

**Fifth Annual Report
under the Energy Efficiency Directive**

Kosovo

Prepared by: Kosovo Energy Efficiency Agency

December 2021

A. Key statistics and indicators

This is the Fifth Annual Report under the Energy Efficiency Directive prepared by Kosovo, based on the Template proposed by the Energy Community Secretariat and fully consistent with the requirements of the Energy Efficiency Directive - EED (2012/27/EU). Explanations for all numbers provided in the following table are given below, including the sources of information.

Estimation of key statistics and indicators in 2019	Value	Unit
Total primary energy consumption (*)	2,707.11	ktoe
Total final energy consumption (*)	1,507.51	ktoe
Final energy consumption – Transport (*)	422,58	ktoe
Final Energy consumption – Industry (*)	319.81	ktoe
Final energy consumption – Households (*)	575.38	ktoe
Final energy consumption – Services (*)	151.73	ktoe
Gross value added by sector – Industry (**)	2,419,360	mil. EUR
Gross value added by sector – Services (**)	3,326.863	mil. EUR
Disposable income of households (**)	NA	mil. EUR
Gross domestic product (GDP) (**)	7,103.8	mil. EUR
Electricity generation from thermal power plants (***)	514.461	ktoe
Electricity generation from combined heat and power (***)	19.83	ktoe
Heat generation from thermal power generation (***)	0.44	ktoe
Heat generation from combined heat and power plants, incl. industrial waste heat (***)	NA	ktoe
Fuel input for thermal power generation (***)	1590.87	ktoe
Passenger kilometres (pkm), if available (**)	NA	thous. pkm
Tonne kilometres (tkm), if available (**)	NA	thous. tkm

Estimation of key statistics and indicators in 2019	Value	Unit
Combined transport kilometres (pkm + tkm), in case that separate values for pkm and tkm are not available (**)	NA	
Population (**)	1 782 115	millions

Table 1: Key energy statistics data.

(*) Annual Energy Balance of the Republic of Kosovo for 2020

(**) Kosovo Agency of Statistics (still data for 2020 are not published)

(***) KEK Kosovo Energy Corporation annual report 2020, Energy Regulatory Office (ERO) Annual Report 2020 (still data for 2020 are not published)

B. Overview of energy consumption trends

The National Energy Efficiency Action Plan in Kosovo (NEEAP 2019-2021) defines national targets for reducing final and primary energy consumption for the three-year period 2019-2021, as required by Article 3(1) of EED. Final energy consumption should not exceed 1556 ktoe in the year 2020. The estimated national target can be expressed in the primary energy consumption of 2847 ktoe, based on the primary energy coefficient - 1.83*.

Various statistical and other available data sources were used to determine economic and energy values for the base year 2015 and relevant trends within different scenarios.

The data on energy consumption trends have been extracted from the energy balances of Kosovo 2015-2020.

