

**5th Annual Report
under the Energy Efficiency Directive**

ALBANIA

Prepared by: AGENCY FOR ENERGY EFFICIENCY

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A. Key statistics and indicators

This is the Fifth Annual Report under the Energy Efficiency Directive prepared 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).

Estimation of key statistics and indicators in 2019	Value	Unit
Total primary energy consumption (*)	2340.3	ktoe
Total final energy consumption (*)	2,067.1	ktoe
Final energy consumption – Transport (**)	860	ktoe
Final Energy consumption – Industry (**)	378	ktoe
Final energy consumption – Households (**)	492	ktoe
Final energy consumption – Services (**)	N/A	ktoe
Gross value added by sector – Industry (**)	N/A	mil. EUR
Gross value added by sector – Services (**)	N/A	mil. EUR
Disposable income of households (*)	N/A	mil. EUR
Gross domestic product (GDP) (*)	15.287	mil. EUR
Electricity generation from thermal power plants (***)	0	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 (***)	0	ktoe
Passenger kilometres (pkm), if available (**)	N/A	thous. pkm
Tonne kilometres (tkm), if available (**)	N/A	thous. tkm
Combined transport kilometres (pkm + tkm), in case that separate values for pkm and tkm are not available (**)	N/A	
Population (*)	2.854	millions

Table 1: Key energy statistics data

(**) State Statistical office (INSTAT)

(***) Independent System Operator (ISO), electricity generation companies, National Agency for Natural Resources, Ministry of Infrastructure and Energy

