Nordic Energy Research

Key messages from the Nordic Electricity Market Forum 2026

Flexibility

The Nordic Electricity Market Forum 2026 took place in Helsinki on 11–12 May. This year's theme, developed in dialogue with stakeholders across the Nordic electricity sector, was flexibility.

As renewable generation increases, balancing periods are reduced to 15 min and electrification accelerates across the Nordic region, flexibility and storage are becoming increasingly important for efficient system operation across different timeframes and grid levels. Flexiblity is also no longer limited to transmission systems and large conventional assets. Distributed resources, batteries, EV charging, demand response, district heating integration and local flexibility solutions are becoming important parts of the operational electricity system and the markets.

Based on stakeholder input, the Forum programme was structured around two guiding questions:

- "How well do the Nordic electricity markets allocate flexibility – across time frames and grid levels?"
- "How could market design be improved to support and increase flexibility? What regulatory or policy measures may be needed?"

The discussions across both Forum days reflected alignment regarding the overall direction of the Nordic electricity transition: Participants broadly supported electrification, flexibility, market-based coordination and continued Nordic cooperation. At the same time, the discussions made clear that the key challenge is increasingly not whether flexibility solutions work technically, but how they can be integrated into operational market structures quickly enough to support electrification and system transformation.

Operational experience and scaling challenges

A broad range of operationally successful examples were discussed, including automated demand response, balancing cooperation, aggregation of distributed energy resources, local flexibility markets, virtual power plants, EV smart charging, district heating integration and participation of new actors in intraday, balancing and ancillary service markets. The discussions also highlighted the Nordics' strong digital infrastructure, institutional trust and mature electricity markets as important enabling factors.

At the same time, many of the positive examples were mirrored by frustrations regarding the difficulty of moving from pilots and local successes to scalable and operational implementation. Several participants warned against "pilot fatigue", arguing that the Nordic countries already possess operational experience and that the main challenge is increasingly implementation, institutionalisation and coordination rather than additional small-scale experimentation.

Market design and operational realities

One of the strongest themes concerned the relationship between market design and physical system realities. While support for market-based coordination and transparent price signals remained strong, many participants argued that current market frameworks are still too strongly shaped by a more centralised electricity system with predictable generation patterns and passive consumers.

A recurring frustration was the growing mismatch between day-ahead optimisation and operational conditions during intraday and closer to delivery. Flow-based market coupling was recognised as an important optimisation of the day-ahead timeframe, but many discussions pointed to the fact there is not enough cross zonal capacity remaining to address rapidly changing operational realities locally and in the intraday. Participants repeatedly referred to situations where available flexibility and capacity becomes effectively "locked in" on a too restrictive basis and too early, limiting their ability to utilise flexibility efficiently during intraday operation and balancing activation.

The discussions did not suggest opposition to market-based coordination as such — the frustration was rather that power system operation, market design and governance structures are not adapting fast enough to the operational reality of a system characterised by variable renewable generation, distributed resources, electrification and increasing operational complexity.

Another clear message from the Forum was that many of the emerging operational challenges are increasingly moving into distribution grids. Congestion management, EV charging, batteries, heat pumps and local industrial electrification all create new operational requirements at DSO level. Strengthening TSO–DSO coordination, improving local visibility and enabling DSOs to make more active use of flexibility solutions through clearer operational roles and standardised procurement mechanisms emerged as recurring priorities throughout the discussions.

Transparency, investment signals and long-term system development

Transparency, operational visibility and forward signaling of future system needs also emerged as central themes. Open data access, interoperability and shared situational awareness were repeatedly described as prerequisites for operating an increasingly decentralised and congestion-sensitive electricity system. Many participants also stressed the importance of clearer long-term signaling regarding future flexibility needs, congestion risks and system development. Better visibility was seen as important not only for operational coordination, but also for strengthening business cases, supporting local market development and reducing investment uncertainty for flexibility providers, industrial consumers and other market actors.

