Electricity Market Integration in SEE from TSOs perspective

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1. SEE needs: gaps and challenges

2. Progress towards MI–Road Map (review)

3. Next Steps – Way Forward

4. Q&A
ENTSO-E – pan-European TSOs Association

- 43 member TSOs from 36 countries
- 5 synchronous areas (represented by different colours on the figure left)
- Most of the ENTSO-E organisational elements (such as committees – SO, SD, Market, RDIC, LRG) are at association level, but there are several also at the regional levels
SEE needs

Gaps and challenges
SEE in European Union and Energy Community (EnC)
Key Messages on Transmission Infrastructure Development in SEE Region

The main challenges and drivers of transmission grid development in the region are:

• Increase of Transfer Capacities (cross-border and internal alike) as a prerequisite for Market Integration facilitation.

• Massive RES integration in order to achieve EU and national targets.

• Flexibility needs, especially for the countries with the highest RES penetration in the region.

• Extensions of ENTSO-E system to the East and South.

These challenges are reflected in the planned projects and confirmed by the system needs identified by 2040.
Gaps

- Primary energy law (3.package)
- Market rules
- VAT, financial, customs rules
- Organized DA market (PX)

SEE countries with different legal obligations (EU and non-EU)

SEE countries with different level of alignment of market rules (NC&GL)

SEE countries with different level of harmonisation of other rules & laws

SEE countries in different stages of market development

- Ready for DA market coupling with feasible neighbours
- Completing remaining rules
- Establishing an organized DA market
Network Codes and Guidelines Transposition in EnC
State of play

- **Adopted by PHLG (in addition adoption needed in CPs)**
- **Not addressed yet by EnCS**
- **Drafts under preparation in EnCS?**
- **Not yet shared with stakeholders**

### CONNECTION NETWORK CODES
- Requirements for Generators
- Demand connection
- HVDC connections

### MARKETS GUIDELINES
- Capacity Allocation & Congestion Management
- Forward Capacity Allocation Guidelines
- Balancing Guidelines

### OPERATIONAL NC & GL
- System Operation Guideline
- Network Code on Electricity Emergency and Restoration
Progress towards market integration

Review of the Road Map from 2017 report “Enhancing Market Coupling of SEE Region”
Tentative road map for DA coupling
Main Steps envisaged in 2017

• Northern part of the region » 2-4 borders coupled
• WB6 target » 6-8 borders coupled
• Coupling of the remaining borders
Tentative road map for DA coupling comparison with notified DA MC projects (e.g. in WB6 and or CESECe)

- SI-HR
  - HU/RO-RS
  - ME-RS; HR-HU

- AL-KS; BG-RO
  - GR-IT; HR-RS
  - BG-FYROM; IT-ME
  - FYROM-RS; AL-ME

- BG-GR; **BiH-HR; BiH-RS**
  - AL-FYROM; KS-RS;
  - FYROM-GR
Multi Regional Coupling (MRC)

**Scope:** Operation and evolution of single Day Ahead Market Coupling (Single DA Solution)

**TSOs:** 50HERTZ, AFFARSVERKETSVENSKAKRAFTNAT, AMPRION, APG, AST, BRITNED, CREOS, ELERING, ELES, ELIA, ENERGINET.DK, FINGRID, LITGRID, NATIONAL GRID, PSE, REE, REN, RTE, STATNETT, TENNET B.V, TENNET GMBH, Terna & TRANSNET

**NEMOs (PXs):** BSP, CROPEX, EPEX, GME, IBEX, Nordpool, OMIE & TGE
MRC Extension Project underway at the edge of SEE: Coupling of the HR & SI markets

DA project under IBWT regional governance
go live by end of Q2 2018
Next steps

Way forward in regional cooperation
Main Identified Infrastructure Needs
(in ENTSO-E Regional Investment Plan for SEE – a part of TYNDP)

Strengthen the E-W and N-S axis by increasing transfer capacities at the respective borders in order to:

- Cope with the assumed high RES penetration (e.g. in TR, RO and GR)
- Cope with high transit power flows (e.g. in RS)
- Support market integration in SEE Region and with neighbouring regions
Regional cooperation—drivers and challenges for way forward

- **Joint (LT) capacity allocation**
- **Compatible market rules and MC governance**
- **Coordinated capacity calculation**
- **WB6, CESEC, REFs, CEP**

- **WB6 initiative - EnC**
- **CESEC-e (market, infrastructure, SoS) – EC**
- **Finalisation of CEP (Clean Energy Package) – EC & EP**
- **RGs and future REFs (Regional Energy Forum) – ENTSO-E**

- Decentralized process of national/bilateral projects (with a close view on CACM)
- Contractual basis and operative governance (MRC model)

- Two auction offices provide services for (not yet all) SEE borders

- One of basic 5 RSC services (two RSCs likely to be involved)
SEE CCR – now and in the future

- Legal implementation of SEE CCR currently binding only for 3 EU TSOs
- Scope of the future CACM and FCA implementation
- Preparation for voluntary implementation underway in the framework of WB6

- Future SEE CCR („SEE Shadow region” ) according to „all –TSOs” proposal for CCRs from 2015 (Annex 1 to Explanatory document)
- Includes EU SEE CCR, non-EU (WB6) and EU/non-EU bidding zone borders (with 3 additional EU TSOs)

IT-ME will be included when HVDC interconnection is commissioned; HU-RO & HU-HR in Core CCR
Q&A