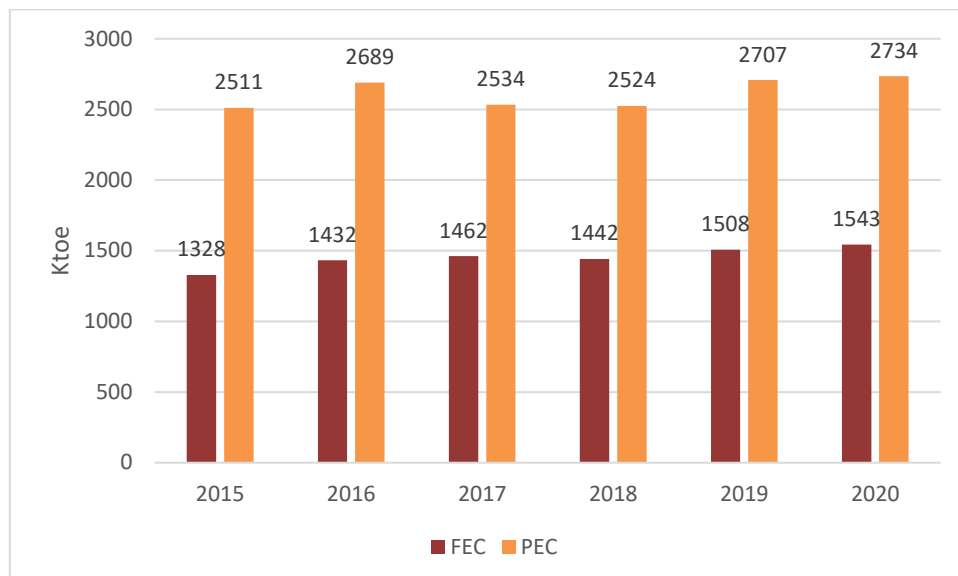


Figure 1: Final and Primary energy consumption

*4th NEEAP 2019-2021

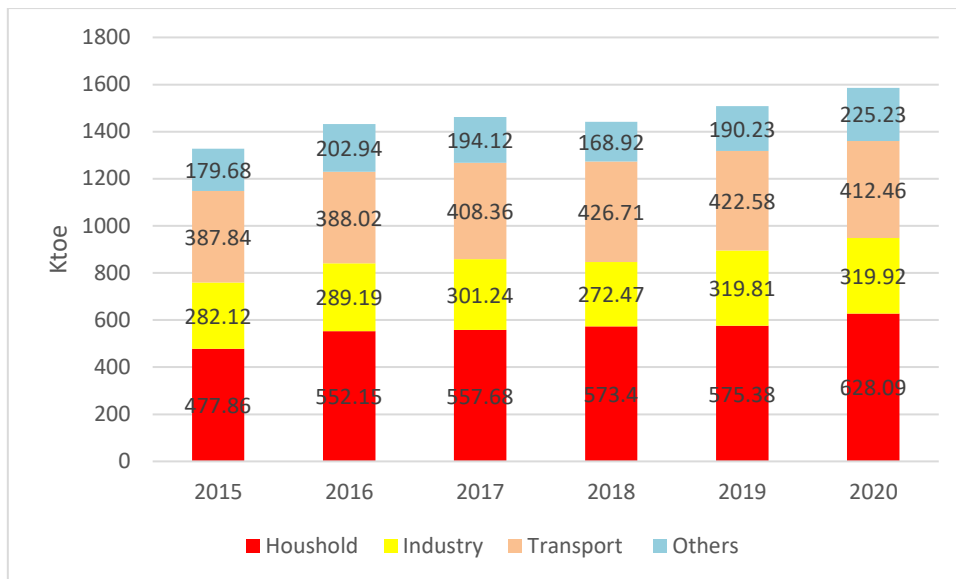


Figure 2: Final energy consumption per sectors in 2015-2020

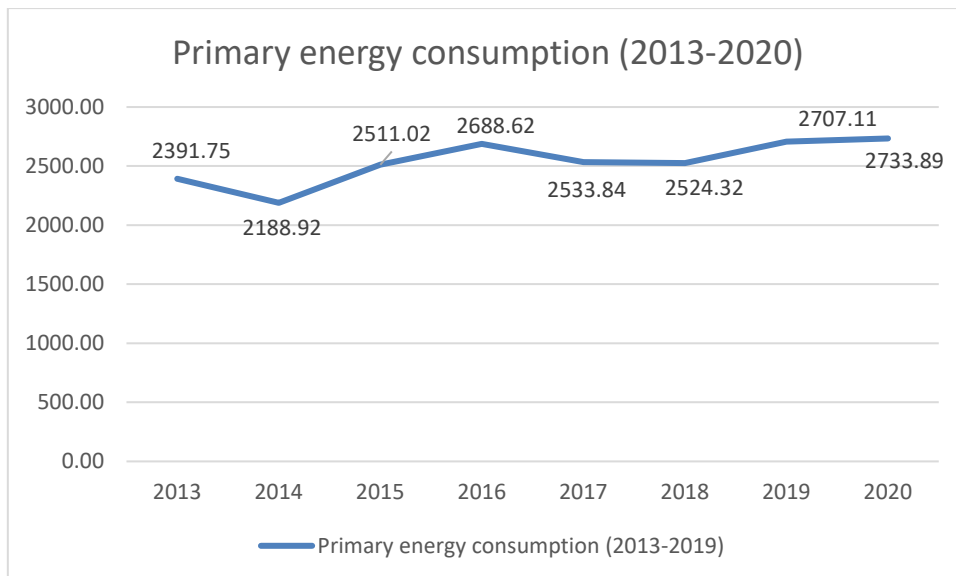


Figure 3: Final energy consumption (2013-2020)**

In 2020 the primary energy consumption was 2733.89 ktoe, while the final energy consumption was 1543 ktoe. The primary energy consumption comparing to 2019 increased around 1%, also the final energy consumption had an increase of 2.28%.

