aFRR Balancing Capacity Cooperation AT-DE
EBSG, 21.04.2021

50hertz amprion TenneT Taking power further TRANSNET BW APG

Overview

- **Step 1: Common Activation of aFRR**
  - Cooperation for common activation between APG and German TSOs **since July 2016**
  - Significant contribution for a reduction of aFRR-costs

- **Step 2: Common Procurement of aFRR**
  - Harmonisation of aFRR market design
  - Opening of markets for cross-border procurement
  - BSPs gain access to a larger market, TSOs gain minimum access to CMOL for common activation
  - Cooperation active **since February 2020**

Dimensioning of aFRR in control blocks is not affected by cooperations (exchange of reserves)

Harmonisation of Market Design

- Market rules to be harmonised (in particular regarding products) are part of proposal according to Art 33(1) EBGL

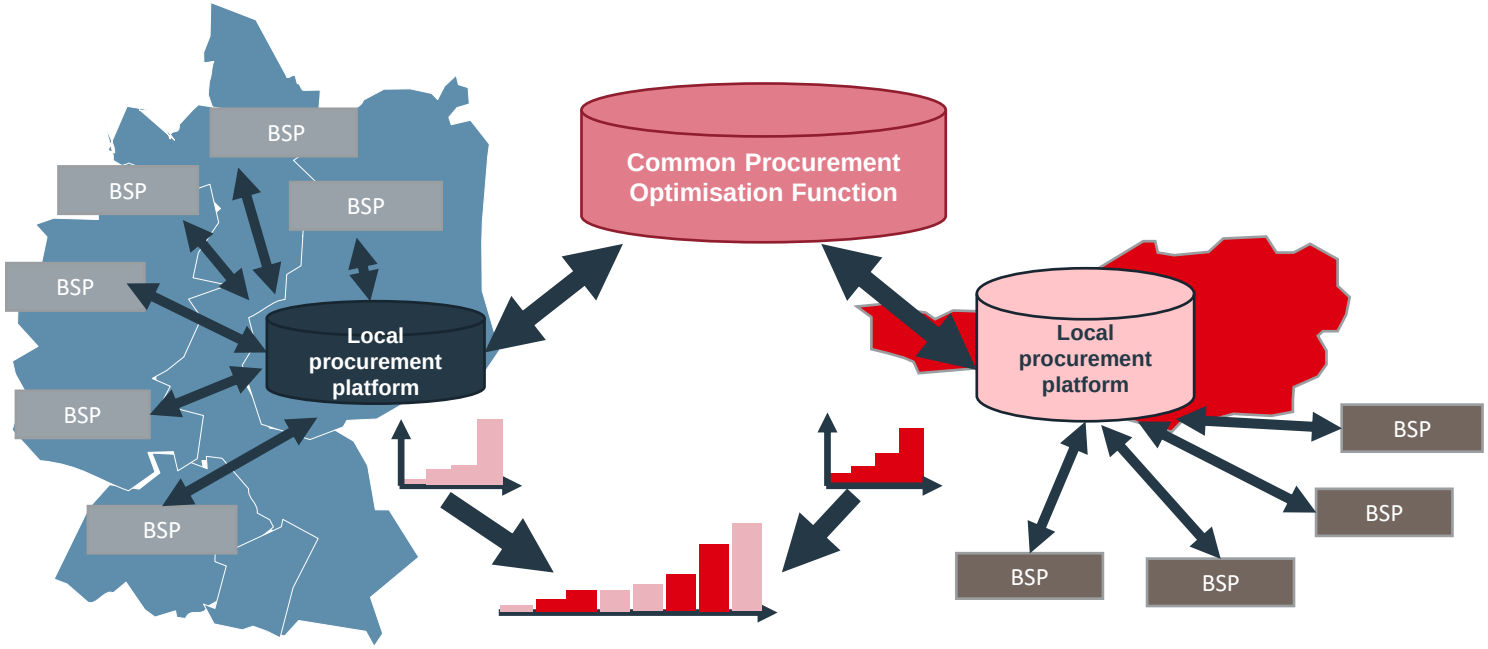
aFRR procurement per calendar day	
Product	6 x 4h
Gate Open Time	D-7 10:00
Gate Closure Time	D-1 09:00
Publication of results	At the latest D-1 09:30
Minimum size of bid	5 MW*
Bid increment	1 MW
TSO-BSP Settlement	Pay-As-Bid

