

ROADMAP FOR REACHING THE 2030 NORDIC ELECTRICITY MARKET VISION

OBJECTIVES FOR THE ELECTRICITY MARKET

2030 OBJECTIVES FOR THE ELECTRICITY MARKET

1. Flexibility to the markets: All flexible assets from producers, consumers and service providers can efficiently contribute to reliable and competitive functioning of the power system on a level playing field.
2. Clear and transparent price signals: Price signals for all system needs across all time frames, long term forecasts for system needs, bidding zones and voltage levels (TSO/DSO), rewarding flexibility and system support were effective.
3. Fostering electrification: new sectors (transport, heating & cooling, and industry (power to X)) are electrified and fully integrated into the electricity markets. Electricity markets that are coupled (energy and transport pricing combined) enable system integration, provide flexibilities across energy sectors and support the move towards a climate neutral Nordic society.
4. Nordic grid development: Welfare on a Nordic level is the guiding objective when planning, building and operating the Nordic grids. Only with Nordic planning large scale RES developments on- and offshore and efficient Nordic bidding zone structures, is it possible to foster electrification and make Nordic region competitive for new electricity consumers and industrial investments.
5. Open market access: All clean electricity sources (e.g. offshore energy) are seamlessly integrated into the Nordic and European markets.
6. Resource adequacy: Resource adequacy is ensured through market-based solutions in Nordic cooperation. Price signals guide investments, reflecting the value of resources in scarcity periods, and internalize the risk of inadequacy.

IMMEDIATE AND FURTHER ACTION POINTS FOR THE ELECTRICITY MARKETS

Flexibility to the markets:

EMG

- Develop the flexibility working group under the NEMF Coordination group with a new mandate (local flexibility).
- Coordinate on the CEP implementation, e.g. regarding aggregators and the upcoming demand flexibility guideline. Encourage coordination between the NRAs and TSOs/DSOs.
- Contribute to knowledge creation with a focus on how the legislation could be developed in a coordinated manner. Exchange with market participants in this process.
- Evaluate regulation relating to flexibility, for example relating to small scale actors' market access and the use of pilots.

Nordic TSOs

- To use local flexibility resources also from new market players such as district heating or industry, TSOs in cooperation with DSOs should assess local markets or market based solutions. Potentially use pilots to get started.
- Coordinate Nordic sharing of best practices and experiences from pilot projects regarding TSO-DSO cooperation. This mirrors NordREGs last action point on the facilitation of pilots.¹
- Address different kind of barriers to the use of local flexibility. This mirrors NordREGs second action point on barriers.
 - Coordinate and where possible, harmonize prequalification rules for flexibility providers to make it easier to be active in several markets.
 - Assess and share best practices on the impact of different tariffs on the "price-signal" and the incentives to offer flexibility to the market in cooperation with the DSOs.

¹ The reader will notice that some of the TSOs action points are reflected in some of the action points that NordREG is invited to consider. This has been made explicit to underline that progress towards the desired outcome necessitates cooperation and coordination between the Nordic TSOs and Nordic NRAs.

- Assess the technical barriers to demand side flexibility (e.g. lack of automatization) and exchange best practices to address them.
- Accompany the development of the new guideline for demand flexibility and promote Nordic solutions in the European regulatory developments.

Legally mandated TSO action points²

- Regular assessment and publication of system flexibility needs including forecasts according to common Nordic and European principles to provide visibility for the market participants (also under objective 2).

NordREG

- Exchange best practices with the other Nordic regulators to enable DSOs in the regulatory model to make a neutral choice between market-based purchase of flexibility and grid investments to increase flexibility.
- Assess regulatory barriers giving negative incentives for flexibility, taking into account new flexibility providers (e.g. district heating, industry). Look for possibilities to harmonize approaches. This action point corresponds to the TSOs third action point on barriers and appears also in objective 3.
- Coordinate CEP implementation, e.g. regarding aggregators and the upcoming demand flexibility guideline.
- Exchange best practices within the Nordic countries to facilitate the start-up of pilot projects to allow DSOs and market participants to try out new solutions. Consider positive incentives for DSOs to try out using flexibility. This action point corresponds to the TSOs second action point on pilots.

² Legally mandated action points are action points where the process, deadlines and the outcome are already determined by (European) regulation. The fact that they are mentioned here is that the stakeholders consider them to be a priority compared to other legally mandated task not mentioned. The other action points that are not specifically designated as “legally mandated” are action points where there is either no regulation yet, or where the regulation is less defined and leaves more room for innovation and development.

