



ENERGY AGENCY
OF THE REPUBLIC OF SERBIA



Session II – Electricity Infrastructure & Investment Opportunities

Electricity Market Operation and Integration at Regional level

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**7th SOUTH EAST EUROPE ENERGY DIALOGUE –
THE NEW REGIONAL PARAMETERS**

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Which are the main topics of the ECRB Work Program?

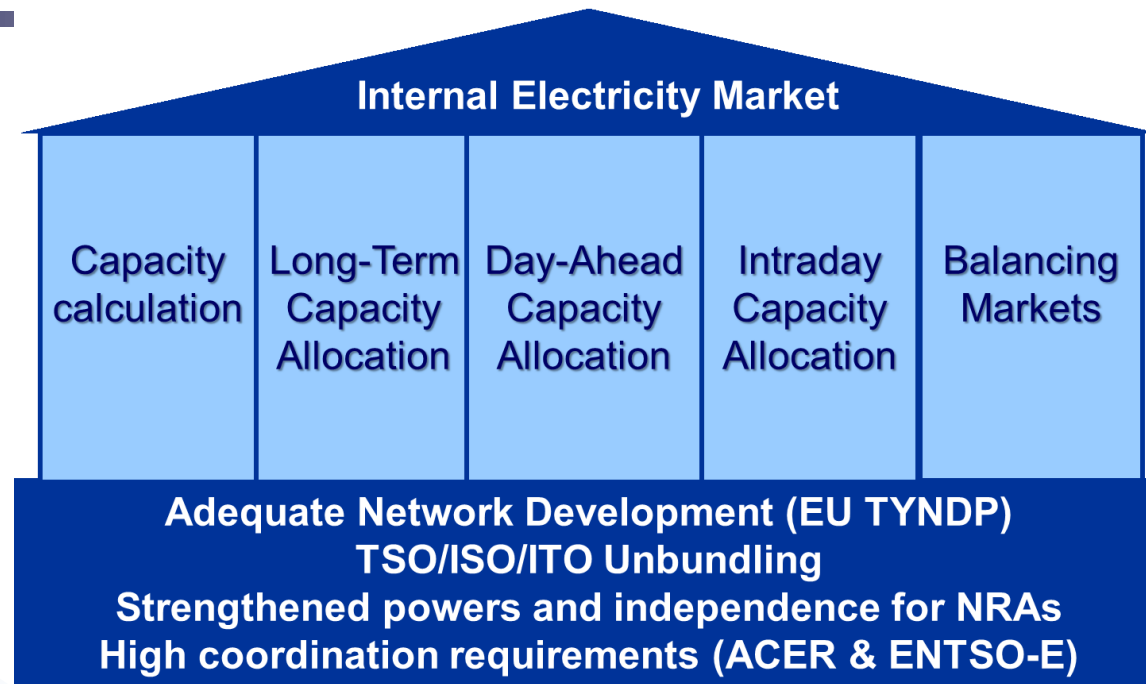
- **Electricity:** Congestion management and transmission capacity allocation, Regional Balancing Mechanisms, Compatible Market Rules, Wholesale Market Opening, Mutual recognition of trading licenses, Cross Border cooperation, Coordinated Auction Office
- **Gas:** Cross border gas trade, Interconnection and interoperability of transmission and transit pipelines, Balancing and flexibility tools including storage and LNG facilities, Cross border cooperation, Transmission tariffs
- **Customers:** Protection of vulnerable household customers, Quality of supply and commercial services, Standards and incentives, Tariff methodologies and transparency of prices
- The ECRB Work Program provides detailed information on the activities of the ECRB and its Working Groups

ECRB ELECTRICITY WG

The electricity related activities of the ECRB in 2013 will involve:

- Task Force 1 - Regulatory Framework for Establishing Regional Capacity Allocation Mechanisms and Congestion Management Procedures
- Task Force 2 - Balancing
- Task Force 3 - Compatible Market Rules and Effective Regional Wholesale Market Opening
- Task Force 4 - Harmonization of Wholesale Trading Licenses
- Task Force 5 - Market Monitoring
- Task Force 6 - Regulatory Investment Incentives
- Task Force 7 - Renewables
- Electricity related input to public consultations on European Framework Guidelines and Network Codes

