APPROACH TO EIM

Balancing Stakeholder Group

Brussels, 2016/06/30

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- Roadmaps
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Background and Motivation

- Further elaboration on intermediate steps (Regional Integration Model; RIM) for achieving the European Integration Model (EIM).
  - Next steps for IN and RR seem quite straight forward.
  - Further proceedings for aFRR and mFRR seems more complex.

- Key learnings from pilot projects and ongoing RIM/EIM discussion have to be taken into consideration
  - Technical feasibility
  - Clear governance structure allowing (optional) intermediate steps
  - »ENTSO-E input for advocacy process

Replacement Reserve

- Currently, TERRE project foreseen as "Western core CoBA" for RR.
- Greece announced not to introduce RR on short notice.
- Poland has no neighbor using RR (requirement to participate in RR cooperation).
- Currently, no RR CoBA foreseen between Hungary, Romania and Bulgaria (as Bulgaria does not want to be included in any CoBA at this time).

RR CoBAs

» To be decided by ACER, if exit-or-join principle still applicable.
» Issue might be mitigated by organic growth approach.

Imbalance Netting

- Merging existing initiatives (IGCC, E-GCC, INC) to one single IN CoBA is getting started.

- Process for including those countries not yet participating in an initiative based on NC EB required to be started.

Current situation

CE CoBA

- IGCC
- E-GCC
- INC
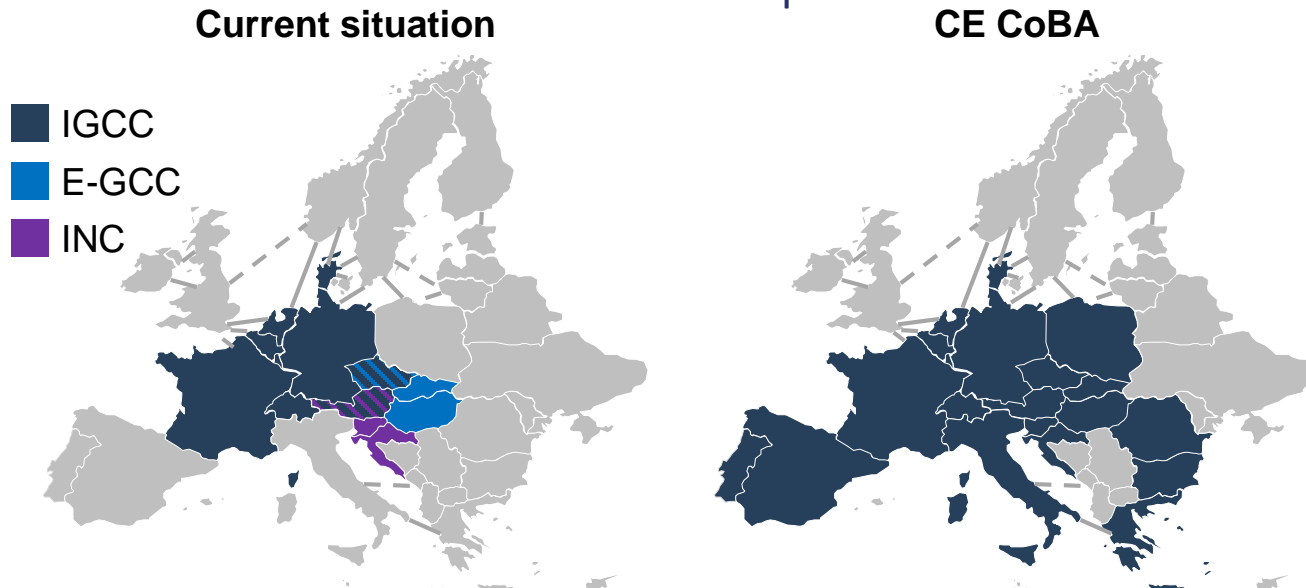
» Imbalance netting is "easier to implement" because of

- No harmonization required,
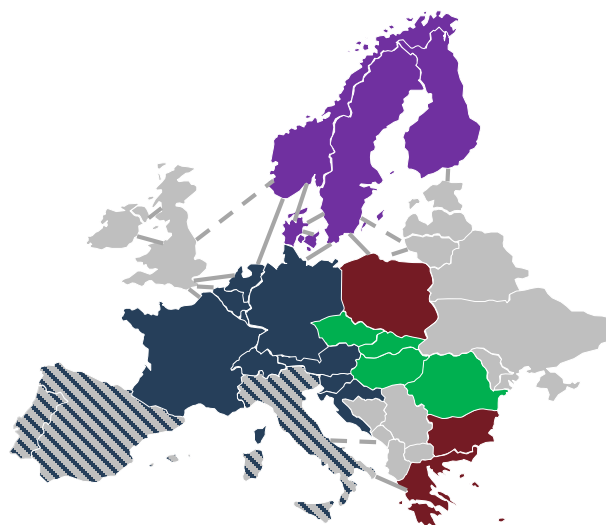- Nevertheless, agreement on split of benefit and governance has to be reached.

