POSITION PAPER

Nordic balancing markets: a case for further integration at regional and European level

Brussels, 15 December 2025

Executive Summary

European energy market integration is an ongoing process that includes the balancing timeframe, which is increasingly important with the diversification and variability of electricity generation sources. Balancing mechanisms remain focused on national measures, although accession to European balancing platforms gradually brings a more European dimension.

The Nordic balancing mechanisms recently experienced significant technical changes, which led to volatile prices. In this position paper, we set out to identify the root causes, the mitigation measures that have been deployed, and recommend additional measures to further help balancing market integration at the European and regional level.

Underpinning these recommendations is the need for strong coordination and harmonisation, and reinforced dialogues with market participants who provide insights and suggest adaptive measures for better market functioning, better price signals, and better transparency.

Setting the scene

The Nordic balancing mechanisms are undergoing a major upgrade. The rules are being changed to allow faster response, more frequent settlement, shared resources across countries, and better support for renewables. If done well, this should lead to a more flexible, efficient and resilient system.

However, there are short-term risks with more volatility and increased complexity, so the need to ensure that all market participants can adapt is key.

Root causes

Several causes have been identified by market participants to have an impact on the Nordic and European balancing mechanisms' efficiency:

- Different countries have different systems and rules, and only some have joined the European platforms. These mismatches create unpredictability and inefficiencies.
- The impact of implementing flow-based in day-ahead, leading to less visibility on capacities without the flow-based implementation on the intraday markets.
- Cheaper bids in balancing capacity market are skipped for the benefit of larger block bids chosen by the TSOs due to system considerations.
- Insufficient transparency on market data.

Actions taken

Different actions have been implemented or have been considered by Nordic Transmission System Operators, as shown in the figure below, leading to a more fragmented balancing mechanism:

Mitigation Measures	DK	SE	NO	FI
Prequalify assets	X	X	X	-
Indivisible bids	X (consultation)	(X)	-	-
Increased surveillance	X	X	X	-
Addressing changes to imbalance price design	X	-	-	X (consultation on volume weighted average)

Mid-error pricing	N	N	N	N
Elastic demand	X (aFRR and mFRR)	-	-	-
Tolerance band	-	X	-	-
Deadband	X	-	-	X Floating deadband
Change minimum bid size	-	-	X	-
Publish bid curve	X (Early 2026)	-	-	X
Data price publication	X (end of delays and manual corrections 08/12/25)	X (end of delays and manual corrections 08/12/25)	X (end of delays and manual corrections 08/12/25)	X Real-time price
Dampened mFRR request	X	X	-	X
Flow-Based improvements	X	X	X	X
Improved scheduling	X	-	-	-
Recalculation of prices	Ad hoc	Often	Ad hoc	Rarely

Table reflecting information as of December 10th, 2025.
Reading of the table: X indicates the presence of the measure, - indicates the absence of such a measure, and N indicates implemented at the Nordic regional level.

Recommendations

EU-level

a) Short-term horizon

We urge ENTSO-E to frequently update stakeholders based on the yearly Market Monitoring Report with **a detailed feedback report on European balancing mechanisms** following the accession to the MARI and PICASSO platforms. We highlight the added value of actual market impacts to be included in the detailed report. The connection of new system operators demands a rigorous evaluation of the effects on market dynamics. We call for a detailed reporting on Member State level covering the evolution of cross-border capacity availability, price volatility, liquidity metrics, cross-border capacity availability, imbalance costs (imbalance prices and trading incentives) and frequency quality in addition to existing metrics. Without this analysis, regulatory authorities risk overlooking critical distortions that could undermine market stability.

We also suggest a more regular reporting at Electricity Balancing Stakeholder Group meetings and through webinars to **create feedback loops with market participants**. This would build upon the detailed reports on the European balancing platforms.

We strongly recommend **refining the use of elastic demand** in aFRR and mFRR. ACER's Decision 08/2024 introduced aFRR elastic demand as a mechanism to mitigate activations leading to high costs without a significant improvement in the frequency quality. According to TSOs, the use of elastic demand, however, remains extremely limited, i.e., less than 1% of the time. **We advocate for its implementation in regions facing acute price volatility**. However, elastic aFRR and mFRR demand must not foster the use of specific products. With appropriate dimensioning in place, there should not be any need for additional elastic demand. With the necessary limitations and conditions, it may make sense for TSOs not to exceed the quality target at any price. Limitations/conditions would include the ex-ante definition and publication of price level, a clear explanation on how to avoid it becoming a price cap, limitation to volumes exceeding pre-contracted volumes, avoiding reliance on specific products, avoiding reduction of pre-

contracted volumes and relying on free bids. The design should ensure that TSOs are prohibited from deducting available noncontracted balancing energy bids ("free bids") from their aFRR needs in their national dimensioning methodologies, without subsequently activating those noncontracted bids.