EU Target Model for Electricity Market Integration

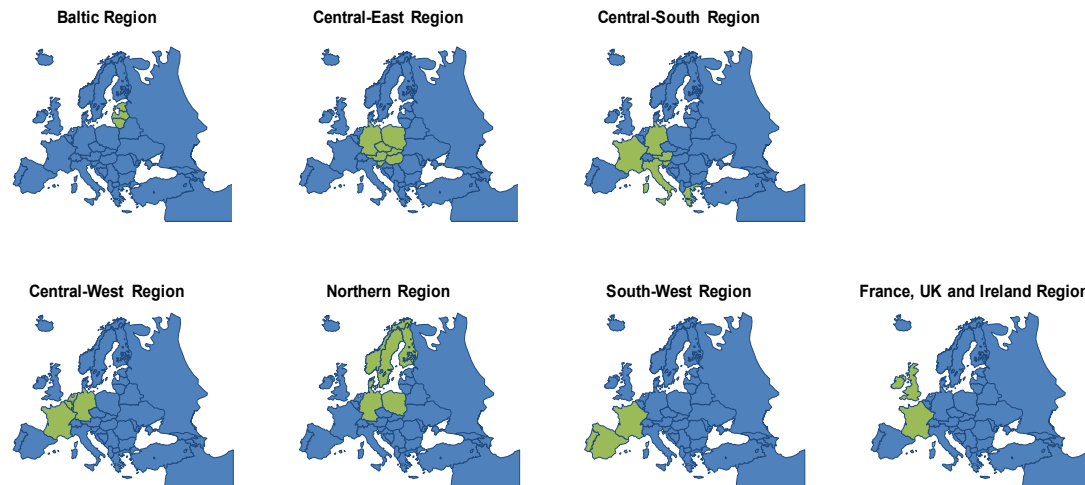


- Common vision for completion of IEM in Electricity by 2014
- Electricity markets across Europe must share a set of common features and be linked by efficient management of interconnection capacities
- In order to achieve this: CACM and Balancing have been identified as priority areas → 3rd Legislative Package

Implementation of CACM Target Models

- In order to implement **CACM Target Models for Electricity** across Europe, **four priority projects** have been identified:
 1. **Single European Price Coupling** aims at optimising the use of existing day-ahead cross-border capacities at European level, reducing the day-ahead price volatility and improving confidence in organised price references
 2. **Single European Continuous Implicit Mechanism for cross-border Intraday trade** aims at enabling market participants to adjust their position before the closure of the market and, possibly, short-term arbitrage. This Intraday timeframe is becoming increasingly important in the context of growing intermittent generation
 3. **European Platform for the allocation of Long-Term Transmission Rights** aims at delivering one single point of contact for the allocation of harmonised long-term transmission rights across Europe
 4. **Flow-Based Capacity Calculation Method for short-term capacity allocation in highly meshed networks** aims at improving the network security and the level of capacity made available to the market, by taking into account the influence of cross-border flows on the congested lines in a more transparent and effective way

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

Ongoing development in different Regions

- **CWE-Region:**

- Project for Market Coupling (TLC → MLC)

- **CEE-Region:**

- Currently: Coordinated explicit NTC-based auctioning (CEE CAO in Freising, Germany)
- Goal: Coordinated explicit flow-based auctioning

- **SEE-Region:**

- Currently: Split 50/50 Explicit auctioning + Common Explicit auctioning at several borders
- Goal: Coordinated Explicit flow-based auctioning (SEE CAO, Project Team Company in Podgorica, Montenegro)

Task Force 1 - Regulatory Framework for Establishing Regional Capacity Allocation Mechanisms and Congestion Management Procedures

- In the process of establishing a SEE CAO as instrument for achieving a regionally coordinated congestion management and capacity allocation mechanism in the 8th Region, regulators are responsible for approving relevant SEE CAO related documents (e.g. auction rules)
- These documents need to be prepared by the Transmission System Operators
- Even if the approval of the prepared documents would take place on national level – i.e. by each regulator individually for its national Transmission System Operator – the approach followed by the regulators in the national approval procedure needs to be streamlined throughout the Region
- A regional project, such as the SEE CAO, can only operate if the same regulatory rules are applicable in all participating markets Regulation (EC) 1228/2003 (OJ L 176 of 15.7.2003, p 1 et seqq) requires the implementation of a regionally coordinated congestion management and capacity allocation mechanism

