

The development of the Albanian Balancing Market

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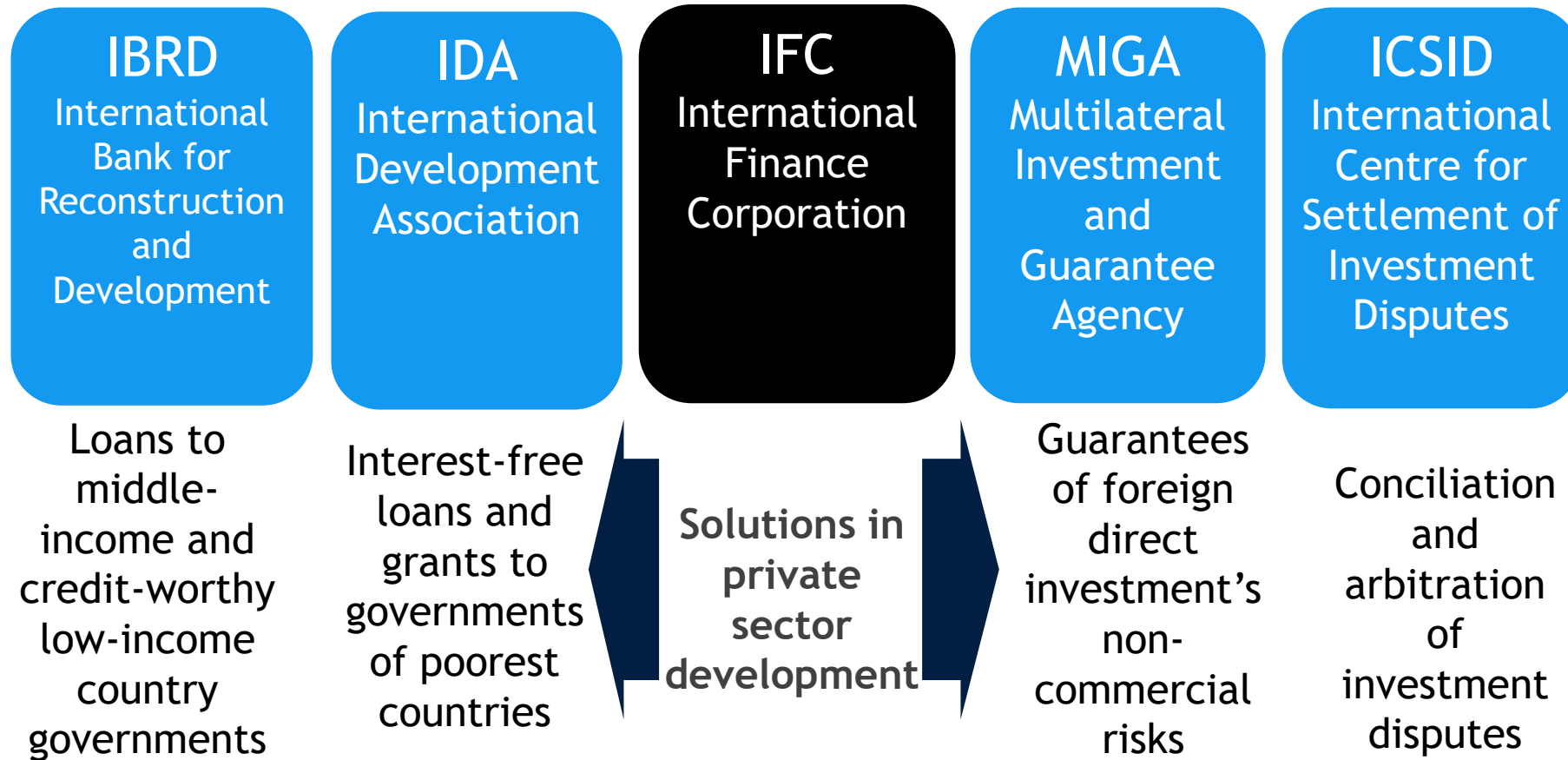
Energy & Water Advisory - IFC

