

Round-table 2.

Grid Integration and Allocation of Cross-Border Capacity

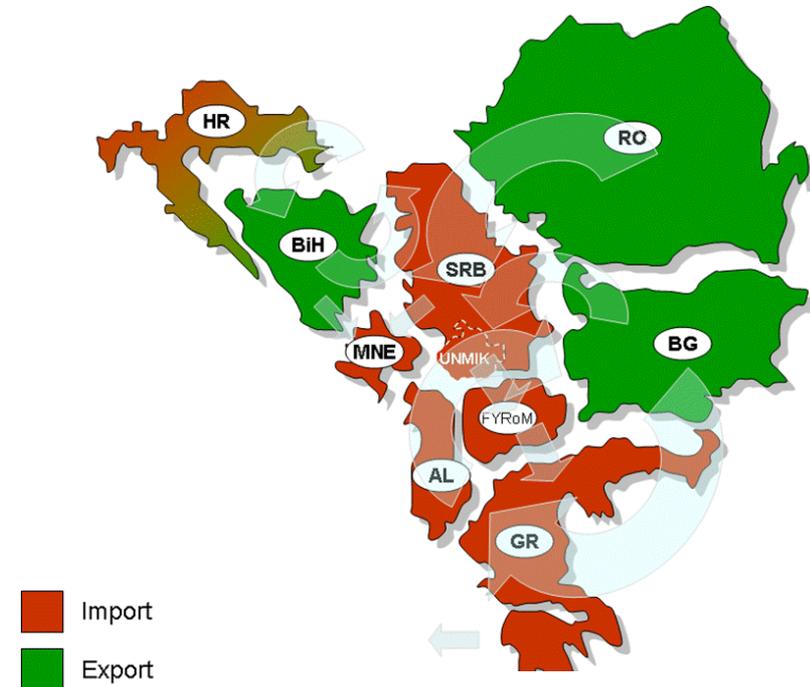
Introduction

Nenad Stefanović
The Energy Agency of the Republic of Serbia
ECRB Electricity WG Chairman

**Workshop “A possible way forward to a well-integrated and competitive
electricity market in South-East Europe”**
Rome, 19th April 2013

Congestion Management in SEE

- SEE national transmission systems are faced with a complex international **electricity market, transits** and a **growing number** of market **participants** → SEE network designed during 70-80'ties
- Thus, Cross-Border **congestions occur** and create a **barrier** for international electricity trade within SEE (transits: North → South)
- Therefore it was necessary to **implement proper rules** for **Market-based Congestion Management**



Legal basis for Cross-Border issues in EU

Legal basis for cross-border issues defined within EU Legislation:

- Directive 2009/72/EC 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC
- Regulation (EC) No 713/2009 of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators
- Regulation (EC) No 714/2009 of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003
- **EU Legislation implementation within SEE Region** (for Contracting Parties): Each CP shall bring into force the laws, regulations and administrative provisions necessary to comply with Directive 2009/72/EC, Directive 2009/73/EC, Regulation (EC) No 714/2009 and Regulation (EC) No 715/2009, as adapted by the PHLG Decision (Jun/Oct 2011), by 1 January 2015
- **Task for CPs: Transposition of EU Legislation and Regulation provisions** within Local / National CPs legislation

General Principles for Congestion Management

- *Regulation (EC) 1228/2003, Article 6:*
- “...Network congestion problems shall be addressed with non discriminatory **market based** solutions which give efficient economic signals to the market participants and transmission system operators involved...”
- “... The **maximum capacity** of the interconnections and/or the transmission networks affecting cross-border flows shall be **made available** to market participants, complying with safety standards of secure network operation ...”