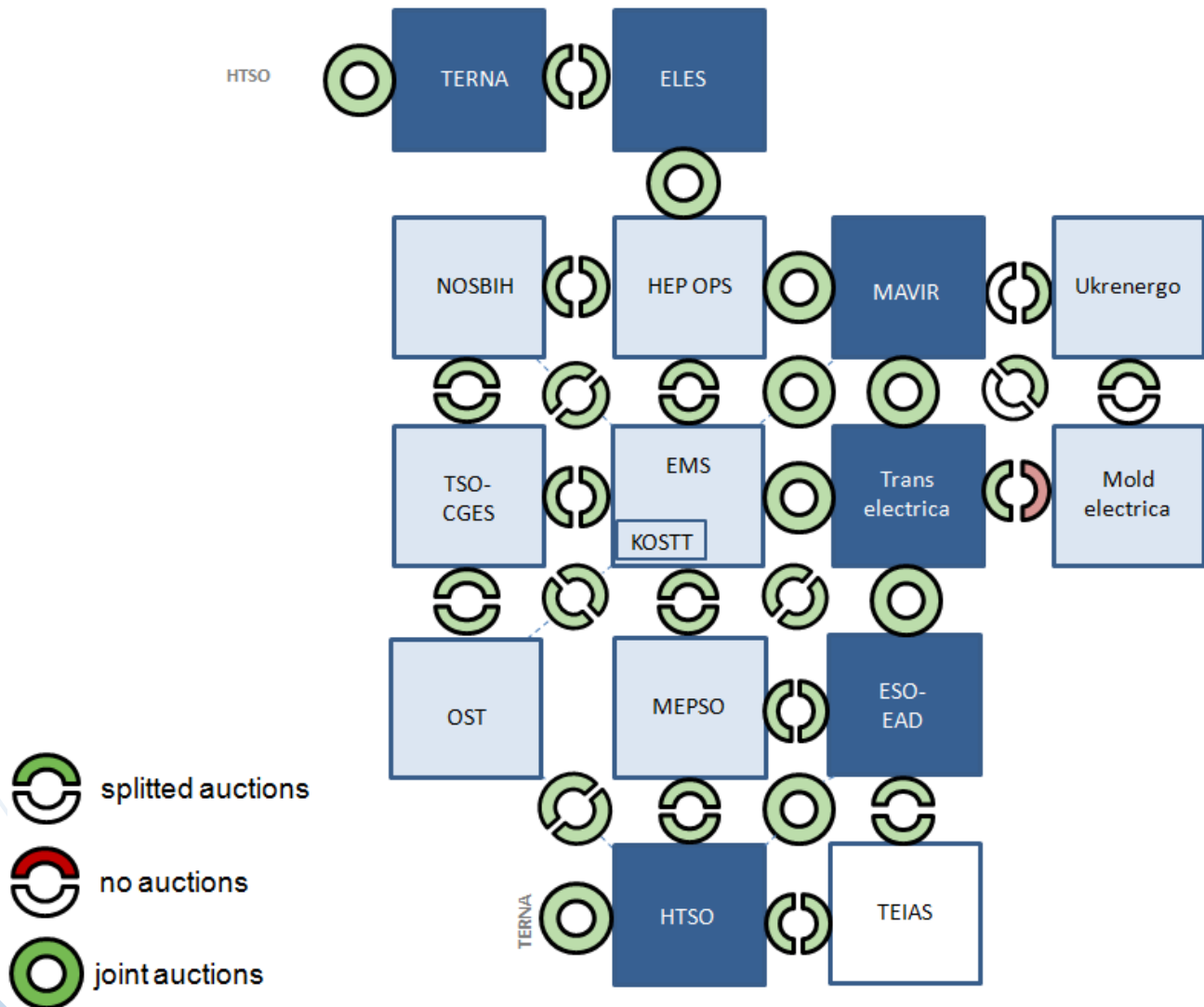
Task Force 1 - Regulatory Framework for Establishing Regional Capacity Allocation Mechanisms and Congestion Management Procedures

- By decision of the Energy Community Ministerial Council on establishing the so-called 8th Region (Decision of the MC of 27 June 2008 (2008/02/MC-EnC), this requirement is applicable in the Energy Community Contracting Parties and neighbouring EU Members building the 8th Region
- By signing a Memorandum of Understanding, the TSOs of the 8th Region set the cornerstone for the development of a SEE CAO
- By signature of the Company Agreement for a *Project Team Company in Charge of Establishing a SEE CAO* on 13 June 2012 and the formal registration of this company on 4 July 2012 at the Court in Podgorica, activities have been practically initialised
- A first auction of annual capacities for 2014 is expected by end of 2013

