

Fifth Annual Report under the Energy Efficiency Directive



Crna Gora
MINISTARSTVO KAPITALNIH
INVESTICIJA

Broj: 03-302/21-7183/1

Datum: 18. 06. 2021.g.

MONTENEGRO

Prepared by: Ministry of Capital Investments of Montenegro

Signed:

Vladimir Durutović,
Director-general of the Directorate
for Energy and Energy Efficiency



June 2021

A. Key statistics and indicators

Estimation of key statistics and indicators in 2019	Value	Unit
Total primary energy consumption (*)	1185,94	ktoe
Total final energy consumption (*)	871	ktoe
Final energy consumption – Transport (*)	290,9	ktoe
Final Energy consumption – Industry (*)	137,5	ktoe
Final energy consumption – Households (*)	326,5	ktoe
Final energy consumption – Services (*)	111,2	ktoe
Gross value added by sector – Industry	NA	mil. EUR
Gross value added by sector – Services	NA	mil. EUR
Disposable income of households	NA	mil. EUR
Gross domestic product (GDP) (*)	4,85	mil. EUR
Electricity generation from thermal power plants (*)	129,5	ktoe
Electricity generation from combined heat and power (*)	0	ktoe
Heat generation from thermal power generation (*)	0	ktoe
Heat generation from combined heat and power plants, incl. industrial waste heat (*)	0	ktoe
Fuel input for thermal power generation (***)	360,8	ktoe
Passenger kilometres (pkm), if available (**)	766.096	thous. pkm
Tonne kilometres (tkm), if available (**)	211.256	thous. tkm
Combined transport kilometres (pkm + tkm), in case that separate values for pkm and tkm are not available (**)	/	
Population (**)	0,62	millions

Table 1: Key energy statistics data.

(*) State statistical office

B. Overview of energy consumption trends

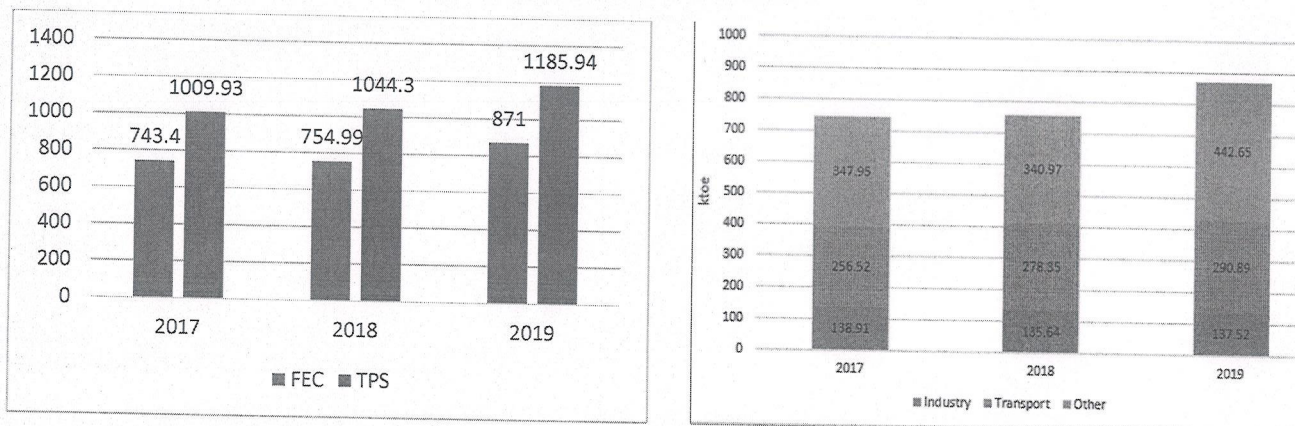


Figure 2: Final energy consumption and primary energy supply (left) and final energy consumption per sectors (right) in 2017 – 2019.

C. National energy efficiency targets

Indicative target (ktoe)	2015	2016	2017	2018	2019	2020	2021
Other targets	4,160	4,160	2,083	2,075	1,244	1,244	1,244
Art. 7 EED			2,077	2,077	2,908	2,908	2,908
Art. 5 EED				0,008	0,008	0,008	0,008
Overall target	4,160	4,160	4,160	4,160	4,160	4,160	4,160

Table 2: Indicative energy efficiency targets expressed in final energy, for the period 2015-2022

Source: Detailed elaboration of the targets is given on the 4th EEAP of Montenegro for the period 2019-2021.