The analysis of final energy consumption trends shows that energy consumption in the household sector still continues to increase, that is 8.39% higher than in 2019. Energy consumption in the transport sector had decrease by 2.45% in comparison with year 2019. Energy consumption in services sector for 2020 (146.06ktoe) has decreased in comparison with year 2019 (151.73ktoe) that is 3.73%.

C. National energy efficiency targets

The targets are defined by Long-term NEEAP 2010-2018, Long-term Energy Balance of the Republic of Kosovo 2015-2024 and 4th NEEAP 2019-2021.

TARGETS	2016	2017	2018	2019	2020
EED ARTICLE 3 [ktoe]			91.89		113.09
EED ARTICLE 5 [ktoe]			0.12*	2.474 ^{1*}	1.35 ^{1**}
EED ARTICLE 7 [ktoe]		4.6	9.1	0.00	21.9
PEC [ktoe]			2719**	2707.11 ^{2*}	2734** ^{3*}
FEC [ktoe]			1486	1507.51 ^{2*}	1543 ^{3*}
FEC - BUILDINGS [ktoe]			685	575.38 ^{2*}	628.09 ^{3*}
FEC - INDUSTRY [ktoe]			401	319.81 ^{2*}	319.92 ^{3*}
FEC - TRANSPORT [ktoe]			365	422.58 ^{2*}	412.46 ^{3*}
FEC – OTHERS [ktoe]			35	189.74 ^{2*}	225.23 ^{3*}
PRIMARY ENERGY INTENSITY [ktoe/mil.EUR]					
FINAL ENERGY INTENSITY [ktoe/mil.EUR]					

Table 1: Division of targets per sectors and per different articles of EED

* - Renovation targets set in the draft plan for renovation of central government buildings (working group for drafting the renovation strategy is established including all relevant stake holders. Comments for the first draft haven been sent to experts. The strategy is supported by REEP plus). In the draft plan renovation targets are expressed in the total floor space to be renovated (starting with December 2017 to end of 2021), expected energy saving targets for 2018-2020 are calculated based on estimated energy savings per 1m² renovated

** - The FEC was expressed in the PEC based on primary energy coefficient - 1.83¹.

^{1*} Achieved target in public buildings for 2019.

^{1**} Achieved target in public buildings for 2020.

^{2*} Data from Kosovo Agency of Statistics 2018.

^{3*} Data from Kosovo Agency of Statistics 2020

¹ 3 year (2015-2017) average conversion factor PEC/FEC

D. Update of measures implemented in last year

As is reported in the last progress report of the NEEAP it can be concluded that regarding the legislation in EE, Kosovo has made good progress in transposition the EED and EPBD directive.

Due to the COVID -19, it is noted as difficult period for data collection for implemented project in 2020. It is also noted that the number of projects foreseen to be implemented during 2020 are postponed for implementation in 2021.

• Legislative measures

Law No.06/L –079 on Energy Efficiency which transposes the Directive 2012/27/EU was adopted on 07.11.2018. Secondary legislation is finalized and adopted by the Ministry of Economy (ME).

The following secondary legislation deriving from the law are adopted during the reporting period.

- Administrative Instruction (MEE) No. 10/2020 On Common Methods and Principles for Calculating the Impact of Energy Efficiency,
- Regulation (MEE) No.02/2020 For Minimum criteria for billing and information on actual consumption billing,
- Regulation (MEE) No. 01/2020 On Minimum Criteria for Energy Audits Including Those Carried Out as Part of Energy Management Systems,
- Administrative Instruction (MEE) No.08/2020 On Certificate / Guarantee of Origin for Electricity Produced from High-Efficiency Cogeneration,
- Administrative Instruction (MEE) No.07/2020 On General Conditions for Cost-Benefit Analysis for Heating and Cooling Relating to Measures to Promote Energy Efficiency in Heating and Cooling,
- Administrative Instruction (MEE) No.06/2020 On the Calculation of Electricity from Cogeneration,
- Administrative Instruction (MEE) No.04/2020 On the Heating and Cooling Efficiency Potential,
- Administrative Instruction (MEE) No. 03/2020 On Energy Efficiency Requirements for Purchasing Products Services and Buildings by Central Government.