Clear and transparent price signals:

EMG

- Coordinate on guideline revision (CACM, FCA and EB) and CEP implementation and have an eye on new European regulatory developments with an impact on markets.
- Work within the ministries to underline the importance of Nordic cooperation and of developing a common view how to reach the 2030 vision. To ensure a level playing field and an efficient electrification, it is beneficial that different sectors are regulated consistently in the interface with the electricity market. Use the regional coordination processes already established, where relevant.

Nordic TSOs

- Continue with the Nordic balancing model and further European harmonization – follow up on solutions report and continue Nordic cooperation on active consumers in Nordic balancing model.
- Create a coordinated transparent market for the procurement of ancillary – and system services. Increased transparency on system operation including close to real time and prices to meet stakeholder needs.
- Continue with early Nordic stakeholder involvement in the preparation phase of market development work and implementation.
- When developing market platforms, assess the possibility for a standardized communication and IT environment.

Legally mandated TSO action points

- Regulatory developments: Coordinate viewpoints on EU regulatory developments such as the revision of network codes and guidelines (e.g. CACM, FCA GLs) and terms, conditions and methodologies under CEP and follow new European regulatory developments with an impact on markets. This action point corresponds to the NordREGs first action point.
- Third package and CEP implementation: amongst other tasks: develop a common grid model and flow based, proceed with 15 minutes imbalance settlement period and DA/ID 15 min. Market Time Unit for products and XB capacity allocation related market. products online, implementation and reporting of the 70% rule, development of

- intraday auctions. This action point corresponds to NordREGs second action point.
- Continue working on transparency regarding communication of capacity calculation processes (restrictions, changes). This action point corresponds to NordREGs third action point.
- Regular assessment of flexibility needs according to common Nordic and European principles to provide visibility for the market participants. (Also, under objective 1).

NordREG

- Coordinate viewpoints on the revision of network codes and guidelines (e.g. CACM, FCA, EB GLs) and CEP implementation, and have an eye on new European regulatory developments with an impact on electricity (energy) markets. This action point mirrors the TSOs first action point.
- Involve stakeholders and TSOs from the beginning of legislative processes (consultation phase in ACER for example) and promote Nordic market model. This action point mirrors the TSOs second action point.
- Follow up on transparency rules contained in regulation to allow market participants to gain greater insight in the TSOs processes on capacity calculation. This action point mirrors the TSOs third action point.

Fostering electrification:

EMG

- Contribute within the ministries to the national "electrification strategies" that are being formulated and by reminding of the neighboring countries processes. Suggest that the regional consultation required to formulate the National Energy and Climate Plans under the governance directive, could be organized in a more systematic way. The coordinated national strategies should help to create clear signals to the market participants (objective 2) and for the TSOs (objective 4).

Nordic TSOs

- Continue working on the Nordic TSOs strategy on sector integration, which is on consultation and is expected spring 2022).

- Inform industrial users about the role they can play in the markets and encourage their participation – learn from best practices in the Nordics.
- Assess what technical requirements are necessary (e.g. minimum bid size) to make market participation as easy as possible for industry. This corresponds to NordREGs first action point.
- Continue and build on the cooperation with the DSOs to facilitate sector integration at all grid levels.

NordREG

- Assess regulatory barriers giving negative incentives for flexibility, considering new flexibility providers (e.g., district heating, industry). This action point mirrors the TSOs third action point and is also listed under objective 1.
- Assess grid connection regulation for TSOs and DSOs regarding industrial consumers, to give the right incentives regarding location and flexibility and to find a fair distribution of cost where relevant.

Nordic grid development:

EMG

- Support coordination on TEN-E revisions.
- Help the TSOs to coordinate their grid planning and investment by clearly conveying the Nordic society's visions and targets (see objective 3).
- Continued emphasis on Nordic welfare in network investments.
- Where there is a common interest enhance Nordic cooperation going beyond EU regulation.
- Common promotion of the benefit of Nordic projects to receive increased European (CEF) funding.
- Assess what can be done for more streamlined permitting procedures for both national and cross border projects.

Nordic TSOs

- Communicate necessary investments that are beneficial from a regional perspective but less from a national point of view clearly to the stakeholders and to the Nordic ministries to achieve political support.
- Designing and implementing a Nordic transmission grid development plan to e.g., integrate the expansion in RES production and to facilitate electrification of industry and transport sector.

- The Nordic TSOs commit to a transparent and inclusive process when preparing the data and their recommendations for the bidding zone assessment with the aim of building a broad consensus already at this stage.

