

Assessment of the Albanian electricity market design and performance



Ministry of Foreign Affairs
and International Cooperation

Assessment of the Albanian electricity market design and performance

Report elaborated by the Balkan Energy School in the framework of the project “Supporting the Albanian Regulatory Authority to improve the efficiency of the wholesale electricity market” co-financed by the Italian Ministry of Foreign Affairs and International Cooperation through the CEI Fund at the EBRD.

Balkan Energy School (BES) is an Association of energy regulators. The participation in the Association is reserved for the Energy Regulatory bodies belonging to the Euro-Balkan Region. Current members are representatives of the energy regulatory authorities from Albania (ERE), Bosnia and Herzegovina (SERC), Greece (RAEWW), Italy (ARERA), Montenegro (REGAGEN), and North Macedonia (ERC). Observers are representatives of the energy regulatory authority from Serbia (AERS).

BES aims to promote debate and knowledge exchange in the energy field.

The School is about training, capacity building, knowledge transfer and effective communication.

Furthermore, it focuses on the development, regulation, and integration of energy markets in the Euro-Balkan Region, as well as the impact of the energy transition

BES organizes courses, seminars, conferences, study visits, and any other type of event of an educational nature or for the dissemination of information.

The association publishes analyses, studies and research, publications and public presentations of customised policy papers on energy and related topics. It also elaborates regulatory policy recommendations to foster the development and integration of energy markets in the Euro-Balkan Region.



Ministry of Foreign Affairs
and International Cooperation

Contents

Note: In the report, the designation **Kosovo*** is done without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo declaration of independence.



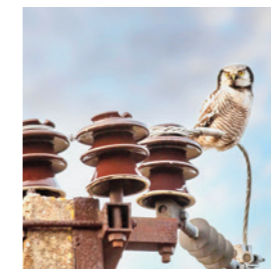
1. Electricity sector fundamentals 4



5. Market power and remit 19



2. Regulatory framework and governance 11



6. Other topics 20



3. Wholesale markets 14



7. Experiences from the Italian market opening 21



4. Ancillary services and balancing market 18



8. Recommendations 24

1. Electricity sector fundamentals

1.1. Supply

The Power system in the Republic of Albania consists of:

electricity production, transmission, distribution, electricity trading, and the supply of electricity to customers. These activities are exercised by entities licensed pursuant to Law no. 43/2015 "On Power Sector", as amended.

Electricity production is realized by public company KESH s.a and Lanabregas HPP with 100% of state shares, as well as by private entities licensed in this activity such as: Priority producers, Independent producers and electricity self-producers.

Electricity transmission is realized by "Transmission System Operator" (OST sh.a.) company, which is a company with 100% of state shares. In conformity with article 58 of a Law no.43/2015 "On Power Sector", as amended, the Transmission System Operator (TSO company) is certified and licensed for the operation of the electricity transmission system.

Electricity distribution is realized by " Distribution System Operator" (OSSH sh.a) company, which is a company with 100% of state shares, established from the unbundling of OSHEE sh.a.

As of 2022, the former monopolist and largest generator Korporata Elektroenergjitike Shqiptare (KESH sh.a.) accounts for about 49% of the Albanian electricity supply. 15% of the supply is covered by independent producers (4 producers with 9 plants); an additional 25% is met by 'priority producers' (178 producers), which are those producers benefitting from support schemes; the remaining 11% is met via imports.

Looking at domestic electricity production, the KESH company produced 55.11% in 2022, while other generators produced 44.89%.

In terms of installed capacity, hydropower is largely dominant in the Albanian system. Roughly 5% of additional oil and waste-based capacity are available, and solar capacity has been developed in recent years, increasing from 1.05 MW in 2015 to 28.6 MW in 2022. Total generation capacity increased from 1897.05 MW in 2015 to 2634.03 MW in 2022.

Figure 1 Electricity supply by category

Source: ERE Annual Report 2022

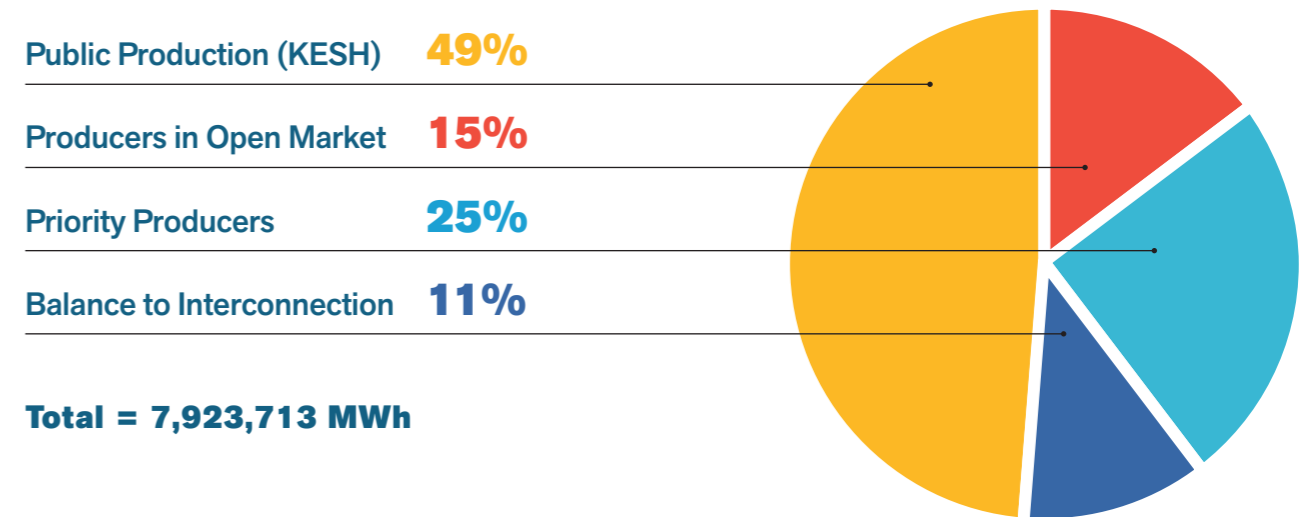
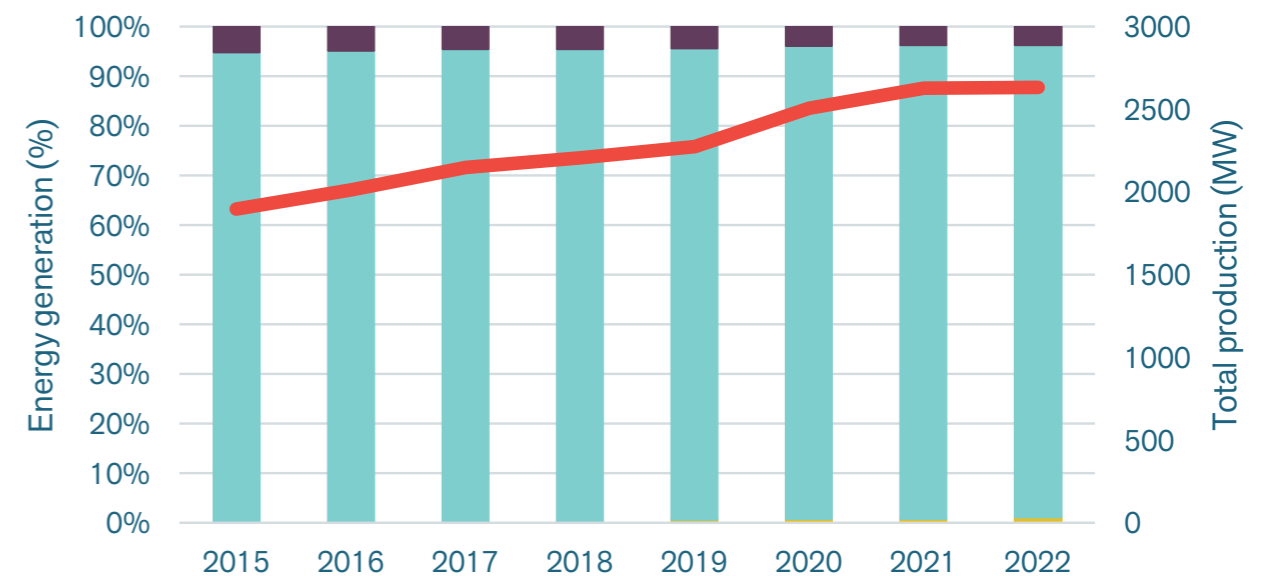


Figure 2 Total installed capacity by generation type

Source: IRENA



1. Electricity sector fundamentals

1.2. Demand

Total consumption in Albania was 7,923,713 MWh in 2022, with a total number of 1,301,905 customers, of which 27% are located in Tirana. Household consumption accounts for 40% of total consumption. Consumption in Kosovo* totalled 5,953,492 MWh in 2022.