En.Trading 017 seminar

Tirana – 14 September 2017



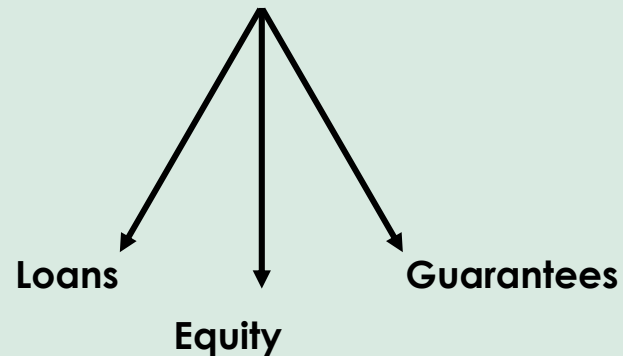
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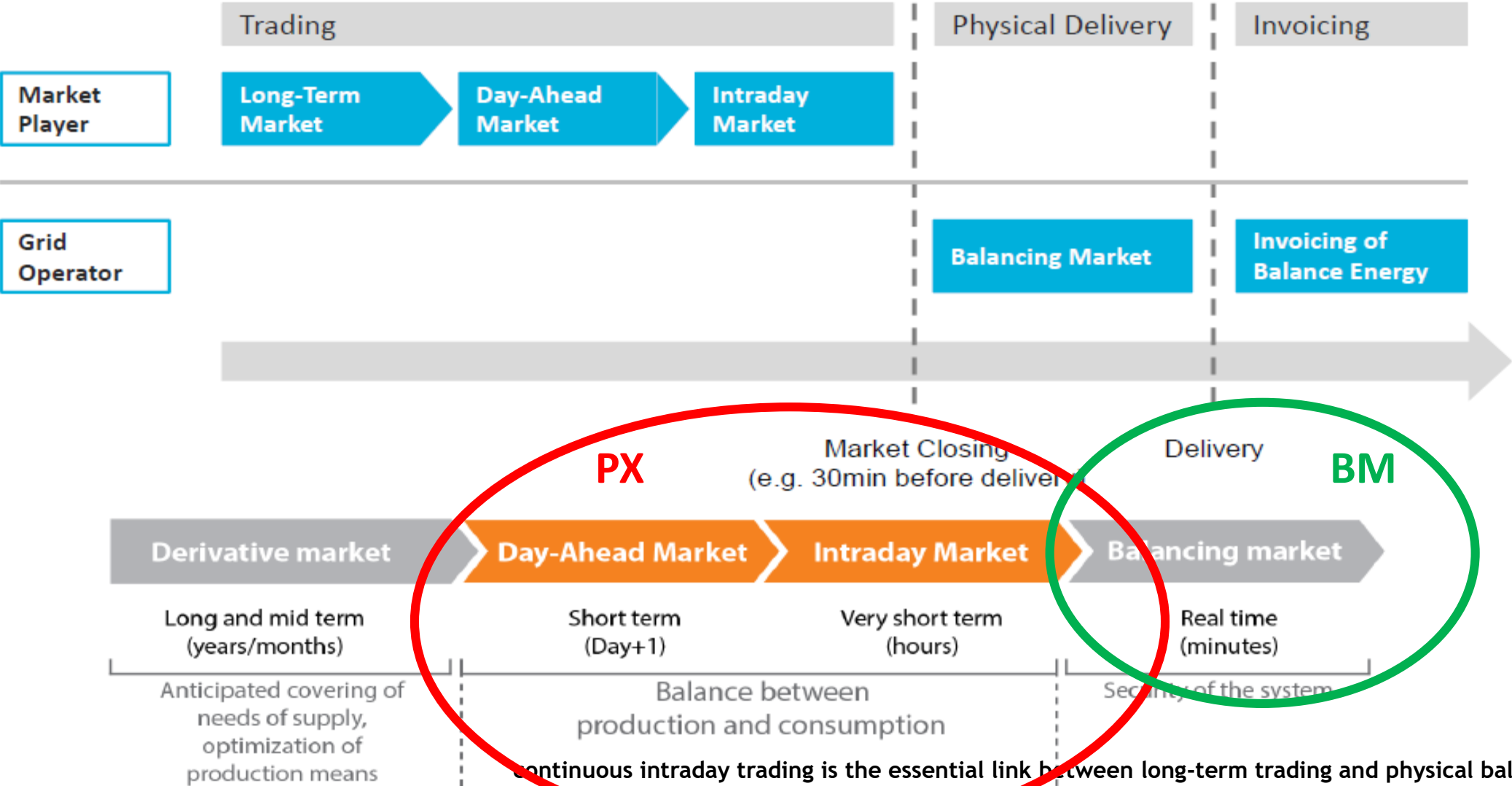


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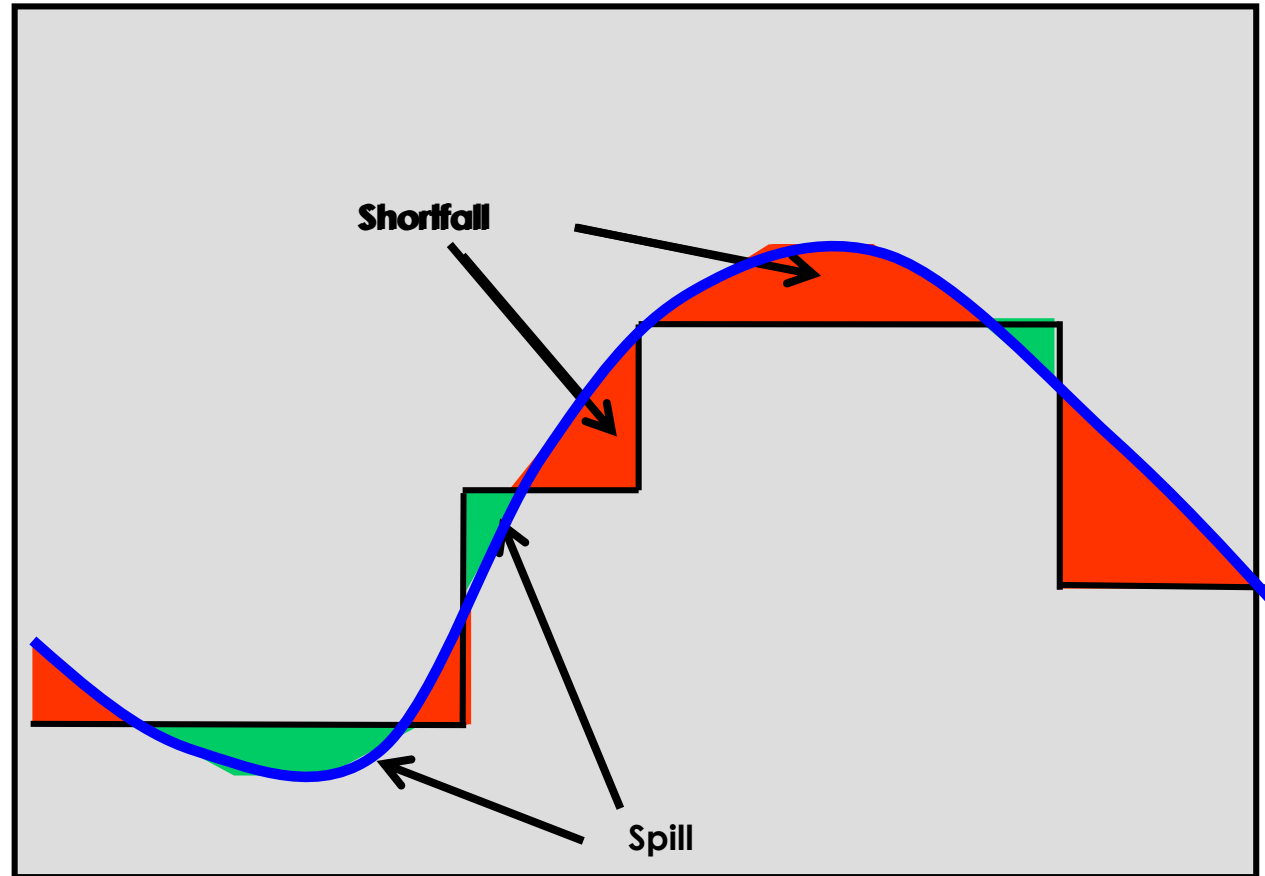


