BALANCING PILOT PROJECTS & EARLY IMPLEMENTATION

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1 Pilot projects achievements and learnings

2 Standard products – aFRR study

3 Imbalance Settlement Period - CBA

4 CoBA Imbalance Netting

Overview of the Pilot Projects (PP)

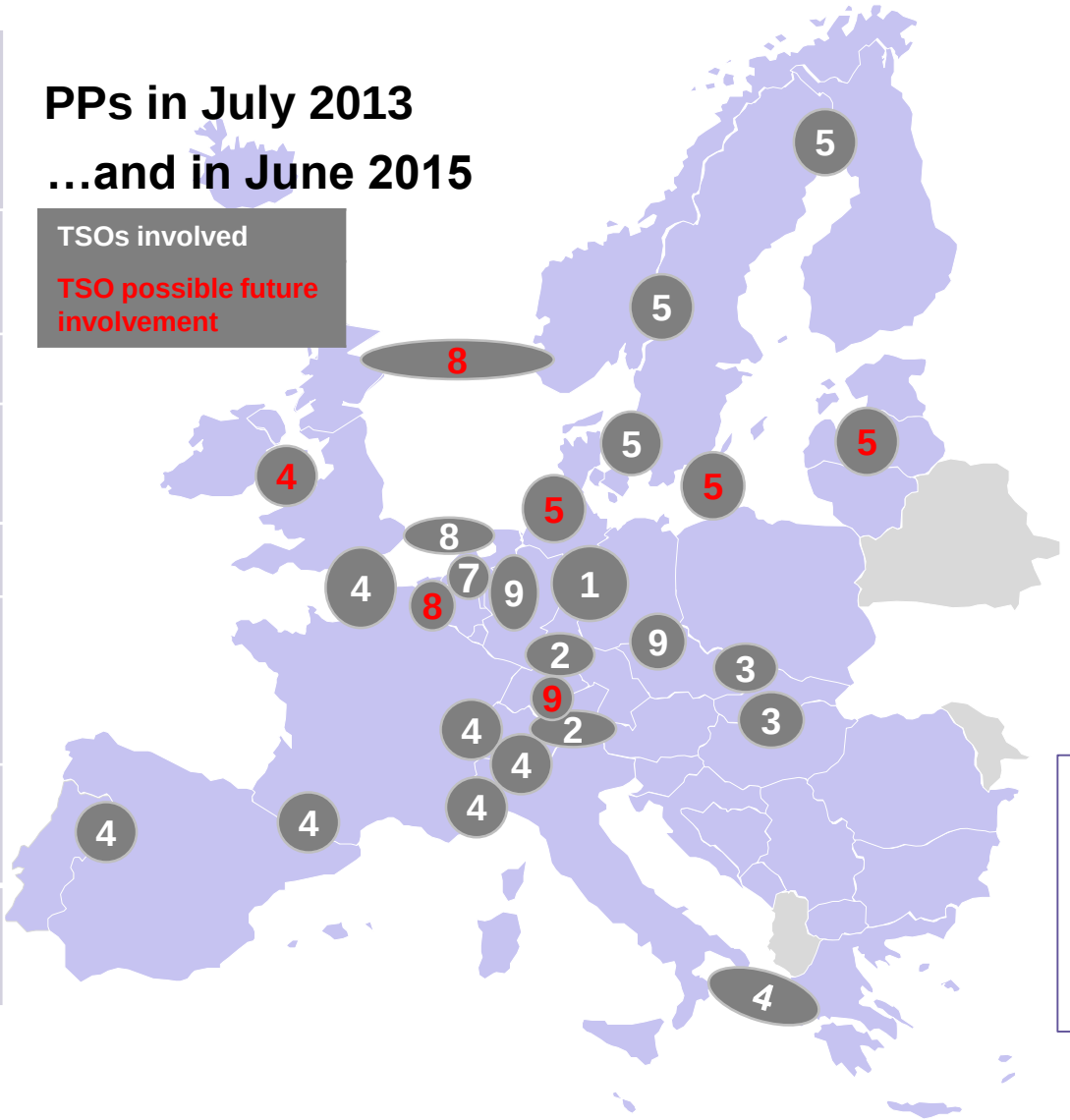
1	Common Merit Order (CMO) for mFRR and aFRR with real time flow based congestion management
2	Cross-border market for FCR based on TSO-TSO model
3	E-GCC (project on hold)
4	TERRE: Trans-European Replacement Reserves Exchange
5	Development of the Nordic RPM
7	Design and evaluation of a harmonised reactive balancing market with XB optimisation of Frequency Restoration
8	BritNed / TenneT / National Grid Balancing Services (project on hold)
9	IGCC Imbalance Netting, aFRR-Assistance and Flow-Based Congestion Management.

