

The implementation of the Electricity Target Model in Greece

Angeliki D. Mourtzikou
Director of Markets Monitoring and Competition, RAE

Thessaloniki, September 11, 2018

Agenda



- What is the Electricity Target Model?
- What has been completed so far?
- What are the remaining steps to be completed?
- What is the ultimate goal?

What is the Electricity Target Model?

The creation of a single EU market for electricity is of top priority

- EU Member States are committed to completing the internal market for electricity.
- The internal market requires removing barriers to trade and aligning markets.
- The Third Package creates a new regulatory framework to enable this ([EU Regulation 714/2009 on conditions for accessing the network for cross-border electricity exchanges](#)) and it is legally binding for markets to couple.

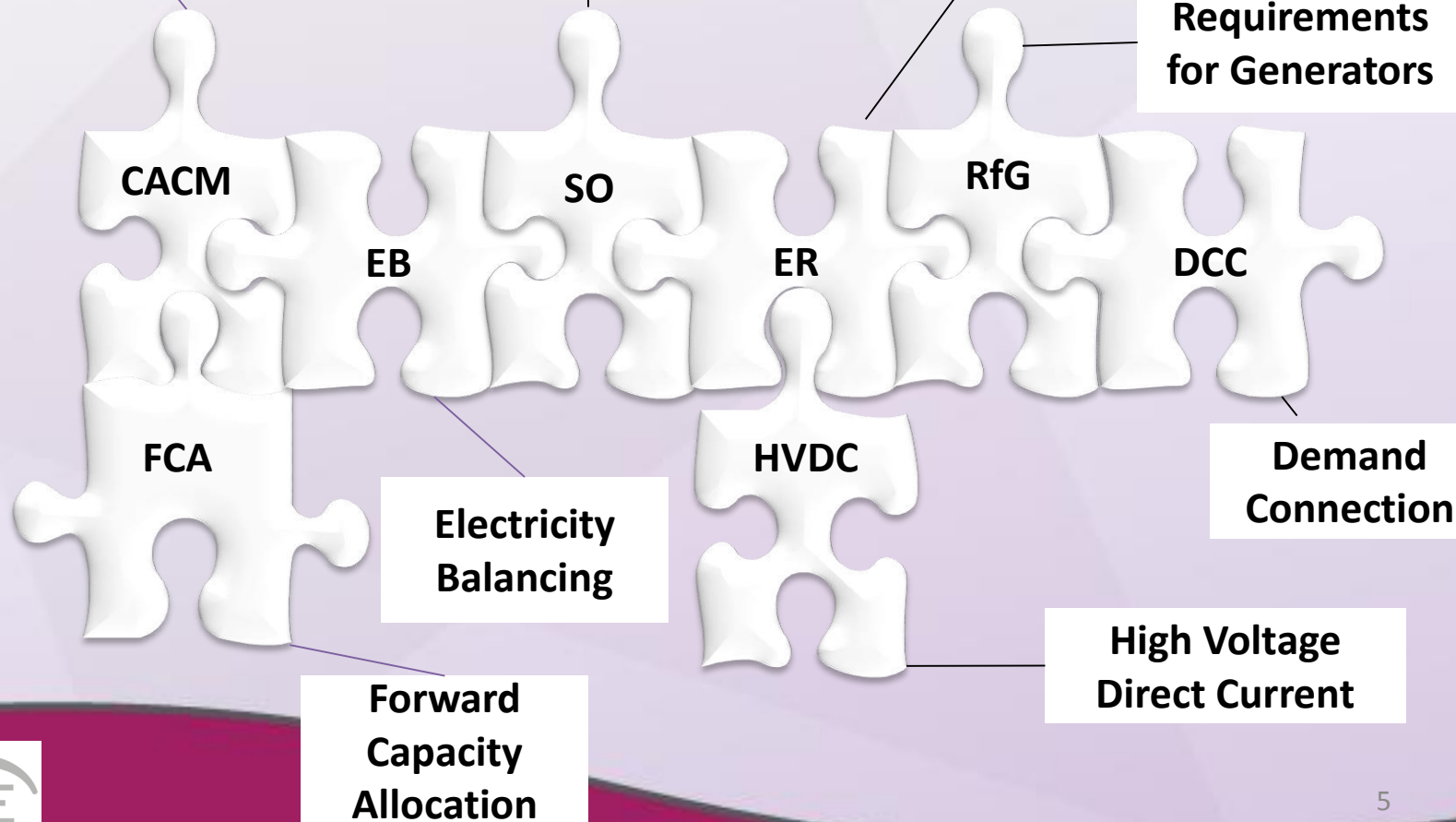
The Electricity Target Model is the basis for the development of the single market in Europe

