

# ACER - ECRB Workshop on CACM GL – Duties of TSOs

## Starting Point



- All tasks and obligations on TSOs from Regulation 714 still apply
- TSOs serve as enablers for trade of electricity across the EU
  - Via market coupling in the day-ahead time frame
  - Via continuous matching in the intraday timeframe
- TSOs main tasks focus on pre- and post-coupling processes
- Formally, the obligation to allocate cross-zonal capacity lies with the TSOs, despite CACM GL introducing the entity of the Nominated Electricity Market Operator (NEMO)

#### Tasks for TSOs Explicitly Listed in CACM GL



- In accordance with CACM GL Art. 8 (2), TSOs are to:
  - Perform capacity calculation
  - Send cross-zonal capacities (and allocation constraints) to the market coupling operator(s)
  - Verify results from single day-ahead coupling
  - Calculate scheduled exchanges (where required)
  - Share congestion income
  - Establish and operate fallback procedures, in case market coupling fails



#### Explicitly highlighted tasks for TSOs in CACM GL

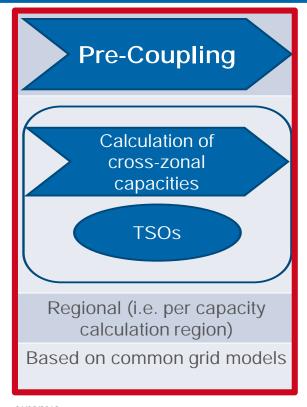


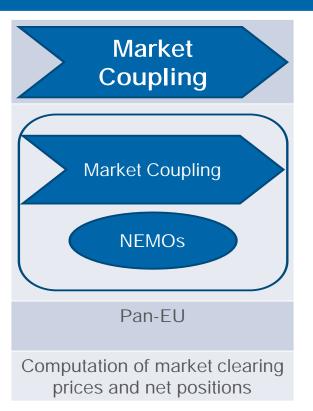
- Furthermore, TSOs are to:
  - Draft terms, conditions and methodologies pursuant to CACM GL Art. 9
  - Organise day-to-day management of market coupling together with NEMOs
  - Coordinate and cooperate among them and with NEMOs
  - Conduct a bidding zone review after initiation
  - Respect the objectives of CACM GL (i.e. Art. 3)

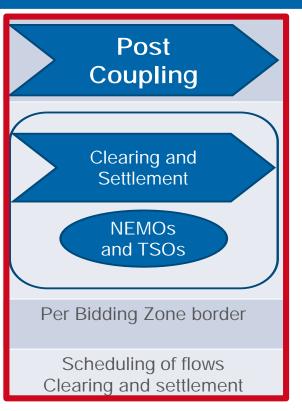


#### Pre-Coupling, Coupling and Post-Coupling



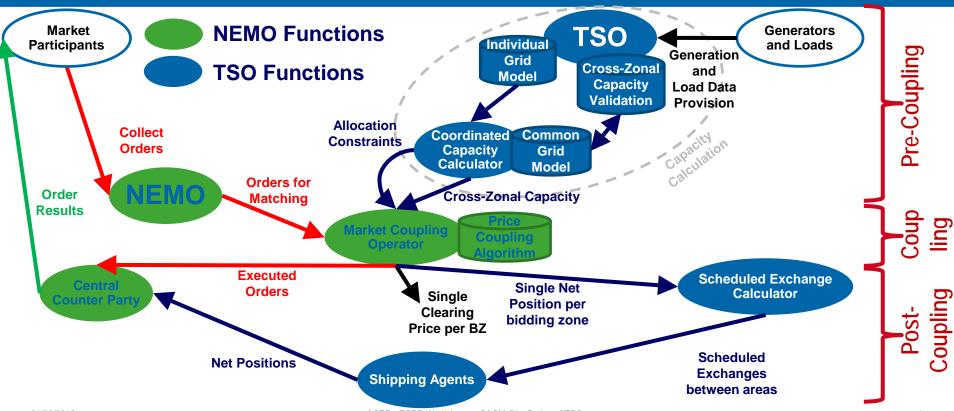






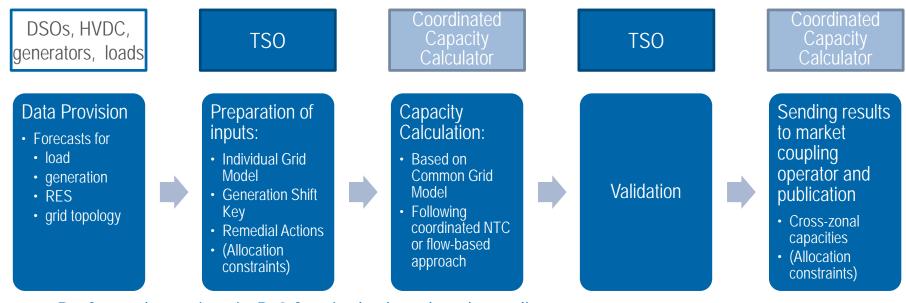
## Simplified Process for Single Day-Ahead Coupling