Complete Markets in all time horizons

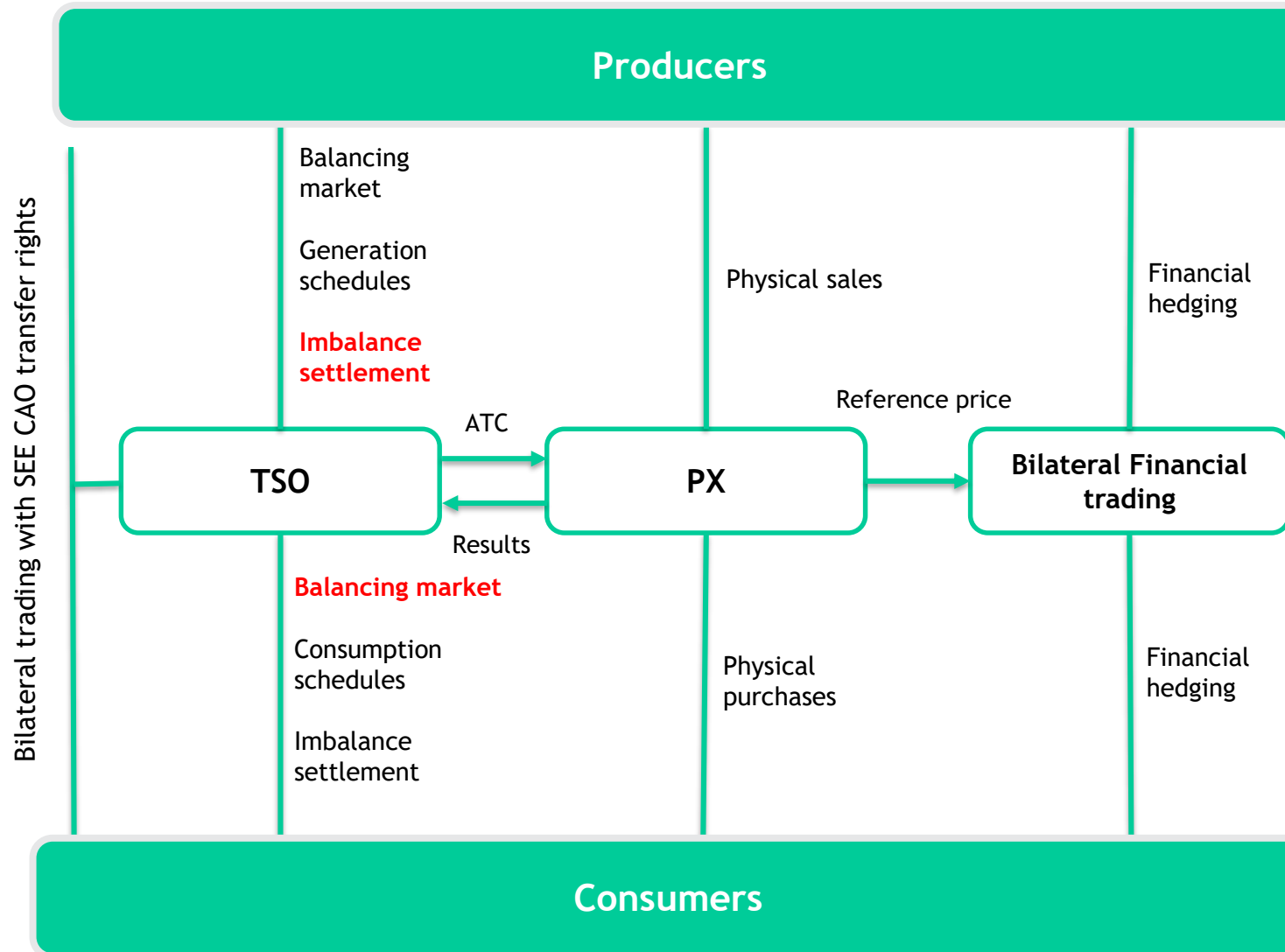


Balancing Mechanism

TSO balances the system in “real time” either by contracts with Generators/Suppliers at Administrative prices or through commercial transactions in a “balancing market” mechanism



