EXPLORE
Status Update
Balancing Stakeholder Group
14 January Brussels
Explore European X-border Project for Long term Real-time balancing Electricity market design
Background: Analysis common FRR market

1. Common qualitative FRR market comparison on subject of BE-NL-GE Coba
   • Results of study published on TSOs website

2. Austrian, German, Dutch and Belgian TSO decided to proceed with the analysis of a potential common FRR Balancing Market design
   • Work ongoing in newly set up Expert Group

Technical and market aspects of such cooperation are studied:
• the products, technical implementation and processes (bidding, activation, selection, exchange) for the exchange of aFRR and mFRR;
• interaction with intraday markets;
• required level of harmonisation;
• proposed design for the settlement of balancing energy and imbalance;
• use of cross zonal capacity after ID markets for different balancing processes.

EXPLORE contributes to early implementation of EB GL and CoBa formation
✓ CBA of BE-NL pilot project (phase 3) is temporarily put on hold given this development
No use of replacement reserves:
✓ (Mostly) reactive balancing;
✓ EXPLORE TSOs rely on ID markets with short GCT

Harmonized ISP of 15 minutes:
✓ Important for settlement, pricing, product design,...;
✓ Important for balancing incentives.

No economic optimization between aFRR and mFRR:
✓ Similar activation strategies

Majority of the balancing performed by aFRR
✓ Similar activation strategies;
✓ Typical for reactive balancing systems.
Objective and starting assumptions

Objective EXPLORE:

• Develop technical and market concepts for cross-border exchange of Frequency Restoration Reserve (aFRR & mFRR)

Starting points:

• No economic optimization between use of aFRR and mFRR balancing energy:
  – Activation trigger based on technical considerations only (regardless of price);

• Exchanged bids are firm;

• Reserve Replacement is out of scope of present initiative:
  – No consideration of a (local) potential costs optimization between RR and mFRR;

• The proposed market design shall respect to the extent possible:
  – Requirements from the future NC or GL on CACM, Electricity Balancing and LFC&R;
  – local TSOs responsibilities linked to LFC&R Block and LFC&R Area.
Ongoing work in EXPLORE

Discussions on pricing and settlement fundamentals:
✓ Local or cross-border pricing;
✓ Per product or cross-product pricing;
✓ Pay-as-bid or pay-marginal;
✓ Function of imbalance pricing and desired balancing incentives;
✓ Balancing energy gate closure times;
✓ Relationship to intraday markets
✓ ...

→ Prior agreement on these fundamental topics is key for setting up any XB exchange

Detailed discussions on product design, activation algorithms, use of XZ transmission capacity,... will be tackled in a second stage (first half of 2016)
Thanks for your attention!