

The South Eastern Europe Energy Market in Transition

Restructuring the Greek Wholesale Market towards the European Internal Market for Electricity

Dr. Athina Tellidou

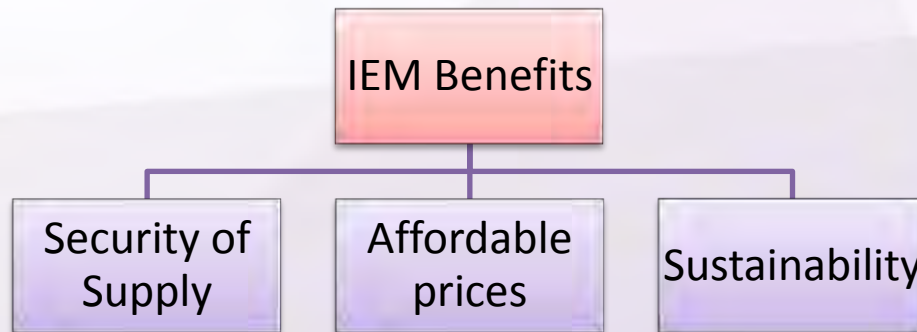
Markets Monitoring & Competition Department, RAE

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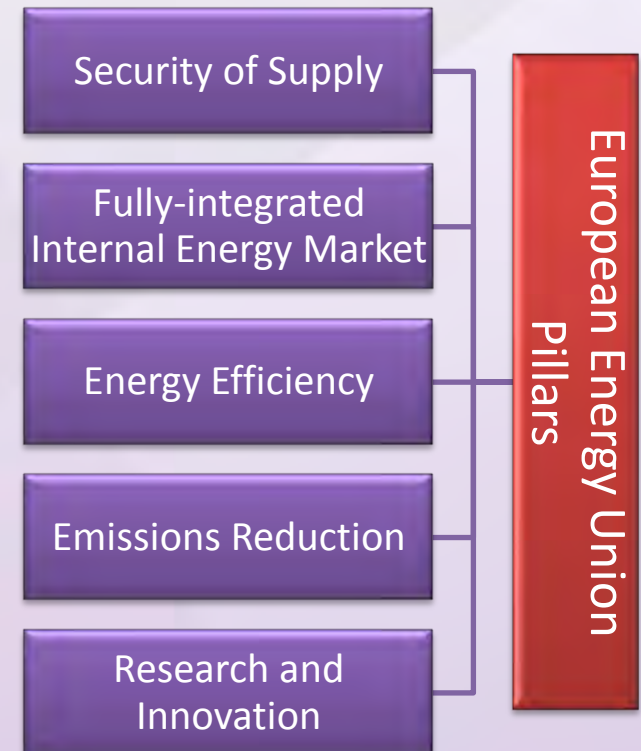
Overview

- Internal Electricity Market
- Market Network Codes
 - FCA
 - CACM
- New Law for the Restructuring of the Greek Wholesale Electricity Market
 - Forward market
 - Day-ahead market
 - Intra-day market
 - Balancing market
- Next step: Guidelines issued by RAE

Internal Electricity Market



- Electricity is a special product, since it cannot be stored in large amounts; hence a constant real-time balance between production and demand is required.
- An integrated, competitive European market can offer more options to the final customer, ensuring more competitive energy prices.
- A single electricity market can integrate more safely greater volumes of renewables, through a more expanded transmission system.

