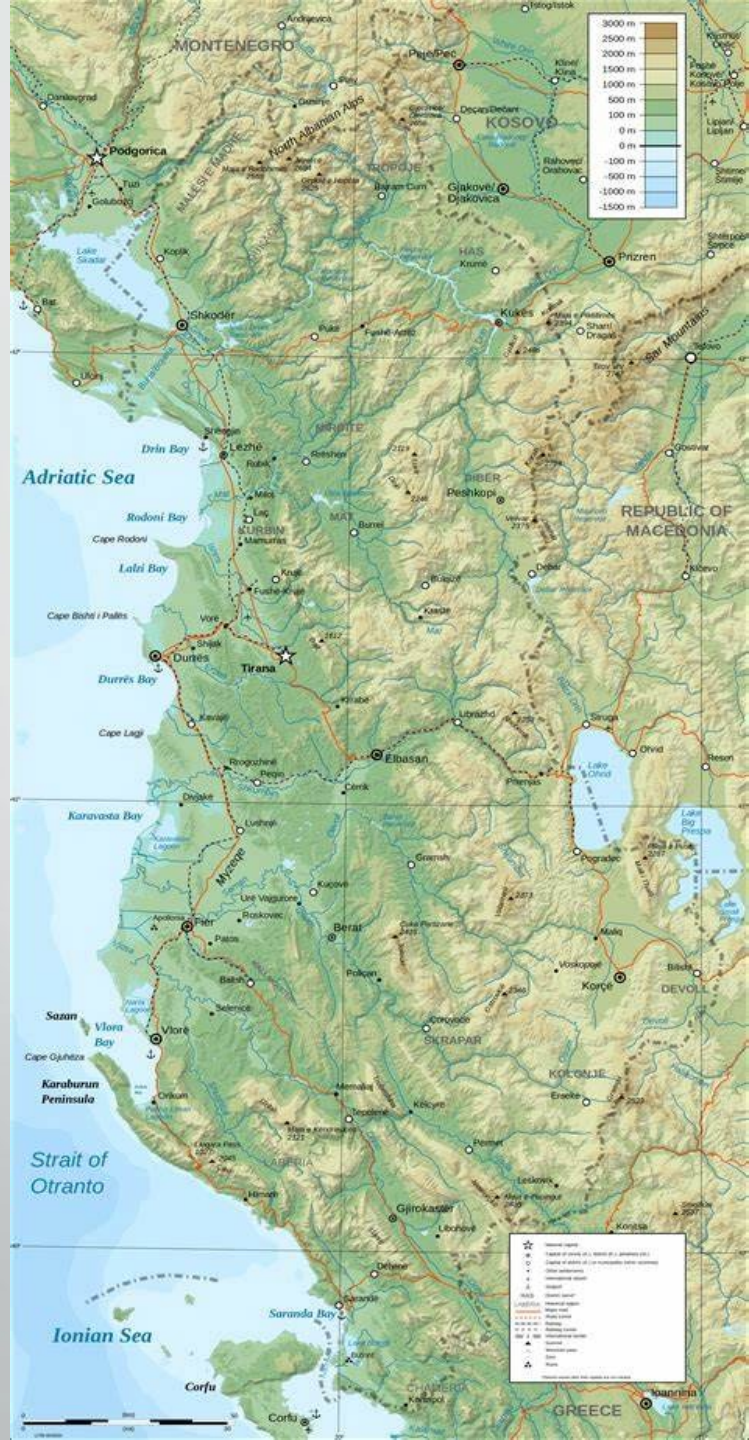


Training Workshop (Direct and online) "Guidelines and Best Practices in ALBANIA  
for MSMEs in delivering energy efficient products and in providing renewable  
energy equipment

## **Renewable Energy Deployment**

**National Agency of Natural Resources**

Tirana, 20 January 2022



1. Population 2.95 million
2. Albania has a land area of 28,745 km<sup>2</sup>
3. 77% of the country is mountainous
4. Administratively divided into 12 prefectures, 36 districts, 315 communes and 2900 villages
5. 95% of Electricity produce by Hydro
6. GDP 2020 is 12 Billion Euro



# Albanian energy goals

security of supply through better exploitation;  
utilization of energy sources;  
energy diversification;  
increasing the competitiveness and,  
the environmental protection.