Capacity Allocation & Congestion Management

System Operation

Emergency & Restoration

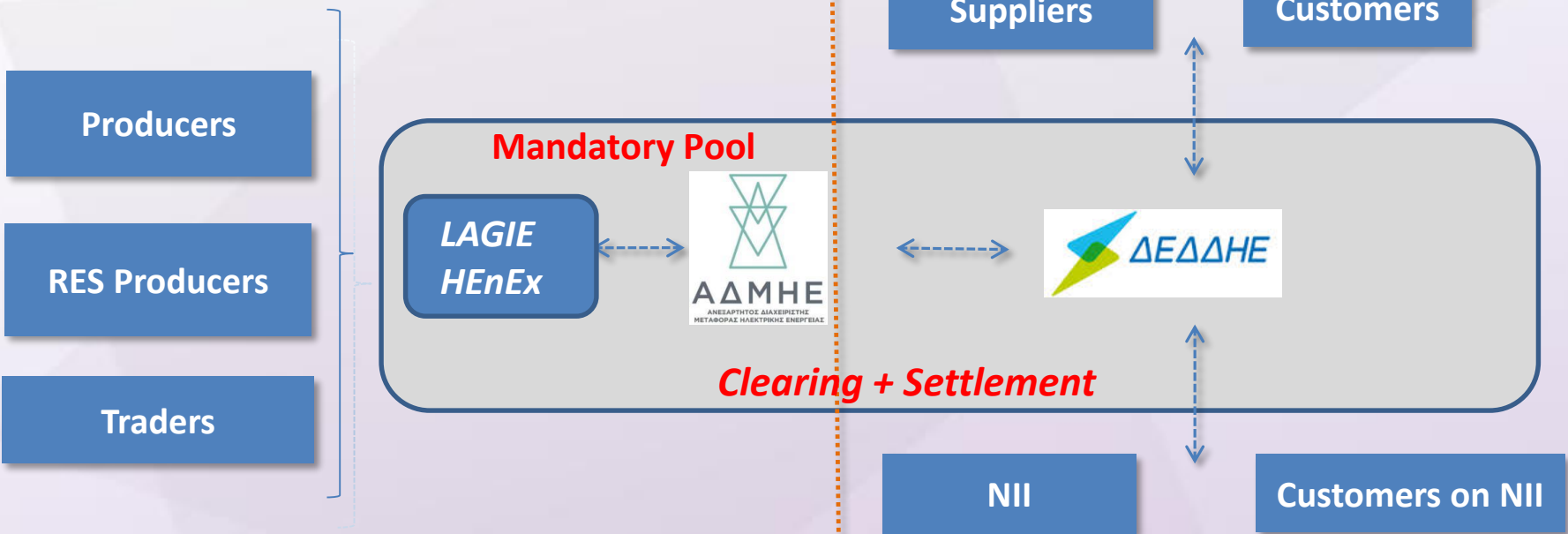
Requirements for Generators



Current electricity market (in transition)

Wholesale market

Retail market



Current Structure

1. Mandatory participation of producers
2. No possibility for bilateral contracts
3. Forward NOME product auctions
4. Clearing and settlement by each operator

