

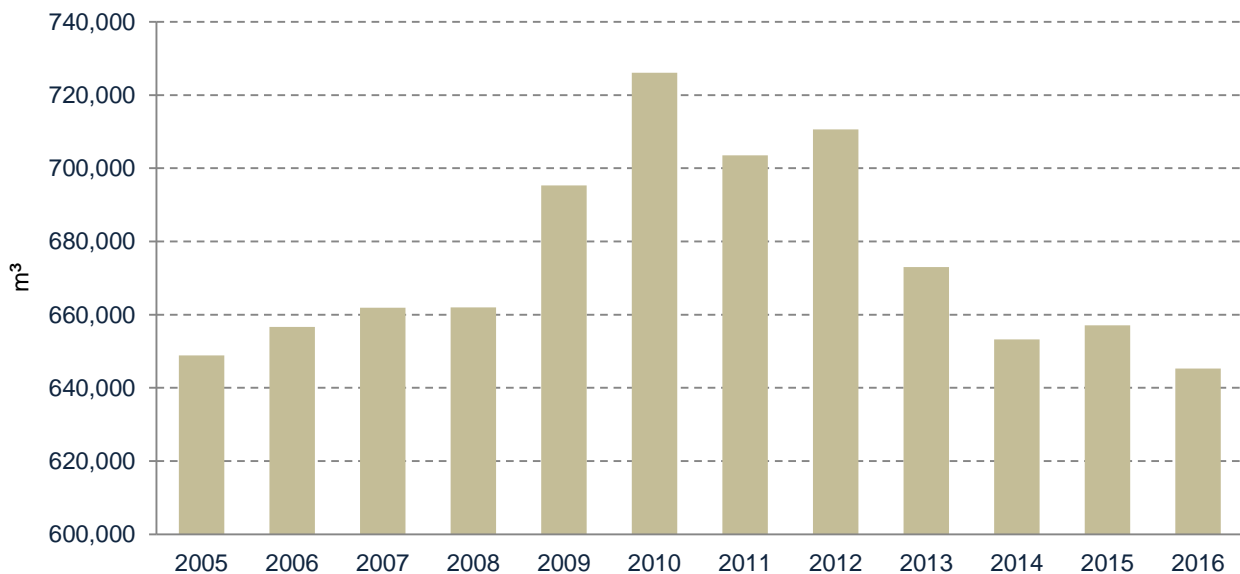
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Balance of wood fuels 2016 ^(p)

Primary production from firewood and wood residue in Montenegro in 2016 was 837 922 m³, wood chips 15 585 tons and wood briquettes and wood pellets was 23 022 tons.

Final consumption firewood in households was 645 253 m³, in industry 41 583 m³ and other sectors 19 168 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, 2016

EUROSTAT form

| | Firewood | Wood residue | Wood chips | Wood briquettes | Wood pellets | Charcoal |
|--|-----------------|----------------|------------|-----------------|--------------|------------|
| | m ³ | m ³ | t | t | t | t |
| Primary production | 754 632 | 83 290 | 15 585 | 70 | 22 952 | - |
| Imports | 4 | 69 | 30 | 257 | 1 635 | 238 |
| Stock change | - | - | - | - | - | - |
| Exports | - 15 863 | - 36 036 | - 15 615 | - | - 17 955 | - 129 |
| Bunkers | - | - | - | - | - | - |
| Statistical differences | - | - | - | - | - | - |
| Gross inland consumption | 738 773 | 47 323 | 0 | 327 | 6 632 | 109 |
| Transformation - input | - 32 769 | - | - | - | - | - |
| 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 | - 32 769 | - | - | - | - | - |
| Oil refineries | - | - | - | - | - | - |
| Transformation - output | - | - | - | - | - | 778 |
| 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 | - | - | - | - | - | 778 |
| Oil refineries | - | - | - | - | - | - |
| Exchanges and transfers, returns | - | - | - | - | - | - |
| Interproduct transfers | - | - | - | - | - | - |
| Products transferred | - | - | - | - | - | - |
| Returns from petrochem. Industry | - | - | - | - | - | - |
| Consumption of the energy branch | - | - | - | - | - | - |
| Distribution losses | - | - | - | - | - | - |
| Available for final consumption | 706 004 | 47 323 | - | 327 | 6 632 | 887 |
| Final non-energy consumption | - | - | - | - | - | - |
| Final energy consumption | 706 004 | 47 323 | - | 327 | 6 632 | 887 |
| Industry | 41 583 | - | - | 58 | 568 | 2 |
| Iron & steel industry | - | - | - | - | - | - |
| Non-ferrous metal industry | 19,1 | - | - | - | - | - |
| Chemical industry | 10 516 | - | - | - | - | - |
| Glass, pottery & building mat. Industry | 706 | - | - | - | 40 | - |
| Ore-extraction industry | - | - | - | - | - | - |
| Food, drink & tobacco industry | 26 954 | - | - | - | 10 | 2 |
| Textile, leather & clothing industry | 506 | - | - | - | 27 | - |
| Paper and printing | - | - | - | - | - | - |
| Engineering & other metal industry | 2 109 | - | - | - | - | - |
| Other industries | 773 | - | - | 58 | 491 | - |
| Transport | - | - | - | - | - | - |
| Railways | - | - | - | - | - | - |
| Road transport | - | - | - | - | - | - |
| Air transport | - | - | - | - | - | - |
| Inland navigation | - | - | - | - | - | - |
| Other transport | - | - | - | - | - | - |
| Households, commerce, pub. auth.etc | 664 421 | 47 323 | - | 269 | 6 064 | 885 |
| Households | 645 253 | 46 298 | - | 134 | 2 519 | 581 |
| Agriculture | - | - | - | - | - | - |
| Other sectors | 19 168 | 1 025 | - | 135 | 3 545 | 304 |