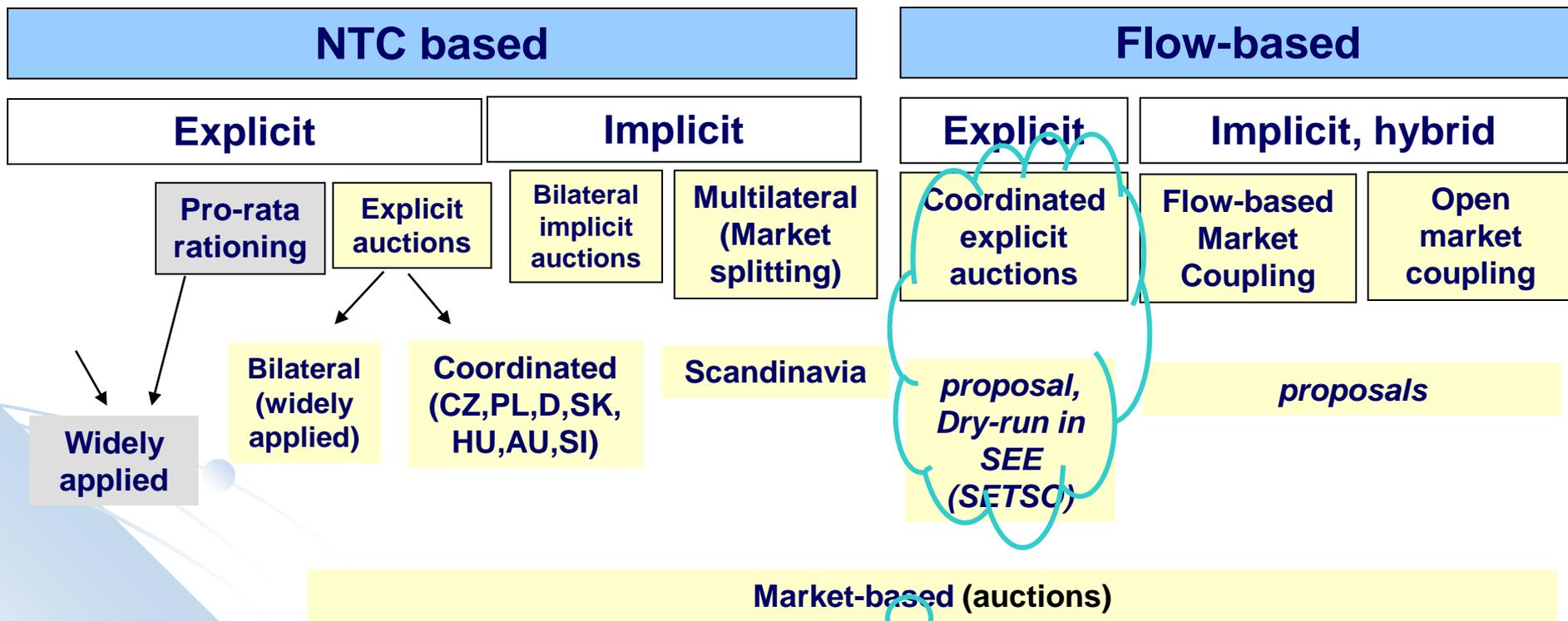
No pro-rata allocation of capacity & No long term contracts

Regulation:

