh. Consumption of the energy branch was 119.0 GWh and distribution losses 512.2 GWh.

Total final consumption of electricity in 2018 was 2 846.6 GWh. The highest ratio in total consumption of electricity was in households 44.7%, in other sectors 29.4% and industrial activities 25.9%.

Graph 1. Electricity - Montenegro, GWh

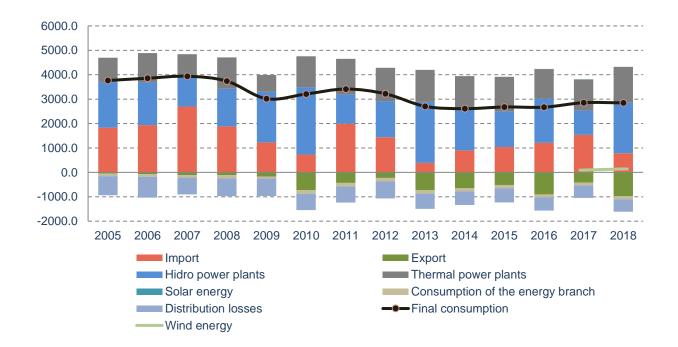


Table 1. Balance of electricity in Montenegro, 2018

**EUROSTAT** form Electricity Solar Wnd Electricity Hydro Wnd Hydro Solar energy energy - total energy energy - total energy energy GWh TJ Primary production 2 092.0 2.3 141.0 7 531 8 141 **Imports** 780.0 2 808 Stock change -976.0 -3 514 Exports **Bunkers** Statistical differences **Gross inland consumption** -196.0 2 092.0 2.3 141.0 706 7531 8 141 **Transformation - input** Thermal power plants (Main producers) 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 **Transformation - output** 1 444.0 5 198 Thermal power plants (Main producers) 1 444.0 5 198 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 Exchanges and transfers, returns 2 235.3 2 092.0 2.3 141.0 7 680 7 531 8 141 2.3 Interproduct transfers 2 235.3 2 092.0 141.0 7 680 7 531 8 141 Products transferred Returns from petrochem. Industry Consumption of the energy branch 133.7 481 **Distribution losses** 503.0 1811 2 846.6 10 248 Available for final consumption Final non-energy consumption Final energy consumption 2 846.6 10 248 Industry 737.4 2 655 Iron & steel industry 38.6 139 Non-ferrous metal industry 595.8 2 145 Chemical industry 4.7 17 Glass, pottery & building mat. Industry 9.6 35 Ore-extraction industry 7.2 26 Food, drink & tobacco industry 31.2 112 Textile, leather & clothing industry 0.7 3 3.9 14 Paper and printing 6.0 22 Engineering & other metal industry Other industries 39.7 143 **Transport** 19.2 69 Railways 19.2 69 (0) Road transport (0)Air transport Inland navigation Other transport Households, commerce, pub. 2 090.0 7 524 auth.etc Households 1 272.1 4 580 Agriculture 17.4 63 800.5 Other sectors 2882

Table 2. Balance of electricity in Montenegro, 2018

IEA form

								IEA form
	Electricity	Hydro	Solar	Wnd	Electricity	Hydro	Solar	Wnd
	- total	energy	energy	energy	- total	energy	energy	energy
		GW				TJ		
Production	-	2 092.0	2.3	141.0	-	7 531	8	141
Imports	780.0	-	-	-	2 808	-	-	-
Exports	-976.0	-	-	-	-3 514	-	-	-
Intl. marine bunkers	-	-	-	-	-	-	-	-
Stock change	-	-	-	-	-	-	-	-
Domestic supply	-196.0	2 092.0	2.3	141.0	-706	7 531	8	141
Transfers	2 235.3	2 092.0	2.3	141.0	7 681	7 531	8	141
Statistical difference	-	-	-	-	-	-	-	-
Transformations	1 444.0	-	-	-	5 198	-	-	-
Thermal power plants (Main producers)	1 444.0	-	-	-	5 198	-	-	-
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	133.7	-	-	-	481	-	-	-
Coal mines	-	-	-	-	-	-	-	-
Thermal power plants and CHPs	125.9	-	-	-	453	-	-	-
Thermal power plants (Autoproducers)	-	-	-	-	-	-	-	-
Heat-only plants (Autoproducers)	-	-	-	-	-	-	-	-
Patent fuel, briquetting and coke plants	-	-	-	-	-	-	-	-
Hydro power plants	7.8	-	-	-	28	-	-	-
Distribution losses	503.0	-	-	-	1 811	-	-	-
Final consumption	2 846.6	-	-	-	10 248	-	-	-
Industry sector	737.4	-	-	-	2 655	-	-	-
Iron and steel	38.6	-	-	-	139	-	-	-
Chemical and petrochemical	4.7	-	-	-	17	-	-	-
Non-ferrous metals	595.8	-	-	-	2 145	-	-	-
Non-metallic minerals	9.6	-	-	-	35	-	-	-
Transport equipment	-	-	-	-	-	-	-	-
Machinery	6.0	-	-	-	22	-	-	-
Mining and Quarrying	7.2	-	-	-	26	-	-	-
Food and tobacco	31.2	-	-	-	112	-	-	-
Paper, pulp and print	3.9	-	-	-	14	-	-	-
Wood and wood products	13.2	-	-	-	48	-	-	-
Construction materials	-	-	-	-	-	-	-	-
Textile and Leather	0.7	-	-	-	3	-	-	-
Non-specified	26.5	-	-	-	95	-	-	-
Transport	19.2	-	-	-	69	-	-	-
International civil aviation	-	-	-	-	-	-	-	-
Domestic air	-	-	-	-	-	-	-	-
Road	(0)	-	-	-	(0)	-	-	-
Rail	19.2	-	-	_	69	-	-	-
Pipeline transport	-	-	-	-	-	-	-	-
Internal navigation	-	-	-	-	-	-	-	-
Non-specified	-	-	-	-	_	-	-	-
Other sectors	2 090.0	-	_	_	7 524	_	-	_
Agriculture	17.4	-	-	-	63	-	-	-
Commerce and public services	800.5	_	-	-	2 882	-	_	-
Residential	1 272.1	_	_	_	4 580	_	-	_
Non-specified	1			_				

#### METHODOLOGICAL EXPLANATIONS

Bilance of electricity contains annual data on production, import, export, transformation, consumption and distribution of electricity in Montenegro in 2018. 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.

Every well-intentioned suggestion referred from a data users will be accepted with pleasure.

# **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 x 10 <sup>-5</sup>	0.2778
Gcal	4,1868 x 10 <sup>-3</sup>	1	10 <sup>-7</sup>	1,163 x 10 <sup>-3</sup>
Mtoe	4,1868 x 10 <sup>-4</sup>	10 <sup>7</sup>	1	11630
GWh	3,6	860	8,6 x 10 <sup>-5</sup>	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 = value less than 0,5 of the unit of measure

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.

The last published data are considered preliminary, and becomes final within the defined deadline, as foreseen by the Statistical Release Calendar.

(0) - statistics irelevant data (value not zero but less than 0.5 GWh i 0.2 thous. tone unit of measurement).

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