# Albania RES Target

Albania has committed to a binding 38% target of energy from renewable sources in gross final energy consumption in 2020, starting with 31,2% in 2009. In 2020, according to the energy balance published by EUROSTAT, Albania achieved a 34,9% share of energy from renewable sources, above the third indicative trajectory of 34,3%.

# National Renewable Energy Action Plan

RES energy expansion targets up to 2020

- 57 MW of hydropower energy;
- 490 MW of photovoltaic energy;
- 150 MW of wind energy.

RES price:

Installations up to 2MW of Solar and 3 MW wind Energy

Feed in Tariff 100 euro/MWh and 76 Euro/MWh.

Hdro Energy upt to 15 MW 52 Euro/Mwh

# Support Schemes awarded through Auctions

The Albanian government has recently passed a resolution in July ("**CMD 349/2018 on RES Support Schemes**"), designating the means for promoting the use of energy generated from solar and wind power plants and which stipulates the procedures for electing the eligible projects to benefit from such means.

According to the 2017 RES Law, *feed-in-premium tariffs* for renewables with over 2 MW of installed capacity should be granted through a competitive auction process, on non-discriminatory, clear and transparent basis.

# Status of Law of Renewable Energy in Albania

- The new Law “On Renewable Energy Recourses ” has approved recently, aiming to transposes all requirements of EU Directives including New EU Directive 2009/28 and bio fuels.
- This law promote the production of electricity and heat from renewable energy sources in order to:
- Enhance energy security supply;
- Protection of the climate and protection of the environment;
- Increase of the share of renewable sources in consumption of primary energy sources;
- Establishment on a preferential basis on the internal electricity market the production of electricity from renewable energy sources;



# SOLAR PROJECTS

Just recently Albania has opened the call for bids to build the Adriatic country's first solar power station, for a 30 years term.

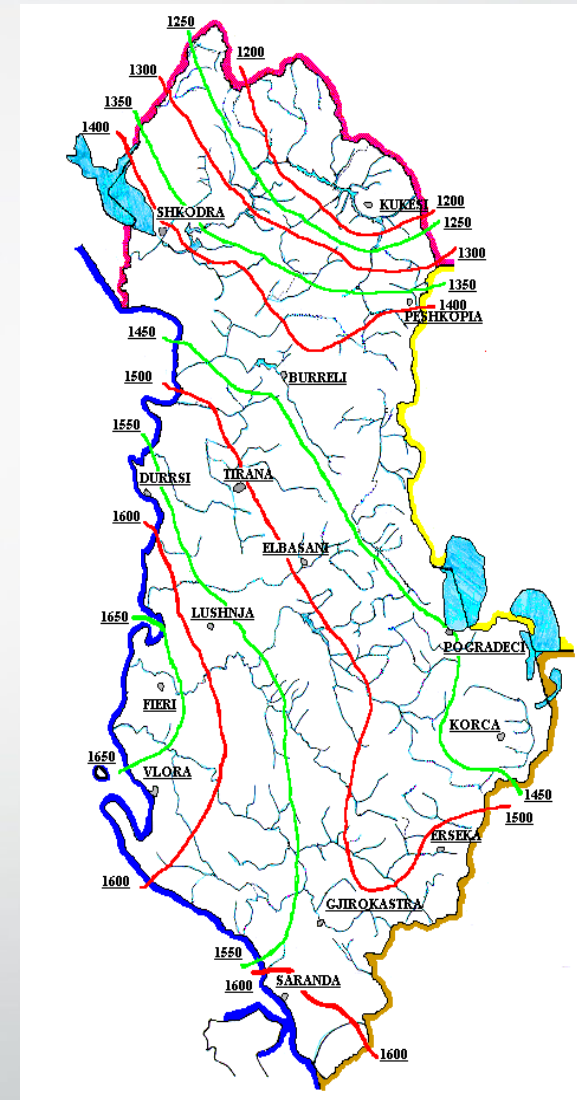
An initial installed capacity of 50 MW with possibility of extension to up to further 50 MW .