PPs in July 2013

…and in June 2015

TSOs involved

TSO possible future involvement



mFRR – manual Frequency Restoration Reserves
aFRR – automatic Frequency Restoration Reserves
RPM – Regulating Power Market
IGCC – International Grid Control Cooperation
E-GCC - Grid Control Cooperation in CZ, SK and HU

Recent achievements from Pilot Projects

Pilot 1 – CMO for mFRR and aFRR with real time flow based congestion management

- Cooperation with pilot projects 2, 5 and 7 under evaluation
- Flow-based approach implemented in balancing markets. No interactions with CWE DA FBMC

Pilot 2 – FCR AT-CH-DE-NL

- The cooperation between the German, Austrian, Dutch and Swiss TSOs went live on April 7th, 2015. Elia (Belgium) and RTE (France) expressed interest in joining.

Pilot 3 – eGCC

- A hierarchical cooperation with Pilot 9 (IGCC) already in place

Pilot 4 – TERRE

- Despite the fact that there are many TSOs involved in TERRE with different local market designs, near to set up a design solution on which these TSOs all agree. Go/no go decision based on CBA to be taken first half 2016.
- Design features: products to be exchanged, algorithmic optimization, CMO design, settlement scheme

Recent achievements from Pilot Projects

Pilot 5 – Nordic Pilot Project

- ToR for increasing cooperation and preparing extension on Nordic-Baltic already developed.

Pilot 7 – BE-NL pilot

- Pilot 7 currently discussing market design assumptions with Pilot 1 and Austria.
- Imbalance settlement as an important local tool to incentivise market parties to keep their balance or help restore the system imbalance
- Elements enabling the XB exchange of mFRR: scheduled mFRR product activated locally and firm power profile exchanged over the border
- Harmonisation for the XB aFRR exchange: exchange of aFRR on the border should be done via the exchange of control request, difficult to replicate between different control blocks, TSO can activate more bids on CMO – prior access for connecting TSOs

Pilot 9 – IGCC

- Imbalance netting can be easily implemented even under different national legal and balancing frameworks (7 countries and 7 different legal and balancing frameworks).

Concluding remarks

- Pilot Projects are one of the main early implementation initiatives for the Balancing Guideline
- They represent a spread over all balancing processes (FCR, IN, a/mFRR, RR)
- The current scope of pilot projects covers a wide geographic area across Europe
- The lessons learnt from the implementation of pilot projects will be used in the implementation of the Regional Model and the development of the European integration Model
- The projects are managed and consulted on locally by the involved TSOs, the NRAs and stakeholders.
- The ENTSO-E Working Group Ancillary Services is overseeing and monitoring the progress of the pilots through regular reporting and coordination meetings (Pilots SPOC-group)
- Regulators have nominated contact persons (SPOCs) for each pilot
- Together with other early implementation initiatives they report to the Balancing Stakeholder Group (BSG) co-chaired by ACER and ENTSO-E

Early implementation – Standard products and aFRR study

A proposal with reduced number of mFRR / RR standard products has been discussed with ACER and stakeholders. This new proposal is subject to an adequacy analysis and approval within ENTSO-E.

aFRR study as input for aFRR standard products and CoBA definition:

- Task 1: Overview over current aFRR situation
- Task 2: Technical capabilities aFRR providers
- Task 3: Qualitative impact aFRR activation method (from pro rata to merit order)
- Task 4: Qualitative elaboration change activation scheme

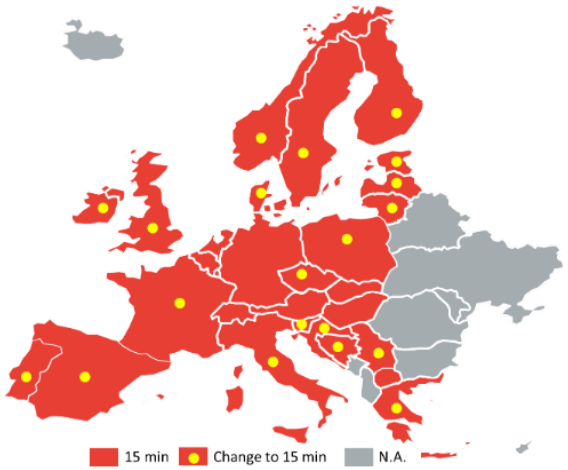
→ **The draft outcome of the aFRR study shall be presented and discussed with stakeholders in a BSG meeting end November**