Proposed Electricity Market structure in Albania

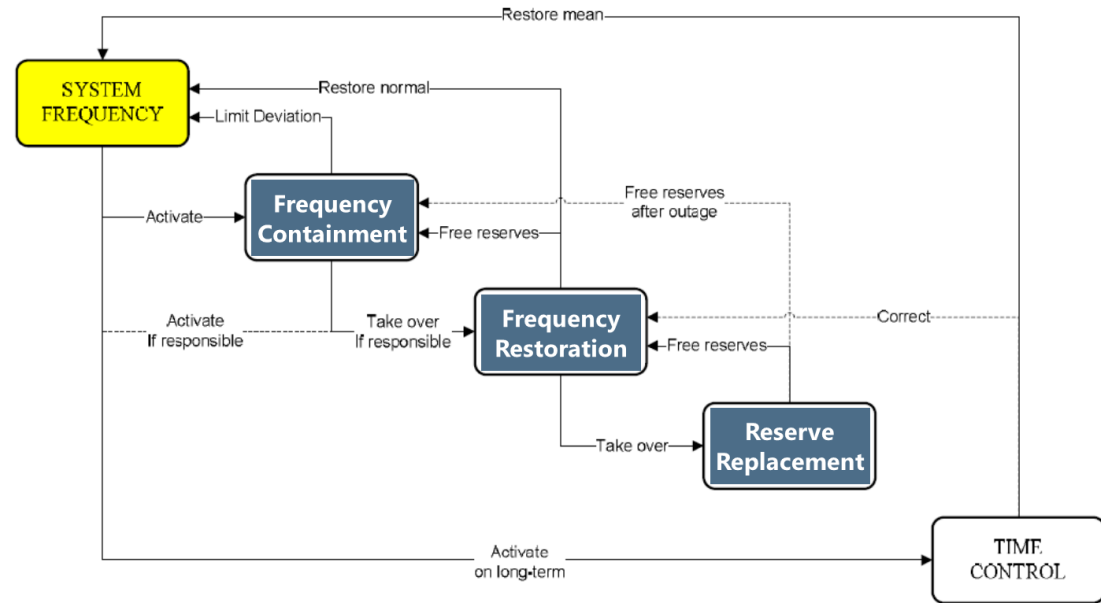
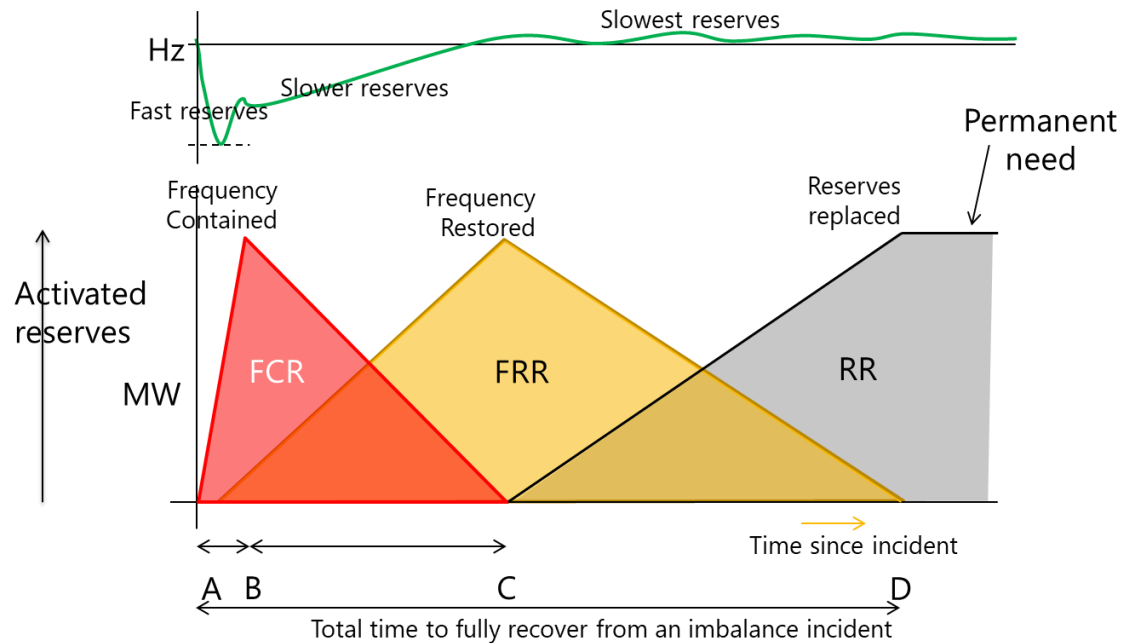


What are Markets for

- ◆ **Markets are about:**
 - ◆ financial risk transfer
 - ◆ Efficient pricing
- ◆ Contractual delivery of energy
- ◆ Traded bilaterally (Broker) – Terms agreed between Seller and Buyer
- ◆ Or in a centralized way – in a PX
- ◆ Trading results in POSITIONS for Market Participants – Net sum = 0
- ◆ LONG obligation/right to take electricity / SHORT obligation to deliver
- ◆ **Commercial positions revert to physical obligations towards TSO after GTC**
- ◆ Markets deliver the best price possible – Liquidity reflects the fundamentals
- ◆ **Balancing settlement is where physical and contractual meet**