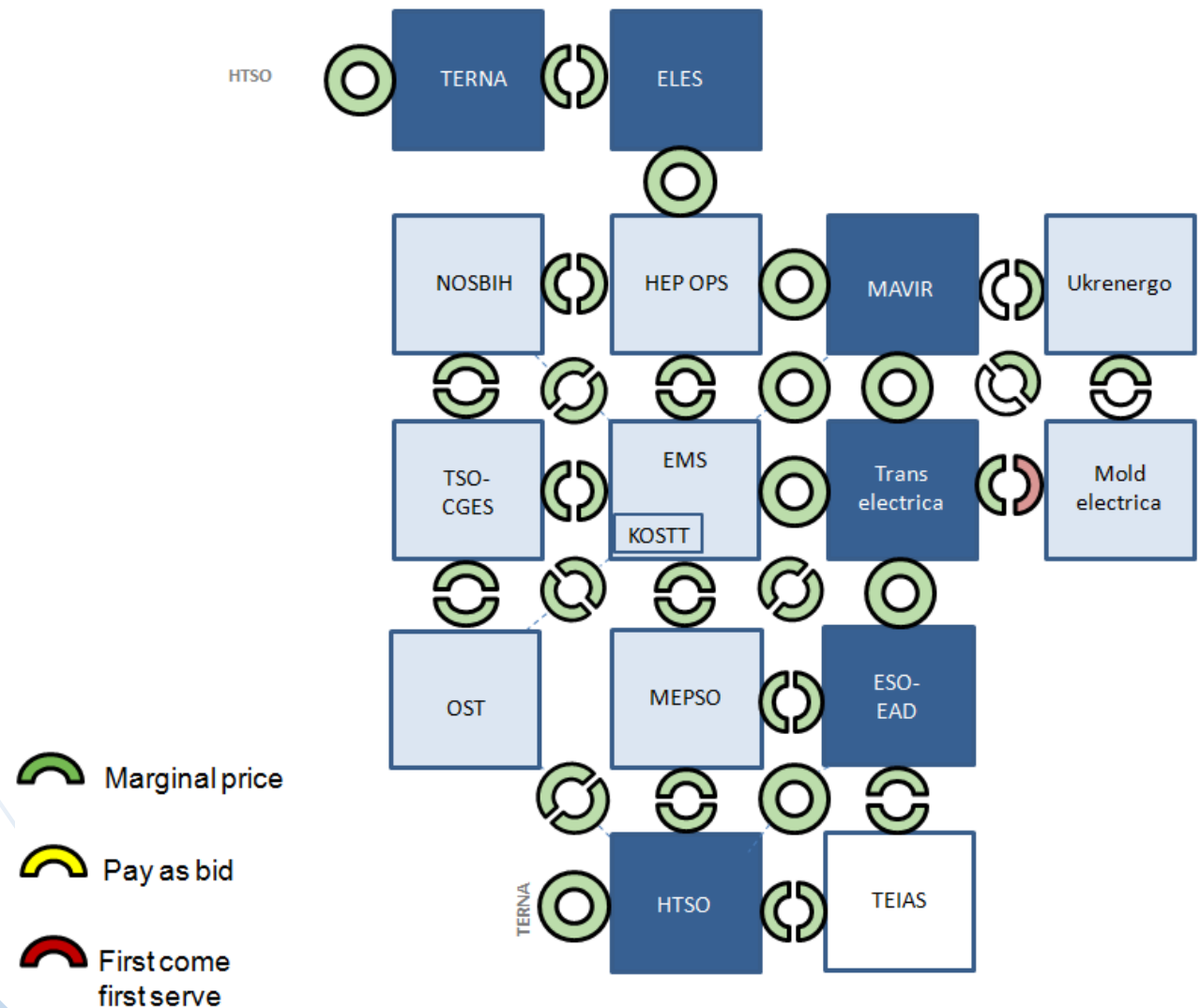
SEE Coordinated Auction Office

- 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

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



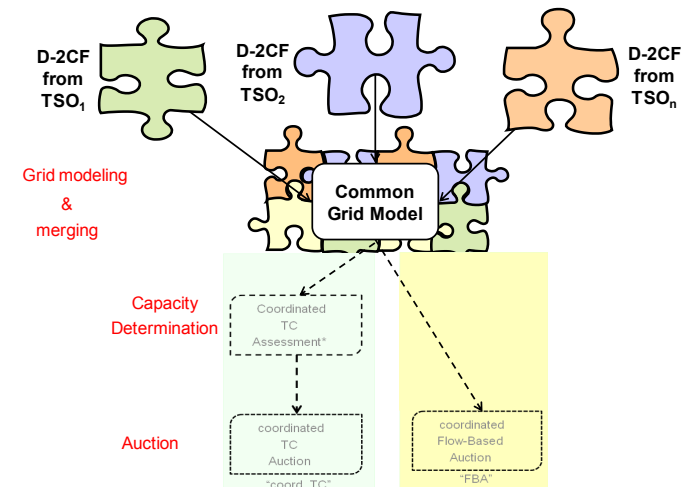
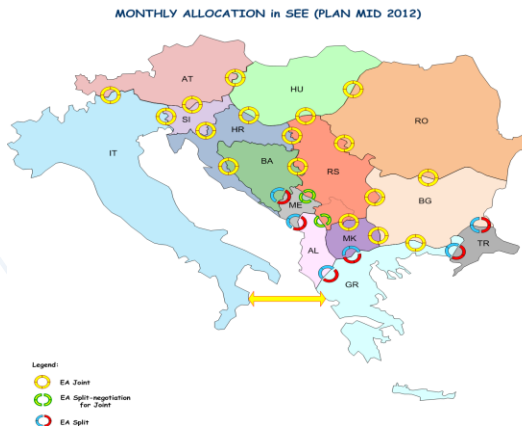
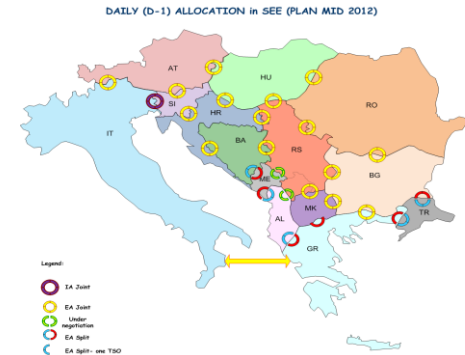
Mechanisms for Capacity Price determination in the 8th Region – Q1 2013



SEE RAP Document Structure

- **SEE Regional Action Plan** structure comparable to Framework Guidelines structure:

- **CAPACITY CALCULATION**
- **FORWARD CAPACITY MARKETS**
- **DAY-AHEAD MARKET**
- **CROSS-BORDER INTRADAY MARKET AND BALANCING MECHANISM**