The electricity prices for consumers in Albania and Kosovo* have been relatively stable over the past ten years, with a notable reduction in prices in Albania at the beginning of 2015. Since 2019, prices have been behaving smoothly and have been slowly increasing, which is in line with global trends but showing relatively little volatility. Particularly the price stability throughout the turbulent 2021-2022 period can be appreciated.

Figure 3 Monthly electricity consumption in Albania and Kosovo* in 2022

Source: ENTSO-E

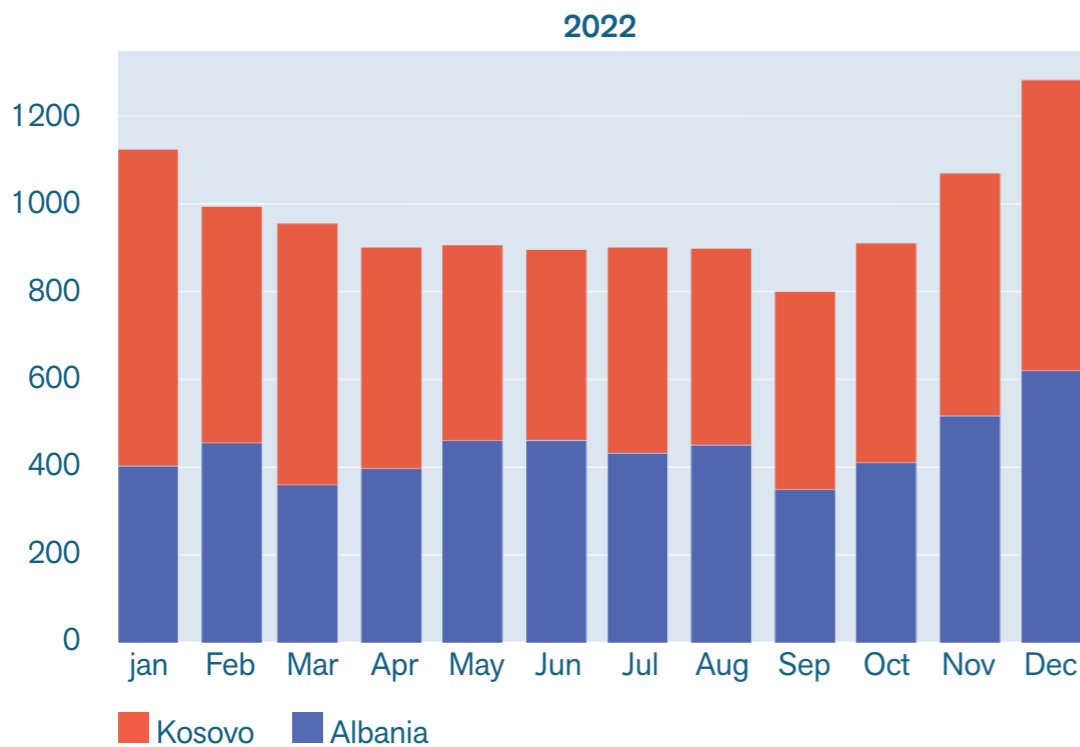
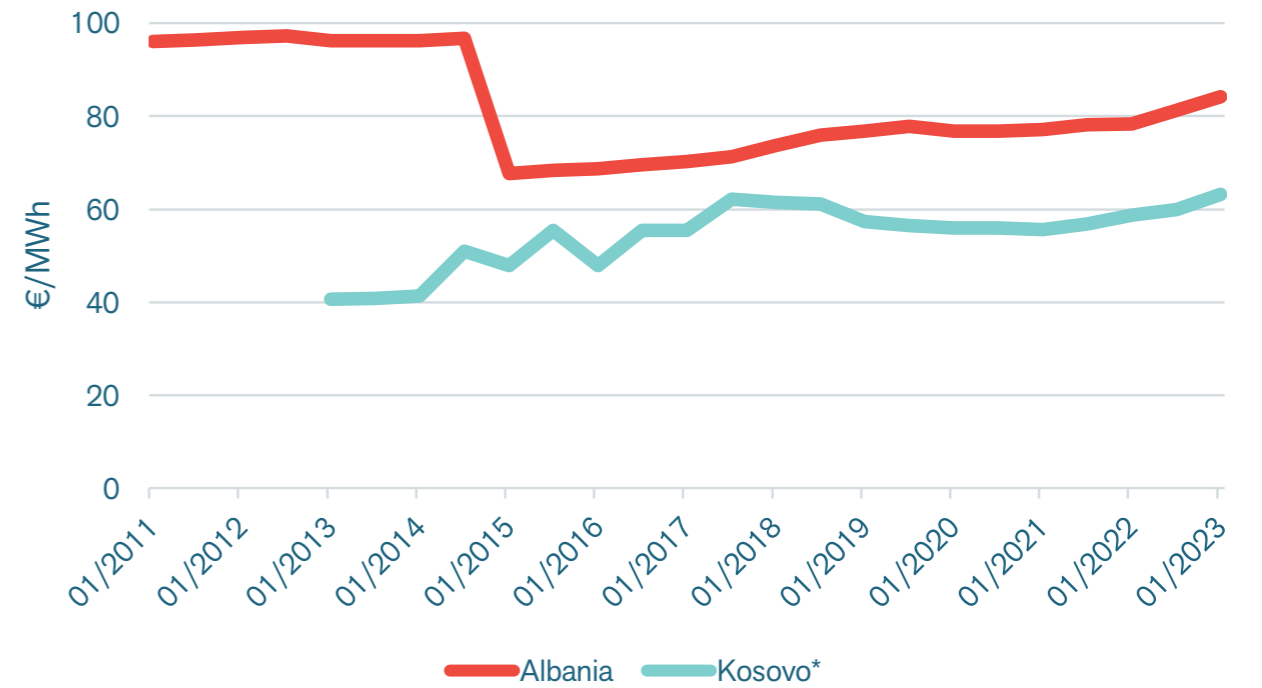


Figure 4 Electricity price (excluding taxes and levies) for consumers in the range 1.000 kWh - 2.449 kWh per year

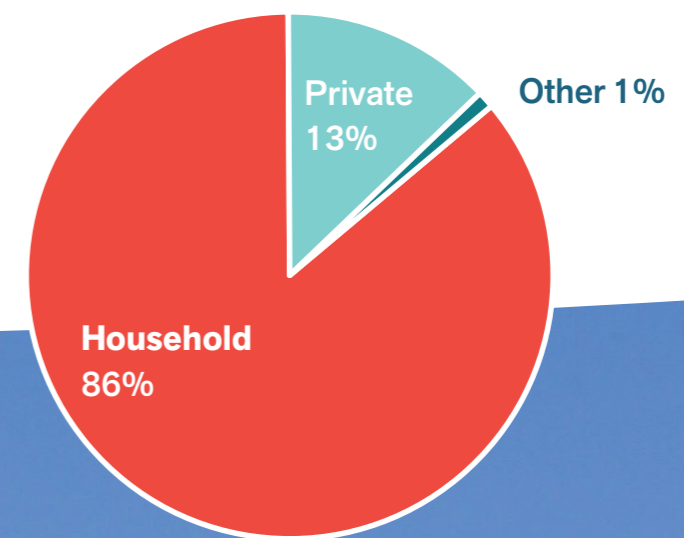
Source: Eurostat



As of 2011 due to the changes in the Power sector Law, Albanian large consumers, either connected to the HV network or featuring a consumption higher than 50 million MWh/year, are obliged to be supplied on the free market. The share of the liberalized market in Albania was 16.2% in 2022, a small increase from 13% in 2019.