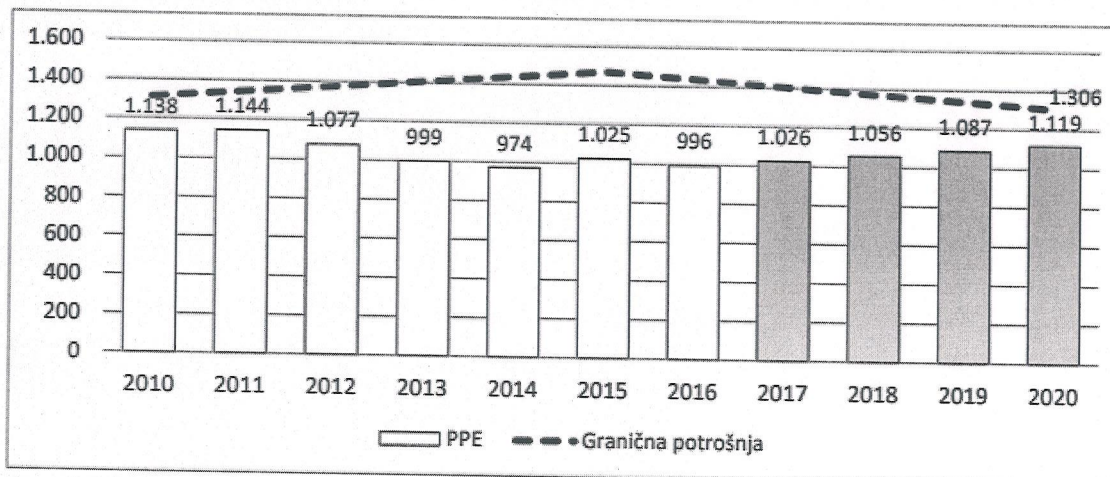


Figure 3: Primary energy consumption – cap consumption target for Montenegro.

Source: 4th EEAP of Montenegro for the period 2019-2021.

D. Update of measures implemented in last year

- **Legislative measures**

In accordance with the Law on Efficient Use of Energy, the Ministry of Capital Investments is continuously working on the harmonization of the legal framework in the field of introducing eco design requirements and energy labeling of energy-related products. In 2020, three rulebooks were adopted as follow:

- *Rulebook on energy labelling of residential ventilation units (Official gazette of Montenegro 63/2020, as of 30 VI 2020);*
- *Rulebook on technical requirements of eco design for ovens, hobs and hoods (Official gazette of Montenegro 62/2020, as of 26 VI 2020);*
- *Rulebook on energy labelling of ovens and hoods (Official gazette of Montenegro 63/2020, as of 30 VI 2020).*

Progress on EPBD implementation

Within the "Energy Efficiency Program in Public Buildings" which is implemented in cooperation with KfW Bank, support is provided for:

- *establishment of the national building inventory of and determination of cost-optimal levels,*
- *development of national software for of energy performance calculation and certification of buildings.*

The process of establishment of the national building inventory has been finalized together with definition of the reference buildings and activities on calculation of cost-optimal levels/minimum energy performance requirements which are ongoing.

The first operational version of the software for the calculation of energy performance of buildings (MEEC - Montenegrin Energy Efficiency Certification) was finalized in November 2020 and it is available for download (www.meec.me). The calculation methodology is based on DIN V 18599 with certain adjustments to Montenegrin legislation (climate data, user profiles, library on construction materials, conversion factors, etc.). Section which is still not completed in the software relates to energy performance certificates (reference values, energy classes, EPC layout, etc.) and it will be added as soon as the analysis on cost-optimal levels is completed. The process related to energy certification of buildings is planned for 2021, after completion of the training of authorized energy auditors for using the new software.

- **Non-legislative measures**

Establishment of the sustainable financing mechanism and implementation of EE projects

As it is recognized by the 4th EEAP, sustainable model of financing energy efficiency projects will be established through the Eco-Fund, which foundation is defined by the Law on Environment ("OG of MNE", no 52/16). In the reporting period conditions for the operation of the Eco-Fund were created but due to the COVID-19 pandemic, implementation of the concrete project is postponed for 2021. Until the establishment of specific support program under the Eco-Fund, the Ministry of Capital Investments continues to coordinate the implementation of projects related to energy efficiency improvement which are intended for the public sector and the household sector, as follows:

- Projects aimed at improving energy efficiency in public buildings: the project "Energy Efficiency in Montenegro" – phase II (MEEP II) financed from the loan of the International Bank for Reconstruction and Development (IBRD) and the project "Energy Efficiency Program in Public Buildings" - Phase II (EPPB II) financed from the loan and grant of the German Development Bank (KfW) and the project "Improvement of energy efficiency in public buildings (EIII)" funded by KfW bank and donation from European Union.
- Project aimed on support for citizen on the implementation of renewable sources and energy efficient measures in their homes through program Energy Efficient Home (interest-free loans for implementation of the EE measures in households).

The following activities have been carried out under the projects:

- MEEP II

Under project "**Montenegro Energy Efficiency Project – phase II (MEEP 2)**" financed by IBRD bank the following activities have been implemented:

- Works on energy efficiency improvement of Healthcare center Ulcinj and General hospital Bar was completed in 2020. The value of performed works is 1.641.695,3 EUR.
- Energy efficiency improvement of 3 healthcare facilities: Special hospital Risan, Special hospital Dobrota and Healthcare centre Tivat has been implemented. The value of performed works is 1.149.745,89 EUR and deadline for completion is April 2021.
- The evaluation of bids for the selection of contractor for the adaptation of 3 health facilities has begun (Health Center Mojkovac and Danilovgrad, General hospital Niksic).