Governance

- **Top-Down Guidance:**

- ✓ European regulation, Framework Guidelines on CACM, Network Codes

- **Governance within the SEE Region**

- MC (supported with PHLG): General policy guidance to the process and harmonization of the national legal and regulatory frameworks
- ECRB: Harmonization of Market Rules and Network Codes, Regional Market Monitoring Process
- ENTSO-E RG SEE: Development of the regionally coordinated CACM mechanism and harmonization with the corresponding EU-wide mechanism
- EnC Secretariat: Support to the Energy Community institutions in the Treaty implementation process

- **Governance at Local Level**

- Development and implementation of the Local Action Plans

Task Force 1 - Regulatory Framework for Establishing Regional Capacity Allocation Mechanisms and Congestion Management Procedures

ACTIVITY FOCUS

- Development of a coordinated regulatory review of South East European Coordinated Auction Office (SEE CAO) related documents prepared and proposed by the *Project Team Company in Charge of establishing a SEE CAO*
- Produce ECRB EWG Quarterly Reports on CACM procedures in the 8th Region
- Contribution to the ACER ERI Quarterly Report on CACM developments in the 8th Region

Task Force 2 - Balancing

- Balancing of electricity flows is of core relevance for the functioning of electricity transmission systems and – beyond that – continues to be crucial for network development and regional market integration: linking the national markets to a regional and more dynamic market would develop strong impact on the load flow situation and might also affect grid stability
- The envisaged integration of renewable energy creates additional challenges
- In small markets with transmission systems largely depending on one energy source – as prevailing in the Energy Community – reserve requirements, as foreseen by the ENTSO-E Handbook are a relevant cost factor and an argument for an increased role of regional balancing

Task Force 2 - Balancing

ACTIVITY FOCUS

- Development of a Balancing Glossary – harmonize balancing terms understanding btw TSOs and NRAs
- Follow up Study on 2012 Imbalance Settlement (LDK) with a view to identify possible regulatory measures

Task Force 3 - Compatible Market Rules and Effective Regional Wholesale Market Opening

- An open regional wholesale market is one of the major pillars of a future regional electricity market in South East Europe
- A harmonized regulatory approach is necessary for establishing a regional wholesale market
- With the financial support of the World Bank, a consultancy Study (POYRY, NordPool) on Wholesale Market Opening (WMO) has been developed and finalized in 2010
- Based on the Study's recommendations a Regional Action Plan for electricity wholesale market opening in SEE (RAP) has been jointly developed by the ECRB and ENTSO-E Regional Group SEE that aligns the Study's results with the European Target Model for Electricity Market Integration by 2014; with an amendment on Moldova and Ukraine published in December 2011

Task Force 3 - Compatible Market Rules and Effective Regional Wholesale Market Opening

ACTIVITY FOCUS

- Implementation of the Regional Action Plan for electricity wholesale market opening in SEE (RAP): follow up the implementation of the SEE RAP and - via the ECRB RAP coordinator - ensure active coordination and streamlining of approaches with Ministries, stakeholders and the Energy Community Secretariat
- Monitoring of the SEE RAP implementation in line with ACER's Quarterly Regional Initiative reporting

Task Force 4 – Harmonization of Wholesale Trading Licenses

- A harmonized approach for wholesale trading licenses allowing for their mutual recognition of licenses remains a key parameter for the facilitation of new market entries and cross border trading
- At the same time fair and non-discriminatory competition requires a certain minimum level of transparency and regulatory oversight
- In the light of this, the ECRB already in 2009 developed a proposal for a harmonized system of wholesale licensing in the 8th Region
- Having in mind discussions on European level on the same topic, the ECRB decided to adjust the 2009 to the final results on European level
- The EU discussions finally concluded with the introduction of REMIT
- REMIT does not overlap with the recommendations of the 2009 ECRB recommendation paper
- However, REMIT sets the rules for the registration of wholesale traders with headquarters and active in the EU, as well as for those traders with headquarters outside of, but active within the EU, which opens up issues of streamlining the registration and monitoring processes

Task Force 4 – Harmonization of Wholesale Trading Licenses

ACTIVITY FOCUS

- Development of measures ensuring a level playing field for traders while guaranteeing fair market conduct that would substitute wholesale trade licensing
- Propose these measures to the PHLG and MC complemented with fade out of wholesale trade licensing in each jurisdiction
- Develop knowledge regarding REMIT as part of ECRB's coordination activities with ACER with a view to ensure streamlining with European developments and discussion related to the rules and procedures of REMIT

Task Force 5 – Market Monitoring

- The SEE Market Monitoring project was initiated following an invitation from the 8th Athens Forum in June 2006 to establish a Market Monitoring Pilot Plan
- The Pilot Plan became effective in December 2006 with the financial support of USAID and engagement of the consultant Potomac Economics
- The project defines a set of common market monitoring indicators that – after the finalization of the project – are expected to be commonly applied by the Energy Community regulators
- The Market Monitoring Guidelines, monitoring database and a web interface (SEEMMS) for exercising the monitoring activity will be finalized by Potomac Economics