Existing Interconnections of the Greek market with other EU and non-EU markets

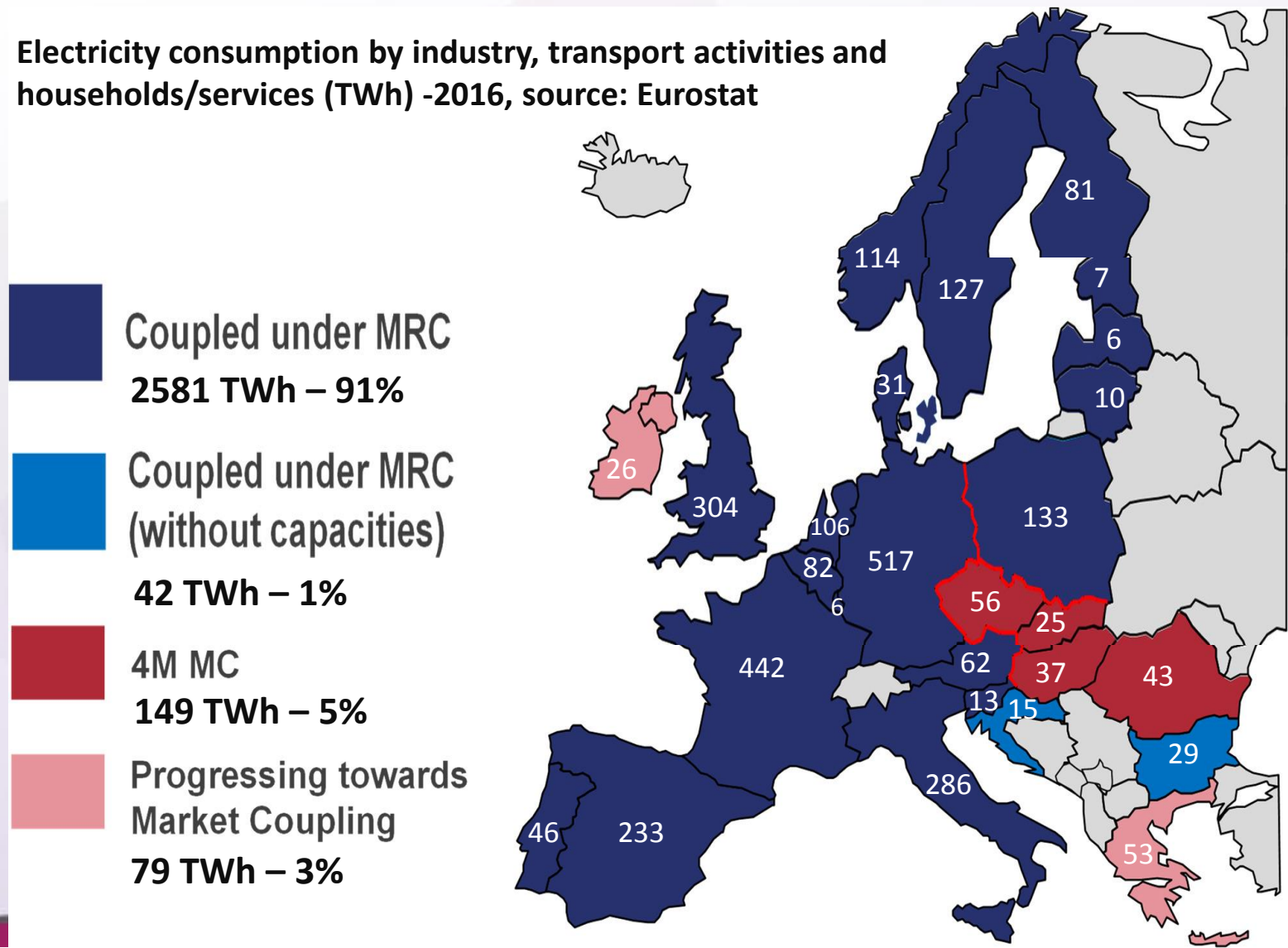
- Cross-Zonal Capacities are allocated through explicit auctions in all interconnections.
- In compliance with the CACM Regulation, this should change to implicit auctions, implemented through **the pan-European Day-Ahead Market coupling algorithm, EUPHEMIA.**
- The internal procedures and the standard corporate governance of the **Multi-Regional Coupling (MRC) project** shall be applied also in Greece.