Figure 5 Number of consumers per category in 2022

Source: ERE Annual Report 2022



1. Electricity sector fundamentals

1.3. Interconnections

Albania is located in the Western Balkans and is interconnected with Montenegro, Kosovo* and Greece. An interconnection with North Macedonia is currently under development. In year 2023, Albania has delivered net physical exports of 920 GWh of electricity to its neighbouring countries Greece, Kosovo* and Montenegro.

List of interconnection lines:

- 400 kV line, Zemblak (Albania) – Kardina (Greece)
- 400 kV line, Tirana (Albania) – Podgoricë (Monte Negro)
- 400 kV line, Tirana (Albania) – Prishtina (Kosovo)
- 220 kV line, Fierza (Albania) – Prizren (Kosovo)
- 220 kV line, Koplík (Albania) – Podgorica (Monte Negro)
- 150 kV line, Bistrice (Albania) – Myrtos (Greece)

Figure 6 **Map of existing interconnections in Albania**

Source: FLOSM – Open Street Map

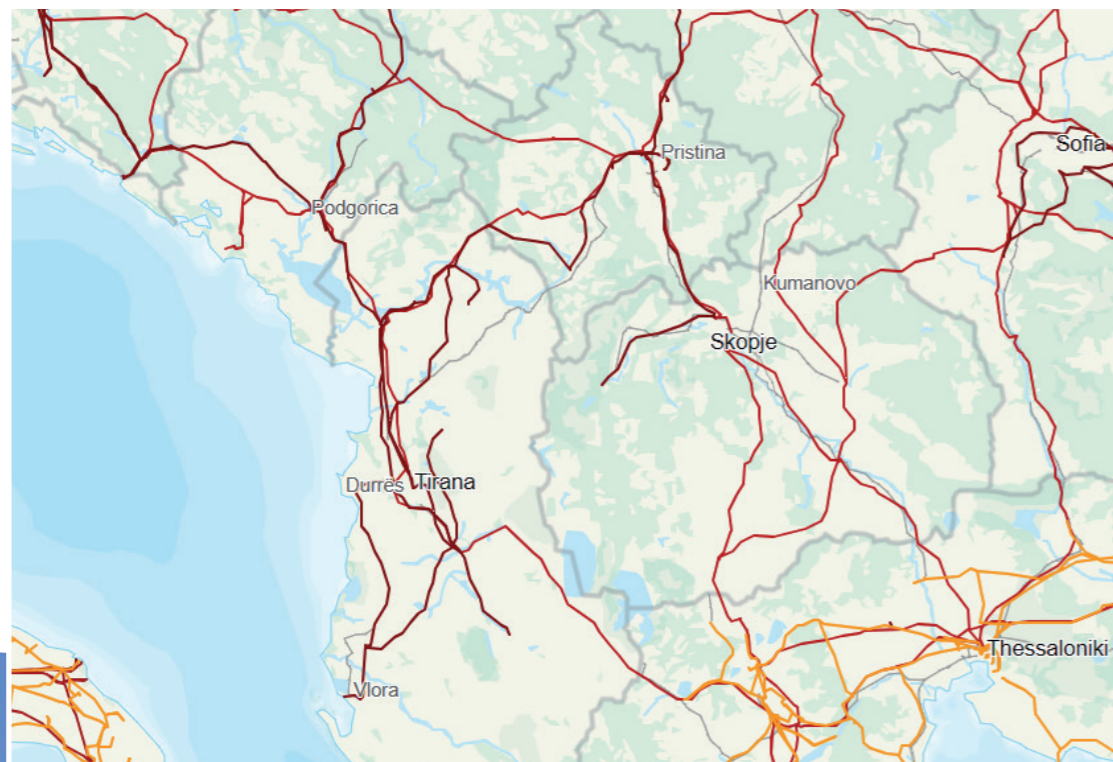
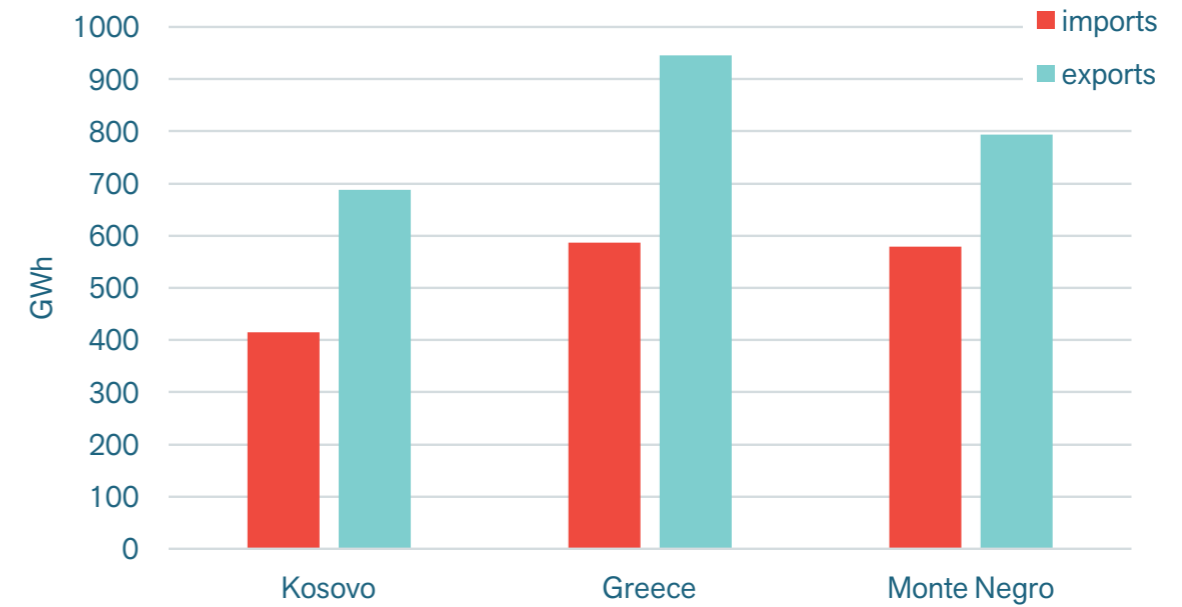