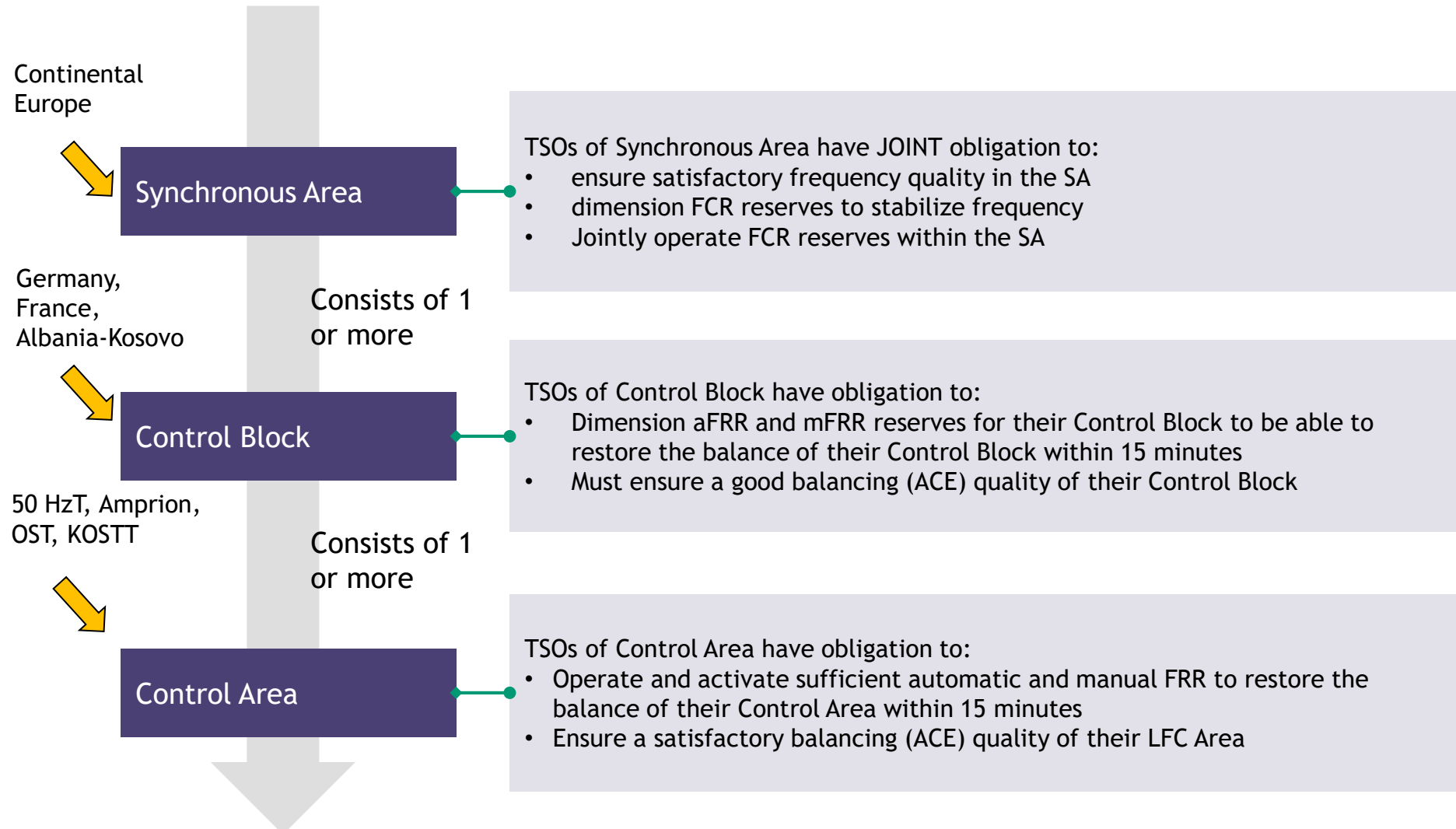
Load-Frequency-Control in Continental Europe

Imbalance recovery process (summary)



C: TTRF (Time To Restore Frequency, in CE: 15 min.)
 D: Time to fully recover from incident including replacement of frequency control reserves

LFC in CE: Control Structure & Responsibility



Time planning

Roadmap for the Establishment of the Albanian Power Exchange Market

Until 1 September 2016 - formal establishment of an **organisation unit in the OST** which in a later stage will become the core structure of the PX.

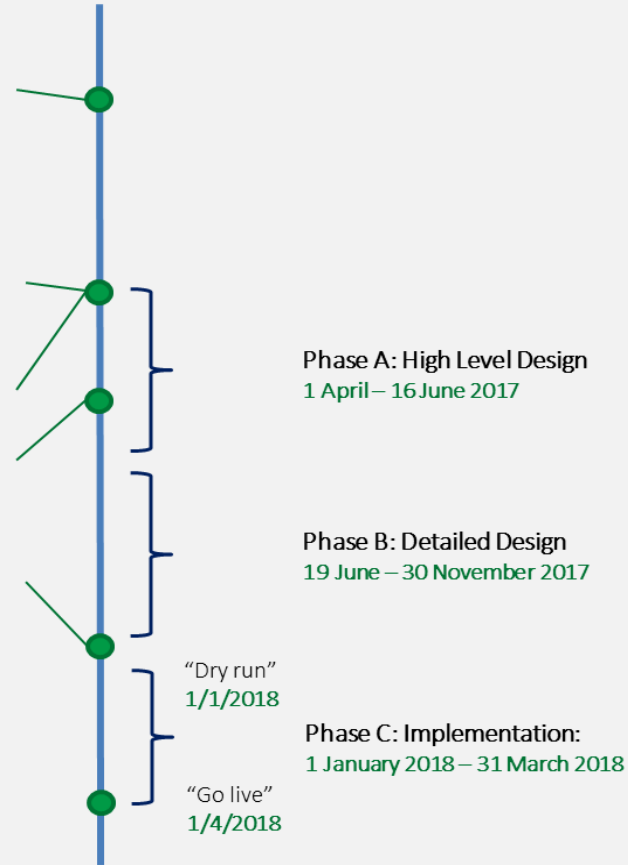
Until 1 December 2016 - the unit (working group) will have to propose the organizational company structure and necessary legal and documentation required to **transform the unit into an appropriate legal entity**.