Task Force 5 – Market Monitoring

ACTIVITY FOCUS

- Providing input to Potomac Economic, for finalization of the Market Monitoring Guidelines and development of a Market Monitoring database and a web interface (SEEAMMS) for exercising the monitoring activities
- Participation in a monitoring trial run of the web interface with a monthly rolling lead responsibility for one regulator

Task Force 6 – Regulatory Investment Incentives

- Attracting investments remain a key requirement for the development of a liquid and competitive electricity market in SEE
- Facilitating and stimulating new investments is therefore a core responsibility of both national legislation and regulatory praxis
- ECRB Study (E-Bridge) on regulatory tools for promoting Investment incentives in 2010/11
- The Energy Community in 2011 developed a Regional Energy Strategy
- A phase II of this activity will in 2012 focus on the identification of Projects of Common Energy Community Interest (PECI)
- Regulatory input to this process will be crucial – taken from the Study

Task Force 6 – Regulatory Investment Incentives

ACTIVITY FOCUS

- Providing input to the PEI identification, including the follow up of Study on investment incentive Cross- sectorial activity
- There is the same activity in the gas sector

Task Force 7 – Renewables

- European experience shows, that the enforced implementation of power production from renewable energy sources (RES) can develop significant impact on the models for regulating electricity systems
- An analysis of the ECRB in 2011 identified that a broad variety of rules related to RES exists in the Contracting Parties
- Especially, the powers of regulators are not equally stipulated, with some having in-depth approval and definition rights and others not being involved in the RES sector at all
- Against this background of only a number of regulators being involved in RES related rule setting at all, the Task Force in principle act as platform for an exchange of regulatory experience on EU and Energy Community level in the RES area with a view to identify best practices recommendations on the regional level

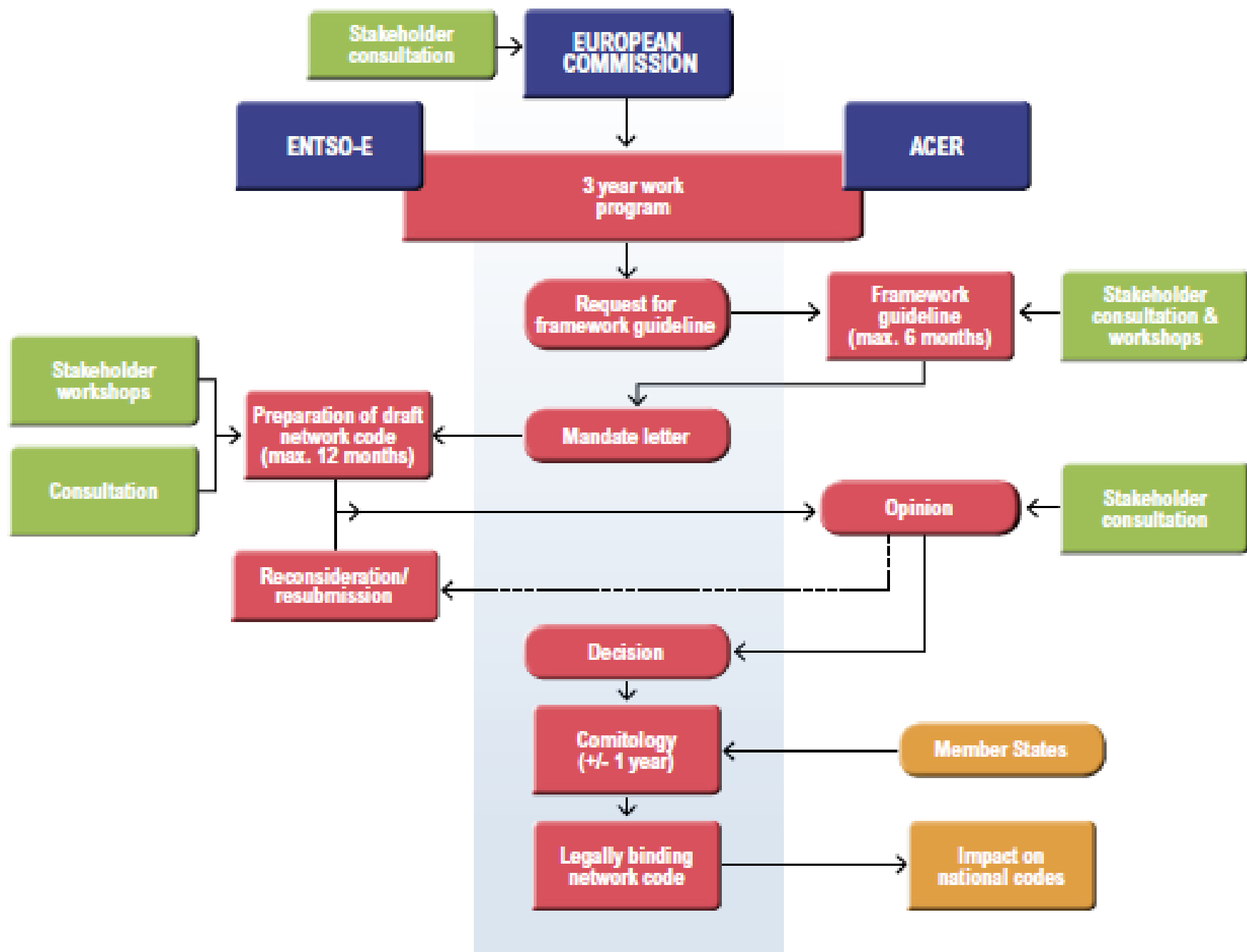
Task Force 7 – Renewables

ACTIVITY FOCUS

- Discussing the elements stemming from the introduction of power production from renewable energy sources (RES) with impact on the regulatory rules and provide a platform for exchange of regulatory experience on EU and Energy Community level in this respect