Requirements for allocation schemes

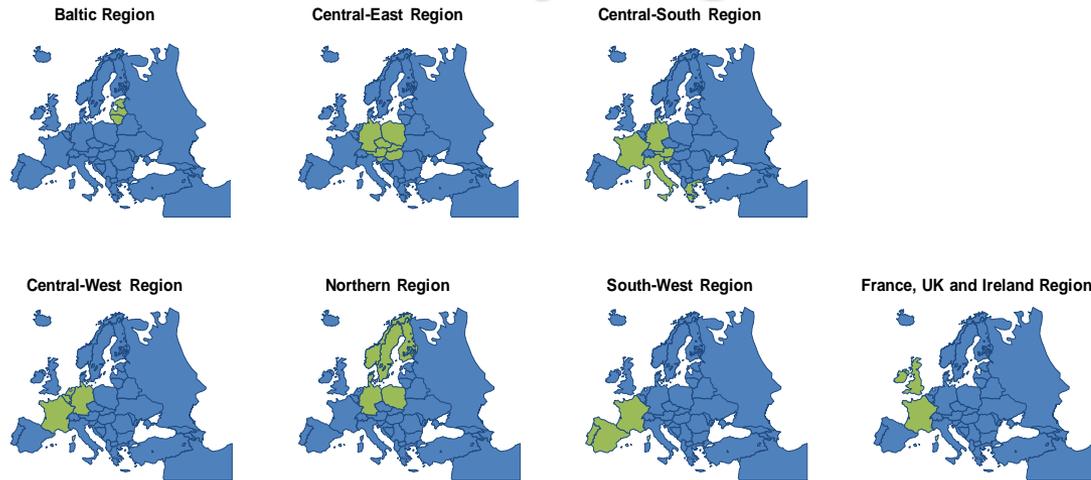
- “... The maximum capacity of the interconnections and/or the transmission networks affecting cross-border flows shall be made available to market participants, complying with safety standards of secure network operation....”
- “... Congestion management methods shall be market-based in order to facilitate efficient cross-border trade. For this purpose, capacity shall be allocated only by means of explicit (capacity) or implicit (capacity and energy) auctions...”
- “...Capacity allocation at an interconnection shall be coordinated and implemented using common allocation procedures by the TSOs involved. In cases where commercial exchanges between two countries (TSOs) are expected to significantly affect physical flow conditions in any third country (TSO), congestion management methods shall be coordinated between all the TSOs so affected through a common congestion management procedure...”

Methods for Capacity Allocation- Classification



Ongoing implementation in SEE region: NTC-based-beginning, FBA- final goal

Coordinated capacity allocation – recent developments in the EU: ACER Electricity Regional Initiatives

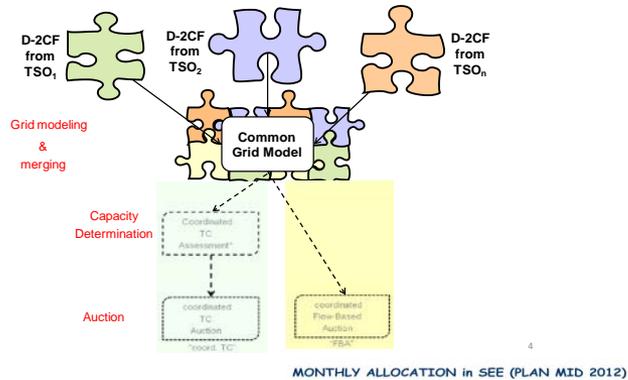


- EU-ACER: 7 Electricity Regions defined (ex-ERGEG)
- Each Region is represented by the Leading Regulator within ERI
- Each Region has its RCC: discussion floor for NRAs
- Each Region chose its own way forward regarding cross-border capacity allocation mechanism (coordinated auctions, market coupling, etc.), which is in line with the Regulation (3rd Package)
- Each Region defined its Regional Action Plan regarding cross-border capacity mechanism
- Elaboration of the Cross Regional Action Plan, which would define common principles regarding cross-border issues on pan-European level and thus facilitate achieving of EU Target Market Model in 2014
- The 8th Region included in ACER ERI Quarterly Report as Annex