## Pre-Coupling Processes – Capacity Calculation





- Performed one time in D-2 for single day-ahead coupling
- Performed n times in D-1 and D for single intraday coupling

#### Pre-Coupling Processes – Other Tasks

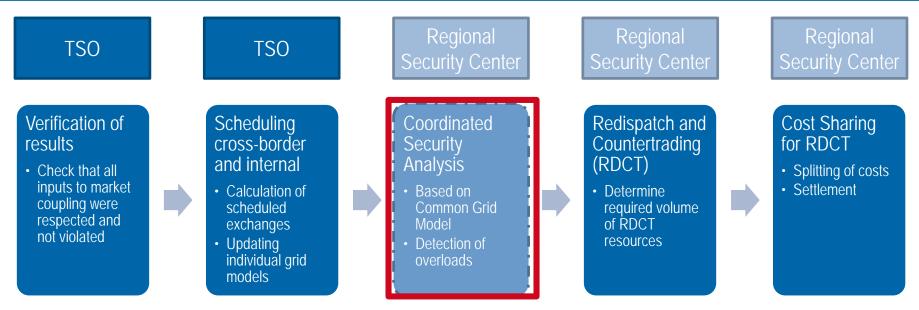


- TSOs are to use the latest available information and forecasts at any of the stages
- Additional tasks for TSOs are:
  - Organize the merging process for individual grid models
  - Set-up of a coordinated capacity calculator
  - Review of capacity calculation processes every other year



#### Post-Coupling Processes



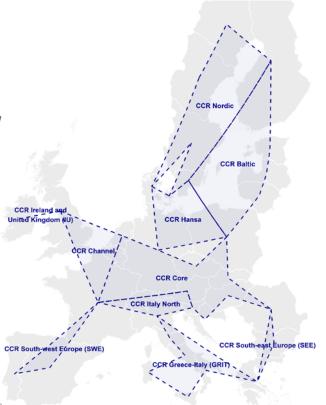


- Performed one time in D-1 after single day-ahead coupling
- Performed n times in D-1 and D after single intraday coupling

#### Coordination among TSOs



- Coordination among TSOs takes place on several levels
  - Pan EU: involves all (EU) TSOs (e.g. common grid model)
    - Coordination through ENTSO-E
  - In a capacity calculation region: involves the TSOs of a capacity calculation region (e.g. capacity calculation, redispatch and countertrading)
    - Separate governance structures
  - In regions to be defined (e.g. complementary regional auctions, bidding zone review)
    - Separate governance structures



#### Reporting and Monitoring



#### Formally tasks of ENTSO-E

- Biennial report on capacity calculation and allocation
- Technical report on current bidding zone configuration
- Report on the progress and potential problems with the implementation of single day-ahead and single intraday coupling
- Report on effectiveness of the operation of the price coupling algorithm and of the continuous trading matching algorithm (together with NEMOs)
- Report on effectiveness of the criterion concerning the estimation of the value of lost load
- Review of the methodology for calculating scheduled exchanges resulting from single day-ahead coupling

#### All necessary data must be provided by TSOs for

- The reports listed above
- Monitoring obligations on NRAs and ACER

#### Duties implicitly stemming from CACM GL and FCA GL



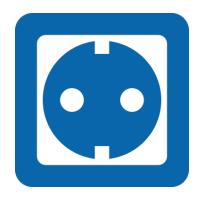
- Contracts
  - Among TSOs for different regions and tasks
  - Among TSOs and NEMOs
- Upgrade of IT infrastructure and communication systems
  - To enable data exchange
  - To facilitate more coordinated processes
  - To enable multiple NEMOs in one bidding zone (where applicable)
- Set-up and upgrade of platforms to
  - Meet transparency requirements (e.g. JAO website, ENTSO-E website)
  - Perform auctions for long-term timeframe (e.g. JAO)
- Respect interdependencies among the network codes and guidelines, both when drafting terms, conditions and methodologies and during implementation.

#### Challenges for TSOs in Performing Their Tasks



- General reluctance to change
  - Passing on the performance of tasks to other entities (e.g. coordinated capacity calculator)
- Fostered coordination and cooperation
- Coping with being in more than one capacity calculation region
  - Assigning resources with exclusive access to CCRs (e.g. sharing of remedial actions among CCRs)
  - Sharing of power flow capabilities on grid elements
- Mistrust and different cultures among TSOs
- Increased efforts towards increased transparency
  - In conjunction with flow-based capacity calculation, a lot more data is made available to the public





**Questions?** 

Happy Adopting!

#### Contact



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