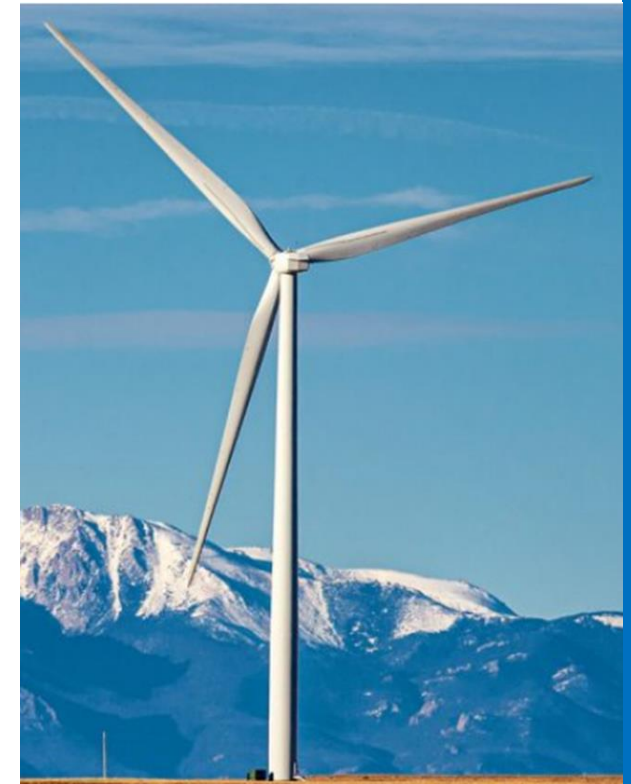




“Level of concentration in the Albanian Power Sector and way to invest in RES”

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Sustainable Energy Advisors

Services and experience;

- Policy and Sectorial Analysis
 - Authors of the Albania section of the SEE Energy Outlook 2022 with IENE
 - Drafting of the long term strategy of Albgaz
- Natural Gas, LNG, Hydrogen
 - Korca gas distribution project
 - Skopje-Pristina gas pipeline pre-feasibility
 - Vlora SFRU market analysis
 - Drafting of regulations, strategy of gas sector development & Albgaz
 - Potential of H2 exports to EU via EastMed pipeline
- Electricity
 - PV,
 - SHPP,
 - Regulatory

Partners;



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in close cooperation with a wide network of local and international energy experts

Clients;



Topics of discussion;

- 1) Main indicators of the evolution of **electricity market concentration** in Albania
- 2) Ways to invest in **photovoltaics** and **wind** in Albania