B. Overview of energy consumption trends

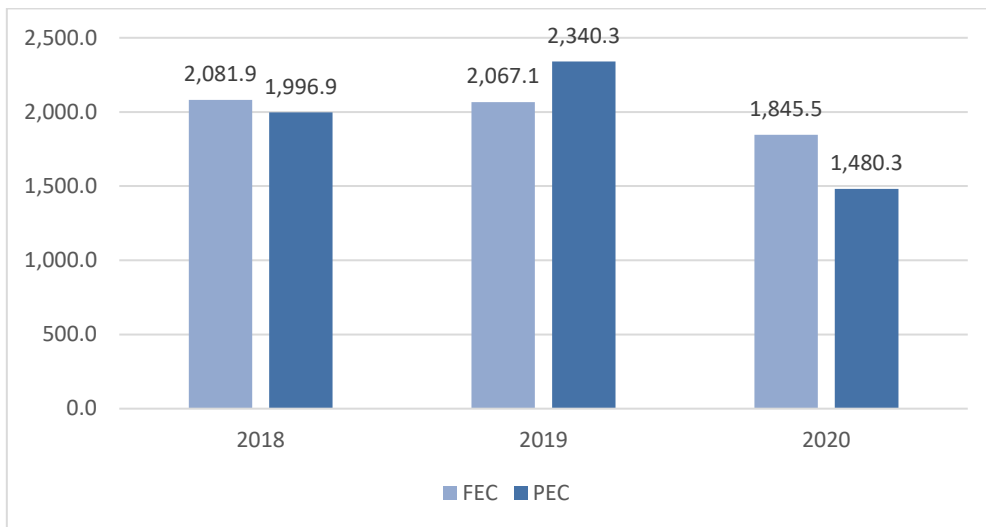


Figure 2: Final and primary energy consumption 2018-2020

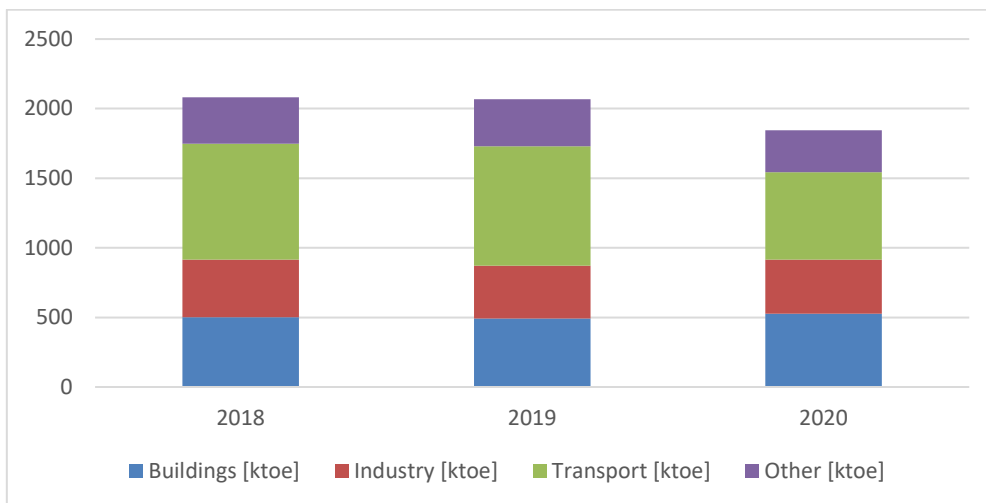


Figure 3: Final energy consumption per sectors 2018-2020

C. National energy efficiency targets

TARGETS	2016	2017	2018	2019	2020
EED ARTICLE 3 [ktoe or other unit]			38.5		123.7
EED ARTICLE 5 [ktoe or other unit]			13.32** *	N/A	40.83
EED ARTICLE 7 [ktoe or other unit]		2.25***	2.25***	N/A	3.7
PEC [ktoe]			2,131.9		2,438.0
FEC [ktoe]			2,077.1		2,132.4
FEC - BUILDINGS [ktoe]			488.7		37.4
FEC - INDUSTRY [ktoe]			417.5		6.9
FEC - TRANSPORT [ktoe]			838.5		49.5
FEC – OTHERS [ktoe]			419.5		16
PRIMARY ENERGY INTENSITY [ktoe/mil.EUR]	0.193	0.193	0.194	N/A	
FINAL ENERGY INTENSITY [ktoe/mil.EUR]	0.207	0.201	0.199	N/A	

Figure 4: Division of targets per sectors and per different articles of EED

D. Update of measures implemented in last year

- **Legislative measures**

The Ministry of Infrastructure and Energy with the assistance of the European Bank for Reconstruction and Development (EBRD) reviewed the Law on Energy Efficiency (No. 124/2015, 12.11.2015, amended by the Law No. 28/2021, 08.03.2021), partially approximating with the provisions of the Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC.

Law “On energy efficiency” implementing legislation

Concerning the implementing legislation, the following acts are approved:

- Establishment of the centralized database for monitoring, verification and reporting, which is on drafting phase (Article 8 (6)).
- Template for local energy efficiency action plans and progress reports New Article 9(1)(3) of Law which is under drafting by the Ministry of Infrastructure.
- Inventory of central governmental buildings New Article 9(1)(4) of the law which is on drafting phase by the Agency for Energy Efficiency of the Republic of Albania.
- Instruction on the reporting by the large energy consumers Article 28(3) of the Law, which is which is on drafting phase by the Agency for Energy Efficiency.

Law on Energy Performance in Buildings – secondary legislation

Based on the Law No 116/2016 of 10.11.2016 “On the energy performance in buildings”, with the Order of the Minister of Infrastructure and Energy No 92 of 13.10.2017, a technical working group was set up to prepare the implementing legislation for the energy performance in buildings. The working group is assisted by REEPP programme and the Secretariat in preparation of the implementing article 4(6) on the “Decision on approval of categories of buildings, which will subject to exclusion” and the draft is under preparation.

- **Non-legislative measures**

Some energy efficiency projects are under development.

- a) The Project “Development of a Financing Mechanism for Energy Efficient Public Buildings in Albania” was financed by the World Bank. The objective of this activity is to inform and facilitate decision-making for sustainable financing mechanisms for energy efficiency (EE) in the public buildings sector. This will also serve as a possible vehicle for expanding to residential buildings in the future.
- b) Smart Energy Municipalities is a project financed by the Switzerland Embassy. The objective of this bilateral Project is to support selected Albanian municipalities to manage energy in a sustainable manner and to implement the national energy policy at local level. To this end, it will pilot and institutionalize an energy management system that is based on the European Energy Award (EEA) and incorporates the requirements of the national energy legislation. The Project contributes to improve energy management, reduce energy consumption, to mitigate climate change and to promote sustainable economic development. The expected results at outcome and output level are as follows:
 - *Outcome 1:* The implementation of the national energy policy is supported at the local level.
 - *Outcome 2:* Pilot municipalities benefit from an energy management system that allows to be scaled up to further municipalities.

These objectives will be achieved through the following outputs:

- Output 1: Suitable energy management units are established and strengthened. Local Energy Strategies are developed for pilot municipalities.