Figure 7 **Total imports and exports to/from Albania by country in 2023**

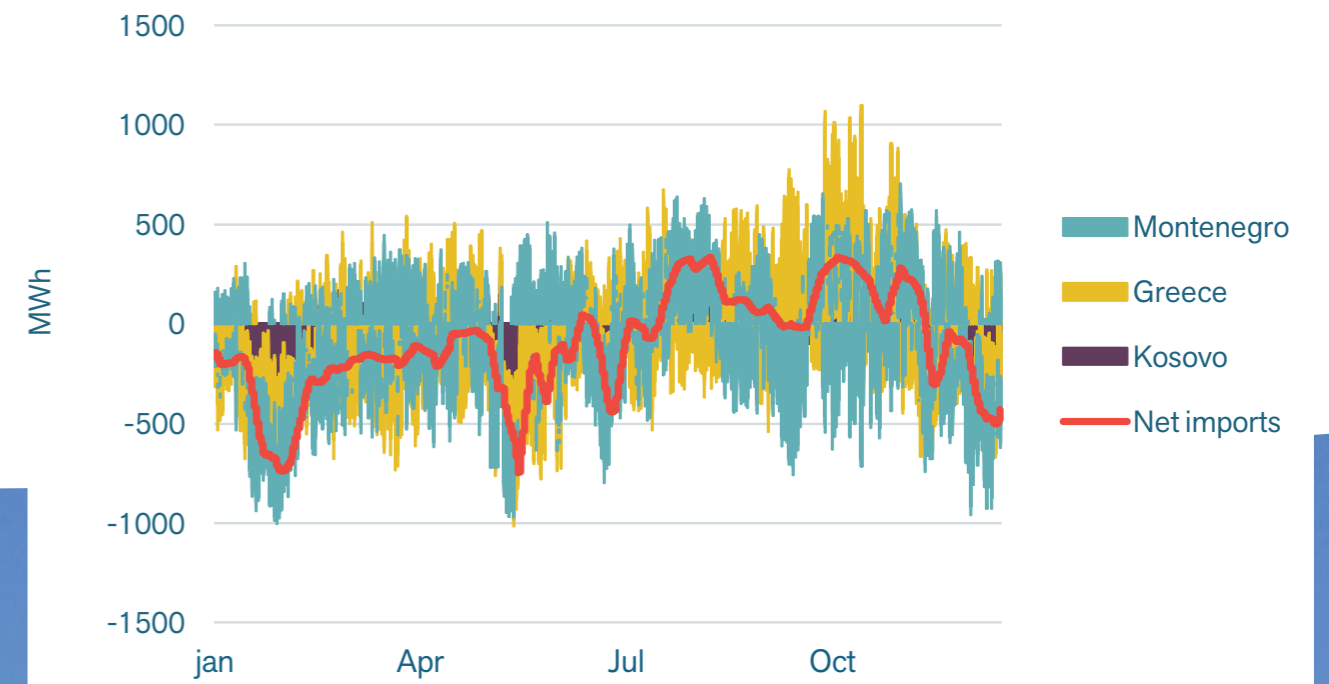
Source: ENTSO-E



As can be seen in Figure 8, below, the direction of net flows changes throughout the year, with Albania having exported the largest flows around winter and spring, and having imported the most in late summer and early fall.

Figure 8 **Cross-border flows from/into Albania for 2023**

Source: ENTSO-E

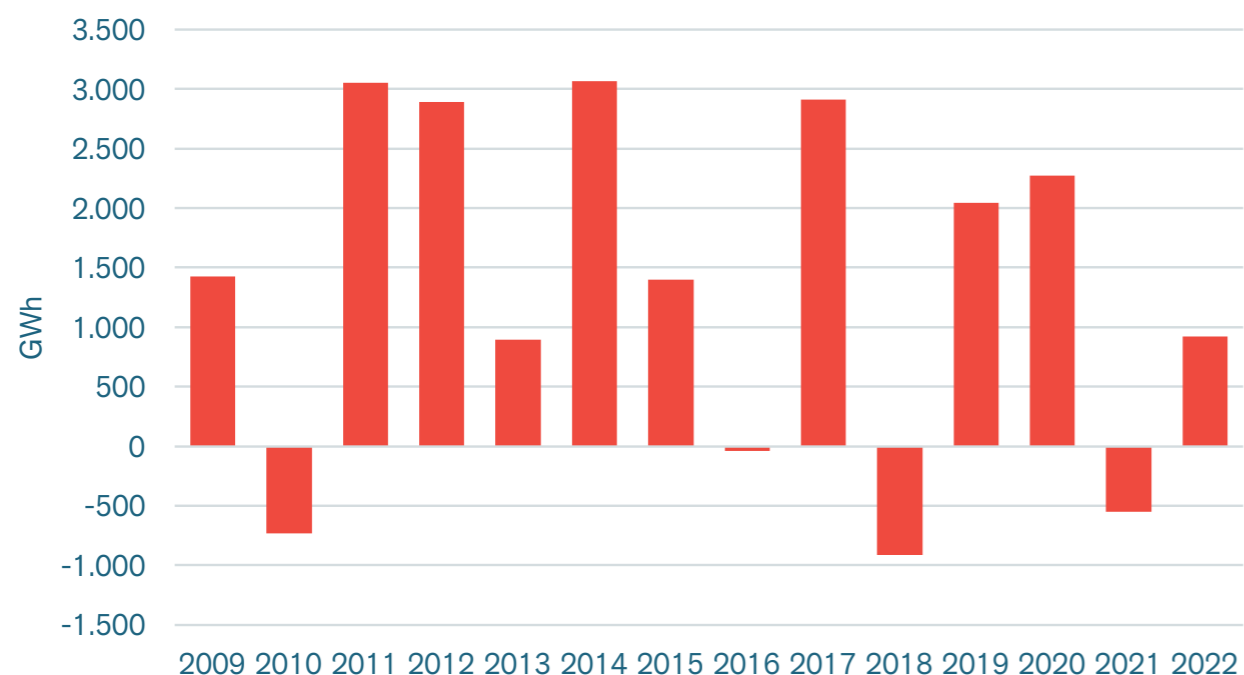


1. Electricity sector fundamentals

The import/export pattern depends on hydrological conditions and flows have been changing throughout the years. Overall, Albania acted as a net importer of electricity, having imported about 18.6 TWh of energy over the period 2009-2022. This import/export pattern is related directly with electricity generation structure of the country which is more than 95 % in hydropower plants.

Figure 9 Net imports of electricity over the period 2009-2022

Source: ERE Annual Report 2022



2. Regulatory framework and governance

2.1. Regulatory framework

Liberalisation of the market started with the Power Sector Law amendments of 26/11/2011, putting an obligation for large consumers connected to HV or having yearly consumption more than 50 GWh to select a supplier in the free market.

The regulatory framework for the Albanian electricity sector is now shaped by Law 43/2015 "On Power Sector", amended, as further integrated and amended, establishing the various entities in charge of the system and market operation (TSO, DSO, MO, etc). The 2015 Power Sector Law transposes the Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity.

Following the requirements of the 2015 Power Sector Law, amended in July 2020 the Albanian regulator ERE approved the Rules of Balancing Market establishing a competitive market for balancing services to be procured by the Transmission System Operator, OST. Since 1 of April 2021 there is a balancing market in Albania operated by OST sh.a.

- **There are 4 Balancing Service providers in Albania**
 - a) KESH sh.a.
 - b) Ayen AS Energji sh.a.
 - c) Kurum International sh.a.
 - d) Devoll Hydropower sh.a.
- **There are 33 Balancing Responsible Parties registered in the balancing market.**
- **There are 4 Balancing Groups operating in the balancing market.**
 - a) KESH sh.a. balancing group.
 - b) FTL sh.a balancing group which includes FTL sh.a., as leader of balancing group and IPP up to 15 MW installed capacity.
 - c) ENERGY 24 Sh.p.k. balancing group.
 - d) GSA Sh.p.k. balancing group.