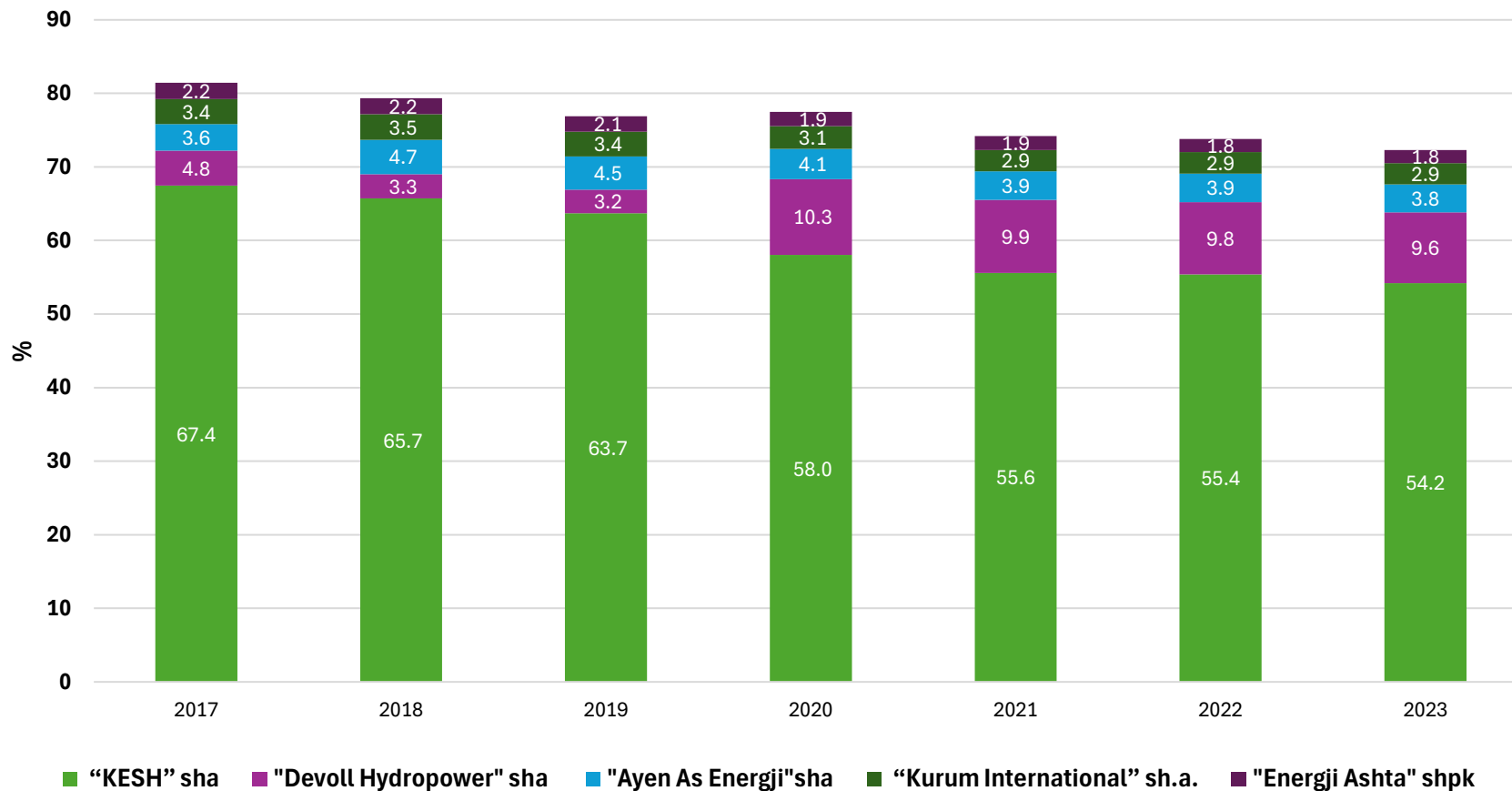
Part 1. Main indicators of the evolution of the electricity market concentration in Albania

The concentration of the electricity production market in Albania has been measured by use of 3 most widely used indicators:

- 1) C5 = the share of capacity/production held by the 5 largest generators.
- 2) Companies owning a share of capacity/production greater than 5%.
- 3) The Herfindahl-Hirschman index.

1.1: C5 – the share of generation capacity held by the 5 largest generators.