→ **The final report is foreseen to be ready mid February 2016**

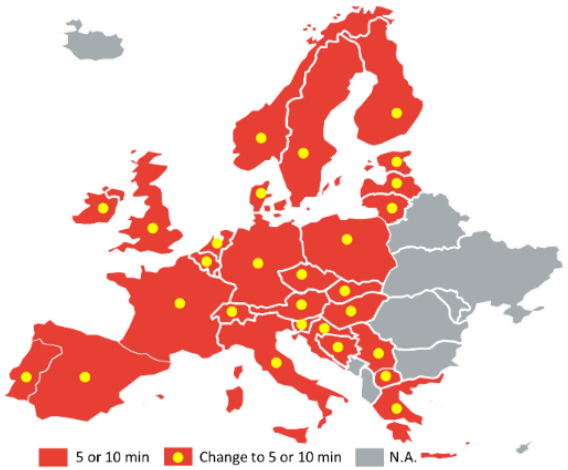
Early Implementation – CBA ISP Planning Cases

Harmonization of ISPs throughout Europe

All TSOs implement ISP = 15mins

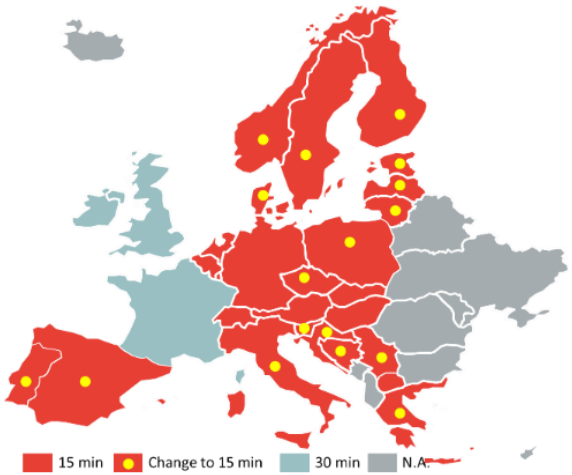


All TSOs implement ISP = 5mins

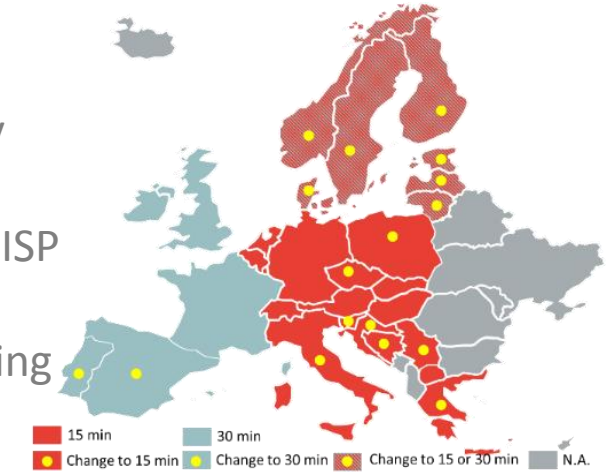


Reduction of ISP to max 30mins

PC* – Minimize Costs Change all ISP > 30min to ISP = 15min



PC – maximize benefits by harmonising ISP
Change all ISP > 30min to ISP = 15min or 30 min (depending on neighbouring ISP)



Early Implementation – CBA ISP Data requirement

Calculation of costs and benefits

- for the calculation of costs and benefits the relevant data need to be identified and collected
- ENTSO-E started to draft a first list of needed data, based on the CBA ISP methodology report, for further discussions within ENTSO-E as well as together with stakeholders
- Next to TSOs also stakeholders have to collect, prepare and deliver data
  - To be able to get a CBA result before EC finalizes their impact assessment in March 2016, all data need to be defined, collected, prepared and delivered before the end of the year
  - A stakeholder workshop to discuss the data requirement and create a common understanding will be organized 21st October

Early implementation – CoBA Imbalance Netting

1 Single CoBA for Synchronous Area Continental Europe

- Compliant with ACER's qualified recommendation
- Full flexibility for aFRR configuration (CoBA netting >>> CoBA aFRR)
- key learning from existing initiatives
  - Fundamental market design harmonization issues more limited than in other processes (e.g. no standard products) however challenges to be expected in settlement of netted imbalances
  - Easy implementation even in case of differences in national legal and balancing frameworks
  - But complex to agree on a governance structure and on a decision making process
- The alternative to implement multiple CoBAs for IN in CE is likely to be more complex than expected settlement and governance issues for one single CoBA

Thank you for your attention

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