After 1 January 2017 - the Energy Minister shall consider the **inclusion of new TSOs** in the ownership structure

Within 31st March 2017 - **decision on the establishment of legal-entity** and relevant organization structure within

Within 31 December 2017 - the responsible energy Minister will take **the decision for the Albanian Power Exchange to start the commercial operation**

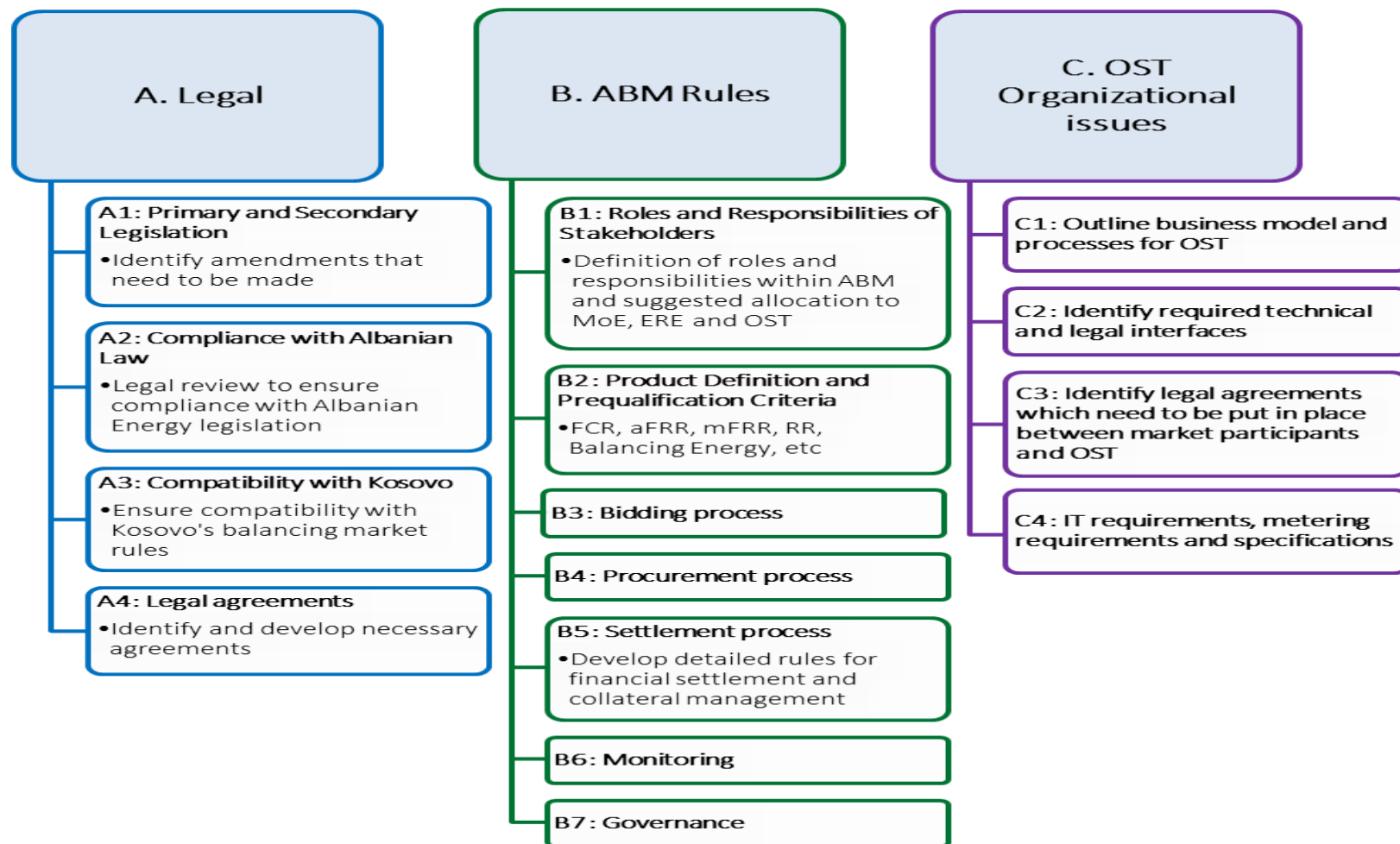
Milestones for the establishment of the Albanian Balancing Market