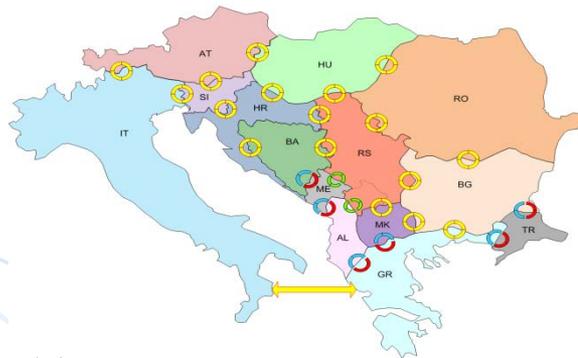
SEE WMO Implementation phase

- SEE Regulators - Need for WMO project in the 8th region to be fully **in compliance with new developments in EU - Target Market Model, Framework Guidelines, Network Codes**:
 - Main concept **in line with EU developments**
 - Needed to **adjust** some details from the **WB WMO Study**
 - **Ensure compatibility** between the Consultant's/ECRB EWG and ENTSO-E RG SEE Action Plans
- **Urgent involvement of SEE TSOs** in the WMO Project was **necessary**, especially for drafting the SEE RAP
- Need for a **realistic** WMO Regional Action Plan which is **fully harmonized** between the **Regulators (ECRB)** and **SEE TSOs (ENTSO-E RG SEE)** and **in compliance with EU TMM**
- **EnC CPs** are **responsible** for **elaborating National Action Plans** (by Ministries, TSOs, NRAs and Power Exchanges, if applicable), based on Regional Action Plan
- Guidance received from PHLG and Consultants' proposal for National Action Plans is welcome
- Full implementation of National Action Plans is the prerequisite for the SEE RAP successful implementation

SEE Regional Action Plan



- SEE Regional Action Plan structure comparable to Framework Guidelines structure, drafted and approved jointly by ECRB and ENTSO-E RG SEE, supported by PHLG and MC (2011):
 - CAPACITY CALCULATION
 - FORWARD CAPACITY MARKETS
 - DAY-AHEAD MARKET
 - CROSS-BORDER INTRADAY MARKET AND BALANCING MECHANISM
 - ❖ SEE TSOS REPORTED OBSTACLES IN FULFILLING DEADLINES DEFINED IN SEE RAP: VAT, LEG.COMPL., ...



Legend:

- EA Joint
- EA Split-negotiation for Joint
- EA Split

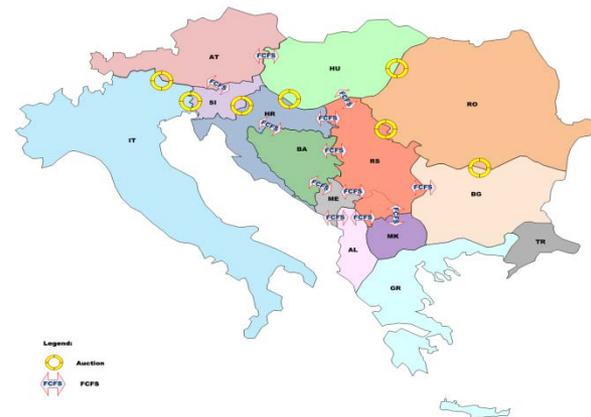
DAILY (D-1) ALLOCATION in SEE (PLAN MID 2012)



Legend:

- EA Joint
- EA Joint
- Under negotiation
- EA Split
- EA Split- one TSO

INTRADAY in SEE (PLAN MID 2012)



Legend:

- Auction
- FCBA

The 8th Congestion Management Region - SEE

- The most **pressing issue** was the pending **definition of a Congestion Management area in the South East European region** and definition of consisting countries as prerequisite for SEE CAO establishment
- The need of a **definition for SEE region** became **evident** during the **Action Plan drafting process for SEE CAO** as Regulation 1228/2003 and its Congestion Management Guidelines consists no definition for the SEE region
- At the same time, the definition is essential for SEE CAO project as it **predefines** future **participants** of SEE CAO
- The so called 8th Congestion Management Region was established according to the approach used within the EU (ERGEG Electricity Regional Initiatives)
- The agreement on the South East European region was reached at the Ministerial Council in June 2008: **The 8th Region was created by MC decision in June 2008**
- The definition of the 8th Region was an **important step** towards the **establishment of a SEE Regional Market for electricity**

The 8th Congestion Management Region

- SEE

- As a result, a common Coordinated Congestion Management method, including capacity allocation, is to apply for the **following territories**:
 - the **nine** Energy Community Treaty **Contracting Parties**
 - the neighboring countries **Bulgaria, Greece, Hungary, Romania** and **Slovenia**
 - **Italy** with regard to the interconnections between Italy and the CPs to the EnC Treaty (DC undersea cables)
 - **Moldova** and **Ukraine** are not technically in parallel synchronous operation within ENTSO-E, and thus cannot perform operationally CACM mechanisms in the 8th region