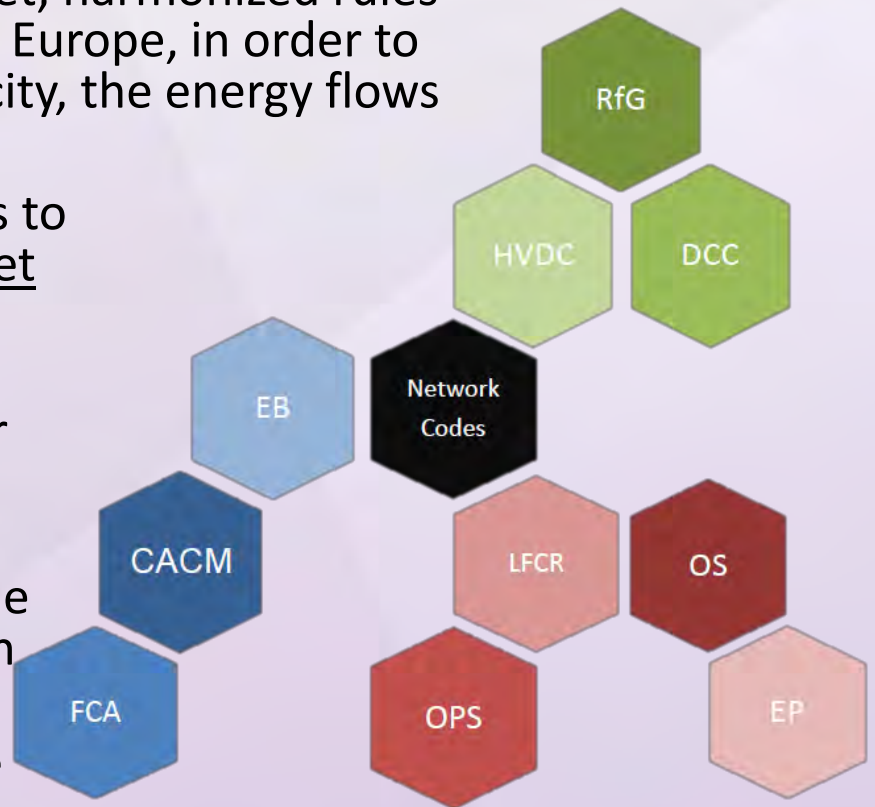


Market Network Codes

For the IEM to operate as a single market, harmonized rules are required for the transactions across Europe, in order to ensure that the calculation of the capacity, the energy flows and finally the prices is aligned.

The **market network codes** are the rules to govern all cross-border electricity market transactions in all timeframes.

- **FCA (Forward Capacity Allocation):** covers the allocation of cross-border capacity in long-term basis
- **CACM (Capacity Allocation and Congestion Management):** covers the allocation of cross-border capacity in day-ahead and intraday horizon
- **EB (Electricity Balancing):** covers the exchange of energy and reserves in close to real-time timeframe.



source: ENTSO-E

FCA – EU HAR

- Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a **guideline on forward capacity allocation**
- Sets the rules for calculating and buying long-term capacity, in timescales before day ahead; purpose: hedging price risk between bidding zones.
- Art 51 “Introduction of harmonized allocation rules”:
*“**Within six months** after the entry into force of this Regulation, **all TSOs** shall jointly develop a proposal for **harmonized allocation rules** for long-term transmission rights...”*
- Pilot Project: **EU Harmonized Allocation Rules** (valid for GR-IT)
 - 1st version approved for 2016
 - 2nd version approved for 2017
 - For 2018 it should be the EU HAR as foreseen by the FCA, not any longer as Pilot Project

FCA – Single Allocation Platform

- Rec (5): *“Harmonised long-term cross-zonal capacity allocation rules require the establishment and operation of a **single allocation platform** at European level. This central platform should be developed by all TSOs to facilitate the **allocation of long-term transmission rights** for market participants ...”*
- Many efforts towards the direction of a single allocation platform were made during the last years:
 - **JAO (GR-IT): EU HAR** “On 24 June 2015 the General Assemblies of CAO and CASC.EU, [...], approved the merger agreement to create the Joint Allocation Office (JAO). This is a major milestone for facilitation of the internal electricity market in the European Union.” <http://www.jao.eu>
 - **SEE CAO (GR-AL, GR-TR, GR-MK): Common rules** “Coordinated Auction Office in South East Europe (hereinafter: SEE CAO) was established in 2014, [...] with the objective to perform the explicit allocation of cross-border transmission capacity in both directions between Control Areas of the Participating TSO’s, through NTC based Auction Processes in accordance with the requirements of Regulation (EC) 714/2009 ...” <http://www.seecao.com>

CACM – General

- Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a **guideline on capacity allocation and congestion management**
- It contains provisions regarding **Intraday (ID)** and **Day Ahead (DA)** market timeframes, and one of its cornerstones is the **Capacity Calculation (CC)**.
- Art 20 par 4:
 - “No later than **six months** after at least **all South East Europe Energy Community Contracting Parties** participate in the **single day-ahead coupling**, the TSOs from at least **Croatia, Romania, Bulgaria and Greece** shall jointly submit a proposal to introduce a common capacity calculation methodology using the **flow-based** approach for the day-ahead and intraday market time-frame. The proposal shall provide for an **implementation date** of the common capacity calculation methodology using the flow-based approach of **no longer than two years** after the participation of **all SEE Energy Community Contracting Parties** in the **single day-ahead coupling**...”

