



Montenegro

A DECADE
OF INDEPENDENCE
A MILLENNIUM
OF STATEHOOD
MONTENEGRO
2016



May Montenegro live forever

Government of Montenegro
Statistical Office of Montenegro

RELEASE

Balance of wood fuels 2015 ^(p)

Primary production from firewood and wood residue in Montenegro in 2015 was 867 386 m³, wood chips 15 393 tons and wood briquettes and wood pellets was 17 078 tons.

Final consumption firewood in households was 657 080 m³, in industry 42 058 m³ and other sectors 19 083 m³.

Graph 1. Firewood consumption of firewood in household sector in Montenegro, in m³



(p) preliminary data

Table 1. Balance of wood fuels in Montenegro, 2015

EUROSTAT form

	Firewood	Wood residue	Wood chips	Wood briquettes	Wood pellets	Charcoal
	m ³	m ³	t	t	t	t
Primary production	783 686	83 681	15 393	66	17 012	-
Imports	3	20	9	309	1 738	240
Stock change	-	-	-	-	-	-
Exports	- 15 236	- 35 543	- 15 402	- 48	- 12 314	- 48
Bunkers	-	-	-	-	-	-
Statistical differences	-	-	-	-	-	-
Gross inland consumption	768 453	48 158	0	327	6 436	192
Transformation - input	- 50 232	-	-	-	-	-
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	- 50 232	-	-	-	-	-
Oil refineries	-	-	-	-	-	-
Transformation - output	-	-	-	-	-	626
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	-	-	-	-	-	626
Oil refineries	-	-	-	-	-	-
Exchanges and transfers, returns	-	-	-	-	-	-
Interproduct transfers	-	-	-	-	-	-
Products transferred	-	-	-	-	-	-
Returns from petrochem. Industry	-	-	-	-	-	-
Consumption of the energy branch	-	-	-	-	-	-
Distribution losses	-	-	-	-	-	-
Final consumption	718 221	48 158	0	327	6 436	818
Final non-energy consumption	-	-	-	-	-	-
Final energy consumption	718 221	48 158	0	327	6 436	818
Industry	42 058	-	-	63	621	2
Iron & steel industry	110	-	-	-	10	-
Non-ferrous metal industry	22	-	-	-	-	-
Chemical industry	11 331	-	-	-	-	-
Glass, pottery & building mat. Industry	749	-	-	-	43	-
Ore-extraction industry	-	-	-	-	-	-
Food, drink & tobacco industry	26 503	-	-	-	10	2
Textile, leather & clothing industry	357	-	-	-	19	-
Paper and printing	-	-	-	-	-	-
Engineering & other metal industry	2 282	-	-	-	-	-
Other industries	704	-	-	63	539	-
Transport	-	-	-	-	-	-
Railways	-	-	-	-	-	-
Road transport	-	-	-	-	-	-
Air transport	-	-	-	-	-	-
Inland navigation	-	-	-	-	-	-
Other transport	-	-	-	-	-	-
Households, commerce, pub. auth.etc	676 163	48 158	-	264	5 815	816
Households	657 080	47 147	-	125	2 343	540
Agriculture	-	-	-	-	-	-
Other sectors	19 083	1 011	-	139	3 472	276

Table 2. Balance of wood fuels in Montenegro, 2015

EUROSTAT form

	Firewood	Wood residue	Wood chips	Wood briquettes	Wood pellets	Charcoal
	TJ					
Primary production	7 191	620	193	1	287	-
Imports	-	-	-	5	29	7
Stock change	-	-	-	-	-	-
Exports	- 140	- 263	- 193	- 1	- 208	- 1
Bunkers	-	-	-	-	-	-
Statistical differences	-	-	-	-	-	-
Gross inland consumption	7 051	357	0	5	108	6
Transformation - input	-461	-	-	-	-	-
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	-461	-	-	-	-	-
Oil refineries	-	-	-	-	-	-
Transformation - output	-	-	-	-	-	18
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	-	-	-	-	-	18
Oil refineries	-	-	-	-	-	-
Exchanges and transfers, returns	-	-	-	-	-	-
Interproduct transfers	-	-	-	-	-	-
Products transferred	-	-	-	-	-	-
Returns from petrochem. Industry	-	-	-	-	-	-
Consumption of the energy branch	-	-	-	-	-	-
Distribution losses	-	-	-	-	-	-
Final consumption	6 590	357	0	5	108	24
Final non-energy consumption	-	-	-	-	-	-
Final energy consumption	6 590	357	0	5	108	24
Industry	385	-	-	1	10	-
Iron & steel industry	1	-	-	-	-	-
Non-ferrous metal industry	-	-	-	-	-	-
Chemical industry	104	-	-	-	-	-
Glass, pottery & building mat. Industry	7	-	-	-	1	-
Ore-extraction industry	-	-	-	-	-	-
Food, drink & tobacco industry	243	-	-	-	-	-
Textile, leather & clothing industry	3	-	-	-	-	-
Paper and printing	-	-	-	-	-	-
Engineering & other metal industry	21	-	-	-	-	-
Other industries	6	-	-	1	9	-
Transport	-	-	-	-	-	-
Railways	-	-	-	-	-	-
Road transport	-	-	-	-	-	-
Air transport	-	-	-	-	-	-
Inland navigation	-	-	-	-	-	-
Other transport	-	-	-	-	-	-
Households, commerce, pub. auth.etc	6 205	357	-	4	98	24
Households	6 030	350	-	2	40	16
Agriculture	-	-	-	-	-	-
Other sectors	175	7	-	2	58	8