SEE	
9 contracting parties	
>20 borders	
Population:	11
137,12 million	

SEE Coordinated Auction Office (1)

- CEE and SEE TSOs decided to implement **Explicit Flow-based CA mechanism in SEE Region** ... vs. CWE, SWE and Nordic Region where Implicit NTC based mechanism is implemented (Market Coupling, Market Splitting)
- Coordinated Auctions and SEE CAO are in **compliance with Regulation 1228/03 (714/2009)** and CACM provisions
- **Majority** of EnC Contracting Parties **supported** the establishment of a Coordinated Auction Office in the SEE region + Turkish TSO is member of SEE CAO Project Team Company
- Via MoU the SEE TSOs of the Region supported the **setting up of SEE CAO** at the MC meeting on 11 Dec **2008** in Tirana
- **Project Team Company for SEE CAO established in Podgorica, Montenegro in June 2012**
- **First allocation procedure** to be organized by SEE CAO: **Yearly allocation for 2014**

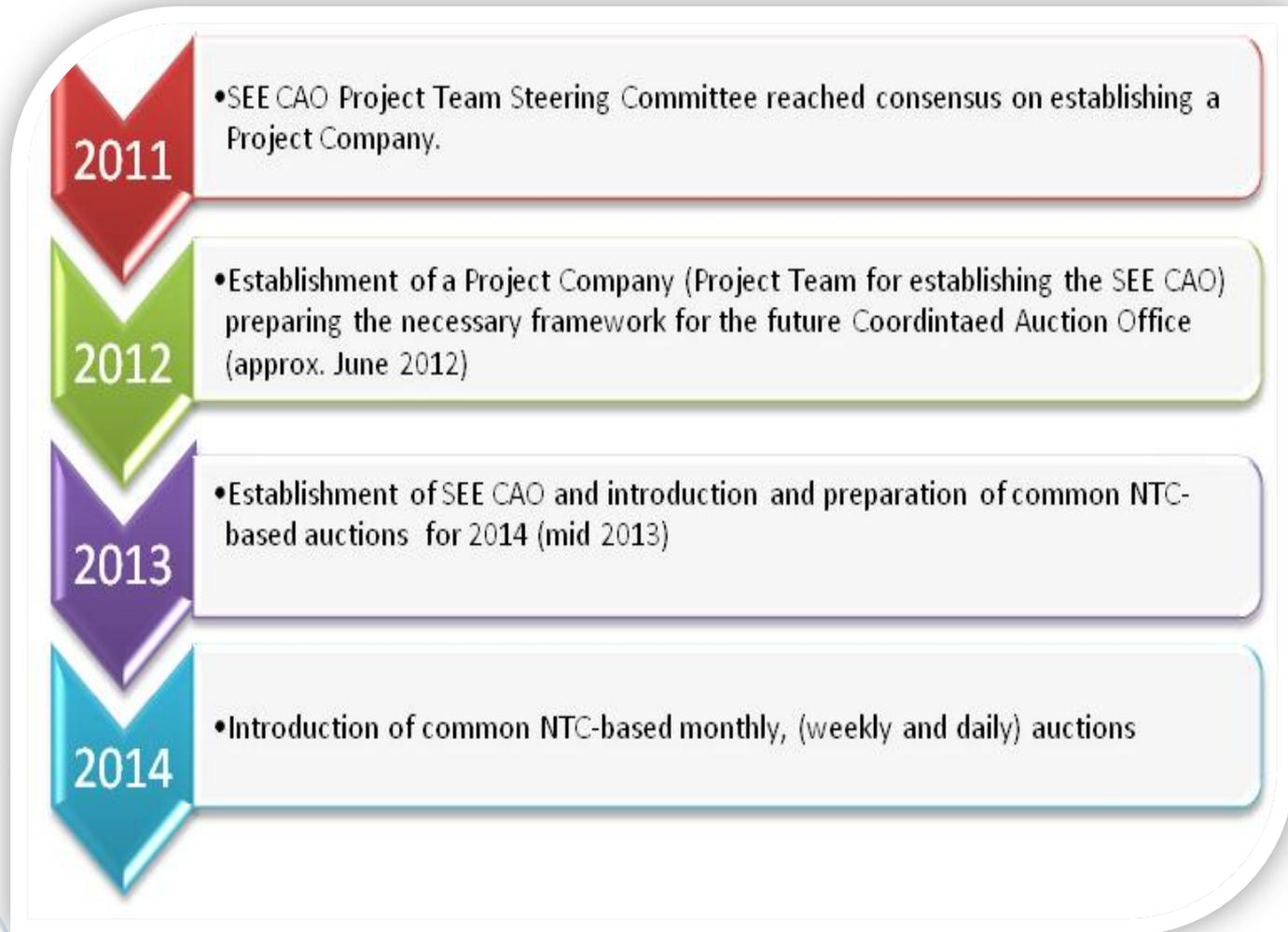
SEE Coordinated Auction Office (2)