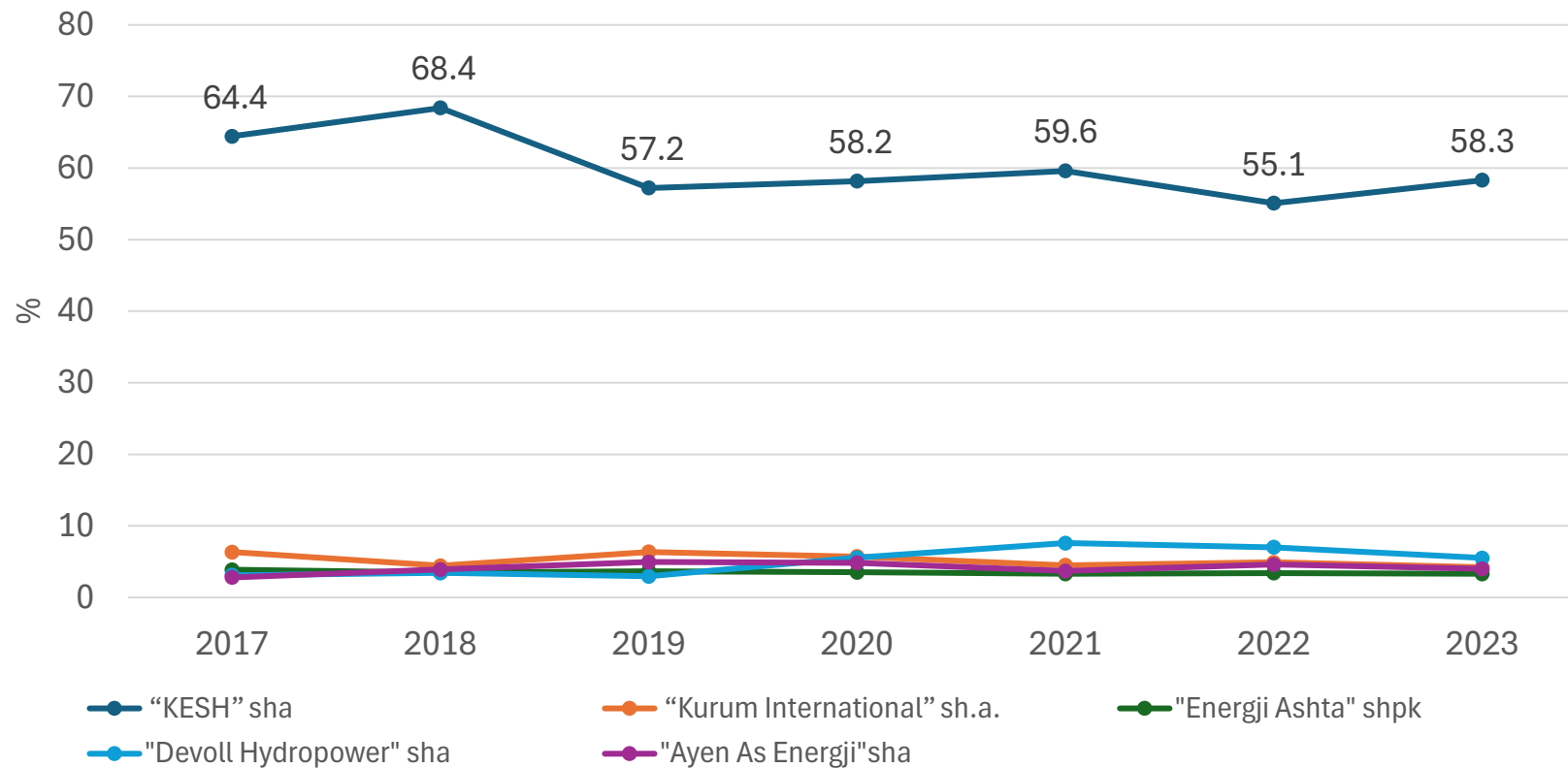
Share of generation capacity of the 5 main companies



- KESH remains the dominant player with more than 54% but its share has been constantly decreasing over time
- Important new entrants like “Devoll Hydropower” are taking terrain getting close to nearly 10%
- New PV plants and wind are expected to change very soon the share of generation capacities

1.1: C5 – the share of power production held by the 5 largest generators.

Share of power production of the main 5 players over time



- Like in the case of generation capacities, **KESH** remains the dominant electricity producer with an average of more than **55%**
- “**Devoll hydropower**” and other smaller producers show a growing tendency
- **New players** including PV (Votalia and others) and wind are expected to have also an impact in the near future domestic electricity production

1.2: Companies owning a share of generation capacity/power production greater than 5%.

	2017	2018	2019	2020	2021	2022	2023
"KESH" sha (%)	67.4 %	65.7 %	63.7 %	58.0 %	55.6 %	55.4 %	54.2 %
"Devoll Hydropower" sha (%)				10.3	9.9	9.8	9.6
Total Generation Capacity (MW)	2,145	2,204	2,274	2,495	2,604	2,614	2,669
	2017	2018	2019	2020	2021	2022	2023
"KESH" sha (%)	64.4	68.4	57.2	58.2	59.6	55.1	58.3
"Kurum International" sh.a. (%)	6.3	-	6.4	5.7	-	-	-
"Devoll Hydropower" sha (%)	-	-	-	5.6	7.6	7.0	5.5
Total Electricity Produced (MWh)	4,523,263	8,552,152	5,206,047	5,313,033	8,962,699	7,002,643	8,795,637

For year 2023 only 2 companies, "KESH" sh.a., and "Devoll Hydropower" sh.a. had shares higher than 5% regarding both; generation capacity & electricity production.

