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# Balance of wood fuels

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# 2022

Primary production from firewood and wood residue and chips in Montenegro in 2022 was 778 579 m3, wood pellets was 85 894 tonnes.

Final consumption firewood in households was 515 335 m3, in industry 52 314 m3 and other sectors 34 262 m3.

Graph 1. Balance of wood fuels in Montenegro, 2022

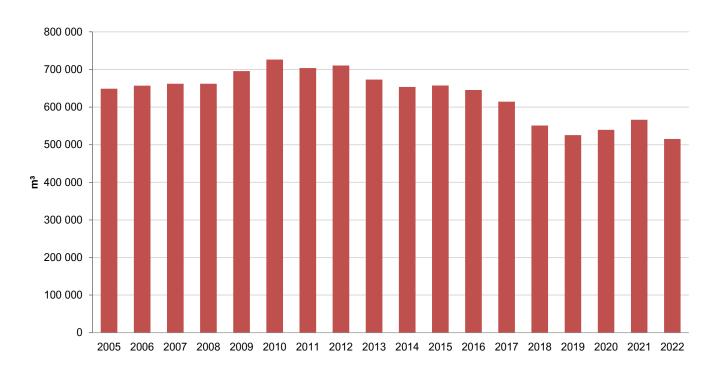


Table 1. Balance of wood fuels in Montenegro, 2022

	Firewood	Wood residue and chips	Wood pellets	Charcoal
	m³	m³	t	
Production	740 014	38 565	85 894	
Imports	(0)	-	317	29
Exports	(0)	-	- 65 188	
Intl. marine bunkers	-	-	_	
Stock change	_	-	_	
Domestic supply	740 014	38 565	21 023	29
Transfers	-	-	-	
Statistical difference	-	-	-	
Transformations	- 138 103	-	-	1 12
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	- 138 103	-	-	1 12
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	601 911	38 565	21 023	1 41
Industry sector	52 314	(0)	527	(1
Iron and steel	-	-	-	
Chemical and petrochemical	8 709	-	-	
Non-ferrous metals	-	-	-	
Non-metallic minerals	-	-	(0)	
Transport equipment	-	-	-	
Machinery	1 469	-	-	
Mining and Quarrying	-	-	-	
Food and tobacco	41 172	(0)	(0)	(
Paper, pulp and print	_	-	-	
Wood and wood products	964	-	_	
Construction materials	_	-	_	
Textile and Leather	(0)	-	(0)	
Non-specified	(0)	-	527	
Transport	-	-	-	
International civil aviation	_	-	_	
Domestic air	_	-	_	
Road	_	_	-	
Rail	-	-	-	
Pipeline transport	_	_	-	
Internal navigation	_	_	-	
Non-specified	_	_	-	
Other sectors	549 597	38 565	20 496	14
Agriculture, forestry and fishing	2 570	-		
Commercial sector and public services	31 692	1 586	5 380	77
Residential	515 335	36 979	15 116	64

Table 2. Balance of wood fuels in Montenegro, 2022

	Firewood	Wood residue and chips	Wood pellets	Charcoal			
		TJ					
Production	6 791	286	1 447				
Imports	-	-	5	(			
Exports	-	-	-1 098				
Intl. marine bunkers	-	-	-				
Stock change	-	-	-				
Domestic supply	6 791	286	354	ç			
Transfers	-	-	-				
Statistical difference	-	-	-				
Transformations	(1 267)	-	-	35			
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	(1 267)	-	-	3			
Oil refineries	-	-	-				
Other transformation sector	_	-	-				
Energy sector	_	_	_				
Coal mines	_	_	_				
Thermal power plants and CHPs	_	_	_				
Thermal power plants and Crir's Thermal power plants (Autoproducers)	_	_	_				
	_	_	_				
Heat-only plants (Autoproducers)		_	_				
Patent fuel, briquetting and coke plants			_				
Hydro power plants		_	_				
Distribution losses	5 523	286	354	4			
Final consumption	480	200	9	4			
Industry sector	400	-	-				
Iron and steel	80	-	-				
Chemical and petrochemical	00	-	-				
Non-ferrous metals	-	-	-				
Non-metallic minerals	-	-	-				
Transport equipment	-	-	-				
Machinery	13	-	-				
Mining and Quarrying	-	-	-				
Food and tobacco	378	-	-				
Paper, pulp and print	-	-	-				
Wood and wood products	9	-	-				
Construction materials	-	-	-				
Textile and Leather	-	-	-				
Non-specified	-	-	9				
Transport	-	-	-				
International civil aviation	-	-	-				
Domestic air	-	-	-				
Road	-	-	-				
Rail	-	-	-				
Pipeline transport	_	-	-				
Internal navigation	_	_	_				
Non-specified	_	_	_				
Other sectors	5 043	286	345	4			
Agriculture, forestry and fishing	24	200	-	7			
Commercial sector and public services	291	12	91	2			
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#### **METHODOLOGICAL NOTES**

Bilance of wood fuels contains annual data on production, import, export, transformation, consumption and distribution of electricity in Montenegro in 2022. 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.

#### Data sources (coverage)

The reporting units for balance of wood fuels are companies engaged in the production of wood fuels. 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	10-7	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

It may happen that the total sum does not match the number of individual data due to rounding of numbers.

When using the data, state: "Data source: Statistical Office of Montenegro - MONSTAT"

More information, as well as detailed methodological explanations can be found in the section: <u>Balance of</u> wood fuels

## Unit of measure:

TJ = terajoule Gcal = gigacalorie

Mtoe = milion tonnes of oil equivalent

GWh = gigawatt hour

t = tonne

## Symbol:

- = no occurence of event

... = data not available

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

1) = footnote