On the other hand, by transposing EED into the new Law on Energy Efficiency, it is created the legal basis for the establishment of the financial mechanism for the implementation of energy efficiency projects in the public sector. Kosovo Energy Efficiency Fund (KEEF) is established in 2019 and continued to increase its capacities with new staff during 2020 (with 2 more EE experts from the Mechanical and Architectural field). KEEF plays an important role in financing energy efficiency measures in public institutions such as municipalities and ministries. During the reporting period, KEEF has prepared tender dossier to implement EE measures for 50 buildings, and all those buildings are under an energy audit process. During 2020 it was announced the first call for expression of interest for implementation of EE measures at the municipal level, where 49 building and 3 street lighting projects are selected for implementation.

In the later stage, the second call is announced for expression of interest, respectively the second phase of the call for the implementation of EE measures in public buildings at local level. During reporting period over 100 applications were under screening by the KEEF for selection and implementation during 2021.

The investment budget available for KEEF is up to 17€ mil.: 10€ mil. from EU, 6€ mil. from World Bank-credit line, and 1€ mil. from Kosovo budget.

Other bylaws related to KEEF:

- Regulation (MEETIESI) No.05/2020 for the system of energy service providers and minimum criteria on energy audits.

- **Non-legislative measures**

Kosovo is in the process of finalizing the first plan for increasing the number of nZEB buildings. The Plan was expected to be adopted during 2020 but due to the different circumstances mentioned above (COVID pandemic), its approval was delayed.

In addition, a detailed design for the renovation of the building on the level of nZEB is developed and its implementation is not yet completed.

The pilot project was prepared under the implementation of energy efficiency and renewable energy measures at the Innovation and Training Park in Prizren (ITP). It is the first of this kind in Kosovo and it is foreseen to serve as an example for addressing the building stock renovation in the future.

The Building Renovation Strategy has been not yet adopted, but it is included under policies and measures in the draft of the National Energy and Climate Plan (NECP).

Currently, the following documents were prepared during the reporting period.:

- National building typology for the residential buildings in Kosovo is finalized (finalized, the printing of publication is pending),
- The guideline for implementing minimal energy performance requirements in buildings (finalization is planned by the end of 2021),
- Drafting of the plan for increasing the number of nZEB buildings (waiting for adoption),
- Training program for energy management at municipal level was developed, and training was conducted for all Municipal energy managers and for all Kosovo Municipalities and KEEA staff. The training also included the application of MVP software. The Administrative instruction for the application of MVP is drafted and the adoption is still pending. The MVP tool and training were provided to KEEA with support from GIZ,
- More than 58 Energy Auditors were trained and certified with the support of GIZ,
- University of Prishtina is awarded by ME as a training institution for training and certification of future Energy Auditors for the period of 5 years (Center for Sustainable Energy).

Municipal Energy Efficiency Action Plans (MEEAPs) are developed for all 38 municipalities and are adopted by local assemblies. Adoption of MEEAPs enables municipalities to become eligible to apply to KEEF for the financing of projects from the MEEAP.

KEEA activities for municipalities through support with the German development cooperation:

- A Training hub is established with the Association of Kosovo Municipalities for capacity building for the municipal energy management system. The training for municipal energy managers is conducted and also the manual for Implementation of energy efficiency policies at the local level is developed.
- Municipalities through co-financing were supported for the implementation of demonstration projects that have innovative and replication elements. Innovative pilot projects were implemented in four Municipalities:
 1. Implementation of the 'on grid' photovoltaic system with a capacity of 15.81 kWp (Obiliq/Obilic),
 2. Installation of smart seats in schools and public areas (Graçanicë /Graçanica),

3. Installation of central heating with heat pumps in TSS "Mithat Frashëri" (Istog/Istok),
 4. Intervention with innovative EE measures in the school "Vesel Muja" (Gjilan/Gnjilane).
- Online trainings for exchange of international good practices in the field of energy efficiency were organized for municipal energy managers and directors of public utilities, including the development of a handbook "Good European Energy Efficiency Practices at the local level".