- EPPB II

Under project "**Energy Efficiency Program in Public Buildings – phase II (EPPB II)**" financed by KfW bank the following activities have been implemented:

- The works on the application of energy efficiency measures in the building of state authorities, located on Rimski trg in Podgorica, has been completed in February 2021. Value of performed works is 5,3 million EUR. Energy Efficiency improvement of this facility was recognized by Plan for the reconstruction of administrative buildings which are owned by the state for the period 2020-2022, which is an obligation arising from the Law on Efficient Use of Energy.
- Works on reconstruction of JPU "Nasa radost", where the contract value is 2,197 million EUR, is in progress. Deadline for completion of works is end of July 2021.

- Improvement of energy efficiency in public buildings (EPPBIII)

Project "Improvement of energy efficiency in public buildings" is implemented on the basis of the Loan Agreement and the Grant Agreement, signed with KfW Bank, in December 2019 and Separate agreement, signed in August 2020.

For project implementation, funds were provided from a loan from KfW Bank in the amount of EUR 45 million EUR and the amount of 4,5 million EUR was provided from donation from the European Union (WBIF REEP Plus). Also, government is planning its own contribution in the amount of 10 million EUR. The aim of the project is energy efficiency improvement in selected administrative buildings, educational and social institutions, as well as providing support in meeting the obligations stipulated in the Law on Efficient Use of Energy, which arose from EU directives. of their revenues, as well as preserving existing and creating new jobs.

The following activities were carried out in the reporting period:

- Preparation of Detailed Energy Audits was contracted;
- The tender procedure for the selection of the Consultant for the implementation of the project has started.

- Energy Efficient Home

In December of 2020, the Ministry of Capital Investments has finalized implementation of the program „Energy Efficient Home”. Main objective of the program is to reduce heating costs and increase comfort in households, achieve a significant reduction in CO2 emissions, as well as the development of the market for efficient heating and cooling systems in Montenegro.

Under the Program, citizens have the opportunity to apply for interest-free loans up to a maximum amount of 10,000 EUR, with a repayment period of up to 6 years, for the implementation of energy efficiency measures in their households: installation of modern biomass heating systems (pellets, briquettes); installation of highly-efficient heat pumps for building heating; installation of multi-split systems for heating/cooling of buildings; installation of thermal insulation on façade and replacement of façade joinery.

In the period October-December 2020, partner banks approved 240 loans to citizens for the implementation of energy efficiency measures under the Program. By the end of 2020, the works were completed at 230 locations. Due to the situation with the COVID19 virus, weather conditions and other circumstances, the works have not been completed at 10 locations and such works will be completed by end of May 2021.

The total amount of investment in energy efficiency measures in 240 households is 881.880,51 EUR, and the total amount of interest and fees covered from the Budget of Montenegro is 128.565,07 EUR.

E. Central Government buildings (Article 5)

On the basis of the Law on Efficient use of Energy (Article 8) in 2016 Government of Montenegro has adopted:

- Decree on reconstruction of official buildings ("Official Gazette of Montenegro", 09/16)

- *Plan for the reconstruction of administrative buildings which are owned by the state for the period 2020-2022.*

By this transposition of the Article 5 is completed.

Funds for the reconstruction of the buildings defined in the plan were provided from the funds of the project Energy Efficiency Program in Public Buildings, which is being implemented based on a loan from the KfW bank. The implementation of the three-year plan for reconstruction of administrative buildings in state property is ongoing. The works on the application of energy efficiency measures in the building of state authorities, located on Rimski trg in Podgorica, have been completed in February 2021. Value of performed works is 5,3 million EUR.

F. Energy efficiency obligations (Article 7)

There was no progress on reporting on implementation of Art. 7 in 2020. Based on the findings of the analysis for application of Art. 7 which is prepared under „Regional Energy Efficiency Program in Western Balkans" (REEP) Montenegro has decided not to introduce mandatory energy efficiency schemes at this moment.

Objectives of Article 7 of the EED will be achieved through the implementation of alternative measures presented in table 3, which is in more details elaborated in the 4th EEAP.

Article 7 EED		Indicative target – primary energy equivalent	Expected energy savings based on the implementation of measures
2020	9,152	Total	10.9
		Measure H.6	7.27
		Measure R.2	1.73
		Measure P.2	0.35
		Measure P.3	0.80
2021	13,782	Total	19.34
		Measure H.6	13.83
		Measure R.2	2.66
		Measure P.2	1.01
		Measure P.3	1.84

Table 3. Implementation of Article 7 through alternative measures

Source: 4th NEEAP of Montenegro