**6th Annual Report**

**under the Energy Efficiency Directive**

Kosovo

Prepared by: Kosovo Energy Efficiency Agency

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This is the 6th 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 2020** | **Value** | **Unit** |
| --- | --- | --- |
| Total primary energy consumption (\*) | 2734 | ktoe |
| Total final energy consumption (\*) | 1543 | ktoe |
| Final energy consumption – Transport (\*) | 412.5 | ktoe |
| Final Energy consumption – Industry (\*) | 319.9 | ktoe |
| Final energy consumption – Households (\*) | 628.1 | Ktoe |
| Final energy consumption – Services (\*) | 158.2 | Ktoe |
| Gross value added by sector – Industry (\*\*) | 1.039 | mil. EUR |
| Gross value added by sector – Services (\*\*) | 4.552 | mil. EUR |
| Disposable income of households (\*\*) | NA | mil. EUR |
| Gross domestic product (GDP) (\*\*) | 6771.6 | mil. EUR |
| Electricity generation from thermal power plants (\*\*\*) | 1,511.5 | Ktoe |
| Electricity generation from combined heat and power (\*\*\*) | 4.7 | Ktoe |
| Heat generation from thermal power generation (\*\*\*) | 23.3 | Ktoe |
| Heat generation from combined heat and power plants, incl. industrial waste heat (\*\*\*) | NA | Ktoe |
| Fuel input for thermal power generation (\*\*\*) | NA | Ktoe |
| Passenger kilometres (pkm), if available (\*\*) | NA | thous. Pkm |
| Tonne kilometres (tkm), if available (\*\*) | NA | thous. Tkm |
| Combined transport kilometres (pkm + tkm), in case that separate values for pkm and tkm are not available (\*\*) | NA |  |
| Population (\*\*) | 1773971 | Millions |

Table 1: Key energy statistics data.

*(\*) Energy statistics*

*(\*\*) State Statistical office*

*(\*\*\*) Independent System Operator (ISO), electricity generation companies.*

# 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 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 2015-2021.

Figure 1: Final and Primary energy consumption

\**4th NEEAP 2019-2021*

Figure 2: Final energy consumption per sectors in 2015 – 2021

In 2021 the primary energy consumption was 2873.69 ktoe, while the final energy consumption was 1596.39 ktoe. The primary energy consumption comparing to 2020 increased around 5.11%, and also the final energy consumption had an increase of 3.47%.

The analysis of final energy consumption trends shows that energy consumption in the household sector still continues to increase, that is 3.07% higher than in 2020. Energy consumption in the transport sector had a slightly decrease by 0.71% in comparison with year 2020. Energy consumption in services sector for 2020 (146.06ktoe) has increased in comparison with year 2021 (170.78ktoe) that is 14.474%.

Figure 3: Primary Energy consumption 2015-2021

# 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.

|  |
| --- |
| **2020 ENERGY EFFICIENCY TARGET** |
| 2020 TARGET EXPRESSED IN PEC[ktoe or other unit] | 2847 ktoe |
| 2020 TARGET EXPRESSED IN FEC[ktoe or other unit] | 1556 ktoe |
| Has the target been revised compared to the previous notification? [Yes/No]  | *The target for 2021 is not revised and was planned to be addressed in NECP 2021-2030.*  |
| Has the national target been achieved?[Yes/No] | *Yes* |
| PEC IN 2020[ktoe or other unit] | *2734 ktoe* |
| FEC IN 2020[ktoe or other unit] | *1543 ktoe* |
| Please explain main factors affecting achievement/ non-achievement of the target | Due to the lack of investment and economic crises (pandemic situation covid-19) there is not to compare achieved target as there was not target set for 2021. For this reporting period the approximate annual energy savings for a period 2019 and 2020 was 10.21ktoe. The same trajectory is taken for year 2021. |

# Updates on major energy efficiency measures

During 2021 the implementation of energy efficiency measure has been stagnating due to the COVID restriction and reduced construction activities. Most of the projects planned to be implemented are postponed for 2022 as result of covid restrictions. Energy efficiency Fund has started the procedures for implementation of EE in public buildings. More than 77 public buildings on Municipal level has been energy audited and detail design for implementation is completed up to date.

## Legislative measures

* The list of new primary legislation (energy or energy efficiency law updates) and other acts (Rulebooks, Ordinances, Guidelines) is listed in below table.