A recurring message throughout the discussions was that short-term operational optimisation and long-term system development cannot be treated separately. Operational market design increasingly shapes long-term investment decisions and incentives to build the flexibility assets the future system will depend on. Questions related to adequacy, resilience, controllable capacity and prolonged low-renewable periods ("Dunkelflaute") were therefore discussed not only as security-of-supply issues, but also as part of creating credible and investable long-term frameworks for the future electricity system, including storage, batteries, DSRs and flexibility mechanisms in addition to DSO/TSO grid investment.

Market access, incentives and implementation

The discussions also revealed a nuanced perspective on political intervention and consumer protection mechanisms. While participants broadly supported political efforts to accelerate electrification and industrial transformation, many discussions pointed to the risk that poorly designed subsidies or pricing arrangements may unintentionally weaken flexibility incentives and demand response.

Examples included consumer arrangements shielding households from dynamic electricity prices and industrial contracts with limited exposure to operational price signals. A recurring concern was therefore how to maintain affordability and social legitimacy without undermining the dynamic price responsiveness that the future electricity system increasingly depends on.

Market access and implementation complexity also emerged as important themes. Several participants pointed out that current prequalification procedures, technical verification requirements and market access processes are often still designed around larger conventional assets and may create disproportionate barriers for distributed flexibility resources, aggregators and smaller market participants. Many discussions therefore focused on simplification, interoperability, automation and trusted intermediary solutions.

Key Work Areas

The Forum discussions highlighted the following areas as priorities for continued Nordic cooperation and consideration within EMG.

Market design and intraday operation

- Improving the practical usability of intraday markets by recalculating available cross-zonal transmission capacity after day ahead and closer to real time based on updated operational information, day-ahead market outcomes and improved congestion forecasts to reduce unnecessary capacity lock-in and enable more effective use of intraday flexibility and balancing resources.
- Shortening intraday gate closure times and improving the alignment between intraday trading, balancing activation and real-time system operation.
- Ensuring clear locational and operational price signals so that market activation better reflects actual grid conditions and flexibility needs.

Flexibility integration and DSO–TSO coordination

- Developing harmonised Nordic principles and operational frameworks for market-based local flexibility procurement, enabling greater interoperability of technologies, business models and market participation across the Nordic region.
- Creating standardised and adaptable models for dynamic and flexible network tariffs that DSOs and TSOs can implement.
- Strengthening operational coordination and information exchange between TSOs and DSOs.

Transparency, data sharing and digital infrastructure

- Improving access to real-time congestion and power system data. Treat transparency and operational visibility as a critical precondition for system operation, market development and investment planning.
- Improving forward-looking flexibility needs assessments and transparency regarding anticipated future congestion and flexibility demand.

- Developing common Nordic standards for interoperability, digital interfaces and operational data sharing.

Market access and participation

- Simplifying and modernising prequalification procedures, technical verification requirements and market access processes for distributed flexibility assets and aggregators and thereby reducing the administrative burdens for smaller market participants.
- Accelerating standardisation of automated flexibility solutions and smart device integration.
- Supporting intermediary and aggregation models that reduce operational complexity for end users.

Regulatory predictability and implementation

- Providing clearer and more stable long-term regulatory and investment frameworks for flexibility resources, storage and industrial electrification.
- Strengthening implementation capacity and coordination across authorities and regulatory processes nationally and across the Nordics

The discussions throughout the Forum reflected a strong willingness across the Nordic electricity sector to contribute constructively to the continued development of the Nordic electricity market. The Forum also showed that the Nordic countries already possess substantial operational experience with flexibility solutions. The challenge now is less about proving that flexibility can work, and increasingly about scaling, coordinating and integrating these solutions fast enough to support the next phase of electrification and system transformation.

At the same time, many discussions highlighted the importance of ensuring that Nordic operational experience and market developments are actively brought into broader European discussions on power system operation, market design, flexibility and regulation. Continued Nordic cooperation and the development of common Nordic approaches were widely seen not only as important for the region itself, but also as a valuable contribution to the broader European energy transition.