Table 2. Balance of wood fuels in Montenegro, 2016

EUROSTAT form

| | Firewood | Wood residue | Wood chips | Wood briquettes | Wood pellets | Charcoal |
|--|--------------|--------------|------------|-----------------|--------------|-----------|
| | TJ | | | | | |
| Primary production | 6 925 | 617 | 195 | 1 | 387 | - |
| Imports | - | 1 | - | 4 | 28 | 7 |
| Stock change | - | - | - | - | - | - |
| Exports | - 146 | - 267 | - 195 | - | - 303 | - 4 |
| Bunkers | - | - | - | - | - | - |
| Statistical differences | - | - | - | - | - | - |
| Gross inland consumption | 6 779 | 351 | 0 | 5 | 112 | 3 |
| Transformation - input | - 301 | - | - | - | - | - |
| 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 | - 301 | - | - | - | - | - |
| Oil refineries | - | - | - | - | - | - |
| Transformation - output | - | - | - | - | - | 23 |
| 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 | - | - | - | - | - | 23 |
| Oil refineries | - | - | - | - | - | - |
| Exchanges and transfers, returns | - | - | - | - | - | - |
| Interproduct transfers | - | - | - | - | - | - |
| Products transferred | - | - | - | - | - | - |
| Returns from petrochem. Industry | - | - | - | - | - | - |
| Consumption of the energy branch | - | - | - | - | - | - |
| Distribution losses | - | - | - | - | - | - |
| Available for final consumption | 6 478 | 351 | - | 5 | 112 | 26 |
| Final non-energy consumption | - | - | - | - | - | - |
| Final energy consumption | 6 478 | 351 | - | 5 | 112 | 26 |
| Industry | 381 | - | - | 1 | 10 | - |
| Iron & steel industry | - | - | - | - | - | - |
| Non-ferrous metal industry | - | - | - | - | - | - |
| Chemical industry | 96 | - | - | - | - | - |
| Glass, pottery & building mat. Industry | 7 | - | - | - | 1 | - |
| Ore-extraction industry | - | - | - | - | - | - |
| Food, drink & tobacco industry | 247 | - | - | - | - | - |
| Textile, leather & clothing industry | 5 | - | - | - | - | - |
| Paper and printing | - | - | - | - | - | - |
| Engineering & other metal industry | 19 | - | - | - | - | - |
| Other industries | 7 | - | - | 1 | 9 | - |
| Transport | - | - | - | - | - | - |
| Railways | - | - | - | - | - | - |
| Road transport | - | - | - | - | - | - |
| Air transport | - | - | - | - | - | - |
| Inland navigation | - | - | - | - | - | - |
| Other transport | - | - | - | - | - | - |
| Households, commerce, pub. auth.etc | 6 097 | 351 | - | 4 | 102 | 26 |
| Households | 5 921 | 343 | - | 2 | 42 | 17 |
| Agriculture | - | - | - | - | - | - |
| Other sectors | 176 | 8 | - | 2 | 60 | 9 |