Based on the Council of Ministers' decisions, respectively no. 322 of May 15, 2019 and no. 609 of September 11, 2019 the Albanian Power Exchange (ALPEX) was established in October 2020 as a Joint Venture Company under the Albanian law, owned by the Transmission System Operators of Albania (OST) and Kosovo* (KOSTT). Following the request of KOSTT and under the approval of the Kosovo* regulator ERO, ALPEX is delegated to operate the electricity day-ahead and intraday market in both Albania and Kosovo* as further detailed in the next section. ALPEX also provide clearing services to market participants.



Regulatory framework and governance

The list below illustrates the main regulatory steps in the development of the Albanian power market:

- ERE by decision Nr. 247, Date 29.09.2022, licensed ALPEX to operate the Electricity market in Albania.
- ERE by Decision Nr. 347, Date 27.12.2022, Approved Electricity Market Rules (ALPEX Rules, Definitions, Trading Procedure, Clearing and settlement Procedure).
- ERE by Decision Nr. 200, date 23.06.2023, decided to start the process for evaluating the application of ALPEX to operate like Nominated Electricity Market Operator (NEMO).
- ERE by Decision Nr. 228, Date 17.07.2023, Approved ALPEX to operate like Nominated Electricity Market Operator (NEMO).
- ERE by Decision Nr. 287, Date 09.10.2023, approved the tariffs of ALPEX to act like NEMO till 31.03.2024. In the same time with this decision started the procedure to approve the methodology for defining NEMO tariffs.
- ERE by Decision Nr. 308, Date 30.10.2023, approved Shadow Allocation Rules, prepared by SEE CAO, regarding market coupling Albania and Kosovo.
- ALPEX started the operational functioning in Albania Electricity Market the 12 of April 2023.
- ALPEX also started the operational functioning in Kosovo Electricity Market the 1 of February 2024.

2.2. Governance

2.2.1. Albania

The electricity value chain is structured as follows: electricity generation, electricity transmission, electricity distribution, and retail supply to final consumers. According to the 2015 Power Sector Law, the electricity sector has been structured as follows:

- Generation: The largest generation company is the former monopolist public KESH sh.a.. In addition, 182 privately-owned power producers are licensed to produce electricity, connected both at the transmission and distribution levels
- Transmission: the HV transmission network is managed and operated by the Transmission System Operator (TSO), OST sh.a.
- Distribution: the distribution network is managed and operated by the Distribution System Operator (DSO), OSSH sh.a.

- Retail supply: Retail is fully liberalized, so that all Albanian consumers can select a supplier in the free market. The publicly-owned company FSHU acts as a universal public service supplier for to 0,4 kV customers, and was selected as a last resort supplier for consumers connected at 20 kV, 10 kV and 6 kV voltage levels. Further, the supplier FTL emerged from the unbundling of the group OSHEE.

Public Service Obligations

The Albanian framework features both regulated and non-regulated elements, and some market players are subject to public service obligations. In particular, KESH supplies FSHU to cover for the demand of Universal Service Supply consumers and Last Resort consumers, as well as OST and OSSH to cover for losses at the transmission and distribution level, respectively.

- KESH and FSHU submit price-acceptance offers and bids in the spot market operated by ALPEX, to supply last-resort consumers. These volumes are settled via a two-ways contract for difference. The strike price of the contract for difference is set at regulatory level, on the basis of the procurement costs of FSHU;
- FSHU procures electricity from KESH at a regulated price for the Universal Service Supply consumers; this contract is not cleared through ALPEX. The contract is approved by ERE with the price approved by the assemble of KESH sh.a. ;
- In 2023, the system operator OST procured electricity directly from KESH to cover for transmission losses. This contract was not cleared through ALPEX. As of 2024, OST buys electricity in the free market;
- FTL has an obligation to procure from KESH and resell electricity to the DSO/OSSH, to cover for distribution losses. This contract is not cleared through ALPEX.

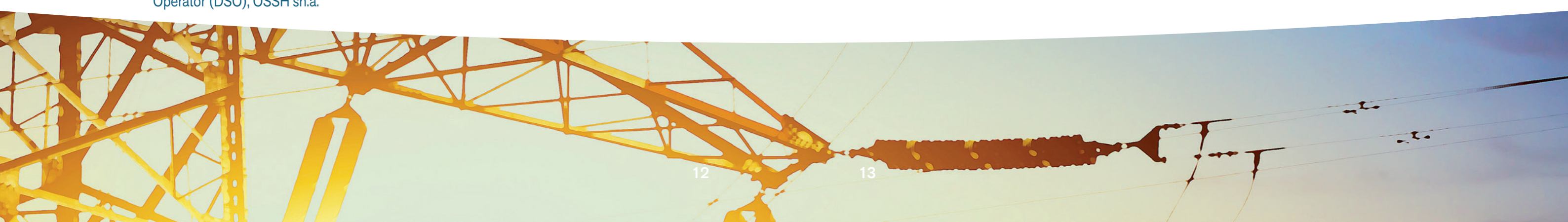
2.2.2. Kosovo*

Both a Transmission System Operator (KOSTT) and a Distribution System Operator (KEDS) are established and unbundled.

A public service obligation is placed on the incumbent generator KEK to supply the universal service supplier, KESCO. KEK is also responsible for covering losses at the transmission and distribution levels.

The retail sector is fully liberalized, with KESCO acting as universal service supplier for 2023 and KEK having been selected the supplier of last resort for a period of three years starting from 31 July 2022.

As of 24 June 2022, the electricity supply company Elektrosever has been licensed to supply consumers in four municipalities in Kosovo*.





3 Wholesale markets

3.1. Day-ahead market

3.1.1. Market design

The Day-Ahead Market (DAM) in Albania has begun operations in April 2023, with the first day of delivery being April 12th. Implicit allocation of cross-border capacity between Albania and Kosovo* is provided by the market design. This implies that bids and offers can in fact be submitted in the ALPEX platform separately for the Albanian and Kosovo* market zones.

The Day-Ahead Market (DAM) in Kosovo* bidding zone has begun operations in 1 of February 2024.

ALPEX acts as market operator for both Albania and Kosovo*, with the ambition of reaching NEMO status towards a full integration into the European internal electricity market. By means of Decision Nr. 228, date 17.07.2023, ERE instituted ALPEX as Nominated Electricity Market Operator (NEMO) for Albania and Kosovo*.

OST and KOSTT agree on a level of cross-border capacity to be made available on the spot markets. In addition, a provision is in place to ensure that a minimum transmission capacity of 50% be made available by the TSOs¹.

Currently, the market time unit in the DAM is set equal to 1 hour; the market is run via Pay as Clear auctions. Orders can be placed as simple orders, block orders, linked block orders and as an exclusive group of block orders. Price-taking offers and bids can be submitted at the minimum and maximum prices, respectively equal to - 500 €/MWh and 4000 €/MWh.