Source: *LAGIE S.A.*

Price coupling of regions (PCR) - Euphemia

Electricity consumption by industry, transport activities and households/services (TWh) -2016, source: Eurostat



The Greek electricity market will be coupled with Italy first and then (or in parallel) with Bulgaria

CCRs in accordance with Article 15(1) of CACM
(ACER Decision no. 6/17.11.2016)



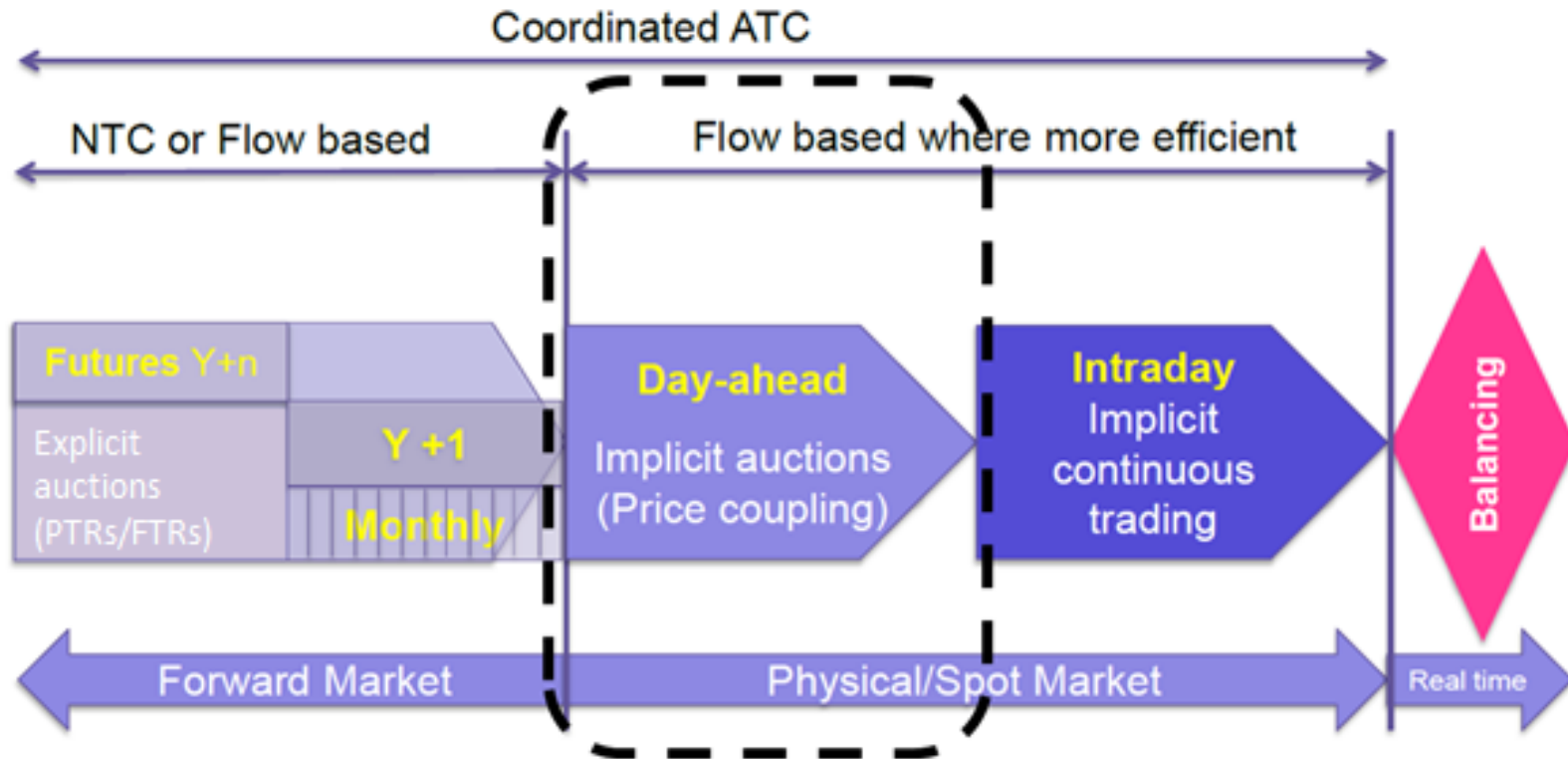
CCR 5:
Greece-Italy
(GRIT)