The financial criterion in this round of bids is designated as the decisive winning factor, as 30 points will be given to the company choosing to sell at a cheaper price to the OSSHE (power distributor system operator), securing a guaranteed buyer for the first half of the renewable 30-year-term.



# SOLAR ENERGY

- In Albania, average solar radiation is 1500 kWh/m<sup>2</sup> per year and Maximal radiation is 2200 kWh/m<sup>2</sup> per year
- In 2018, a total of 220 000 m<sup>2</sup> were installed (60% by services, 40% by households), bringing total installations to 220 000 m<sup>2</sup> (equivalent to around 110 GWh/y or 1.1% of electricity consumed by households in 2018).
- Actually, Albania has installed 10 MW solar photovoltaic.



Solar Radiation in Albania

## Hydro potential

- The power system in our country currently is almost based on hydropower. Albania has a considerable hydropower potential, where only 35% of it is utilized. The hydrographic territory of Albania has a surface of 44,000 km<sup>2</sup> or 57% more than the national area of our country. The total reserves are estimated at 4,500 MW and the annual output potential can reach 18 TWh.
- In January 2018 results that from the contracting authority MEI were signed a total of 194 contracts for the construction of 540 small HPPs nationwide, where representing 31% of the generation forecast, which is only 43% of the electricity consumption projected in 2020. Expectation of HPVs in the construction phase can increase about 8% hydro production in 2020.
- The total net output for 2017 by private generators/concession was 1,608,181 MWh or about 35.5% of the total domestic production being 4,525,173 MWh. (ERE)

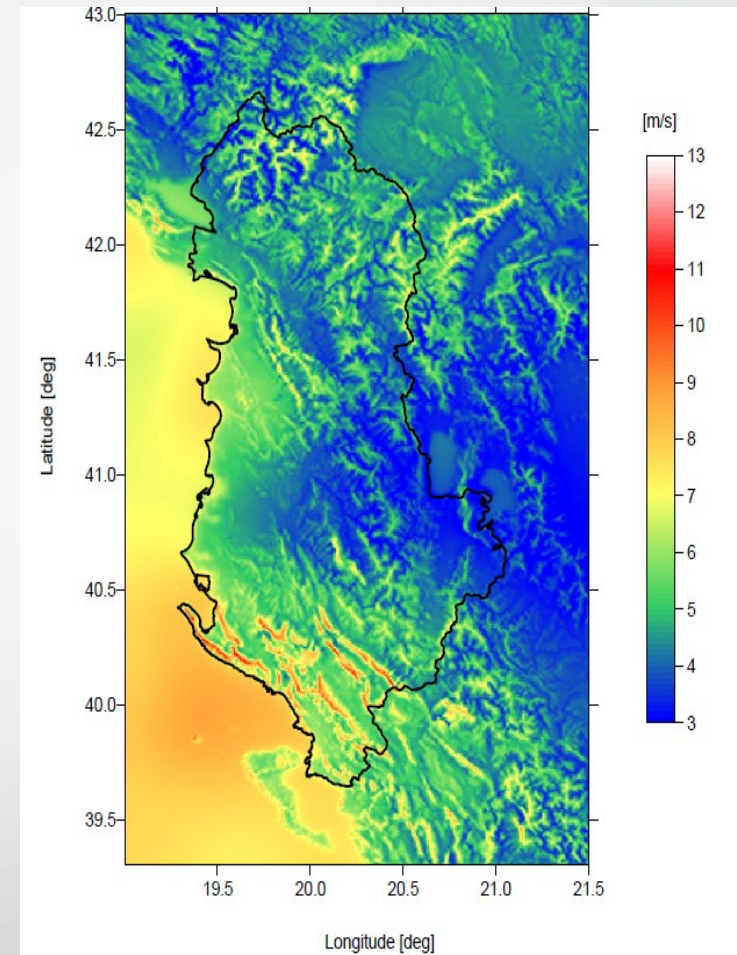


# WIND ENERGY

The average speed of wind, is around 4-6 m/s (10 m height), and the average energy density is 150 W/m<sup>2</sup>.