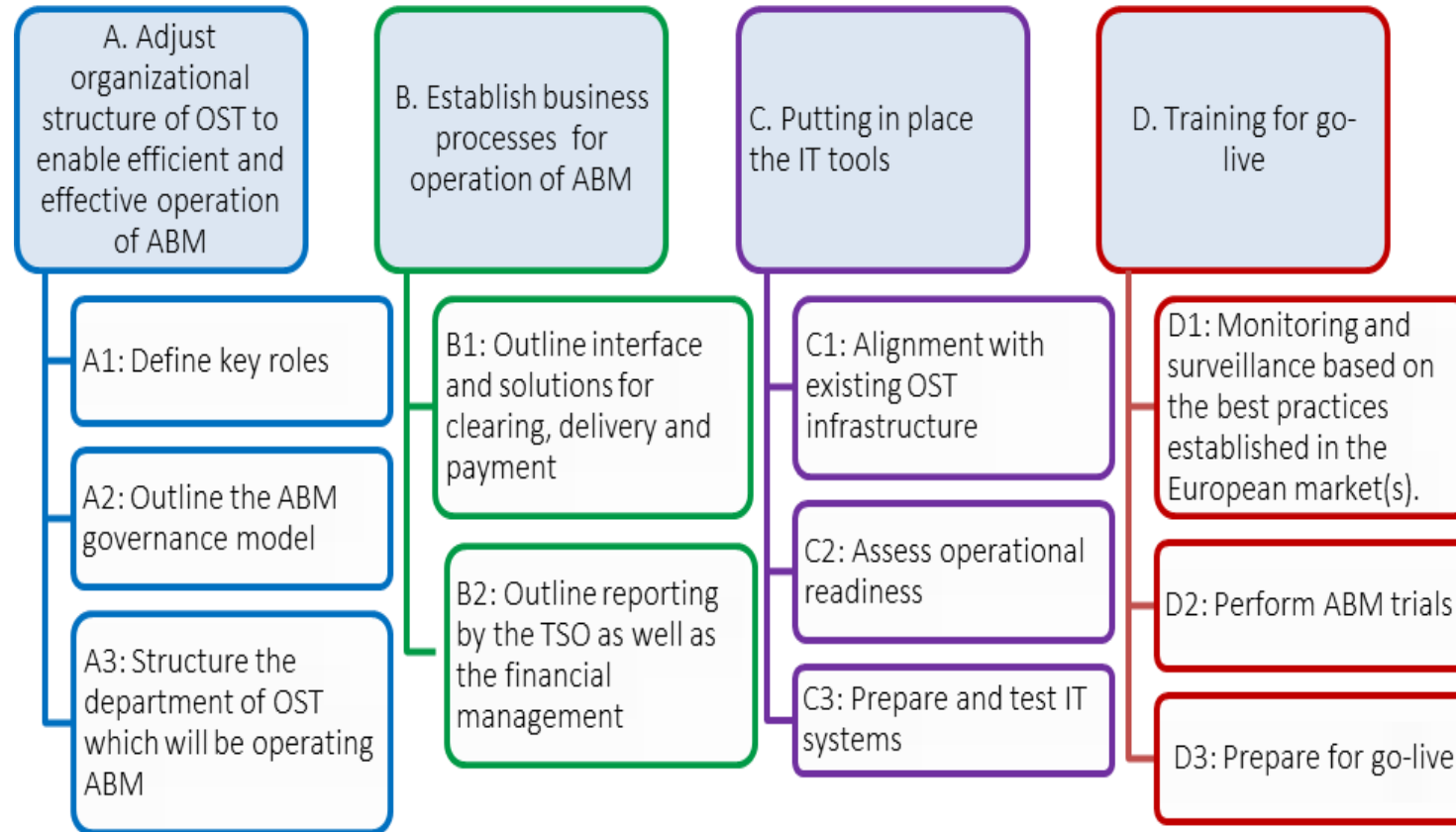
High Level Design - Work breakdown of the activity



Detailed Level Design - Tasks & Activities



Envisaged tracks and activities under Implementation Phase



Key issues of Balancing Market Design

- ❑ Roles and responsibilities
 - TSO, PX, BSP, BRP
 - RES and ICs

- ❑ Procurement of balancing services
 - Product definitions
 - Auctioning/Contracting/Bidding/Remuneration
 - Activation
 - Settlement (pay as bid vs pay as cleared, capacity and energy)

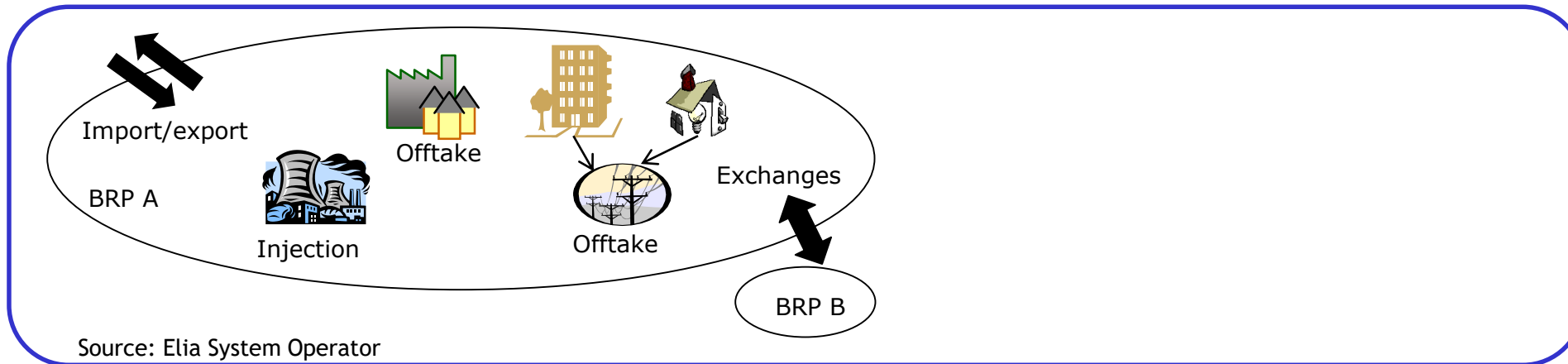
- ❑ Imbalance settlement
 - Imbalance settlement period (EBGL - 15 min)
 - Imbalance pricing (at least average price of all activated bids)
 - Imbalance volume determination, need for profiling and reconciliation

- ❑ Compliance to EB GL

Specific issues for Balancing Market of Albania

- Level of integration with Kosovo
- Run of river hydro
- BSP causing imbalances at downstream BRP**
- Supplier switching
- Metering
- Balance responsibility

Explanation: TSO and BRP balancing tasks



Adequate incentives!