CCR 10: South-east
Europe (SEE)



source: ENTSO-E

Future Electricity Market



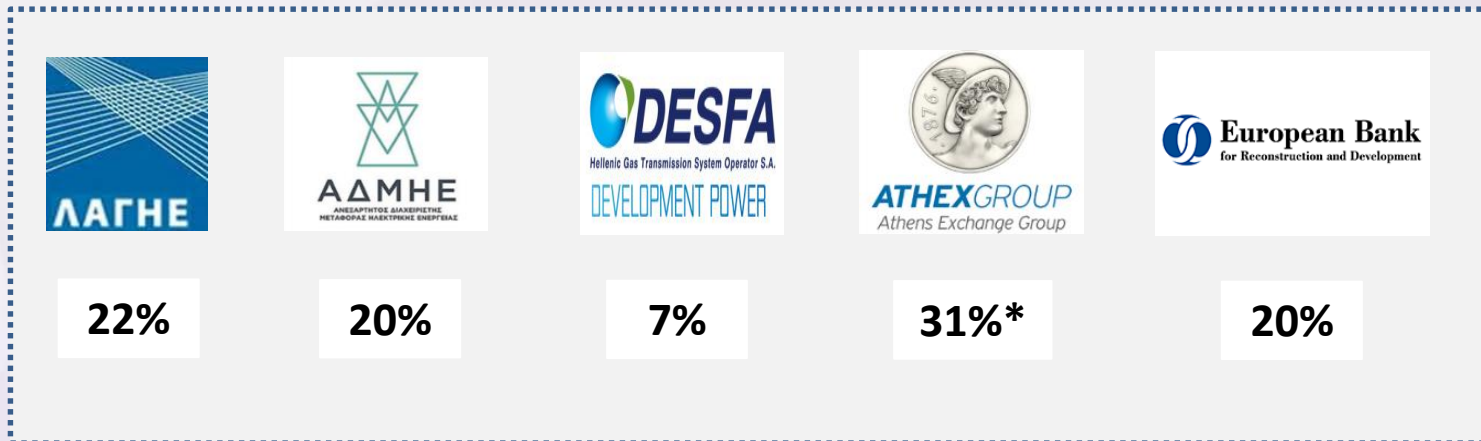
What has been completed so far?

Legal and Regulatory Developments following the laws 4425/2016 and 4512/2018

- New entities are foreseen for the operation of the restructured electricity market, i.e. the Hellenic Energy Exchange and one or more Clearing Entities.
- RAE and the Hellenic Capital Markets Commission (HCMC) cooperate for the effective carrying out of their responsibilities as well as for the implementation of the legal framework which relates to the operation, the integrity and the transparency of the energy market, in line with their responsibilities according to EU law.