- **Steering Committee for Project Team** was responsible for establishing SEE CAO: TSOs and donors participated in meetings – early 2009:
 - Agreed structure for SEE CAO Project Team Company
 - Budget
 - Co-financing by IFI's (subject to TSO co-financing)
 - Structure: project company
 - Members
 - Project Team is not yet the CAO!
- **Action Plan** update was elaborated by SC Project Team (SEE TSOs)
- **ECS studies** related to SEE CAO (technical and legal study) done
- **Project Team** established with **tasks to draft**: Business Plan, **Auction Rules**, NTC vs. Maximum Flow approach, etc.
- **NTC based approach** for SEE CAO as the **first step**
- **SEE Regulators** will have to **approve SEE CAO related rules** and perform CA and **SEE CAO Monitoring + define revenues distribution** → regulators are waiting for SEE TSOs input

SEE Coordinated Auction Office (3)

- The expected **advantages** of coordinated allocation, which will be performed by **SEE CAO** in Montenegro, are:
 - **Higher degree of market harmonization** due to coordinated capacity allocation in the SEE region,
 - **Simplicity in handling for market participants** (“one-stop-shop” solution with common set of Auction Rules and one IT system) and **transparency increase**
- It is envisaged to implement a **load flow based mechanism** for cross border capacity allocation at a later stage and in compliance with the European Target Model

