



Bundesnetzagentur

Energy Community
-
Workshop on Electricity Balancing
-
General principles of Electricity Balancing I

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- General principles of balancing markets
- TSOs' and NRAs' obligations and tasks
- National terms and conditions related to balancing

General principles of balancing markets



- Main legal basis when it comes to balancing markets:
 - COMMISSION REGULATION (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (**EBGL – Electricity Balancing Guideline**)
 - (+ Electricity Regulation + SOGL +... also contain aspects on balancing)
- Main goal:
 - establish a liquid, harmonized cross-zonal internal market for balancing
- Requirements on – amongst others – :
 - balancing capacity and balancing energy markets
 - imbalance settlement
 - timelines



- In addition:
 - National laws, which implement and follow EU requirements
 - Bilateral contracts
 - TSOs – BSPs (esp. PQ requirements)
 - TSOs – BRPs (balancing group contracts)
- Complex legal and regulatory framework, continuously developing and originating from diverse – and historically grown – national specificities.

General Principles for EU balancing markets

Maintain balanced balancing groups

- BRP obligation
- Forecasting
- Trading until real-time
- (in some MS also support system balance)

Incentivize balanced balancing groups

- imbalance settlement price
- No arbitrage against balancing system

Ensure load-frequency control and a balanced system

- Individual TSOs
- RCCs
- using IN, FCR, aFRR, mFRR, RR

Establish common EU balancing energy market

- IGCC, PICASSO, MARI, TERRE



	FCR	aFRR	mFRR
Full activation time	30 seconds	5 minutes	12.5 minutes
Procurement period (capacity)	daily	daily (4-h-product)	daily (4-h-product)
Product length (energy)	n.a.	15 minutes	15 minutes
GCT (energy)	n.a.	T-25 minutes	T-25 minutes
Minimum bid size	± 1 MW	+ 1 MW / – 1 MW	
Bid increment	± 1 MW	+ 1 MW / – 1 MW	
Procurement algorithm	Merit order of balancing capacity price		
Activation	unselective	Merit order of balancing energy price	
Remuneration	capacity price	Capacity (except for “free bids”) and energy price	
Pricing	Pay-as-cleared	Capacity = Pay-as-bid / Energy = Pay-as-cleared	

TSOs' and NRAs' obligations and tasks

Long list of obligations and tasks but no claim for completeness



Organizing and executing the load frequency control processes

- Running and further developing the platforms
- Forecasting, coordination
- Organizing local markets

Developing methodologies (incl. consultations) and proposals to relevant NRAs/ACER

- Within 2 month after RfA, submission of amended proposal
- Approved methodologies can be amended by TSOs

Implementation of approved methodologies

Dimensioning of balancing needs

- SOGL specifications, national differences, dynamic dimensioning

Prequalification of BSPs

- For now still diverse practices in the EU

Procurement of balancing reserves

- Can also be organized cross-border (e.g. DE/AT aFRR-cooperation)



Activation of balancing reserves

- Merit order, incl. cross-border via European balancing energy platforms

Organization and determination of CZC

- Developing and implementing capacity calculation methodologies and managing the CZC within the balancing timeframe

Imbalance settlement

- European framework (ISHM)
- Determining basic components for settlement price
- settlement with BSPs and BRPs

Publication of information

- Close to real-time data on system balancing, imbalance prices, balancing capacity and energy bids, available CZC, etc.

Preparing Reports

- Market reports, Price incident reports, Cost reports, etc.

Monitoring and surveillance of balancing markets

- Responsibility as market operator



Accompany the proposal development process of methodologies

- Preparation of "shadow opinions"

Approval of proposals

- Either as NRA-approval (national/regional) or via ACER Decision and BoR-approval
- Usually within 6 months

Audit and recognition of costs incurred by TSOs in connection with obligations under the EBGL

Decisions on complaints against TSOs regarding their obligations under the EBGL

- Dispute Resolution Body

Monitoring the implementation work of TSOs

- Regular updates by TSOs, coordination with TSOs (EBCG)
- Enforcement actions (if needed)

Content discussions on further development of balancing markets with all involved parties

- COM, ACER, national government, BSPs, BRPs...

National terms and conditions related to balancing



- National T&C for balancing contain provisions for
 - TSOs,
 - BSPs and
 - BRPs
- National T&C were/are to be developed by TSOs, publicly consulted with stakeholders, and submitted to the relevant NRA for approval
- Are shaping the national markets for balancing
- On the next slides you can find examples for topics which are governed by national T&C for BSPs and BRPs respectively



Provisions,
requirements and
timelines for the
procurement of
balancing capacity

Provisions for
aggregation of
generation,
consumption and
storage

Requirements for
information to be
provided, e.g. for
prequalification and for
checking the provision
of balancing energy

Provisions for
settlement with BSPs
for each balancing
product

**Context of
BSPs**

Consequences of a
breach of the
modalities applicable to
BSPs (**penalties**)



Determination of the **balancing group responsibility** for each connection

Conditions for becoming a BRP

Determination that BRPs bear the **financial responsibility** for their imbalances and that those are to be settled with the connecting TSO

Requirements for data and **information** to be provided, e.g. for the calculation of balancing group deviations

Provisions for BRPs regarding the **modification of their schedules** before and after the GCT of the cross-zonal intraday market

Provisions for the calculation of the **imbalance settlement price**

Context of BRPs

Consequences of a **violation** of the modalities applicable to BRPs



- General principles governing EU balancing markets (Maintain balanced balancing groups, Incentivize balanced balancing groups, Ensure load-frequency control and a balanced system, Establish common EU balancing energy market)
- Detailed TSOs' and NRAs' obligations and tasks in this context
- National terms and conditions related to balancing complete the picture and implement the markets nationally



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Thanks for your attention

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