During this reporting period the following legal and regulatory acts are adopted and enforced;

|  |  |
| --- | --- |
| LEGISLATIVE MEASURE | PUBLICATION DATE / SOURCE |
| Administrative instruction (ME) NO. 01/2021 on Energy Efficiency requirements for transmission system operator and distributor system operator  | [*https://me.rks-gov.net/repository/docs/UDHeZIM\_ADMINISTRATIV\_(ME)\_NR.\_01\_2021\_PeR\_KeRKESAT\_E\_EFI%C3%87IENCeS\_Se\_ENERGJISe\_PeR\_OPERATORIN\_E\_SISTEMIT\_Te\_TRANSMETIMIT\_DHE\_OPERATORIN\_E\_SISTEMIT\_Te\_S\_\_\_.pdf*](https://me.rks-gov.net/repository/docs/UDHeZIM_ADMINISTRATIV_%28ME%29_NR._01_2021_PeR_KeRKESAT_E_EFI%C3%87IENCeS_Se_ENERGJISe_PeR_OPERATORIN_E_SISTEMIT_Te_TRANSMETIMIT_DHE_OPERATORIN_E_SISTEMIT_Te_S___.pdf) |
| Administrative instruction (ME) NO. 02/2021 on Energy Efficiency criteria for Energy network regulation and for electricity network tariffs  | [*https://me.rks-gov.net/repository/docs/2\_UDHEZIM\_ADMINISTRATIV\_(ME)\_NR.02\_2021\_PER\_KRITERET\_E\_EFI%C3%87IENCES\_SE\_ENERGJISE\_PER\_RREGULLIMIN\_E\_RRJETIT\_TE\_ENERGJISE\_DHE\_PER\_TARIFAT\_E\_RRJETIT\_TE\_ENERG\_\_\_.pdf*](https://me.rks-gov.net/repository/docs/2_UDHEZIM_ADMINISTRATIV_%28ME%29_NR.02_2021_PER_KRITERET_E_EFI%C3%87IENCES_SE_ENERGJISE_PER_RREGULLIMIN_E_RRJETIT_TE_ENERGJISE_DHE_PER_TARIFAT_E_RRJETIT_TE_ENERG___.pdf) |
| Administrative instruction (ME) NO. 04/2021 for amending and supplementing the administrative instruction (MED) no03/2019 on Energy content of selected fuels for end use  | [*https://me.rks-gov.net/repository/docs/3\_UDHEZIM\_ADMINISTRATIV\_(ME)\_NR.04\_2021\_PER\_NDRYSHIMIN\_DHE\_PLOTESIMIN\_E\_UDHEZIMIT\_ADMINISTRATIV\_\_(MZHE)\_NR.\_03\_2019\_PER\_PERMBAJTJEN\_ENERGJISE\_SE\_LENDEVE\_\_\_.pdf*](https://me.rks-gov.net/repository/docs/3_UDHEZIM_ADMINISTRATIV_%28ME%29_NR.04_2021_PER_NDRYSHIMIN_DHE_PLOTESIMIN_E_UDHEZIMIT_ADMINISTRATIV__%28MZHE%29_NR._03_2019_PER_PERMBAJTJEN_ENERGJISE_SE_LENDEVE___.pdf) |
| Administrative instruction (ME) NO. 05/2021 on the general reporting framework Energy Efficiency  | [https://me.rks-gov.net/repository/docs/4\_UDHEZIM\_ADMINISTRATIV\_(ME)\_Nr.05\_2021\_PER\_KORNIZEN\_E\_PERGJITHSHME\_TE\_RAPORTIMIT\_PER\_EFI%C3%87IENCE\_TE\_ENERGJISE.pdf](https://me.rks-gov.net/repository/docs/4_UDHEZIM_ADMINISTRATIV_%28ME%29_Nr.05_2021_PER_KORNIZEN_E_PERGJITHSHME_TE_RAPORTIMIT_PER_EFI%C3%87IENCE_TE_ENERGJISE.pdf)  |
| Administrative Instruction (ME) NO. 06/2021 on Energy services (ESCO) | [https://me.rks-gov.net/repository/docs/5\_UDHEZIM\_ADMINISTRATIV\_(ME)\_NR.06\_2021\_PER\_SHERBIMET\_E\_ENERGJISE\_(ESCO).pdf](https://me.rks-gov.net/repository/docs/5_UDHEZIM_ADMINISTRATIV_%28ME%29_NR.06_2021_PER_SHERBIMET_E_ENERGJISE_%28ESCO%29.pdf)  |
| Concept Document for revision the law Energy efficiency no 06/L-079 | *The procedure for updating the law on Energy efficiency has been initiated* |
| The Kosovo Energy Strategy for period 2022 – 2031 is available as draft version and has undergone the public consultation.  | [*https://konsultimet.rks-gov.net/viewConsult.php?ConsultationID=41426*](https://konsultimet.rks-gov.net/viewConsult.php?ConsultationID=41426) |
| The National Action Plan for Energy Efficiency for covering the period (2022-2024) is in the finalization process. | *Under drafting procedures*  |
| The law on Energy performance in Building is revised in reflecting the changes in the recast EPBD ([Directive 2018/844/EU](https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:153:0013:0035:EN:PDF)) in parallel the respective secondary legislation is in process to be harmonized)  | *Under the drafting procedures.* |
| Drafting the template and guidelines for integrated Municipal Energy efficiency and Climate Action Plans (MECAPs) | Under drafting process and piloting in 6 Municipalities. Deçan, Drenas, Ferizaj, Gjilan, Podujeva and Prizren. |
| Finalization of National plan for increasing the number of nearly zero-energy buildings | Draft  |
| Finalization of the guidelines for setting the minimum energy performance requirements of buildings. | Draft |
| “Financing Mechanisms to promote the implementation of EE and RE measures in the residential and private building sectors of Kosovo”. | Draft |
| Publication of the “Typology and Energy Performance of Residential Buildings in the Republic of Kosovo" |  |