- Output 2: Quick-win investments are realized. An incentive scheme for the mid- and long term implementation of an Albanian EEA Programme is prepared.
 - Output 3: Key institutions related to energy management are strengthened and the awareness of the population and decision makers is increased.
 - Output 4: An Albanian EEA Programme at national level is designed and introduced.
- c) Study and Expert Fund measure on “Energy Management in Municipalities” by Germany/GIZ, strengthen partner capacities in energy efficiency and to plan, prioritize and implement selective energy efficiency measures at the municipal level in 12 municipalities.
- d) Regional Program: “ORF Energy Efficiency” by GIZ. The relevant political and civil society actors in South Eastern Europe increasingly take advantage of regional networks for the implementation of EU standards in the field of climate protection.
- e) Project for replacement of high efficiency pumps (with engine efficiency class IE3 (Premium Efficiency), installation of SCADA system and photovoltaic panels for power generation in 9 water supply systems in the municipalities of Tepelena and Memaliaj. The Agency for Energy Efficiency, in the framework of supporting investments for the improvement of energy efficiency, has made investments in 9 water supply systems in the municipalities of Tepelena and Memaliaj (Tepelena, Memaliaj-village, Lkel, Dragot, Veliqot, Dukaj, Kalivac, Metohasanaj and Bumbull). The intervention in these water supply systems consists in the replacement of the existing fully depreciated pumps with pumps manufactured with EU standards and with IE3 (Premium Efficiency) engine efficiency class, installation of photovoltaic panels for energy production as well as installation of SKADA system, for monitoring and more efficient use in relation to electricity consumption, with the objective of reducing energy consumption on an annual basis, and reducing CO2 emissions.
- g) Pilot project for the improvement of Energy Efficiency in wastewater treatment plants in the municipality of Durrës. In this plant the investment has been realized for the improvement of energy efficiency in 11 stations and consists in the repair of some pumps and the replacement of those that are completely depreciated, as well as the improvement of the SKADA system, for the most efficient monitoring and use in relation to consumption of electricity. The new pumps are manufactured to EU standards and to the IE3 (Premium Efficiency) motor efficiency class.
- h) Pilot project for installation of lighting system, parking, car power supply "2 km Smart-City- Clean Energy Road. This project will serve as a promoter of energy efficiency and clean energy and the project will precede the growing trend of using EV, to be extended in the future throughout the territory of Albania. Its main purpose is to meet market demands for electric car charging, reduce electricity consumption and reduce CO2 emissions in urban lighting, as well as the use of electric cars, bringing the relevant environmental benefits. In this project will be realized the improvement of the street and decorative lighting system, the installation of solar panels for energy production (Smart Flower photovoltaic plant, Aeroleaf Wind Tree wind farm), as well as electric vehicle chargers.
- i) Study for the creation of the network for the placement of charging stations for electric cars in the territory of Albania. In order to improve the pollution coming from the means of transport, AEE is at

the end of the study for the creation of a network of placement of charging stations to cover all the needs of electric cars in the whole territory of Albania. Upon completion of the study AEE will apply for funding for the possibility of conducting this study.

j) Project idea on electrification of urban and intercity transport lines in the Municipalities of Tirana, Vlora, Durres. One of the polluters in the means of transport is the urban transport in the cities as well as the one between the cities of the country. For this purpose, a study is being drafted for the electrification of urban transport lines in the three municipalities of the country Tirana, Vlora, Durres. After drafting the study, the possibility of financing this project will be seen to start with the transformation of urban transport by introducing the use of electric vehicles.

k) Interreg IPA II Cross-border Cooperation Program Greece-Albania 2014-2020. The objective of the project is the implementation of small-scale nZEB (nearly zero energy buildings) investments and the development of a joint approach towards public nZEBs through smart initiatives and the establishment and operation of energy communities in the eligible area. This project is being implemented in the municipality of Gjirokastra and includes the reconstruction of the Cultural Center "Fato Berberi", significantly improving the energy efficiency of the building and turning it into a building with consumption close to zero energy.

l) Feasibility study and project implementation of the heating system of Korça excluding timber. This project is the final phase and aims to replace the use of firewood for heating, as the basic material used in this city (zone C), with natural gas, which will be taken from the TAP network which passes in the area of the city of Korca. After the completion of the project AEE will apply for the possibility of its realization. This project will significantly reduce air pollution in the city of Korça, the emission of greenhouse gases into the atmosphere, as well as will stop the cutting of wood in forests for heating use.

m) Urban and street lighting standards in the Republic of Albania. National urban and street lighting has a significant consumption of electricity, also due to the fact that the light bulbs are old and with high electricity consumption. Setting standards according to the best international ones in urban and street lighting in the territory of Albania, will force all institutions investing in this sector to use high energy efficiency luminaires by significantly reducing electricity consumption and costs. of maintenance.

n) Project for calculating the optimal cost for the minimum conditions in buildings. Following the improvement of the work for the realization of the energy efficiency parameters in the buildings in cooperation with the Polytechnic University of Tirana, standards are being drafted for the minimum condition of efficiency in the buildings. Setting these standards will increase the quality of construction as well as reduce electricity consumption as well as environmental pollution.

o) Pilot project for the construction of a building with "0 Energy" (keys in hand). This project consists of the construction of a new AEE building with close to zero energy consumption. The realization of the project is foreseen to be realized during 2022.

E. Central Government buildings (Article 5)

The amended EED law has provided the legal basis for starting the data gathering. Until now the Agency for Energy Efficiency has sent the request to the main municipalities and is starting to create a buildings database. This database will later serve to have a detailed overview of the building stock and start the EE Audit and renovation.

F. Energy efficiency obligations (Article 7)

Regarding the EE obligations (Article 7) the Ministry of Infrastructure and Energy has adopted the EED law on 08.03.2021 and has included the obligation schemes in it. Until now no other progress is done concerning article 7.