We advocate for **increased transparency and better access to balancing data**. The predictability of balancing prices is crucial for an efficient market functioning. This requires transparency: we urge system operators to consistently publish balancing data for all connected countries, including accepted/rejected bids, activation volumes, merit order curves where not available (e.g. Sweden), prices and directions, available cross-border capacity, and TSO demands sent to the balancing platforms as soon as possible. This data should be published in a timely manner (preferably real-time or, in the case of scheduled activation, ahead of time), in adapted data formats, and in English. This will strengthen market participants' ability to analyse and respond to changes in the market effectively.

TSOs should also **publish detailed information on costs and revenues from balancing mechanisms**, including how these are distributed across various fees (imbalance prices, Balancing Responsible Party volume fees, grid fees). Currently, these cost flows are often opaque to market participants. Transparency in this area is essential to ensure confidence in the fairness of the system. Furthermore, the **cost neutrality principle under EBGL Article 44** must be strictly adhered to, guaranteeing that TSOs do not profit from balancing activities and that any surplus or deficit is allocated according to clear, published methodologies.

b) Medium-term horizon

System operators and National Regulatory Authorities should **perform a Cost-Benefit Analysis to confirm market participants' suggestion to introduce flow-based capacity calculation in intraday as soon as possible**. This could optimise cross-border transmission capacity availability, reducing the reliance on local balancing

resources. We suggest prioritising its introduction in the Intraday Auctions (IDA) as they are currently running on the same algorithm as for Day-Ahead auctions.

We call for **deeper harmonisation of Balancing Service Provider (BSP) requirements** to reduce market entry barriers. Disparities in BSP requirements create unnecessary distortions in European balancing mechanisms. Beyond common prequalification procedures, we urge alignment in IT standards, metering, backup provisions, baselining, availability monitoring, activation control, settlement rules and penalty regimes. Shortened prequalification durations would further streamline participation.

c) Long-term horizon

We emphasise the need for **stronger coordination between system operators**. Long-term market stability hinges on better alignment among system operators. Fragmented approaches risk inefficiencies, higher costs and reduced reliability. We recommend using existing governance frameworks involving system operators, regulatory authorities, policy makers, and market participants (e.g., MESC, EBSG) to address emerging challenges on EU balancing platforms in a coordinated way.

Regional level

a) Short-term horizon

We recommend **reinforcing regular stakeholder dialogue in English**, as non-national market participants contribute to Nordic markets. Effective communication also helps reduce entry barriers to the Nordic markets. National webinars/meetings are a starting point, yet it would be more effective to have regional stakeholder dialogues to understand the changes throughout the Nordics, identifying areas of coordination and common mitigation measures. Market participants can then share their market observations, aiding in depicting the overall picture and status of the markets, including balancing.

Accompanied by **data transparency and access**, market participants can react and anticipate changes in the market more efficiently. One starting point is the **publication of the bid curve for all Nordic countries**.

As an intermediary step towards achieving flow-based in intraday and addressing the current mismatch between Day-Ahead flow-based calculations and intraday capacity calculations, we suggest that TSOs **further develop and adopt the ATCE methodology** for calculating initial capacity for the Intraday market. The Nordic TSOs should also prioritise this new procedure for updating the flow-based parameters closer to real-time and calculate ATC capacities during the intraday timeframe (based on the latest plans and updated forecasts).

We strongly advocate for a truly common imbalance price formula across European markets that truly reflects the value of energy in real time. The first step is full adhesion of TSOs to the current Imbalance Settlement Harmonisation Methodology, which will help reduce existing market distortions. As an intermediary step, we call for the harmonisation of imbalance price methodology, starting with a regional approach before a full European application. It is important to provide a level playing field between market participants, which goes through a reform of the Imbalance Settlement Harmonisation methodology.

The balancing algorithms are designed to perfectly balance the grid, which, in the smaller and relatively illiquid Nordic and Baltic bidding zones, creates high price spikes and volatile markets. At the Nordic level, mFRR EAM should be adjusted for the characteristics of smaller biddings. These changes would also be beneficial at a European level, with PICASSO and MARI.

We recommend the **analysis of the effects of introducing a tolerance band**. One example in the Nordics to look into is Sweden. Elements to consider in this analysis include indivisible bids, the number of skipped bids and counter-activations, impacts on system balance, and interactions with the pilot implemented in the Nordic mFRR EAM.

Another example of measures is to analyse the **impact of indivisible bids on Cross-Border Marginal Pricing**. An indivisible bid is selected from the AOF and cannot be imported due to congestion, and more expensive divisible bids are activated locally. There is no actual congestion, and the high CBMP is applied to both regions. With respect to bid selection, there actually was congestion, and the two zones should apply local marginal prices. (cmp. Energinet study) The reflections made at the regional level can also feed into the European MARI design.

b) Medium-term horizon

Reiterating the point made under EU-level measures, we emphasise the **added value of a CBA on implementing flow-based capacity calculation and allocation in intraday** as soon as possible, starting with IDAs. Increasing liquidity in the Nordic bidding zones should be a priority.

c) Long-term horizon

We stress the **importance of regional coordination and implementation of mitigation measures**, and more widely when considering reforming national balancing mechanisms. These regional cooperation and coordination can then feed into European discussions, contributing to balancing harmonisation and platform accession efforts.

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