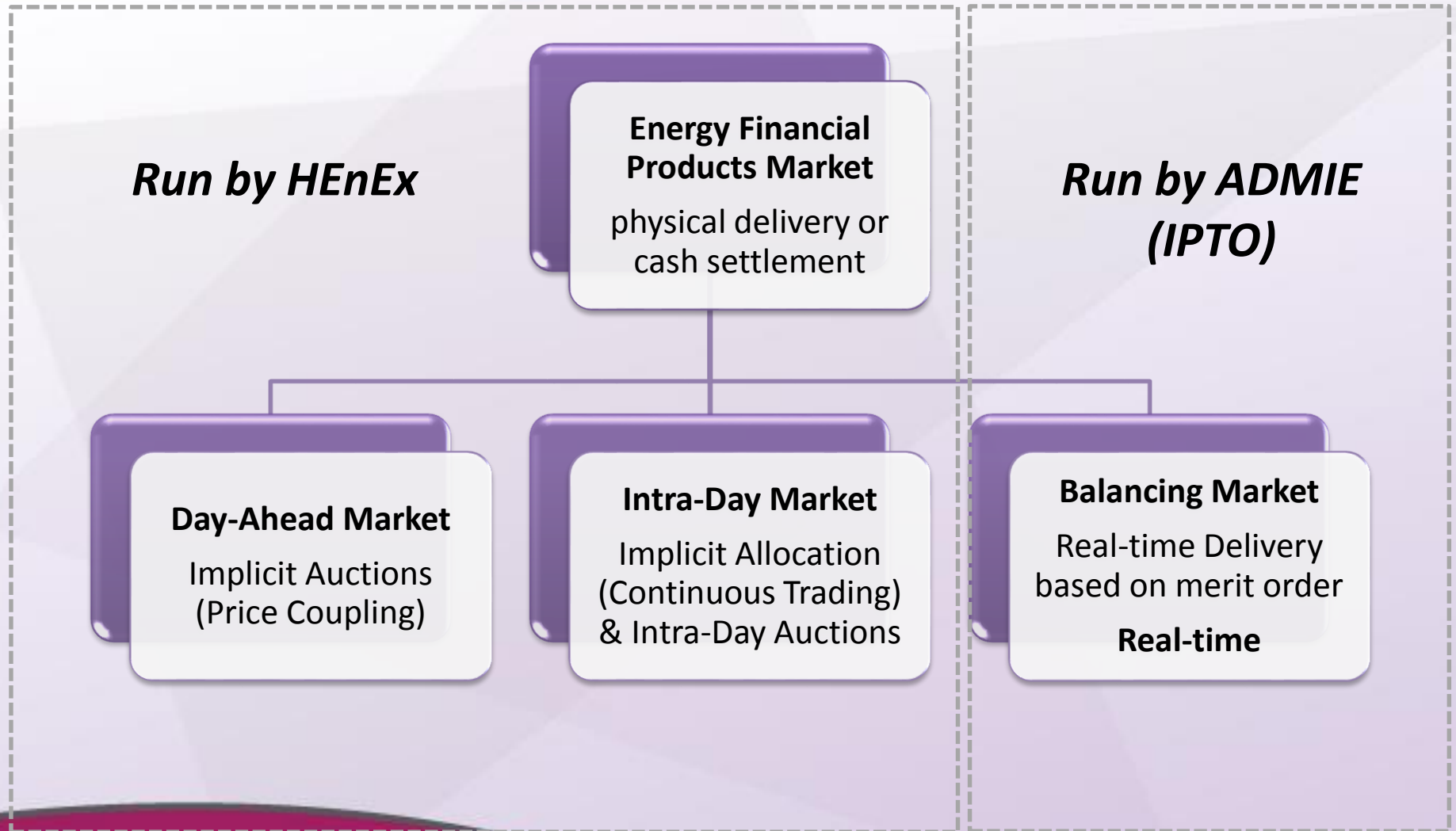
A new entity, the Hellenic Energy Exchange (HEnEx) was established in June 2018

Hellenic Energy Exchange shareholders (*)



According to the press release as of 19.06.2018 for the establishment of the Hellenic Energy Exchange the Cyprus Stock Exchange has agreed to participate in the shareholding structure following necessary approvals.

New institutional developments



The work of RAE include, among many other items, the following current issues which relate to the implementation of the Target Model

- Approval of the Spot Markets Trading Rulebook, in which are included the terms of operation of the Energy Exchange and the terms of operation of the day-ahead and Intra-day markets, following a proposal of the Board of the Energy Exchange.
- Approval of the Balancing Market Rulebook, following a proposal by the Independent Power Transmission Operator S.A.

The work of RAE include, among many other items, the following current issues which relate to the implementation of the Target Model.

- Carrying out the responsibilities foreseen in the framework Guidelines of the European legislation regarding the operation of the day-ahead, intra-day and balancing markets.
- Approval of the Clearing Entity, which can be a legal entity established by the Energy Exchange or by the Independent Power Transmission Operator or by a third party and approval of the Clearing Entity Rulebook including its terms of operation.