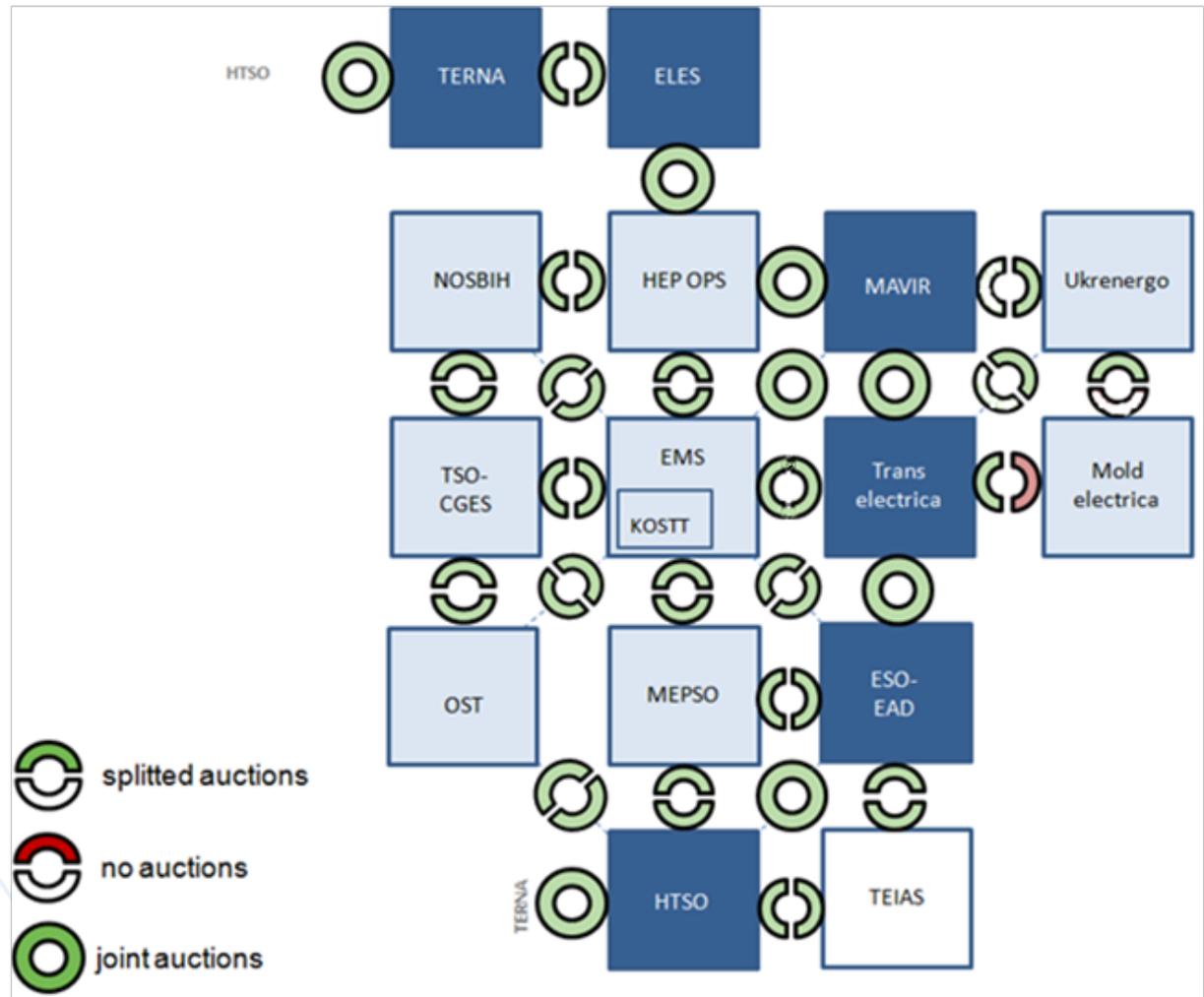
SEE Coordinated Auction Office (4)