* smaller bid size possible for first (APG) and only (DE TSOs) bid

- Next: implementation of Standard Products for Balancing Capacity
  - Minimum size of bids and increments: 1 MW
  - Submission of bid price: (EUR/MW)/h, resolution 0.01

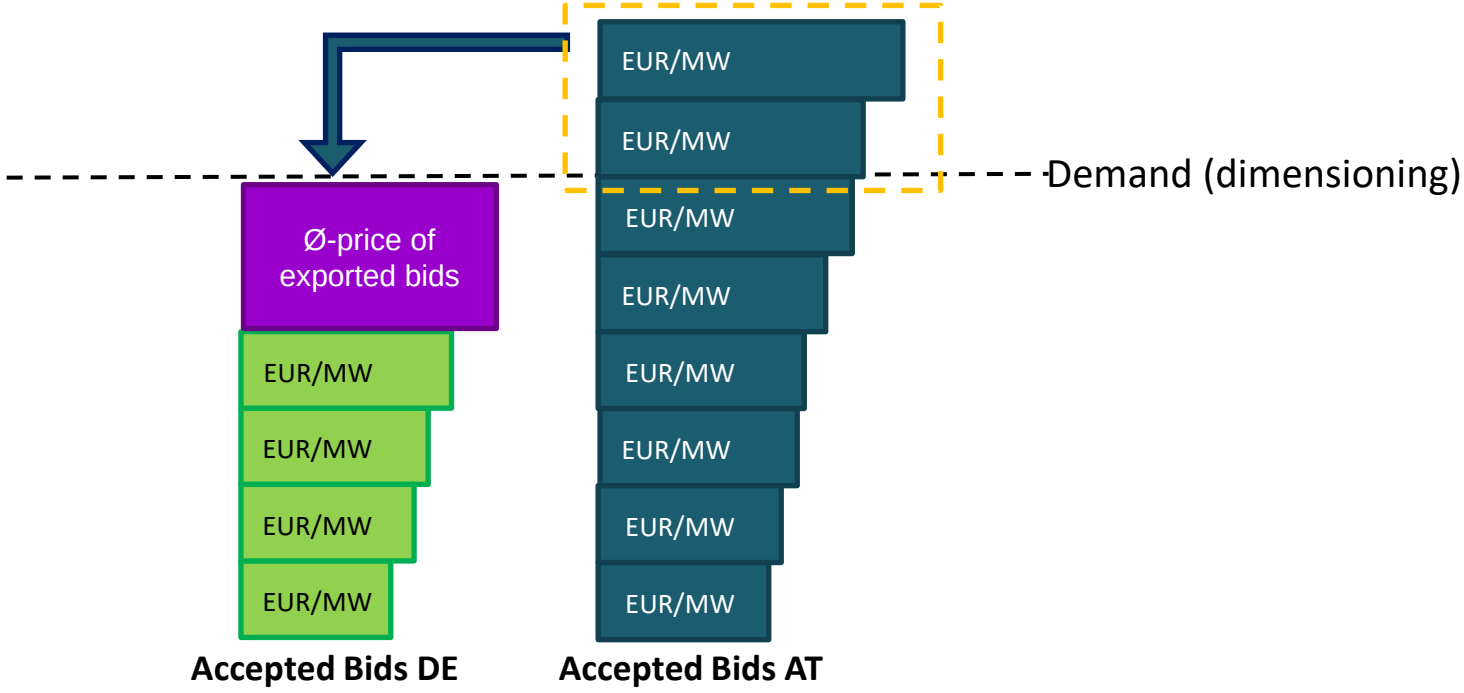
TSO-TSO Model for Procurement

- **Common procurement in central clearing system for AT and DE**
  - Host TSO: 50 Hertz
- **Connecting TSO remains single point of contact for local BSPs**
  - TSO-BSP Settlement remains with connecting TSO