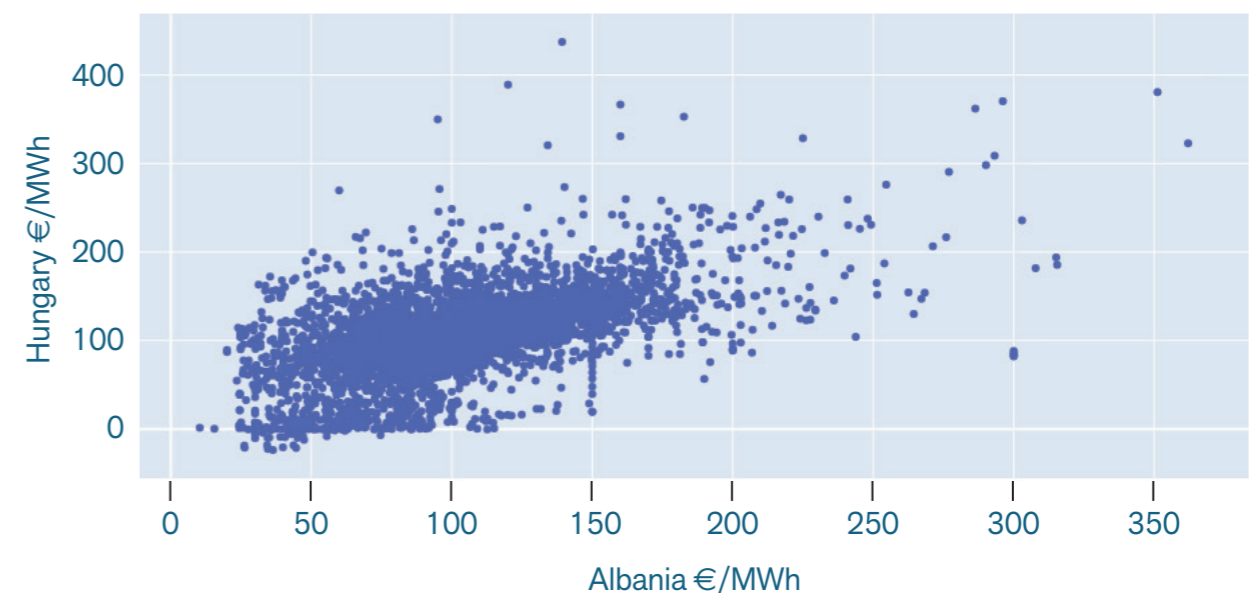
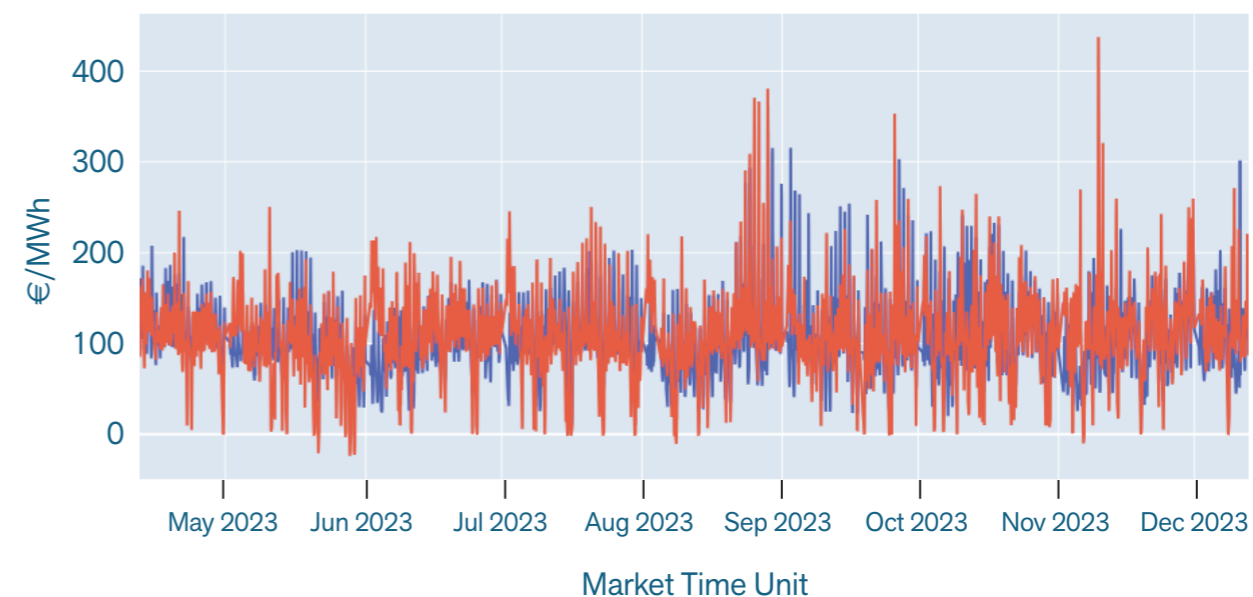
3.1.2. Market outcomes

Since its opening, ALPEX cleared at an average price of 101.90 €/MWh²; a good degree of correlation is found with reference markets such as the Hungarian Power Exchange (HUPX)³.

1 Government decree Nr. 872, date 27.12.2022
2 Average price calculated over the period 12.04.2023-12.12.2023.
3 The correlation between ALPEX and HUPX is about 60%.

Figure 10 Albanian and Hungarian Electricity Prices between 12/04/2023 and 12/12/2023

Source: ENTSO-E and ALPEX





3 Wholesale markets

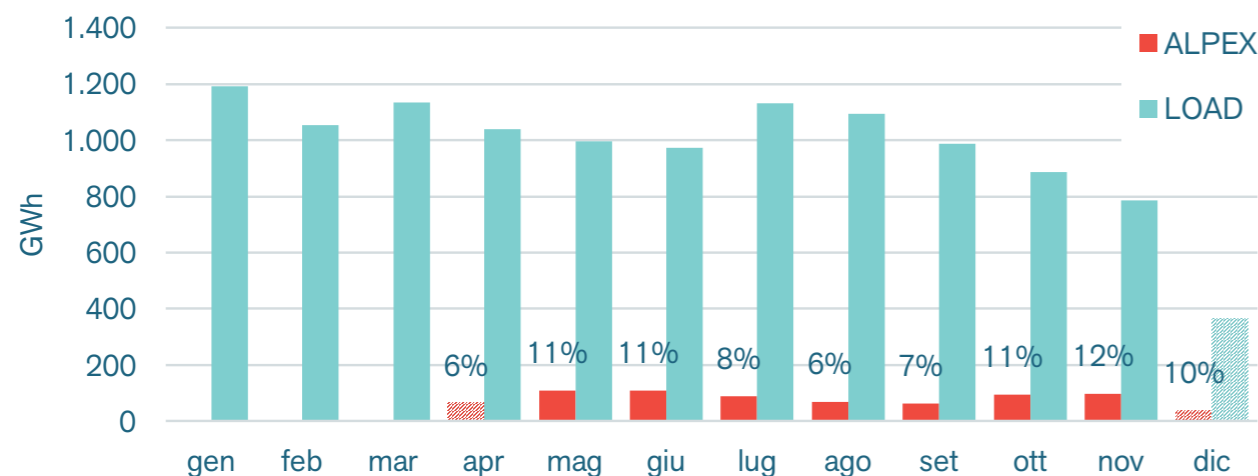
The Albanian Electricity Market is still relatively young, which also reflects in the volumes traded. As of December 2023, a monthly average of 90,238 MWh has been exchanged in the market in the period May-November 2023.

No obligation is in fact placed on market participants to take part in the spot market (apart from the public service obligation volumes for KESH). As a result, volumes traded via the exchange are materially lower than the total electricity consumption in Albania and Kosovo*, as displayed by the following Figure 11.

Figure 11 Monthly volumes traded via ALPEX and total load in Albania and Kosovo

Source: ALPEX and ENTSO-E

Note that the market was only launched on April 12th, 2023 and that the calculation is updated to December 12th, 2023. Market-coupling between Albania and Kosovo has been launched on 31st January, 2024.



3.2. Intraday markets

3.2.1. Market design

The intraday market is designed to take place in three auctions beginning after the gate closure of the DAM, with hourly delivery periods starting two hours after gate closure. Simple bids are allowed in the intraday markets:

- LIDA1: opens 13:00 D-1, closes 15:00 D-1
- LIDA2: opens 15:30 D-1, closes 22:00 D-1
- LIDA3: opens 22:30 D-1, closes 10:00 D
- CRIDA1: opens 13:00 D-1, closes 15:00 D-1
- CRIDA2: opens 15:30 D-1, closes 22:00 D-1
- CRIDA3: opens 22:30 D-1, closes 10:00 D

The market design provides for full market coupling via implicit allocation in the intraday timeframe. However, currently no cross-border allocation of transmission capacity is performed in the intraday timeframe.