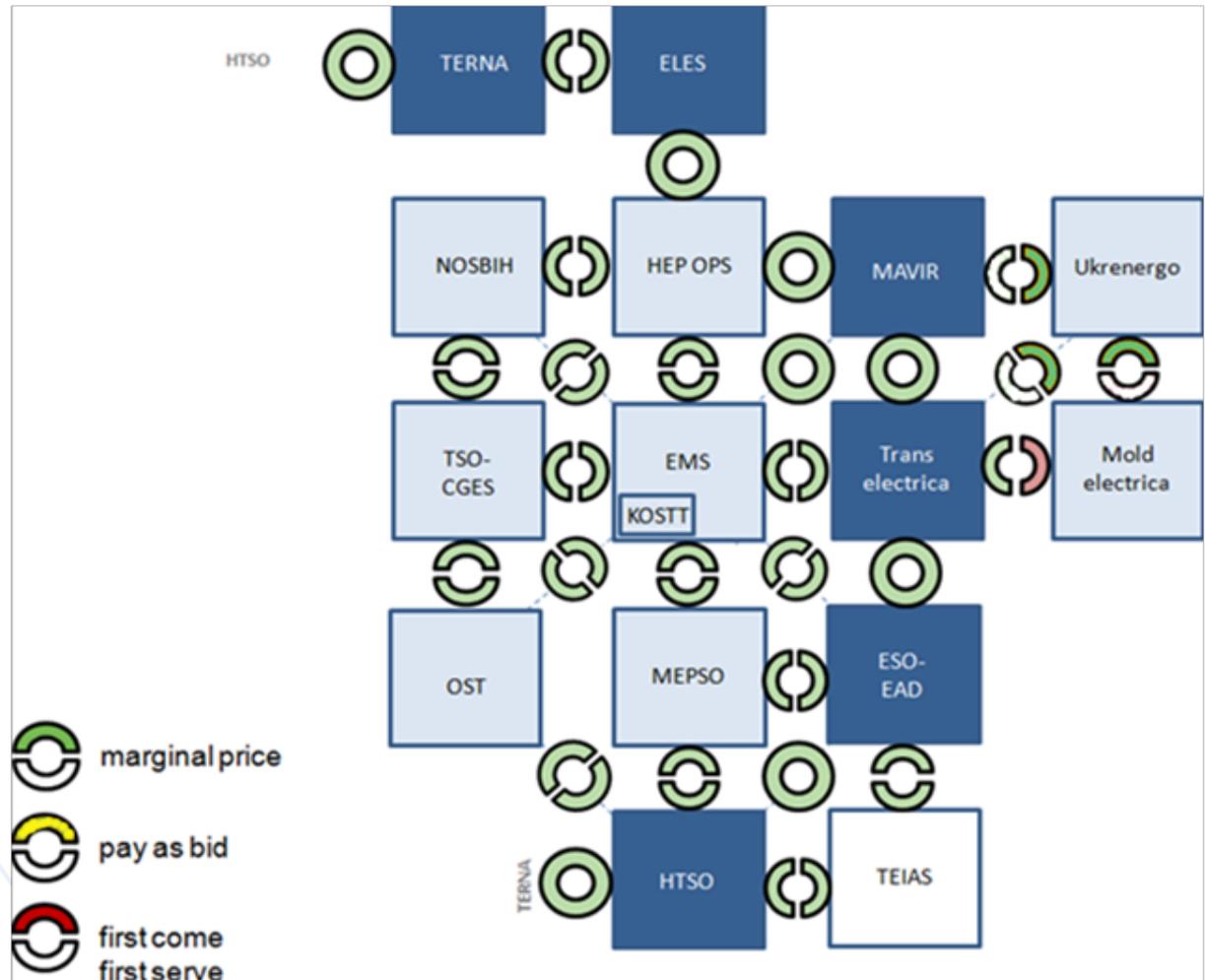
Other Cross-Border developments

- In parallel: TSOs of Serbia, Hungary and Croatia previously implemented **joint auctions with their neighbouring TSOs** which **improved** the situation as regards the **harmonization** of auctioning systems
- Starting with January 2013, **Serbia and Romania jointly** organize transparent and **coordinated auctions** for long and short term allocation of their CB capacities (first yearly common auctions were organized in December 2012)
- **Croatia** started concrete **cooperation** with **CEE Auction Office** aiming to allocate the CB capacities to CEE TSOs via the CEE Auction Office at the **last quarter of 2012**
- **Romania** declared its interest in **joining the market coupling mechanism** between **Czech Republic, Slovakia and Hungary...** steps have been made in declaring the common willingness for cooperation and mutual approach in this respect of all involved parties

Cross Border Capacity Allocation Mechanisms in the 8th Region – Q1 2013



Mechanisms for Price Determination in the 8th Region – Q1 2013



Implementation of Other Important Areas

- **Transmission development plans**

- Regional transmission network planning in the 8th Region is of utmost importance because of their small size
- SEE TSOs are actively participating in ENTSO-E WGs
- SECI transmission planning project; SEE TSOs actively contributing to ENTSO-E TYNDP, pan-European context
- Development of cross-border balancing
- Development of regional balancing mechanism is currently put on hold until the day-ahead cross-border auctions are introduced within the whole region

- **Transparency**

- Most of SEE TSOs are participating in the ENTSO-E transparency web platform
- None of the TSOs is in full compliance with the obligations stemming from the CM Guidelines
- This concerns in particular information about outages of critical facilities as well as information concerning cross border capacity allocation

Thank you!

Contact:

Nenad Stefanović

The Energy Agency of the Republic of Serbia

Terazije 5 / V, 11000 Belgrade

Tel: + 381 11 3037253, Fax: + 381 11 3225780

e-mail: nenad.stefanovic@aers.rs

URL: www.aers.rs