Input to European Framework Guidelines and Network Codes

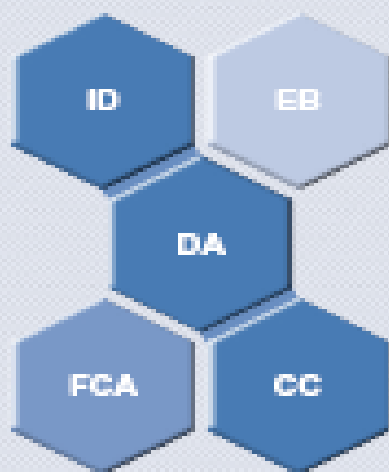
- The decision of the Energy Community Ministerial Council on implementing the 3rd European Package in the Energy Community also calls for implementation of the European Network Codes
- Accordingly, the Energy Community Permanent High Level Group and the ECRB have developed procedures for a related adoption process
- In the light of this, providing input to the process of developing Framework Guidelines and Network Codes is crucial with a view of ensuring proper reflection of the specificities of the Energy Community



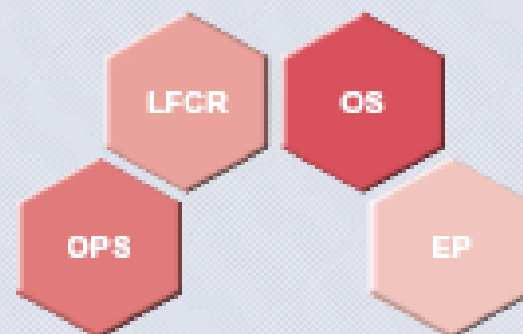
Network connection codes



Market codes



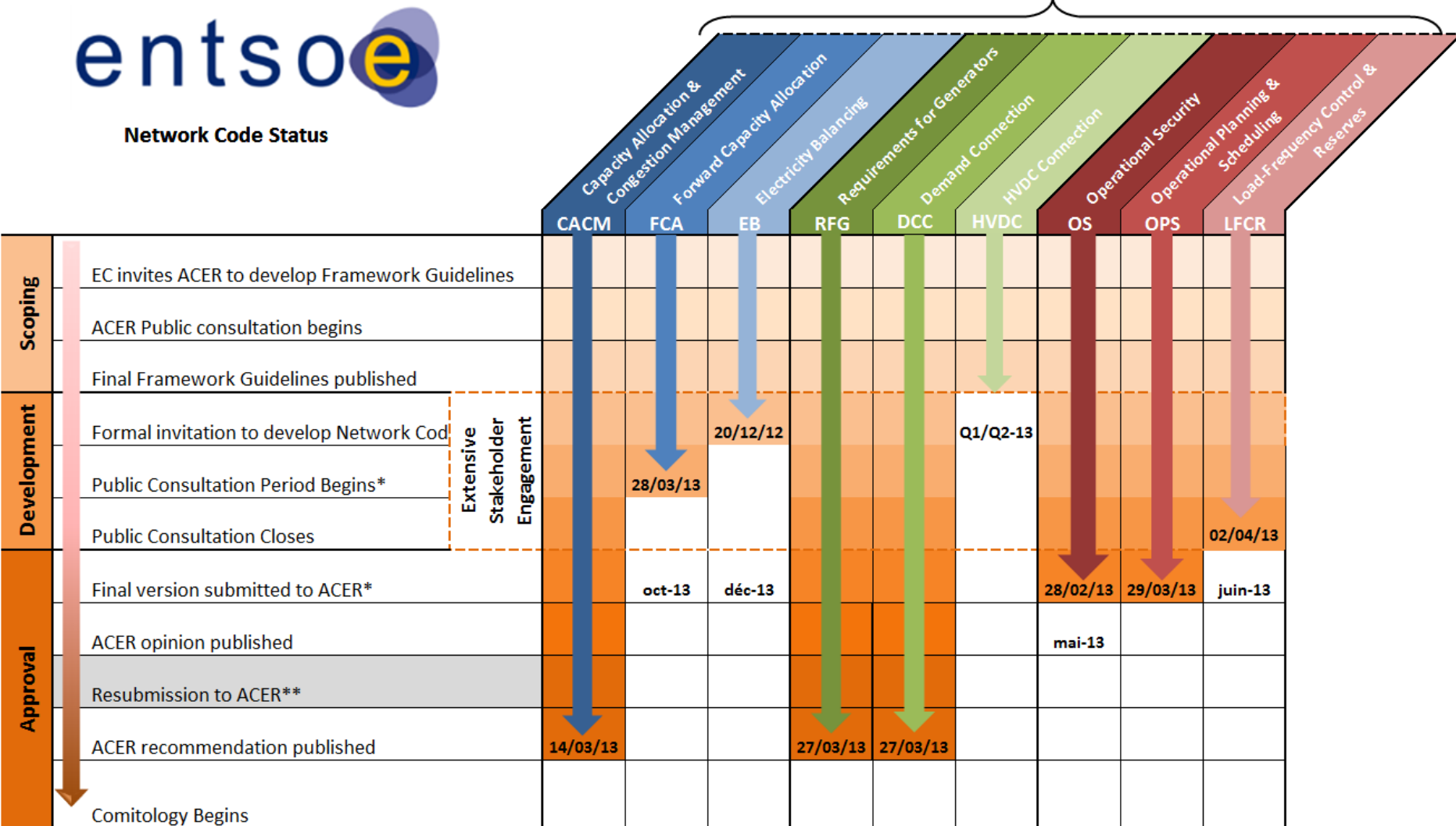
System operation codes





Network Code Status

Delivery of the Third Package



Disclaimer: The purpose of this chart is to provide overall transparency of ENTSO-E's network code development. All forward-looking dates are provisional until confirmed. Stakeholders will be informed and invited to all confirmed events by means of official communication

* In accordance with ENTSO-E's Network Code Development Process, an internal re/drafting and approval is done before public consultation and submission of the code to ACER.