Public energy efficiency information and motivation campaigns Kosovo

Kosovo Sustainable Development Week (KSDW)

The Ministry of Environment and Economy and MESP in partnership with EUOK, GIZ, BGF and INDEP have organized the 3rd edition of KSDW. Considering the emerging situation with the pandemics in 2020, the 3rd edition of KSDW encountered slight changes in its format. While previously being held physically and huge live interaction with the audience, KSDW 2020 was transformed into an online format and brand-new virtual platform which continued to serve to the best of the Balkan's region. KSDW 2020 had 8 panel discussions, 4 online lectures designed exclusively for youth, 4 movie screenings with solar cinema, 5 green speeches delivered by the main stakeholders, and 6 videos conducted by the prominent regional environmental activists.

The complete version of KSDW 2020 recommendations can be found on the KSDW web page <https://ksdw.rks-gov.net/editions#third>.

Green Economy Financing Facility (GEFF)

The EBRD Green Economy Financing Facility (GEFF) has continued supporting SMEs through microfinance institutions during 2020. GEFF provides finance for green economy investments in the residential sector as well as to SMEs and had provided energy efficiency and renewable energy products and services to households.

E. Central Government buildings (Article 5)

The establishment of Kosovo Energy Efficiency Fund was done during 2019, and is now functional and staffed.

During 2020 "the package 4" for the renovation of public building was completed, including the 1-year warranty period by Kosovo Energy Efficiency and Renewable Energy Project (KEEREP) financed by World Bank - the contract for package 4 included 25 buildings and for package 5 included 30 building (where renovation started in 2019 has been postponed and continued in 2021 due to government measures taken for the Covid pandemic 19. Package 5 by the end of 2020 is completed at 80% of the works which includes the renovation of 30 public buildings. Under package 4 are renovated 114,502.00 m²; based on the energy audit report, achieved energy savings are around 51%, yearly based 11,926.86 MWh/a, compared to baseline energy 22,177.00 MWh/a, and annual cost savings 914,673.00 euro. Simply payback period for package 4 is around 6.34 year. In total, 3,008,849.95 Mil. euro were invested during 2020.

Kosovo has progressed in implementing the EE measures at the municipal level. During 2020, 31 municipalities have invested 3,410,257.00 Mil. euros in the renovation of buildings and street lighting. At the central governmental level, Ministry of Economy and Ministry of Health have invested more than 1,890,348.80 Mil. euros in the renovation of buildings and street lighting.

F. Energy efficiency obligations (Article 7)

The Law on Energy Efficiency foresees a combination of the energy efficiency obligation scheme and/or alternative measures. Under Western Balkans Regional Energy Efficiency Programme Phase II – Policy Dialogue Window 1(a) (REEP Plus) technical assistance was provided to the Ministry of Economic Development in developing its policy position and implementing such policies to fulfil Kosovo obligations under Article 7 of Directive 2012/27/EU. The report has outlined three Alternative Measures which are holding the greatest potential for Kosovo to achieve its expected Article 7 obligations under Article 7: Energy Efficiency Fund, Voluntary Agreements, and Eco-design regulations.

Kosovo has established the Energy Efficiency Fund and the initial commitments for the capitalization of the fund are already made with a total 17 mil EUR; (10 mil. € from European Union, 6 mil. € from World Bank, and 1 mil. € from Kosovo Government). The Fund has already set up its operational processes and capacities for the provision of financial support for public buildings. More than 100 applications/projects are under screening process by the Fund; The Fund is conducting the energy audits and preparation of detailed design for the implementation of such projects. The Fund operates as revolving mechanism; the final beneficiary will compensate initial investment by repayment the investment to the Fund through the energy savings within 10-14 years, depending on the project payback period and investment cost.

The **Eco-design regulations**, which set minimum energy performance standards for a variety of common product groups, is not yet transposed in the national legislation. Its transposition is included by the TWG in the draft NECP covering the period 2021-2030. The other instrument which is under discussion within TWG is in setting the fiscal measures for promoting EE product (i.e. tax reduction or VAT reduction for EE products).