A continuous intraday trading market is provisioned but not yet operational. The market will trade products of 30 min. from 13:00 D-1 to 30 min. before the scheduled delivery time and will allow cross-border trades between Albania and Kosovo*.

3.3. Cross-border capacity allocation

3.3.1. Market coupling with Kosovo*

A zonal design with implicit allocation between Albania and Kosovo* is employed. The two zones have different TSOs: OST for Albania and KOSTT for Kosovo*. Commercial flows are determined by the market-clearing algorithm run by ALPEX, adopting the European implicit allocation model implemented via the EUPHEMIA algorithm.

Market coupling has been successfully launched on 31st January, 2024.

3.3.2. Other projects for cross-border capacity allocation

A major milestone in local cooperation in the electricity market was achieved when Albania, Greece, Kosovo* and North Macedonia signed a Memorandum of Understanding to facilitate day ahead market coupling among the signatory countries. The implementation of a market coupling mechanism within these countries, one being an EU member state (Greece), aims at improving security of electricity supply and facilitating any future connections to other EU member states.

Simultaneously, a project entailing the development of new infrastructures establishing an east-west corridor from Bulgaria to Italy via North Macedonia, Albania and Montenegro paves the way for further integration of the Western Balkans region with the wider European market⁴. This project includes the development of new interconnections from Albania to North Macedonia as well as Montenegro (which is in turns interconnected to Italy via ta 423 km subsea cable).

⁴ See for instance: Construction starts on electricity interconnector between Albania and North Macedonia (ebrd.com)





4. Ancillary services and balancing market

4.1. Market design

Frequency services are procured by the Albanian system operator via a central dispatch model, procuring capacity for FCR, aFRR, mFRR and RR services via explicit auctions with pay-as-bid remuneration. Energy activations for FCR are remunerated at the imbalance price, while aFRR and mFRR activations are remunerated the lowest price between aFRR and mFRR bids⁵.

All generation facilities that have the technical ability to provide aFRR and mFRR have the obligation to qualify to the market and submit bids and offers into the ancillary services and balancing market. No limitations to the bid and offer prices are provided by the regulatory framework.

One single Frequency Control Block is defined for Albania and Kosovo*; KOSTT is responsible for ancillary services procurement and balancing of the Kosovo* region.

Non-frequency services are procured separately via non-market procedures, imposing obligations on generators that have the technical ability to provide such services.

4.2. Imbalance settlement

The imbalance pricing scheme is structured via a dual pricing system, with an additional mechanism where the TSO defines, on a monthly basis, a so-called "component" to provide further incentives for participants to minimise imbalances. Imbalances are calculated on hourly Imbalance Settlement Period (ISP); billing to BRPs is carried out on a monthly basis. In the future, moving to 15-minutes ISP is envisioned.

At present, all generators and consumers connected at the HV network are metered hourly. For points that are not metered hourly:

- For consumers, a load profiling methodology is implemented to define imbalances for each consumer based on the residual profile;
- For generators within a given balancing group (e.g., those within FTL) a temporary rule provides for the overall imbalance of the group to be split according to the quota of production of each generator within the group. This may lead to unfair allocations of the total imbalance costs, but its effects are deemed to be small by ERE and the measure is only temporary, until the roll-out of hourly metering devices.

The roll-out of hourly metering devices is expected to be completed within two years.

⁵ These provisions are set forth in the Balancing Rules:
https://www.ere.gov.al/media/files/2021/10/26/Albanian_Electricity_Balancing_Market_Rules.pdf



Market power and remit 5.

5.1. Market power mitigation

Actually there are no market power mitigation measures put in place in Albania. In other words, all generators can submit offers at any price up to the maximum price allowed in the markets (including energy and balancing market) – thus implementing their profit-maximising strategy. The only exception regards KESH, who is subject to a public service obligation. However, the design allows KESH to implement a profit-maximising strategy on all volumes that exceed those needed to i) meet the demand of the universal service supplier FSHU, and ii) cover the losses. This preserves the incentives for KESH to maximise profit and self-dispatch efficiently.

At present, only four balancing service providers are active in the balancing market. This may lead to inefficiently high prices due to lack of competition; it is possible that the public ownership of the main generator (KESH) reduces market power issues in the Albanian sector.

5.2. REMIT implementation

At present, ERE has approved the light REMIT version prepared by the Energy Community Secretariat for contracting parties. ERE is following the ongoing discussion on the evolution of REMIT until the issue of a second edition of the Regulation, before moving towards an full version of REMIT to implement at national level.



6 Other topics

6.1. Auctions for renewable capacity

Auctions are currently being planned to attract investments in renewable generation capacity (in particular, solar and wind technologies). The support mechanism would be structured via a two-way Contract for Difference (CfD), where auctions are held allocating renewable capacity bidders offering the lowest CfD strike price.

Also, Feed in Tariff (FIT) schemes currently in place to remunerate solar and wind capacity are being converted to the CfD model.

No capacity remuneration mechanisms (CRMs) are set in place or planned to attract investments in thermal or conventional capacity.

6.2. Adequacy

ERE and OST do not perceive adequacy issues in the short-medium term, given the availability of generation capacity and the demand growth forecasts. Capacity remuneration mechanisms are not in place nor envisaged at this stage.

6.3. Forward market liquidity

As the spot market has just been launched, the focus on long-term markets is limited at present. Given a good degree of correlation with neighbouring markets (e.g., Hungary), some participants implement proxy-hedging via those markets.

ERE and all involved stakeholders are closely following the discussion at European level regarding the alternative market designs that could support and foster long-term liquidity – most notably, including the development of regional 'hubs'.

6 CIP6 was a deliberation by the Comitato Interministeriale dei Prezzi adopted on 29/04/1992, following Law n. 9 of 1991. The aim of the deliberation was to define the prices to incentivise and support investments in renewable generation capacity (where "renewable" included also waste-generated electricity, which raised a policy debate through the 1990s).

7 Prices were different in the case of a sale of "excess" of energy (since this value was uncertain, given that consumption from consumers was uncertain) and in the case of a sale of the entire generation capacity to ENEL.

Experiences from the Italian market opening



In this section we present a brief review of some relevant elements that characterized the electricity market opening in Italy in the early 2000s. These elements, while not being exhaustive of the entire Italian market design and its evolution through time, have been selected as they are directly connected to the main points of attention that were raised in the course of our assessment of the Albanian market.

7.1. Before market opening: the CIP6 regime

Even before the spot market was open, Italy implemented the so-called "CIP6" regime⁶ to attract investments in generation capacity. Under the CIP6 regime, IPPs could generate electricity and:

- Sell it bilaterally to final consumers, and sell the excess of generation to the monopolist operator (ENEL)
- Sell the entire generation to the monopolist operator (ENEL)

ENEL had an obligation to purchase the electricity generated from IPPs at regulated prices⁷. Imbalances were computed on a monthly basis and settled at regulated prices.

7.2. Unbundling and divestiture of the former monopolist

Unbundling provisions resulted in the former monopolist being divided into separate companies for generation, transmission and distribution. The transmission company (Gestore Rete di Trasmissione Nazionale, GRTN) has then evolved into the current Transmission System Operator, Terna SpA.

Further, divestiture of ENEL generation capacity was imposing that ENEL could not control more than 50% of the overall generation capacity in Italy.

7.3. Market design

7.3.1. Before market opening in 2004

In a transitory phase, and before the opening of the spot market in 2004, GRTN would allocate generation volumes to the different generation companies (including the former monopolist ENEL).