Table 3. Balance of wood fuels in Montenegro, 2016
IEA form

| | Firewood | Wood residue | Wood chips | Wood briquettes | Wood pellets | Charcoal |
|--|-----------------|----------------|------------|-----------------|--------------|------------|
| | m ³ | m ³ | t | t | t | t |
| Production | 754 632 | 83 290 | 15 585 | 70 | 22 952 | - |
| Imports | 4 | 69 | 30 | 257 | 1 635 | 238 |
| Exports | - 15 863 | - 36 036 | - 15 615 | - | - 17 955 | - 129 |
| Intl. marine bunkers | - | - | - | - | - | - |
| Stock change | - | - | - | - | - | - |
| Domestic supply | 738 773 | 47 323 | - | 327 | 6 632 | 109 |
| Transfers | - | - | - | - | - | - |
| Statistical difference | - | - | - | - | - | - |
| Transformations | - 32 769 | - | - | - | - | 778 |
| 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 | - 32 769 | - | - | - | - | 778 |
| 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 | 706 004 | 47 323 | 0 | 327 | 6 632 | 887 |
| Industry sector | 41 583 | - | - | 58 | 568 | 2 |
| Iron and steel | - | - | - | - | - | - |
| Chemical and petrochemical | 10 516 | - | - | - | - | - |
| Non-ferrous metals | 19 | - | - | - | - | - |
| Non-metallic minerals | 706 | - | - | - | 40 | - |
| Transport equipment | - | - | - | - | - | - |
| Machinery | 2 109 | - | - | - | - | - |
| Mining and Quarrying | - | - | - | - | - | - |
| Food and tobacco | 26 954 | - | - | - | 10 | 2 |
| Paper, pulp and print | - | - | - | - | - | - |
| Wood and wood products | 773 | - | - | - | - | - |
| Construction materials | - | - | - | - | - | - |
| Textile and Leather | 506 | - | - | - | 27 | - |
| Non-specified | - | - | - | 58 | 491 | - |
| Transport | - | - | - | - | - | - |
| International civil aviation | - | - | - | - | - | - |
| Domestic air | - | - | - | - | - | - |
| Road | - | - | - | - | - | - |
| Rail | - | - | - | - | - | - |
| Pipeline transport | - | - | - | - | - | - |
| Internal navigation | - | - | - | - | - | - |
| Non-specified | - | - | - | - | - | - |
| Other sectors | 664 421 | 47 323 | - | 269 | 6 064 | 885 |
| Agriculture | - | - | - | - | - | - |
| Commerce and public services | 19 168 | 1 025 | - | 135 | 3 545 | 304 |
| Residential | 645 253 | 46 298 | - | 134 | 2 519 | 581 |
| Non-specified | - | - | - | - | - | - |

Table 4. Balance of wood fuels in Montenegro, 2016
IEA form

| | Firewood | Wood residue | Wood chips | Wood briquettes | Wood pellets | Charcoal |
|--|--------------|--------------|------------|-----------------|--------------|-----------|
| | TJ | | | | | |
| Production | 6 925 | 617 | 195 | 1 | 387 | - |
| Imports | - | 1 | - | 4 | 28 | 7 |
| Exports | - 146 | - 267 | - 195 | - | - 303 | - 4 |
| Intl. marine bunkers | - | - | - | - | - | - |
| Stock change | - | - | - | - | - | - |
| Domestic supply | 6 779 | 351 | 0 | 5 | 112 | 3 |
| Transfers | - | - | - | - | - | - |
| Statistical difference | - | - | - | - | - | - |
| Transformations | - 301 | - | - | - | - | 23 |
| 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 | - 301 | - | - | - | - | 23 |
| 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 | 6 478 | 351 | - | 5 | 112 | 26 |
| Industry sector | 381 | - | - | 1 | 10 | - |
| Iron and steel | - | - | - | - | - | - |
| Chemical and petrochemical | 96 | - | - | - | - | - |
| Non-ferrous metals | - | - | - | - | - | - |
| Non-metallic minerals | 7 | - | - | - | 1 | - |
| Transport equipment | - | - | - | - | - | - |
| Machinery | 19 | - | - | - | - | - |
| Mining and Quarrying | - | - | - | - | - | - |
| Food and tobacco | 247 | - | - | - | - | - |
| Paper, pulp and print | - | - | - | - | - | - |
| Wood and wood products | 7 | - | - | - | - | - |
| Construction materials | - | - | - | - | - | - |
| Textile and Leather | 5 | - | - | - | - | - |
| Non-specified | - | - | - | 1 | 9 | - |
| Transport | - | - | - | - | - | - |
| International civil aviation | - | - | - | - | - | - |
| Domestic air | - | - | - | - | - | - |
| Road | - | - | - | - | - | - |
| Rail | - | - | - | - | - | - |
| Pipeline transport | - | - | - | - | - | - |
| Internal navigation | - | - | - | - | - | - |
| Non-specified | - | - | - | - | - | - |
| Other sectors | 6 097 | 351 | - | 4 | 102 | 26 |
| Agriculture | - | - | - | - | - | - |
| Commerce and public services | 176 | 8 | - | 2 | 60 | 9 |
| Residential | 5 921 | 343 | - | 2 | 42 | 17 |
| 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 2016. 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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