RAE has issued updated guidelines for the Market Codes development

- RAE has issued an up-to-date decision (369/2018, Government Gazette B'1880/24.5.2018) including more detail of the particular features of the high-level design of the Markets provided by the Law, so that the Market Operators draft the respective Market Codes and specify the requirements of their IT systems.
- The guidelines include among others:
 - Market Participants (MPs)
 - General provisions regarding orders
 - Timing and other issues, with respect to the interfaces among markets
 - Regulatory decisions regarding pricing

DAY AHEAD MARKET

- ❖ The market in which transactions to buy and sell electricity with physical delivery obligation are auctioned in day D-1 (for physical delivery in day D) and in which all transactions of energy financial products with physical delivery are also declared.
- ❖ **Participation is optional for all Participants except for the Producers.**
- ❖ Producers are obliged to submit Sell Orders for the Available Capacity of the Generating Units they represent, which has not been already allocated via energy financial products transactions or other transactions concerning wholesale energy products with obligation of physical delivery.
- ❖ Unit-based offers for conventional power generating units and portfolio based offers for RES and aggregators.

INTRADAY MARKET

- ❖ The market in which transactions to buy and sell electricity with physical delivery obligation are auctioned after the gate closure of the day ahead market (D-1 and D) and for physical delivery at day D.
- ❖ **Participation is optional for all Participants.**
- ❖ Implementation in two phases:
 - A) LIDAs and CRIDAs
 - B) XBID in combination with CRIDAs
- ❖ CRIDAs will be aligned with the Pan-European Intra-Day Auctions if/when they will be applied according to article 55 of CACM.

BALANCING MARKET

- ❖ Central dispatching model (within the Integrated Scheduling Process, ISP)
- ❖ Procurement of Balancing Capacity covering Reserve Requirements
- ❖ Procurement of Balancing Energy for balancing production and demand
- ❖ Imbalance Settlement
- ❖ Two-phase approach in order to align with the implementation of EB GL at an EU level.

OTHER KEY PROVISIONS

- ❖ Administratively Defined DAM and ID Order Lower/Upper Price Limits (approved by RAE as foreseen in the Law) taking into account ACER Decision 04-2017 and 05-2017*
- ❖ RAE Decision on maximum percentage of quantities via energy financial product transactions or other transactions concerning wholesale energy products with obligation of physical delivery to be entered in the DA market.
- ❖ Abolishment of minimum variable cost rule (for conventional power generation units).

Market coupling preparation

- HEnEx and ADMIE submitted three draft Rulebooks to RAE for approval (public consultation 2.7.2018 – 3.8.2018).
- RAE organized a workshop in July of 2018 for the presentation of HEnEx and ADMIE proposals for the three rulebooks. More than 300 participants.
- RAE organized two working meetings with NEMOs, TSOs and NRAs of Italy and Bulgaria to agree on the next steps.

What are the remaining steps to be completed?

Action steps to be completed

- RAE is in the process of evaluation of market participants comments to the public consultation for the approval of the following Rulebooks by the end of September.
 - Spot Markets Trading Rulebook
 - Clearing Rulebook
 - Balancing Market Rulebook

Action steps to be completed

- HEnEx and ADMIE should also submit to RAE for approval several other methodologies and parameters for the full implementation of the provisions of the Rulebooks.
- Other key decisions to be issued by RAE before the go-live of the new markets (i.e., *RAE Decision on maximum percentage of quantities via energy financial product transactions or other transactions concerning wholesale energy products with obligation of physical delivery to be entered in the DA market*).