NordREG

- Look for common interests cooperate beyond EU requirements.
- Facilitate timely permitting procedures where relevant

Open market access:

EMG

- Contribute to coordination on offshore market design with a regional focus.
- Exchange views on production subsidies and their impact on location of the production and markets.
- Exchange of views on issues related to offshore infrastructure

Nordic TSOs

- Develop positions on offshore market design and other issues connected to offshore infrastructure
- Designing and implementing a Nordic transmission grid development plan to integrate the expansion in RES production.

Resource adequacy:

EMG

- Coordinate the policy work regarding "security of supply".
- Promote a technology neutral investment climate.
- Keep consumer interests in mind when regulation is being formulated.

Nordic TSOs

Legally mandated TSO action points

- Coordination of possible measures to ensure resource adequacy to reduce cost on a national and Nordic level.
- Inform the market participants on regional analysis of resource adequacy. This corresponds to NordREGs action point.
- Operate grid from a Nordic perspective to improve security of supply: consider how existing and new tools (flow based) and agencies (Nordic RSC/RCC) can contribute and work efficiently towards that goal.

NordREG

- Monitor the implementation of adequacy regulation by TSOs and RSC/RCC. This action point mirrors the TSOs second action point.

Use of the roadmap

This roadmap should be seen as a guiding document, which will be adjusted and adapted over time, following the discussions and developments at the Nordic Electricity Market Forum, facilitated by EMG. The objectives and the action points have been developed in cooperation with the Nordic regulators as well as the Nordic electricity market stakeholders and represent their wishes³. The EMG therefore encourages the responsible parties to cooperate and work together on achieving them in the years to come.

Follow up on the roadmap

The EMG suggest that the Nordic stakeholders through the Nordic Electricity Markets Forum as a whole, but also through the permanent Coordination Group working under EMG and its working groups continue to provide inputs to market development, give feedback on the progress of the updated action points and give input to the Forum as such. The Forum, the Coordination Group and its working groups can also foster dialogue across the Nordic countries and stakeholder groups but should not be seen as a replacement for broader stakeholder involvement. The working groups under the Coordination Group are dynamically organised entities and should operate if needed in terms of fulfilling the roadmap.

The EMG commits to follow up on the status of the roadmap and the immediate actions and vision and will suggest relevant topics following up on the road map for discussion at the annual Nordic Electricity Market Forum considering stakeholder feedback.

NordREG representing the independent Nordic regulators participates in all groups as an observer. The Forum invites NordREG to assess the tasks and recommendations and to provide comments where NordREG finds it beneficial for the Nordic electricity market.

³The roadmap does not necessarily reflect the priorities of each national government.

Background

At the first Nordic Electricity Market Forum, held in Stockholm 2018, the electricity market stakeholders⁴ provided input to a new Nordic Vision for the electricity market, marking a point of reference for the future development of the Nordic electricity market, for which all relevant stakeholders can have ownership. According to this Vision, the main goal is that "In 2030, the Nordics have the world's most competitive, innovative, and consumer-oriented electricity market, that contributes to reaching the ambitious Nordic climate goals." The vision was discussed and endorsed by the Nordic Energy Ministers at the Nordic Energy Ministerial meeting in Reykjavik in June 2019.

At the 2018 forum, five areas were identified as the most important for achieving the common vision: 1) market development, 2) renewable energy integration and flexibility, 3) resource adequacy and grid development, 4) digitalisation and data management, and 5) interaction and influence in the EU. This roadmap was subsequently drafted by the Electricity Markets Group (EMG) to propose actions to meet the identified targets. The first three of the original five areas are still important. Areas 4 and 5 are very important tools to meet the 2030 vision and should rather be considered as permanent action points. In addition, based on the feedback there is a new focus on sector integration and electrification.

With this roadmap updated in 2021 a new area is added: "enabling electrification". This new area and area 2 (renewable energy integration and flexibility) are in close relationship – whereas area 2 reflects the need for a growing production of renewable electricity and their integration into the markets, which requires flexibility, the new area is about how this increasing amount of renewable electricity is brought to the consumers via the integrated markets and replacing energy carriers with CO₂ emissions.

The updated areas are 1) market development, 2) renewable energy integration and flexibility, 3) resource adequacy and grid development and 4) fostering electrification and sector integration. The roadmap is divided into two main parts: 1) Objectives, and 2) Immediate and further action points. The purpose of the objectives is to show what the vision entails within the four main areas mentioned above. The action points depict several concrete steps that can be followed up on to reach the objectives.

⁴ Electricity producers, transmission system operators (TSOs), distribution system operators (DSOs), national regulatory authorities (NRAs), industry associations, user associations and policy makers