automatic Frequency Restauration Reserve

- Early implementation CoBAs ("Before RIM") based on existing or planned cooperation.
- 4M CoBA based on existing cooperation in the field of scheduled energy
- Countries in "dark red" currently unaligned, i. e. not necessarily in same CoBA → application of "exit or join"

Before RIM (example)   **RIM**   **EIM**

» Inclusion of many countries in RIM phase requires efficient governance already in the beginning.

» Single aFRR EIM CoBA is subject to technical feasibility of cross-synchronous area (aFRR) CoBAs.

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manual Frequency Restauration Reserve

- Early implementation CoBAs ("Before RIM") might be possible prior to mFRR RIM, the exact configuration will depend first on the CoBA level implementation and then on which TSOs have completed their national implementation.

- Countries in "dark red" currently unaligned, i. e. not necessarily in same CoBA. → application of "exit or join"

RIM alternative

RIM

EIM
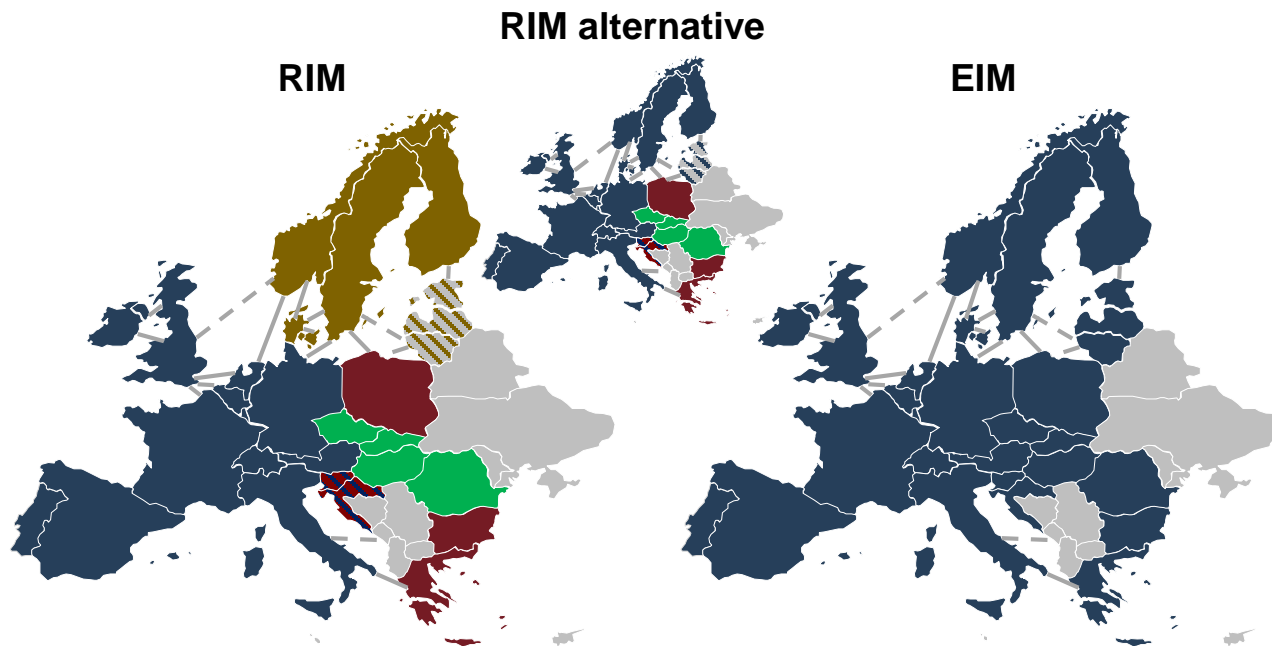
» Two alternatives for mFRR RIM CoBA (mitigated by organic growth approach)

Approach to Achieving the European Integration Model

- Focusing on a joint platform/the EIM without taking into account some intermediate steps ignores
  - Approaches based on stepwise progress (IGCC, FCR cooperation etc.) and
  - Not proven technical feasibility of each approach for the entire system (cross-synchronous-area aFRR).