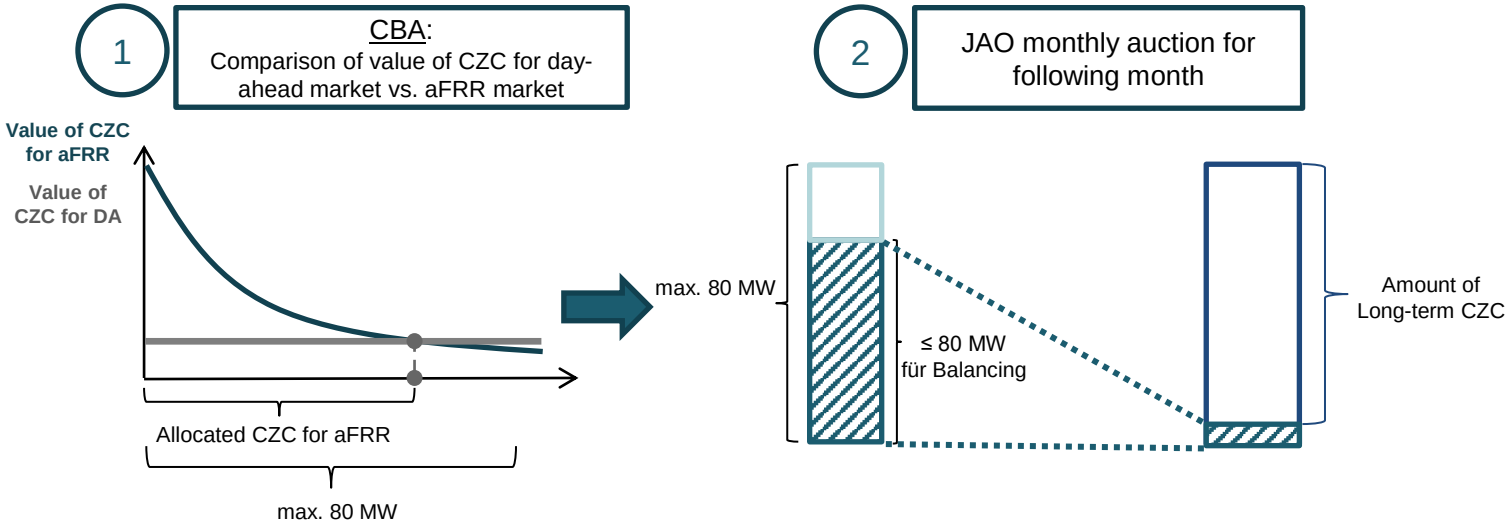
TSO-TSO Settlement

- **Exported-Bids Model - Compensation of balancing capacity procured cross-border**
  - Following best-practice of FCR-Cooperation
  - Currently: calculation and settlement based on of **average price of exported bids**



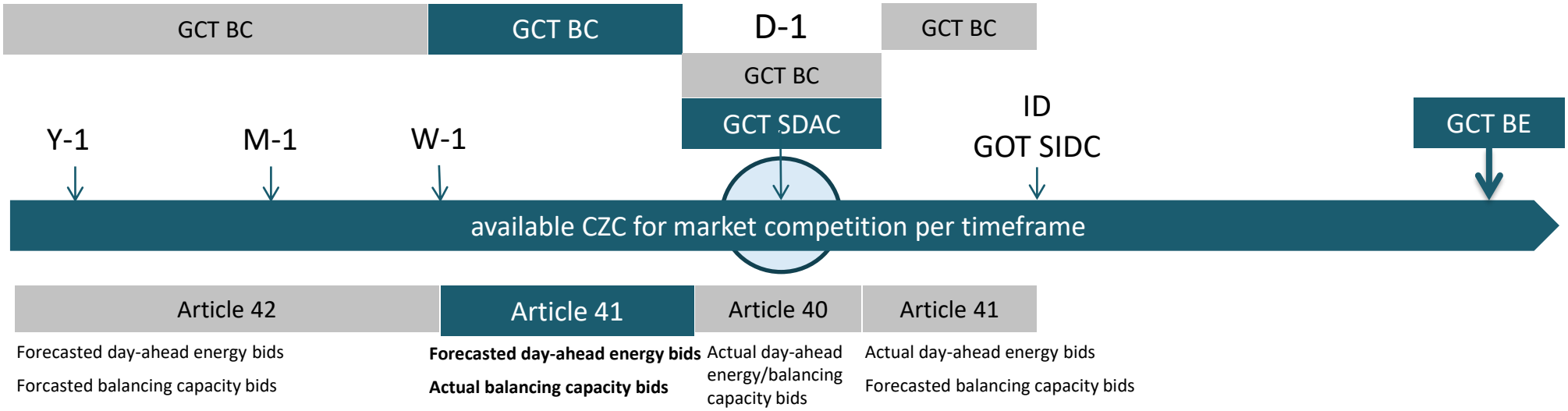
Allocation of Cross-Zonal Capacity, Status-Quo

- **Monthly Allocation of CZC based on a Cost-Benefit Analysis (CBA)**
  - CZC to be allocated must be taken into account at JAO monthly auctions
- **Weekly re-evaluation of allocated CZC**
  - CZC which is not required is given back to the energy market (currently: intraday)
  - Remaining CZC is available for common procurement of aFRR