** In case ACER does not attach a recommendation to its opinion, ENTSO-E has the opportunity to resubmit the code

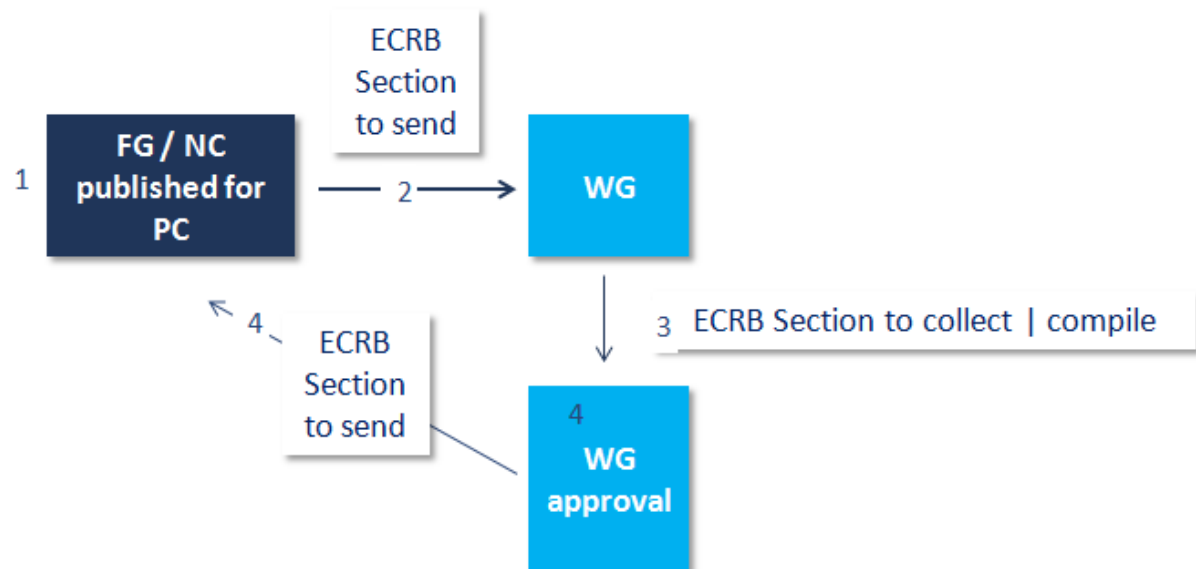
| | NC submitted | ACER opinion | Current status | Next step |
|-------------------------------------|--------------|----------------------|---------------------|-----------------------|
| Requirements for Generators | July 2012 | Oct 2012 Mar 2013 | With EC | EC consultants |
| CACM | Sept 2012 | Dec 2012 | With EC | Pre-Comitology 31 May |
| Demand Connection | Jan 2013 | Mar 2013 | With EC | |
| Operational security | 28 Feb 2013 | today | Reasoned opinion | For ENTSO-E |
| Operational planning and scheduling | 29 Mar 2013 | Jun BoR | Orientation today | Finalise opinion |
| Frequency control and reserves | Jun 2013 | Sep BoR | Consultation closed | ENTSO-E finalising |

Other NC formally under way: forward markets (due Sep 2013), balancing (due 1 Jan 2014) and now HVDC (due 1 May 2014)

Input to European Framework Guidelines and Network Codes

ACTIVITY FOCUS

- Providing input to public consultations on European Framework Guidelines and Network Codes according to the procedures explained in the figure:



Thank you for your attention!

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