1.3: Herfindahl-Hirschman Index

- Herfindahl-Hirschman Index (HHI) is a key general indicator of market concentration
- HHI is calculated as the sum of the square of the market share for all market participants:

$$HHI = \sum(\text{market share})^2$$

- So, it amplifies the companies with the largest market shares.
- If the entire market is owned by a single firm the index reaches a maximum of 10,000 points (100%²).

1.3: Herfindahl-Hirschman Index

According to the Regulation of the Council of the European Union (Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/03)),

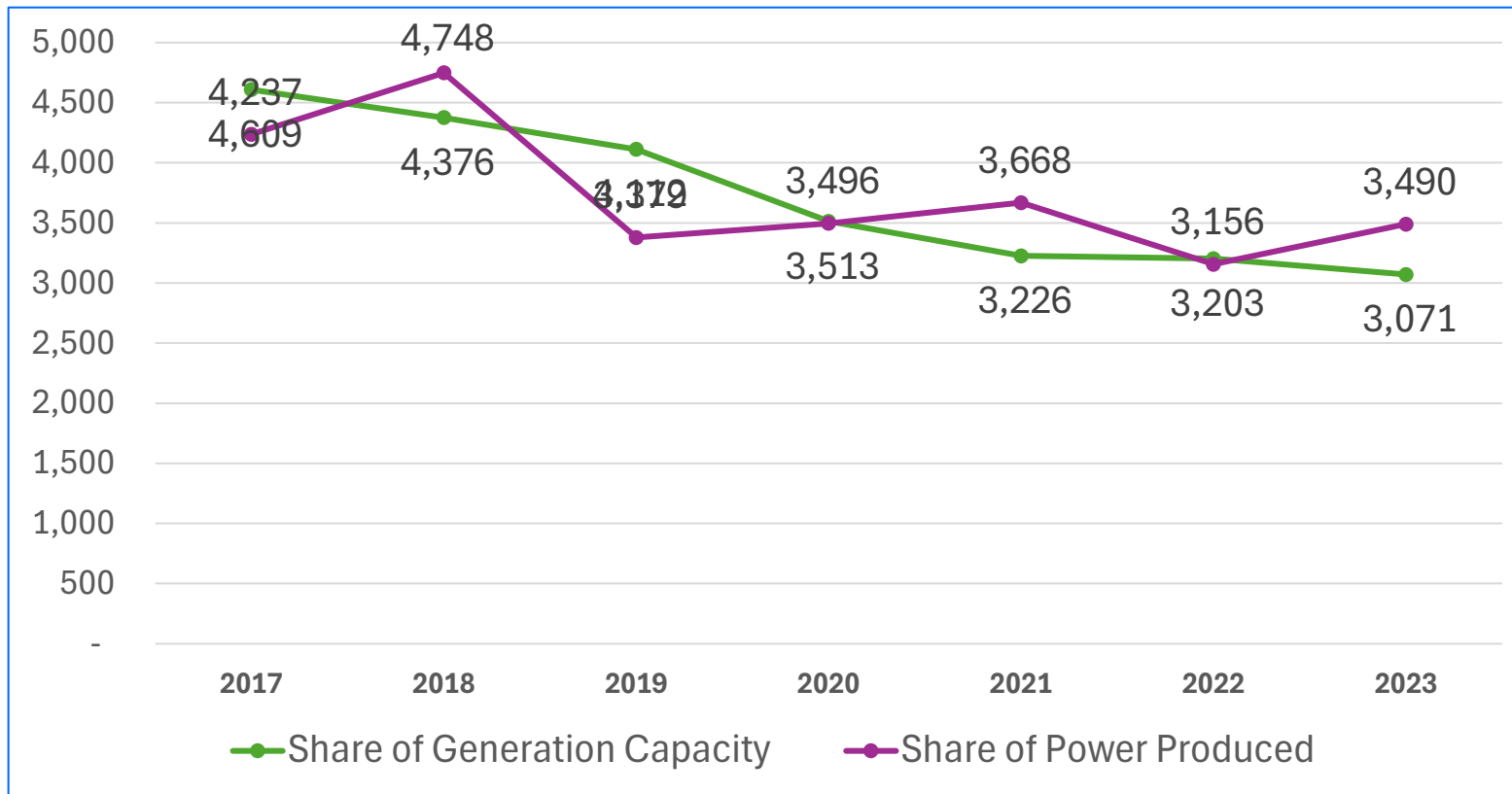
- when the HHI index is **below 1000**, the concentration **does not pose a risk** of restriction of competition.
- when the HHI index is **between 1,000 and 2,000**, problems related to horizontal competition **may not be identified**.