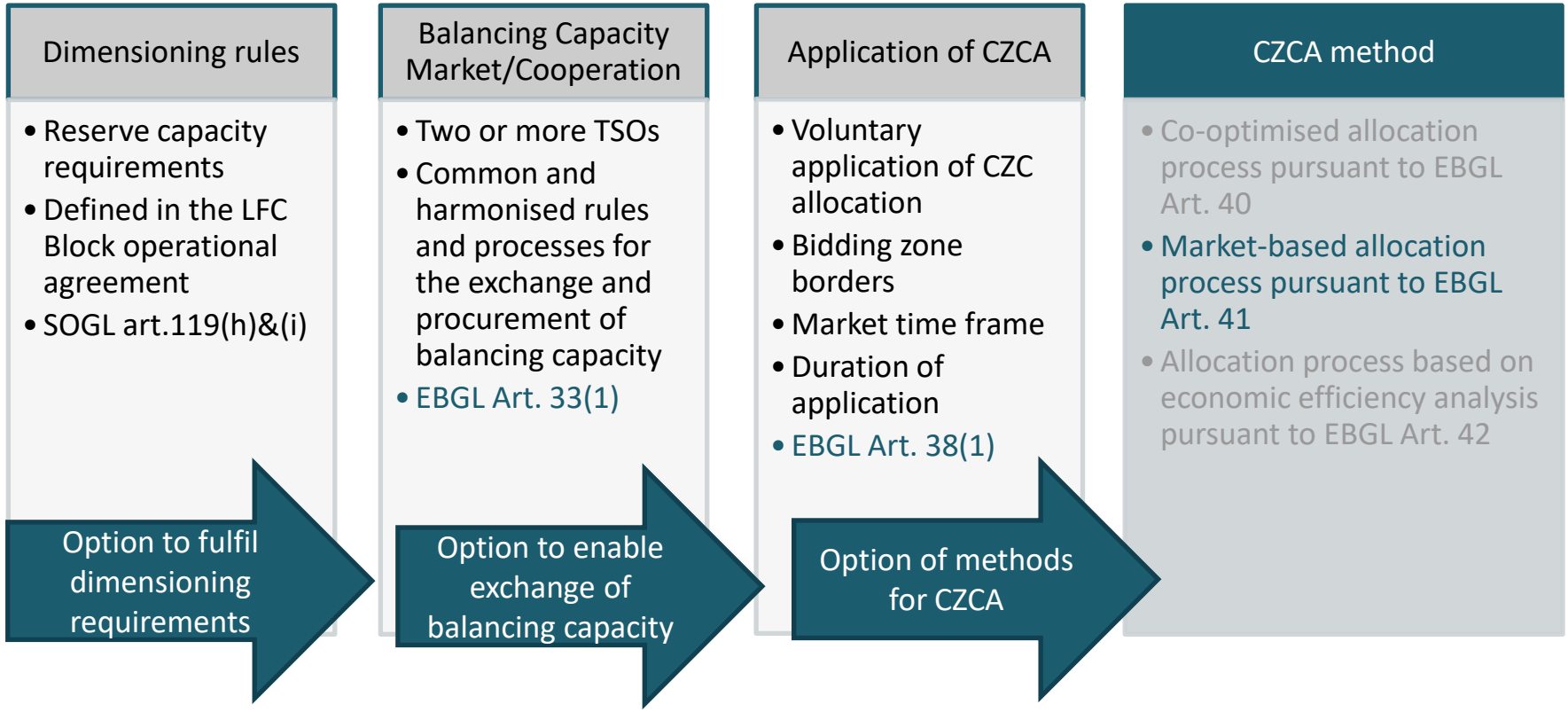


Allocation of Cross-Zonal Capacity, Market-Based Approach

- Current allocation process following EBGL Art 38.1 must be updated by the end of 2022
- As procurement is done D-1 09:00 the **market-based approach (EBGL Art. 41)** will be implemented
  - Contracting period of balancing capacity: ≤ 1 day
  - Time-frame of BC procurement: ≤ W-1
  - Limitation: 10 % unless the procurement process of BC is done not more than D-2 in advance or through DC interconnectors



Establishing a balancing capacity cooperation, Overview



Effects of the aFRR BCC AT-DE on Overall Costs for aFRR Procurement and Activation

Cost savings possible via cross-border procurement and via effect of allocated cross-zonal capacity (CZC, max. +/- 80 MW) for the activation of balancing energy