Table 3. Balance of wood fuels in Montenegro, 2015
IEA form

	Firewood	Wood residue	Wood chips	Wood briquettes	Wood pellets	Charcoal
	m ³	m ³	t	t	t	t
Production	783 686	83 681	15 393	66	17 012	-
Imports	3	20	9	309	1 738	240
Exports	- 15 236	- 35 543	- 15 402	- 48	- 12 314	- 48
Intl. marine bunkers	-	-	-	-	-	-
Stock change	-	-	-	-	-	-
Domestic supply	768 453	48 158	0	327	6 436	192
Transfers	-	-	-	-	-	-
Statistical difference	-	-	-	-	-	-
Transformations	-50 232	-	-	-	-	626
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	-50 232	-	-	-	-	626
Oil refineries	-	-	-	-	-	-
Other transformation sector	-	-	-	-	-	-
Energy sector	-	-	-	-	-	-
Coal mines	-	-	-	-	-	-
Thermal power plants and CHPs	-	-	-	-	-	-
Thermal power plants (Autoproducers)	-	-	-	-	-	-
Heat-only plants (Autoproducers)	-	-	-	-	-	-
Patent fuel, briquetting and coke plants	-	-	-	-	-	-
Hydro power plants	-	-	-	-	-	-
Distribution losses	-	-	-	-	-	-
Final consumption	718 221	48 158	0	327	6 436	818
Industry sector	42 058	-	-	63	621	2
Iron and steel	110	-	-	-	10	-
Chemical and petrochemical	11 331	-	-	-	-	-
Non-ferrous metals	22	-	-	-	-	-
Non-metallic minerals	749	-	-	-	43	-
Transport equipment	-	-	-	-	-	-
Machinery	2 282	-	-	-	-	-
Mining and Quarrying	-	-	-	-	-	-
Food and tobacco	26 503	-	-	-	10	2
Paper, pulp and print	-	-	-	-	-	-
Wood and wood products	704	-	-	-	-	-
Construction materials	-	-	-	-	-	-
Textile and Leather	357	-	-	-	19	-
Non-specified	-	-	-	63	539	-
Transport	-	-	-	-	-	-
International civil aviation	-	-	-	-	-	-
Domestic air	-	-	-	-	-	-
Road	-	-	-	-	-	-
Rail	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-
Internal navigation	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-
Other sectors	676 163	48 158	-	264	5 815	816
Agriculture	-	-	-	-	-	-
Commerce and public services	19 083	1 011	-	139	3 472	276
Residential	657 080	47 147	-	125	2 343	540
Non-specified	-	-	-	-	-	-

Table 4. Balance of wood fuels in Montenegro, 2015
IEA form

	Firewood	Wood residue	Wood chips	Wood briquettes	Wood pellets	Charcoal
	TJ					
Production	7 191	620	193	1	287	-
Imports	-	-	-	5	29	7
Exports	- 140	- 263	- 193	- 1	- 208	- 1
Intl. marine bunkers	-	-	-	-	-	-
Stock change	-	-	-	-	-	-
Domestic supply	7 051	357	0	5	108	6
Transfers	-	-	-	-	-	-
Statistical difference	-	-	-	-	-	-
Transformations	- 461	-	-	-	-	18
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	- 461	-	-	-	-	18
Oil refineries	-	-	-	-	-	-
Other transformation sector	-	-	-	-	-	-
Energy sector	-	-	-	-	-	-
Coal mines	-	-	-	-	-	-
Thermal power plants and CHPs	-	-	-	-	-	-
Thermal power plants (Autoproducers)	-	-	-	-	-	-
Heat-only plants (Autoproducers)	-	-	-	-	-	-
Patent fuel, briquetting and coke plants	-	-	-	-	-	-
Hydro power plants	-	-	-	-	-	-
Distribution losses	-	-	-	-	-	-
Final consumption	6 590	357	0	5	108	24
Industry sector	385	-	-	1	10	-
Iron and steel	1	-	-	-	-	-
Chemical and petrochemical	104	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-
Non-metallic minerals	7	-	-	-	1	-
Transport equipment	-	-	-	-	-	-
Machinery	21	-	-	-	-	-
Mining and Quarrying	-	-	-	-	-	-
Food and tobacco	243	-	-	-	-	-
Paper, pulp and print	-	-	-	-	-	-
Wood and wood products	6	-	-	-	-	-
Construction materials	-	-	-	-	-	-
Textile and Leather	3	-	-	-	-	-
Non-specified	-	-	-	1	9	-
Transport	-	-	-	-	-	-
International civil aviation	-	-	-	-	-	-
Domestic air	-	-	-	-	-	-
Road	-	-	-	-	-	-
Rail	-	-	-	-	-	-
Pipeline transport	-	-	-	-	-	-
Internal navigation	-	-	-	-	-	-
Non-specified	-	-	-	-	-	-
Other sectors	6 205	357	-	4	98	24
Agriculture	-	-	-	-	-	-
Commerce and public services	175	7	-	2	58	8
Residential	6 030	350	-	2	40	16
Non-specified	-	-	-	-	-	-

METHODOLOGICAL EXPLANATIONS

Balance of wood fuels contains annual data on production, import, export, transformation, consumption and distribution of wood fuels in Montenegro in 2015. Data are presented in the natural units of measure and in TJ (terajoule).

The methodology for calculation of balance of wood fuels, 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 wood fuels are companies engaging in the producing and selling/delivering of wood fuels and households. Balance of wood fuels 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

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.).

Fuel wood is wood used directly for heating or production of charcoal.

Wood pellet is fuel made from wood mass compressed and extruded through a die. The starting raw material often represents large or small (sawdust) residues from mechanical processing of wood.

Wood briquette is wood biofuel of prismatic or cylindrical form obtained from compressing extruded wood material in appropriate presses.

Charcoal is a wood residue from mechanical processing of wood products.

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 occurrence of event
... = data not available
0 = value less than 0,5 of the unit of measure
1) = footnote

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