According to the US Department of Justice (Horizontal Merger Guidelines), based on their experience, US agencies generally classify markets into three types:

- i. Decentralized markets [**not concentrated**]: HHI **less than 1,000**.
- ii. **Moderately concentrated** markets: HHI **between 1,000 and 1,800**.
- iii. **Highly concentrated** markets: HHI **greater than 1,800**.

1.3: Herfindahl-Hirschman Index in electricity production in Albania

Herfindahl-Hirschman Index (HHI) in electricity capacity / production in Albania 2017-2023
(data source ERE, Annual Reports):



- HHI indicates a **highly concentrated** market (HHI > 3000).
- But the trend is constantly **decreasing due to new entrants**.
- The last divestiture from KESH, (the dominant generator that was also the only generator) occurred in 2012 and was relatively modest (76.7 MW).
- The lowest level of HHI calculated according to the share of generating capacity that companies own in the country is always in the last year (HHI 2023 = 3.071).

New entrants remain essential for increasing competitiveness in electricity generation in the country !

Part 2: Permitting procedure for investments in photovoltaics and wind in Albania

The Legislation that regulates the permitting process for the construction of new renewable energy sources (RES) in Albania;

- Permitting is a **complex process** that involves a large number of activities (legal, engineering, economic, financial, environmental, etc.)
- Any construction of new RES generating capacities and their operation **can only be made after approval of the public authorities**

Who approves the construction of new power generation capacities?

- Any new generation capacity of any kind, without exception, with an installed capacity of **less than 2 MW** – is approved by the **Minister** responsible for energy.
- Any **hydropower plant (HEC)** with an installed capacity **greater than 2 MW** – is approved by the relevant contracting authorities, which in this case are the line ministries, i.e. the **Ministry** responsible for energy.
- Any **other** generation capacity that use all types of primary energy that are **not classified in the above 2 groups** – are approved by the **Council of Ministers**.
- From the above, the construction of:
 - **photovoltaic plants**, and
 - **wind farms**

is included in the **third group**, THEREFORE the permission for their construction is **approved by the Council of Ministers**.

What is the basic legislation that regulates the process of obtaining a permit for the right to invest?

1. All generation capacities, without exception, with **an installed capacity of less than 2 MW**.

Basic legislation:

- Decision of the Council of Ministers No. 822, dated 7.10.2015 “On the approval of rules and procedures for construction of new power generation capacities that are not subject to concessions, as amended.

2. **Hydropower plants (HEC)** with an installed capacity **greater than 2 MW**.