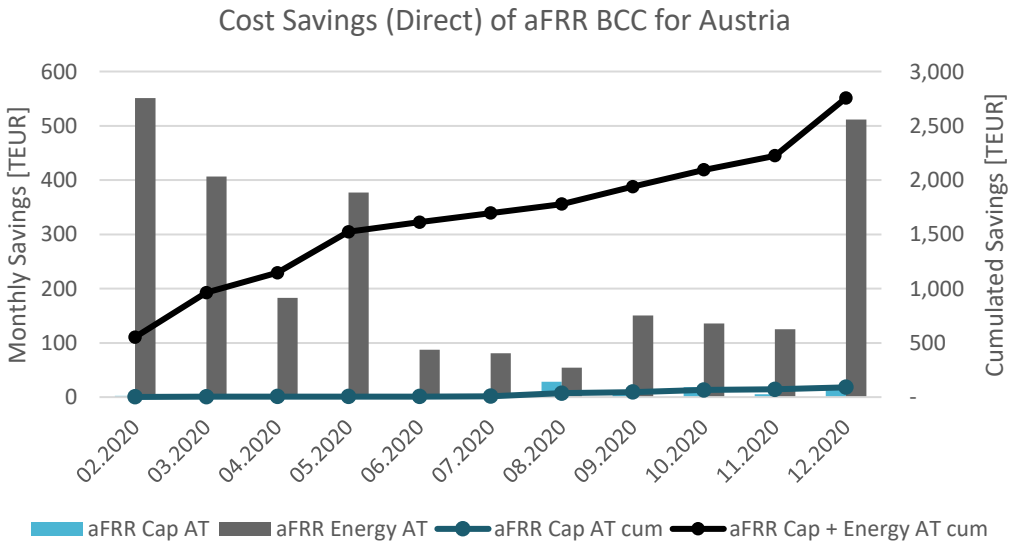
Calculation of direct effects

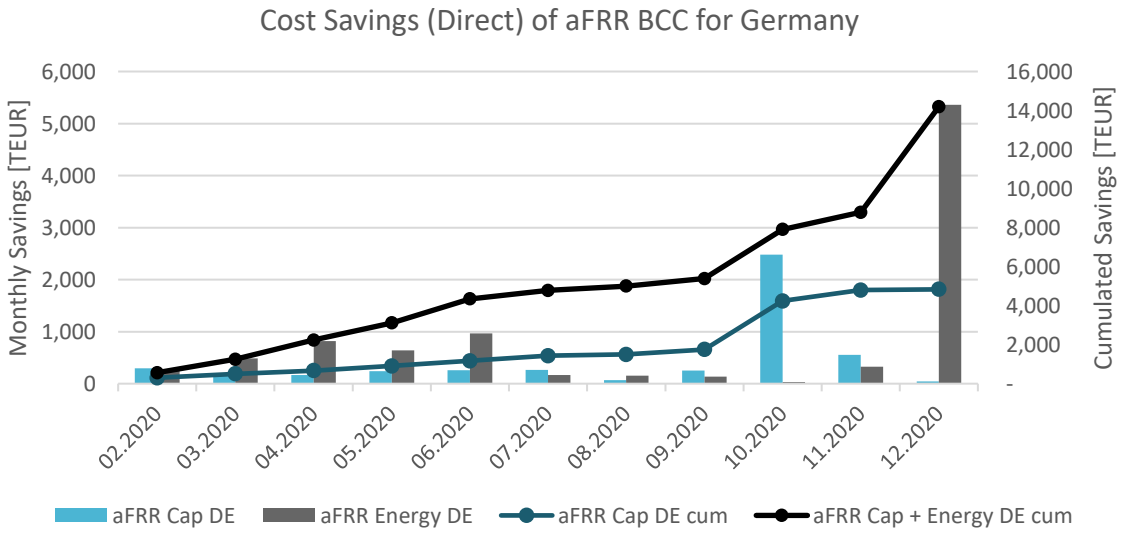
- Procurement costs: comparison of scenarios „cooperation“ vs. „no cooperation“
- Activation costs: comparison of scenarios „activation with allocation of CZC“ vs. „activation without allocation of CZC“

Cost Savings (Direct) compared to scenario without the aFRR BCC:

- Germany: approx. 15 MEUR p.a. (ca. -8,4 % of total costs for aFRR)
- Austria: approx. 3 MEUR p.a. (ca. -10% of total costs for aFRR)

→ significant effect on cost savings from allocated CZC for the cross-border activation of balancing energy





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Besides the local savings, only the capacity cooperation has shown a common benefit of up to 6 Mio. € for Austria and Germany