Action steps to be completed

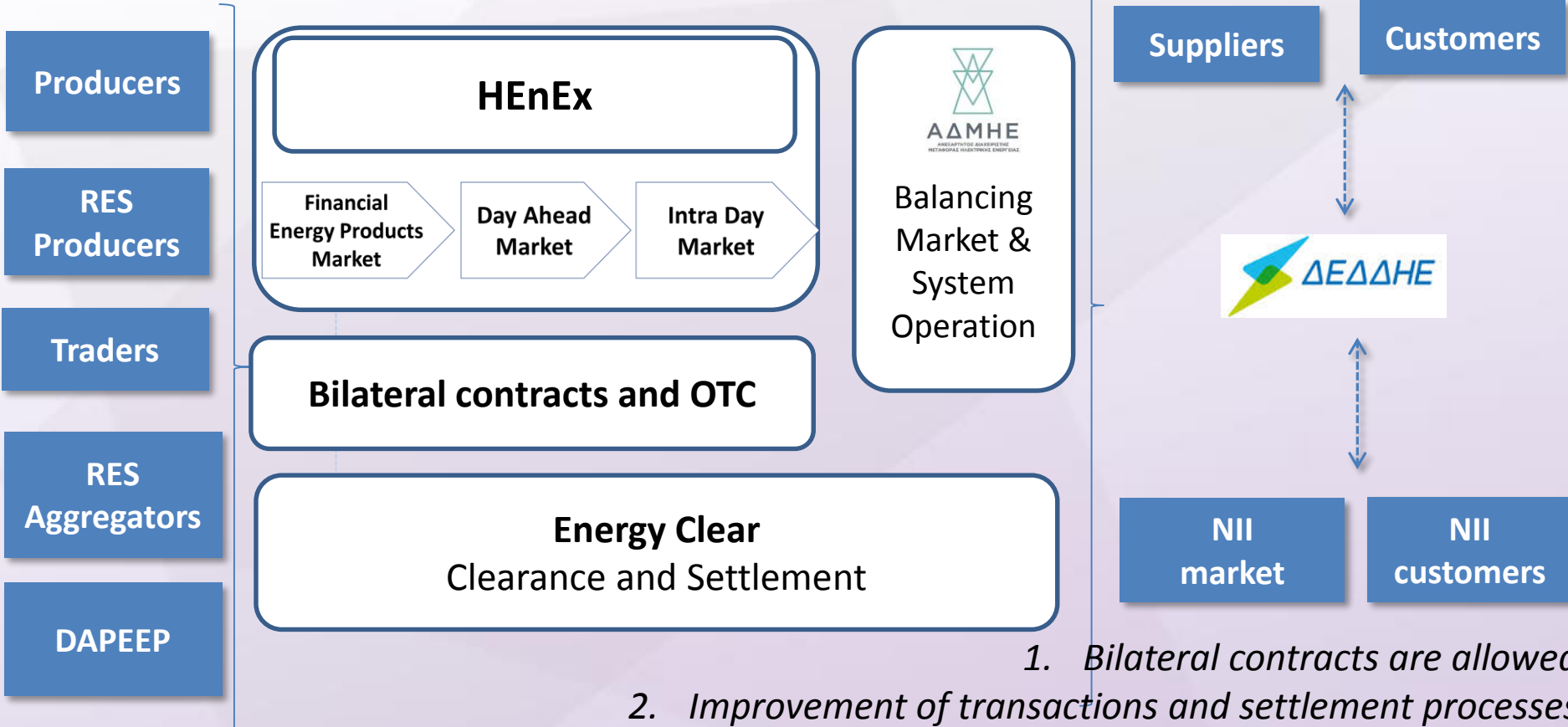
- HEnEx and ADMIE should accelerate collaboration with their counterparts in Italy and Bulgaria to progress with the coupling procedures.
- HEnEx and ADMIE will organize the necessary training sessions for market participants before the go-live of the market coupling (first in an isolated mode and then fully coupled).

What is the ultimate goal?

Future electricity market

Wholesale market

Retail market



1. Bilateral contracts are allowed
2. Improvement of transactions and settlement processes
3. Introduction on energy financial products
4. Competition development (In wholesale and retail market)

Create pan-European electricity market by removing barriers for cross border trading subject to network constraints

- Lower prices for consumers
- Development of competition in wholesale and retail
- Efficient utilization of interconnections
- Risk hedging by market participants
- Fulfillment of legal obligations
- Security of supply both on physical and economic terms

Σας ευχαριστώ για την προσοχή σας!

Αγγελική Μουρτζίκου
Διευθύντρια Παρακολούθησης
Αγορών & Ανταγωνισμού
Tel: +30-210-3727024

Email: amourtzikou@rae.gr

Ρυθμιστική Αρχή Ενέργειας,
ΡΑΕ
Πειραιώς 132, 11854
Αθήνα
Τηλ: +30-210-3727400
Φαξ: +30-210-3255460
Email: info@rae.gr
www.rae.gr