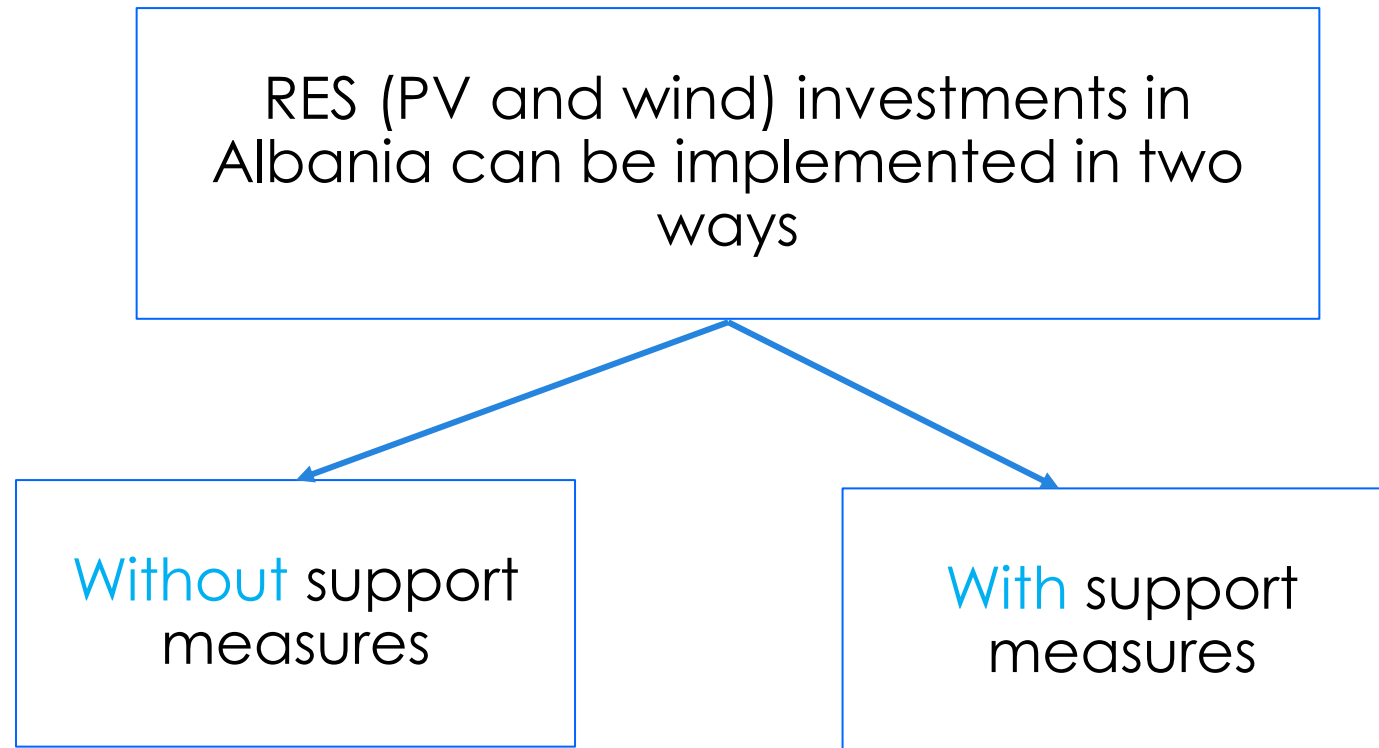
Basic legislation:

- No. 125/2013 “On concessions and public private partnership”.
- Decision of the Council of Ministers No. 575, dated 10 July 2013 “On the adoption of the rules for the Concessions/PPPs identification, evaluation and award”.
- Decision of the Council of Ministers No. 576, dated 10 July 2013 “On the adoption of the rules for the identification, evaluation and award of hydropower plant concessions”.

What is the basic legislation that regulates the process of obtaining a permit for the right to invest?

3. Other generation capacities that use all types of primary energy are not classified in the 2 above groups.
 - In case the investor **does not apply to benefit** from government support measures:
 - Decision of the Council of Ministers No. 822, dated 7.10.2015 “On the approval of rules and procedures for construction of new power generation capacities that are not subject to concessions, as amended.
 - In case the investor **applies to benefit** from government support measures:
 - Law No. 24/2023 “On the promotion of the use of energy from e sources”.
 - Decision of the Council of Ministers No. 349, date 12.06.2018 “On the approval of the supporting measures for the promotion of electricity use from solar and wind energies and of the procedures for the selection of projects benefiting from them”, as amended.

Basic criteria defining the decision-making process; Is there a request for governmental support scheme?



Time for submitting the application?

Without support measures

Anytime an investor decide to invest thinking there is a business case.

With support measures

When the government, through the ministry responsible for energy, announces a competitive procedure.

Installed capacity of the PV or wind power plant

Without support measures

There is no lower or upper limit for the installed capacity.

However, generators with micro capacity (maximum of 500 kW) can benefit from self-producer status.

With support measures

Defined by the government
Through the Ministry responsible for energy at the moment when a tendering procedure is announced

Who offers the land where the PV or wind power plant will be built ?

Without support measures

The investor himself

With support measures

It is determined by the government, through the ministry responsible for energy, at the time the competitive procedure is announced.

The law and by-laws provide the possibility for the land:

- To be offered by the government.
- To be secured by the interested investor himself.

What are the different categories of land in Albania ?

Law Nr 8752, date 26.3.2001 defines the categories of land in Albania;

- 1) Agricultural land.
- 2) Forestry land
- 3) Pastures
- 4) Areas along river sides
- 5) Unfertile land
- 6) Urban land

Can status of land be changed ?