  » NC EB to respect these findings by at least not excluding (voluntary) intermediate steps
  - Step via the Regional Integration Model to ensure technical feasibility
  - Option for (some) TSOs to only join the step towards the EIM, i.e. no obligation that each TSO needs to implement a RIM
  - No requirement to have one single IT platform
 - Keep the option to modify the EIM during the implementation

Conclusions and Outlook

- ## Current approach to EIM
  - Next steps for IN and RR seem quite straight forward.
  - Further proceedings for aFRR and mFRR seems more complex.

- ## From advocacy perspective, focus on key requirements advisable
  - Clear harmonization goals and
  - Governance structure,
  - but no predetermination of methodological approach (IT systems, ownership structure etc.) or
  - hindering of intermediate steps.

Layer-based System Structure

- Exemplary system structure for combining local/regional systems in the approach to EIM
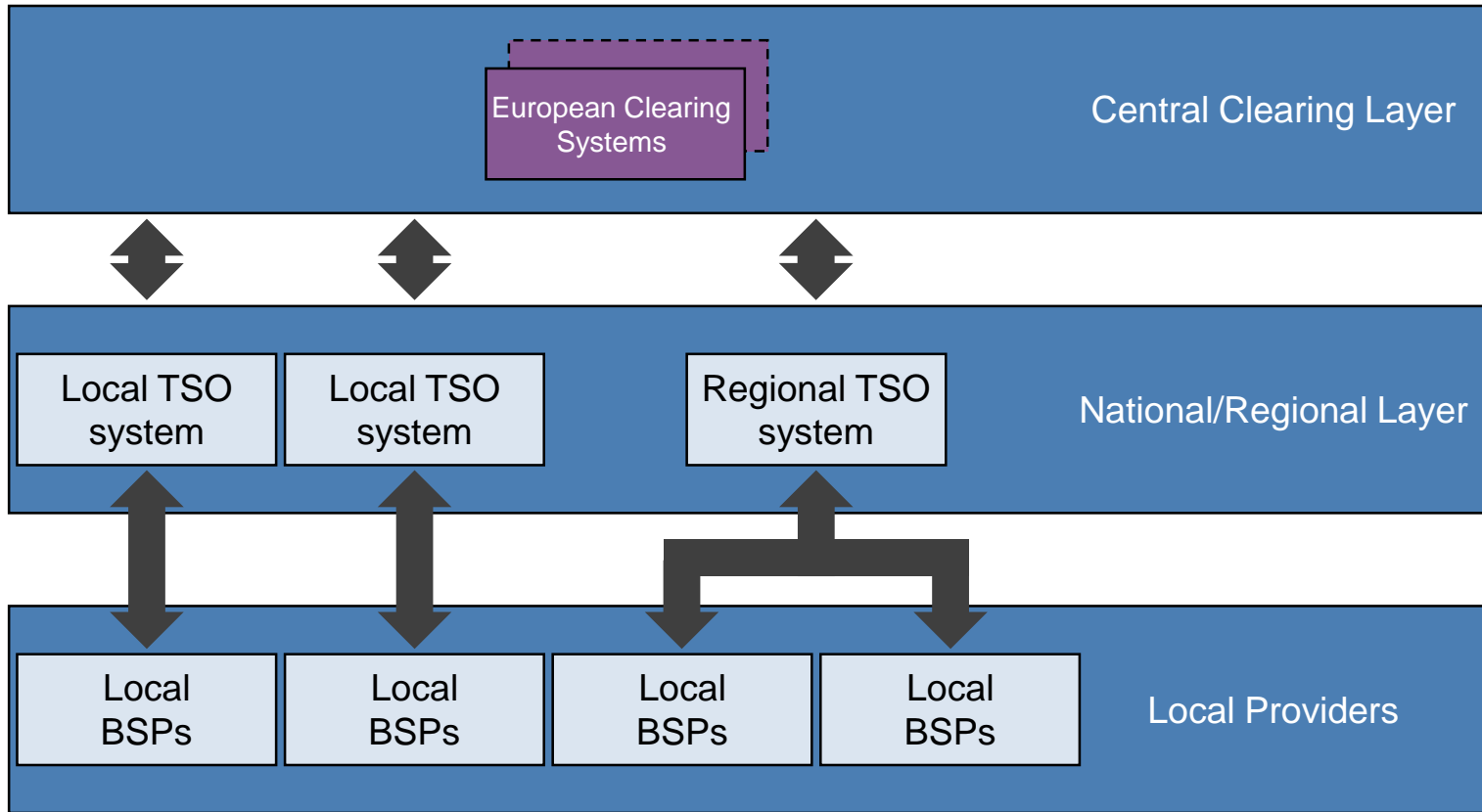
» EIM is implemented as a TSO-TSO model which can be operated by several entities.

» No substitution of local/national (TSO-BSP) or regional systems.