Albania have average 4200 hours with wind per year.

Actually in Albania Territory is under survey for potential of wind energy



***Annual average wind speed***



# BIOMASS

National Agency of Natural Resources has prepared study "Biomass Potential in Albania" (in 2018 )

According this study:

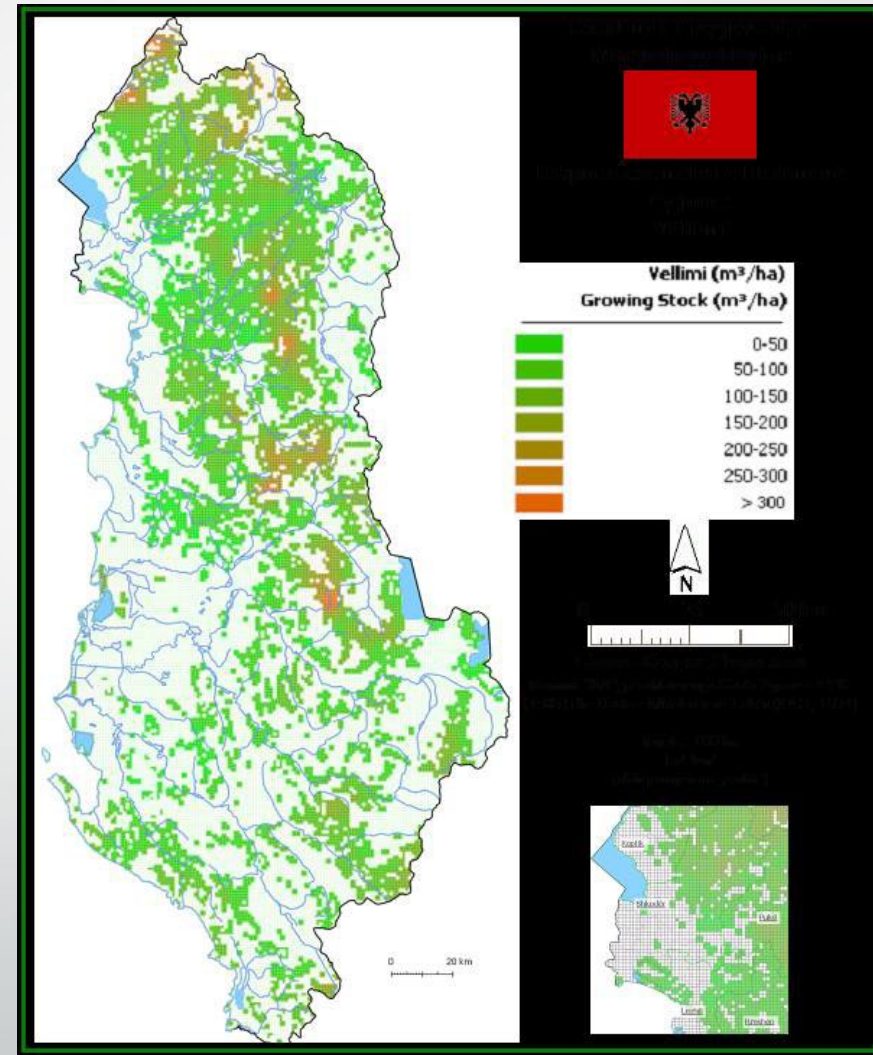
Forests cover 36% of the land area of Albania. Total proven reserves on wood as fuel is about 6 Mtoe. Wood production for energy in 2018, is 210 Ktoe

## Agricultural biomass

Agriculture is a source of considerable biomass quantities that can be used for bioenergy production.