This allocation was designed to reproduce the least-cost dispatch; generators would be remunerated at regulated prices.





Experiences from the Italian market opening

7.3.2. After market opening in 2004: day-ahead and intraday markets

The day-ahead market was designed and implemented first, followed by the implementation of intraday auctions (in the latest implementation before the introduction of continuous trading, seven intraday auctions were held with gate closure one hour before real-time).

The design of the day-ahead market, operated by the Gestore Mercati Energetici (GME) is very much similar to the one operated by ALPEX. While the Italian market is different from the Albanian one as only 'simple' hourly block orders can be submitted, the operation of GME is very much similar to ALPEX:

- Cross-border capacity among different zones is implicitly allocated by the market-clearing algorithm; and
- GME also acts as a clearing house.

Finally, GME is one of the founding members of the Price Coupling of Regions (PCR) initiative that eventually evolved into the Single Day Ahead Coupling (SDAC) mechanism, and holds NEMO status according to Regulation 1222/2015 ('CACM Regulation') for the Italian day-ahead and intraday markets.

7.3.3. Imbalance pricing and management of non-hourly metering data

At the onset of market opening, metering data were not available on an hourly basis for all generators, let alone consumers. As a result, imbalance settlement was a primary issue since hedging products (via the day-ahead and intraday markets) were based on hourly 'blocks', while generation and consumption volumes could only be assessed over monthly, or even longer, periods. Depending on the type of meter installed, in some cases the total injection or consumption in "off-peak"/"intermediate"/"peak" bands of hours through the month was available.

To address this situation, two approaches were taken:

- First, imbalance volumes determined on a monthly or bi-monthly basis (and where available, over the "bands") were settled using the average day-ahead price over the corresponding hours. For instance, for a generator the imbalance volume would have been computed as the difference between the total injection through the month and the total sales in the day-ahead/intraday market through the same month. This volume was settled at the average day-ahead price of the month.
- Then, hourly meters started being deployed at all generators and all large consumers. The approach described above was still maintained for a transitory period, until a different approach was implemented: a "conventional" profile (called Profilo Residuo d'Area, PRA) was defined as

the difference, in each hour, between the total withdrawal in a given hour and the total withdrawal from (large) consumers disposing of hourly metering data. This difference was distributed among all consumers within the area to build an "average", or conventional, withdrawal profile with hourly granularity. This allowed to extend the hourly settlement process also to consumers that were not metered hourly (i.e., small businesses and households).

This approach is still in place today; however, since the roll-out of smart meters is almost 100% complete the definition of conventional profiles has become a materially less relevant issue through time.

7.4. Publicly-owned BRPs: Acquirente Unico and GSE

Since the Italian market opening, two public balancing responsible parties have been instituted:

7.4.1. Acquirente Unico

Acquirente Unico (AU) was established to purchase electricity and resell it to all retail consumers supplied under regulated price conditions. The scope of Acquirente Unico evolved through the different phases of market opening:

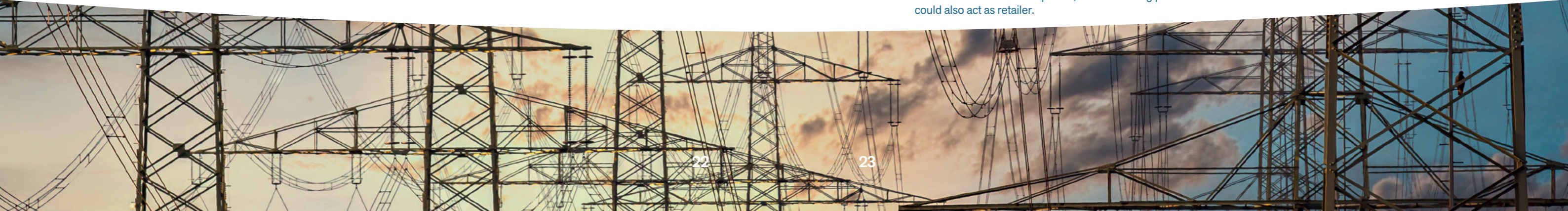
- AU was instituted already when the electricity market was liberalized in 1999 to supply consumers at regulated conditions (via the monopolist suppliers, i.e. the distribution companies)
- After the opening of the spot market (2004), there was a transitory phase where AU would purchase electricity from CIP6 units (see section 7.1) and resell it via auctions to suppliers of large industrial consumers
- After this transitory regime, AU had the responsibility to procure electricity (first via long-term transactions, and then only via the spot market) for all consumers supplied under the regulated Maggiore Tutela regime. AU resells the electricity to selected suppliers (unbundled companies part of the distributor's group) that act as retailers under this mechanism⁸.

Acquirente Unico still plays a major role in the current Italian market: the Maggiore Tutela regime is still in place and will be phased in April 2024. As of today, more than 4.5 millions of household consumers are still served under this regime.

7.4.2. Gestore dei Servizi Energetici and the "ritiro dedicato" regime

In the early stages of the market, support to renewable generators was provided by feed-in-tariff (FiT) schemes where the FiT level was defined at regulatory level. In particular, under the "ritiro dedicato" regime renewable generators had the possibility to have their generation off-taken by the publicly-owned company Gestore dei Servizi Energetici (GSE), which would resell the electricity via the spot market and settle the volumes injected by individual generators.

⁸ For small distribution companies, the unbundling provision was lifted and the distributor could also act as retailer.



8. Recommendations

8.1. Improve the liquidity of the spot market

In order to improve the reliability and efficiency of the spot price signals, the liquidity of the spot market cleared by ALPEX could be increased by clearing via ALPEX (at least of) of the volumes subject to a public service obligation for KESH (including, most notably, the volumes for Universal Service Supplier consumers). This was successfully implemented in Italy, where Acquirente Unico was subject to an obligation to purchase 75% of the volumes supplied to regulated-price consumers via the spot market.

Settlement between FSHU and KESH could then be implemented via 2-way contract for differences, using the same approach implemented today for Last Resort Supply Consumers. This would also bring the additional benefit of reducing the cashflow impact for KESH and FSHU to a minimum, if the settlement is implemented frequently (e.g., monthly).

8.2. Shorten the period to calculate the regulated price for final consumers

At present, ERE recalculates the regulated price charged by FSHU to Universal Service Supply consumers on a yearly basis. DSO's metering readings are realised monthly and manually at the consumer site. As the procurement costs for FSHU evolves through the year, this may lead to large adjustments in the bills when moving to one year to the next.

Adopting a methodology that better follows FSHU procurement costs on a shorter time period (e.g., quarterly) might mitigate this issue and improve transparency towards the final consumers.

8.3. Competitive tenders for FSHU procurement

Rather than procuring electricity bilaterally and via the spot markets, FSHU could procure electricity via tenders to improve competition and reduce costs for final consumers. If 2-way contracts for difference are used to settle the volumes cleared through ALPEX and subject to the public service obligations, participants in the tender would bid the strike price for the contract for difference, and the auction would select the lowest strike prices.

8.4. Roll-out of smart metering devices

A precondition for an efficient participation to the spot market of generators and consumers is the availability of metering data with the same granularity as the ISP (hence, hourly or sub-hourly).

For this reason, we recommend speeding up with the highest priority the roll-out of smart metering devices for all consumers and generators.

8.5. Long-term price signals

Even though there is no adequacy issue perceived in Albania for the time being, we recommend that stakeholders and institutions take part in the debate on the evolution of the forward electricity markets in Europe. This will be functional to support informed decision making regarding the implementation of long-term markets in Albania, Kosovo* and – if relevant – other countries in the Balkan region.



BES
Balkan Energy School

CEI
CENTRAL EUROPEAN INITIATIVE

Ministry of Foreign Affairs
and International Cooperation