## Non-legislative measures

On below table are listed the non-legislative measures taken from central governmental and local level.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NAME OF MEASURE | SHORT DESCRIPTION | IMPLEMENTING PERIOD(YYYY-YYYY) | ESTIMATED 2020 ENERGY SAVINGS (KTOE), GHG REDUCTION (KT CO2-EQUIVALENT) AND % CONTRIBUTION TO THE 2020 EE TARGET | SOURCE WHERE MORE DETAILS ARE AVAILABLE |
| Implementation of Energy Efficiency measures in public buildings in following Municipalities; (Obliq, Kamenice, Graçanice,Peja and Dragash) | Implementation of EE measure in buildings consist of following; Thermo-insulation of building envelope, installation of Efficient heating and colling, renovation of public street lighting with LED lighting system etc. total investment cost is 0.96Mil Eur. | 2021 | 0.17 Ktoe | - |
| Implementation of EE measures in the Central government buildings (invest. Ministry of Justices) | Replacement of internal lighting system and upgrade to LED bulbstotal investment is 1.08 Mil Eur | 2021 | 0.196 ktoe |  |
| Implementation of EE measures in Agricultaure sector (invest. Ministry of Agriculture) | Implementation of EE measures in the agriculture sector through the Program for Rural Development 2014-2021 total investment is 4.4 Mil Euro. | 2021 | 0.8 ktoe |  |
| Implementation of EE measures in public buildings through Kosovo Energy Efficiency and Renewable Energy Program, KEEREP, (invest. World Bank) | Implementation of EE measure in public buildings consisting of following; Thermo-insulation of building envelope, installation of Efficient heating and cooling, replacement of internal lighting etc. the total investment is 1,365,624 Mil Euro | 2021 | *0.25 Ktoe* |  |
| Implementation of EE measures in public buildings through Kosovo Energy Efficiency Fund  | Implementation of EE measures in public buildings is in the implementation stage and no savings can be assessed as the project are under work implementation total investment for reporting period is: 5.06 Mil euro.  | 2021 | *0.92 ktoe* |  |
| The EBRD Green Economy Financing Facility (GEFF) has continued supporting SMEs through micro finance institutions during 2021.  | GEFF provides finance for green economy investments in the private sector as well as to SMEs to implement energy efficiency and renewable energy products and services. | 2021 | *0.1ktoe* |  |
| Implementation of Energy Efficiency measures in household sector supported by MCC under MFK program | Implementation of EE measures in household sector; building envelope thermos-insulation, replacing doors and windows, installing efficient heating and cooling system, installing efficient lighting, installation of solar thermal panels for SHW. The total investment about 4.06 Mil Euro is done under HER, AER, and WEE windows. The program covered 175 household buildings with 43,935 m2. | 2021 | *0.74ktoe* |  |
| Commercial banks investment in green energy and Energy efficiency  | Different lona schems for financing EE and res “Green Energy and Energy Efficiency” with the total invest of 17,687,699.69Mil. Euro. | 2021 | 3.215 ktoe |  |
| Total  | 6.391ktoe |  |

* Additionally, there were actions taken during the reporting period that are anticipated to support the implementation of EED or the Law on EE; the Law on EE;
* Under technical assistance projects implemented by GIZ it has been significant progress in preparing the digitization system for the procedures for energy performance certification in Buildings. The Calculation software and data management platform are in the finalization stage. The technical requirements and guidelines for implementation of energy efficiency in different sectors are developed too. The capacity development programs are implemented, targeting Municipal energy managers for planning, implementation, and monitoring (for all Kosovo Municipalities)
* The program for training of Energy auditors has continued Centre for energy and sustainability CES at Prishtina University has continued to provide training for energy auditors.
* Activities on gender aspects are conducted with local NGO’s bringing an overview Gender Diversity on the Energy Sector.
* Kosovo sustainable development week (KSDW ), its 5 edition is organized by ME, MESPI, MRD supported by EU, GIZ , INDEP and BGF: Complete version of KSDW 2021 recommendations can be found on KSDW web page; <https://ksdw.rks-gov.net/storage/app/media/KSDW2021_Report_ENG-min.pdf>