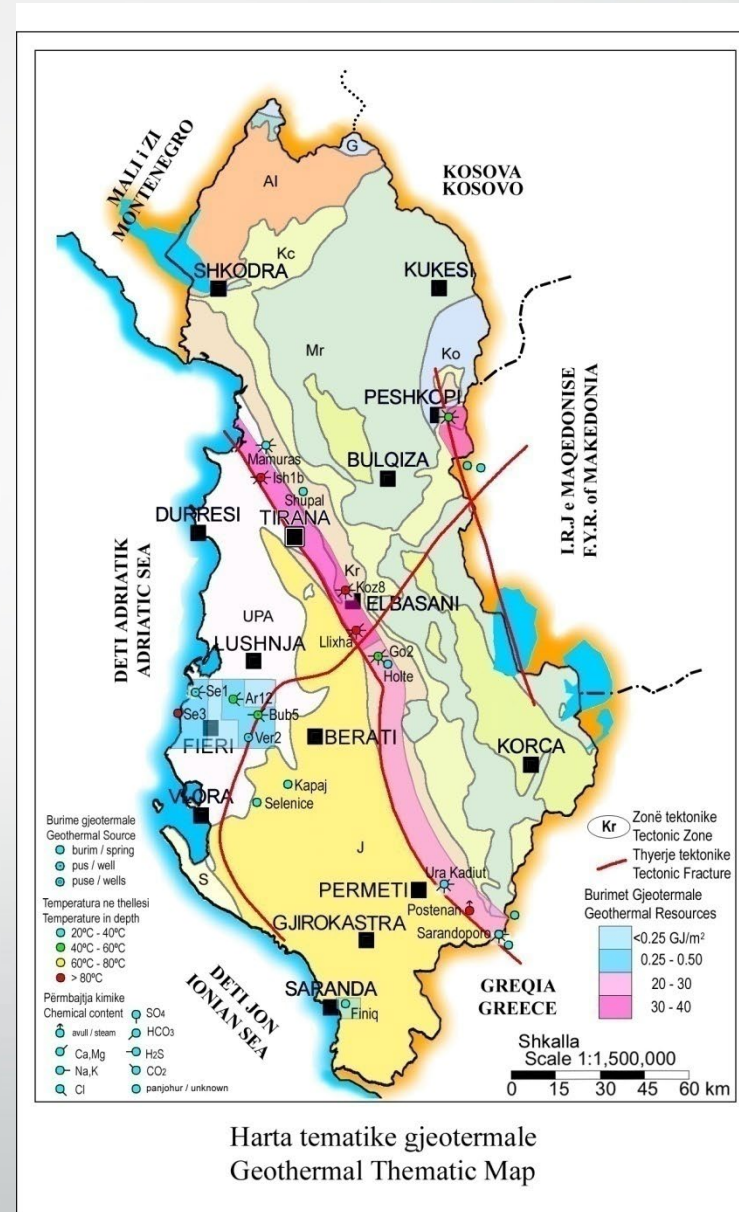
## Biomass from waste

Total production of waste for 2018 according to official statistics was amount of 762,353 tons or 240 kg/capita.



# GEO THERMAL ENERGY

- Albania, actually is in the feasibility phase of assessment of the geothermic energy use potential
- The geothermic situation of Albania presents two directions for use of geothermic energy:
  - The thermal sources with low enthalpy
  - The usage of the depths of the abandoned wells



# ENERGY EFFICIENCY

- 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.

## Some energy efficiency projects are under development.

- 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.
- 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.
- 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.
- 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.
- 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.

## Some energy efficiency projects are under development

- Pilot project for the improvement of Energy Efficiency in wastewater treatment plants in the municipality of Durrës
- Pilot project for installation of lighting system, parking, car power supply "2 km Smart-City- Clean Energy Road
- Project idea on electrification of urban and intercity transport lines in the Municipalities of Tirana, Vlora, Durres.
- Study for the creation of the network for the placement of charging stations for electric cars in the territory of Albania.

# Thank you



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