For each “category of land” as defined by the specific legislation there are;

- Cases when construction is allowed and cases when it is not allowed.
- Legal procedure on how the status of land can be changed (when possible) so that its status is changed in a category where construction of a RES generation plant is possible

Are all types of land allowed to be used to build a power plant?

The legislation that regulates the acquisition of the right to build new generating capacities sets the following limitations:

Without support measures

- The land where the power plant is planned to be built should not have usage restrictions, in accordance with the legislation for the protection of agricultural land and protected areas.
- (DCM 822)

With support measures

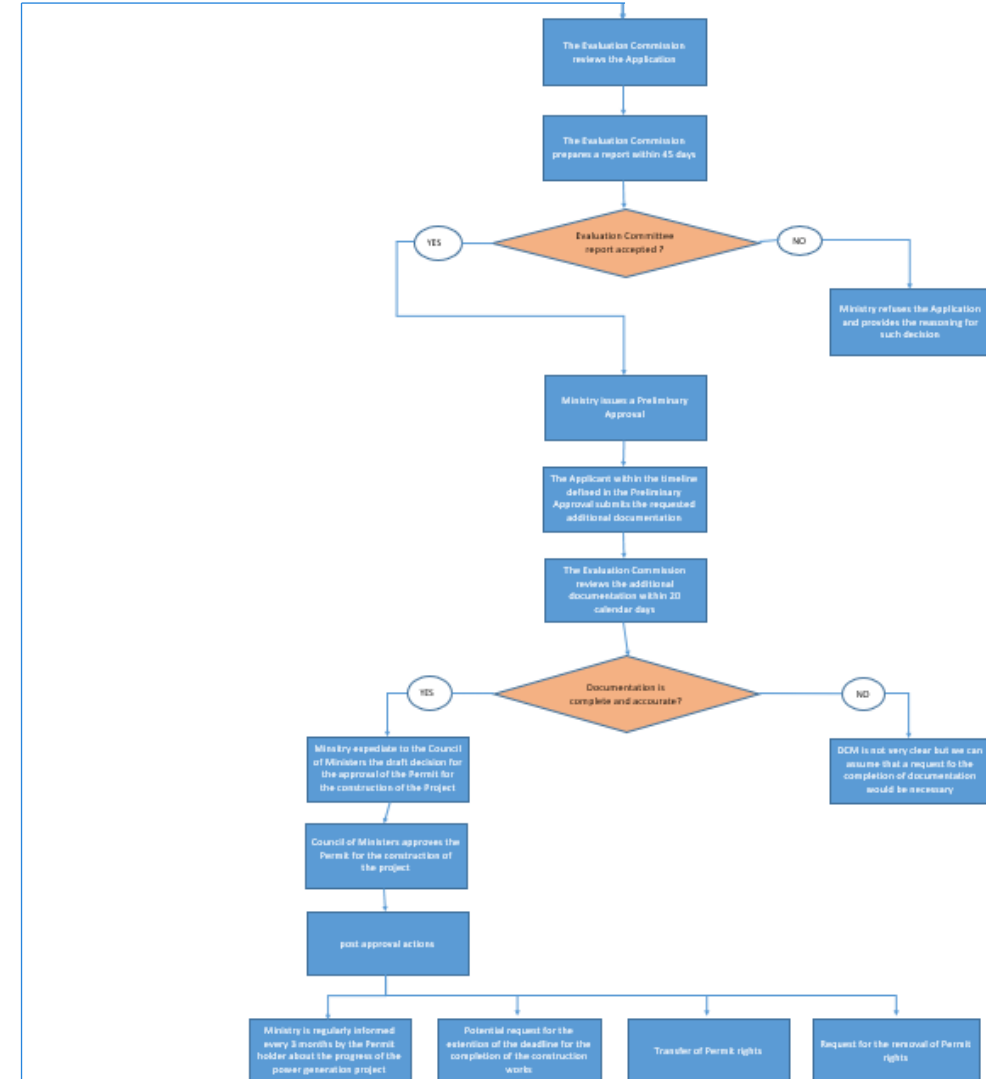
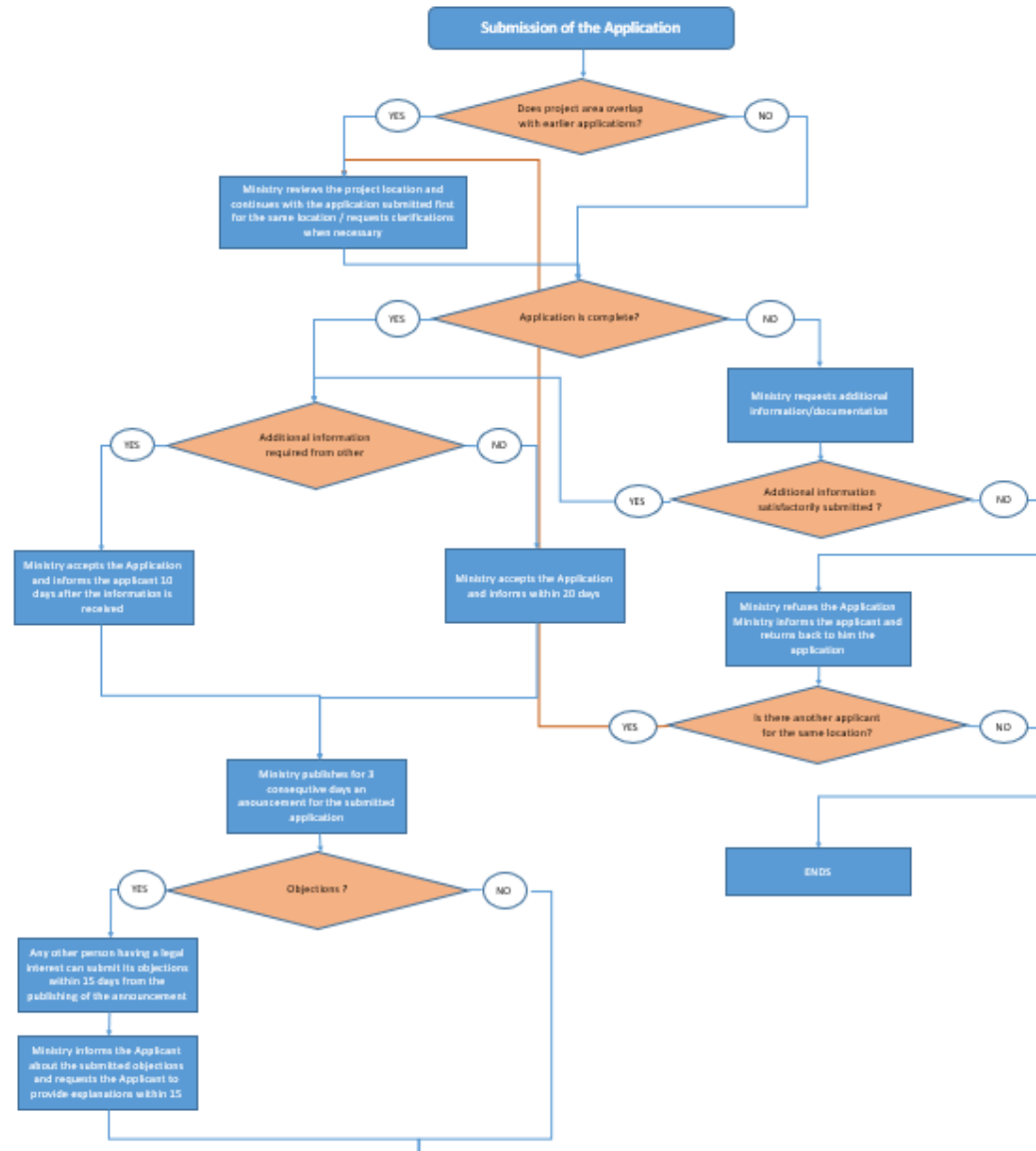
- The proposed location must be on barren land or land that is not categorized as fertile.
- (DCM 349)

Algorithm of the process for applying for the approval for the construction of a RES generation plant without support measures

- Securing the plant construction permit is a two-stage process

	Outcome	
Phase 01	Pre-Approval/Rejection of Request	
		Whoever secures pre-approval moves on to stage 2
Phase 02	Granting approval for construction	
		There are "Post Approval" events (Supervision, information, etc.)

Algorithm of the process for applying for the approval for the construction of a RES generation plant without support measures





THANK YOU!

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