BRP is responsible to balance its perimeter on an ISP basis

- Day-ahead nominations of BRP must be balanced
- BRP pays an imbalance price if the **real-time** position of its perimeter is not balanced
- BRPs react on real-time imbalance prices to restore their perimeter balance
- A BRP has the right to subscribe for BSP qualification

In real time, the residual imbalance of the zone is solved by the TSO

- TSO shall restore residual imbalances by activation of Balancing Services
- Balancing actions by TSOs are reflected in **imbalance prices**

Balancing Service Providers

Currently*):

Fierza, $4 \times 125 = 500$ MW

Komani, $4 \times 150 = 600$ MW

Vau I Dejes, $5 \times 50 = 250$ MW

(also Ulza & Skopet by Kurum

Energy, $4 \times 6.3 = 25.2$ MW &

2×12 MW = 24 MW, respectively)

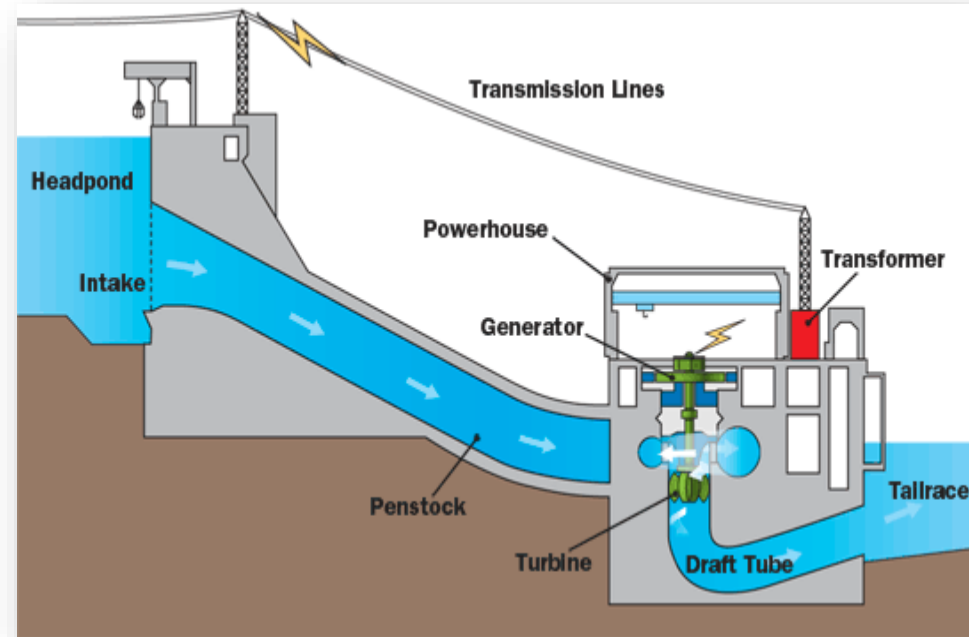
Future:

Banja and Moglicë with a combined capacity of 243 MW by Devoll Hydropower Sh.A.

X-border balancing cooperation

Gas-fired thermal generation (using TAP volumes ?)

Demand side response (?)



*) Source: LFC Operation Agreement Kosovo-Albania, final report, November 2015

Institutional Setup of Albanian Electricity Market*) (1/2)

TSO is responsible to:

- ✓ develop, operate & maintain the transmission system and performs dispatching
- ✓ enable third party access and connections to the network
- ✓ procure the power for covering transmission losses and ensuring reserve capacities in the system
- ✓ perform all activities related to the Balancing market (incl. clearing and settlement) conform with the Market rules, Balancing rules & Transmission Code.

ERE approves:

- ✓ Market rules, technical codes, methodologies and regulations
- ✓ Balancing rules, policies and contracts (agreements)
- ✓ tariffs for transmission, distribution, universal service
- ✓ tariffs for balancing, connections and access to the transmission network.

Albanian Power Exchange (PX) is responsible to:

- ✓ ensure the performance of the PX operation and the necessary interactions for the PX operation (day-ahead market)
- ✓ accept offers to buy and sell electric power from the BRP-s
- ✓ receive and process the interconnection capacities for the TSO
- ✓ perform the necessary auctions and trade operations
- ✓ send to the respective BRP's and the TSO the trade confirmations, including the information on allocated amounts, prices, the credit reports and the financial accounts
- ✓ execute the payments for the respective BRP's .

Institutional Setup of Albanian Electricity Market *) (2/2)

DSO is responsible to:

- ✓ operate, develop and maintain the distribution system as well as for the third party access and connections;
- ✓ procure the power for covering distribution losses and ensuring reserve capacities in the distribution system
- ✓ collection and submitting to the TSO data needed for electricity market functioning.

Market Operator (MO) is responsible for:

- ✓ electricity market management
- ✓ preparation of the financial statements for the settlement of mutual obligations for market participants for the imbalances

Other participants are:

- ✓ Generators
- ✓ Suppliers
- ✓ Traders

Thank you for your attention

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