# Central Government buildings (EED Article 5) and nearly zero-energy buildings (EPBD Article 9)

The program for renovation of Central government buildings is ongoing through Kosovo Energy Efficiency and Renewable Energy Program (KEEREP)

The action plan for near zero energy building is still as draft version. Its adoption is expected by end of 2022. Several projects are identified to be under development stage, this includes the detail design for fulfilment of the nZEB requirements.

|  |  |  |
| --- | --- | --- |
|  | on 1 January 2020 | on 1 January 2021 |
| Total building floor area [m2] of the buildings with a total useful floor area over 250 m2 owned and occupied by the Contracting Parties’ central government | - | - |
| Total building floor area [m2] of the buildings which did not meet the energy performance requirements referred to in Article 5(1) | NA | NA |
|  | 2020 | 2021 |
| Total building floor area [m2] of buildings renovated as referred to in Article 5(1) | - | - |
| Amount of energy savings [ktoe] achieved in the given year in eligible buildings owned and occupied by their central government due to renovation of buildings as set out in Article 5(1), expressed in primary or final energy | - | - |
| Number and floor area [m2] of new and renovated nearly zero-energy buildings | - | - |

# Energy efficiency obligations (Article 7)

The Law on Energy Efficiency foresees combination of EE 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 Ministry of Economic Development in developing its policy position and implement such policies for fulfilling its obligations under Article 7 of Directive 2012/27/EU. The report has outlined three Alternative Measures which are holding the greatest potential for assisting Kosovo to achieve its expected Article 7 obligations under the Article 7: (Energy Efficiency fund, Voluntary Agreements, and Eco-design regulations.

Kosovo has decided to implement alternative policy measures aiming to reduce final energy consumption instead of obligation scheme.

The measures include the establishment of Energy Efficiency Fund (KEF) which is operational since 2019.

KEF during 2021 under “the package 6” for renovation of public building has implemented EE measures in 17 public buildings. In addition, it is developed and functionalized the mechanism for training and certification of energy auditors and energy assessors with Prishtina university.

The **Eco-design regulations,** which set minimum performance standards on energy consumption for a variety of common product groups is not yet transposed in the national legislation, its transposition is included by the TWG in parallel with adoption of the NECP covering the period 2023/2030.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TYPE  |  | ANNUAL SAVINGS (KTOE) | CUMULATIVE TOTAL (KTOE) | % OF EEO TARGET |
| NAME OF MEASURE | 2017 | 2018 | 2019 | 2020 |
| EEOS |  |  |  |  |  |  |  |
| Alternative measure 1:  |  |  |  |  |  |  |  |
| Alternative measure 2: |  |  |  |  |  |  |  |
| Alternative measure 3: |  |  |  |  |  |  |  |
| Alternative measure 4: |  |  |  |  |  |  |  |
| Alternative measure 5: |  |  |  |  |  |  |  |
| TOTAL  |  |  |  |  |  |  |  |

# Energy audits (Article 8) and energy services (Article 18)

During 2020 and 2021 has been launched a tender for preparing the Energy Audit for municipality level. There have been carried out 77 Energy Audits and is estimated saving on CO2 emissions 3237.18 tons/year. During 2021 the center for sustainability, University of Prishtina “Hasan Prishtina”, trained and certified in addition 59 energy auditors ( [*https://fkee-rks.net/en/*](https://fkee-rks.net/en/)*)*

Notes: It is imported to list the commercial banks investment in Green Energy and Energy Efficiency measures and total invest amount is 17,687,699.69Mil. Euro.

*Please provide information in table below:*

|  |  |  |
| --- | --- | --- |
|  | 2020 | 2021 |
| Number of energy audits carried out. | - | 77 |
| The total estimated number of large companies in territory of CP to which Article 8(4) of Directive 2012/27/EU is applicable | - | - |
| The number of energy audits carried out in those enterprises | - | - |
| The internet link to the website where the list or the interface of energy services providers | No ESCO company are established during reporting period |

# Conversion Factors (EED Annex IV)

We confirm that national primary energy factor for electricity have been applied as in Annex IV to Directive 2012/27/EU.

***NOTE:***

***Data on primary and final energy consumption in 2020 should be inserted in MS Excel Table (see Part 2 Report)!***