CACM – Capacity Calculation Regions

According to “All TSOs’ proposal for Capacity Calculation Regions (CCRs) in accordance with Article 15(1) of CACM”



CCR 5:
Greece-Italy
(GRIT)



CCR 11: South-east
Europe (SEE)

CCR 11: South-east
Europe (SEE) including
non-EU bidding zone
borders



New Law for the Restructuring of the Greek Wholesale Electricity Market

- Required adaptations in the Greek market, in order to be compliant with the European Network Codes, since **the current model does not allow for coupling** in the framework of CACM.
- Law 4425/2016 (30.09.2016), Chapter C: Its **purpose** is the **restructuring of the Greek wholesale electricity market**, for the implementation of the legislation for the integration of the **internal European electricity market**.
- Definition of four markets depending on the various timeframes:
 - **Forward market**
 - **Day-ahead market**
 - **Intra-day market**
 - **Balancing market**

Forward Market

- **Forward contracts:** physically settled contracts with injection and withdrawal obligation in future delivery periods; either traded through organized market or OTC
 - Physical delivery
 - Long-term timeframe (>2days before delivery)
 - **Optional** participation
 - Operated by **LAGIE**
- The forward contracts should be declared in the **day-ahead** market

Day-ahead and Intraday Markets

- **Day-ahead market**
 - Submission in d-1
 - **Obligatory** participation: obligation to offer the total net capacity (taking into account forward contracts)
 - Operated by the **NEMO** in cooperation with the TSO, according to CACM; **LAGIE** was nominated, as national monopolistic market operator of current wholesale market
- **Intra-day market**
 - Submission after the day-ahead gate closure for d
 - **Optional** participation
 - Operated by the **NEMO**, hence **LAGIE**, both the regional intraday auctions and the European continuous trading in cooperation with the TSO

Balancing Market

- **Balancing market:**
 - Balancing Capacity market: offering capacity for reserves requirements
 - Balancing Energy market: offering energy for maintaining production-demand balance
 - Imbalances Settlement
- **Obligatory** participation: obligation to offer the total net capacity (taking into account the results of the previous markets)
- Operated by **IPTO/ADMIE** (TSO)

Next step: Guidelines issued by RAE

- The Law describes only the general aspects of the new markets.
- As intermediate step, RAE is in the process of **describing in more detail, particular features of the high-level design**, in order for the operators of each market, to start **drafting the respective Codes** and **specifying the requirements** of their IT systems.
- The **guidelines** would include among others:
 - Participation
 - General provisions regarding orders
 - Timing and other issues, with respect to the interfaces among markets
 - Regulatory decisions regarding pricing

Thank you very much for your
attention!

Dr. Athina Tellidou

Markets Monitoring & Competition Department, RAE

tellidou@rae.gr

+30 210 37 27 468

References

- COMMISSION REGULATION (EU) [2016/1719](#) of 26 September 2016 establishing a guideline on forward capacity allocation
- COMMISSION REGULATION (EU) [2015/1222](#) of 24 July 2015 establishing a guideline on capacity allocation and congestion management
- <http://www.planete-energies.com/en/medias/close/five-pillars-european-energy-union>
- [Network Code Overview](#), ENTSO-E website
- [All TSOs' proposal for Capacity Calculation Regions \(CCRs\)](#) in accordance with Article 15(1) of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management
 - [Explanatory document](#) to all TSOs' proposal for Capacity Calculation Regions (CCRs) in accordance with Article 15(1) of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management
- ACER, [The definition of capacity calculation regions](#), Consultation document
- Law [4425/2016](#) (30.09.2016)