

Proceedings from the Roundtable of Nordic Power Stakeholders

Present:

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Energinet.dk

Fingrid

Svenska kraftnät

Statnett

Danish Ministry of Energy, Utilities and Climate

Finnish Ministry of Employment and the Economy

Swedish Energy Markets Inspectorate

Norwegian Water Resources and Energy Directorate

Statkraft

Fortum

Vattenfall

Dong Energy

Secretariat:

Ole Jacob Høyland (Statnett)

Jakob Dyrhaug (Statnett)

Welcome

On behalf of the CEOs of the Nordic TSOs, Auke Lont welcomed the participants to the Roundtable of Nordic Power Stakeholders. He emphasized that the participants should familiarize themselves and comply with national and European competition legislation. He further reminded the participants that some stakeholders were not represented at the table, and suggested the group return to the topic of representation at a later point.

The Nordic countries are part of the same synchronous system and the TSOs have acknowledged that the changes the system faces towards 2030 create challenges and opportunities, which the participants share. The TSOs have invited Nordic regulators and authorities and key markets players to join the discussion. The primary goal is to establish a common understanding of the challenges in the Nordic power system and to explore the tools needed to sufficiently address these challenges.

In order to ensure a transparent record of the Roundtable's discussions and conclusions, the proceedings from the meeting will be published on the TSOs websites as soon as possible.

TSOs strategy presentation**Auke Lont presented the TSO strategy¹ on behalf of the Nordic TSOs**

- The main message from the TSOs is that they are committed to contributing actively to the development of a highly efficient and secure Nordic green power system; Doing so will require

¹ Presentation Attached

significant efforts in areas such as market design, system operation and development, as well as innovation and new technology.

- There are four important trends present in the Nordic power system each of which pose challenges to the system: Generation adequacy is being reduced, the need for system flexibility is increasing, inertia is becoming a scarce resource and interconnector capacity is increasing relative to installed generation capacity. These trends challenge system operations and can pose a threat to security of supply if left unaddressed.
- In the interconnected Nordic system, it makes a lot of sense to cooperate on the aforementioned issues. The TSOs have therefore announced a joint ambition to "act as one TSO". The TSOs have also identified five priority areas for cooperation in the future, within the scope of the TSO-role; Security of supply, a robust Nordic power system, better markets, empowering consumers and strong Nordic voice in the EU.
- A datahub is already in operation in Denmark and under development in Norway, with Sweden and Finland close behind. The TSOs are committed to actively contribute to facilitating common IT-solutions in order to enhance market integration and accommodate demand side response. Increased demand participation will improve the stability of the power system.

Input from the Roundtable:

- The Roundtable emphasized that it is a TSO-responsibility to identify challenges and expose problems, so that regulators and authorities may address them.
- The Roundtable supported the TSOs ambition that market based solutions should be pursued as a first option. It is important to further develop markets for flexibility, and particularly ensure that all services requested and delivered to the system to uphold system security are duly rewarded on a market based basis.
- The Roundtable pointed out that security of supply is also high on the European agenda. In light of this, the TSOs may want to form an opinion on what should be a national, regional and European responsibility when it comes to security of supply.
- Some grid projects may benefit the region as a whole, but not the country in which it is built. In such situations, cost sharing is key. The Nea-Järpströmmen line is one example of a project which primarily benefitted one country, but where a significant part of the cost occurred in another. The line was made possible because Norway covered more than half the cost. It is uncertain whether all Nordic regulators have a broad enough mandate to green light projects of such a nature.

Key market players' challenges

The key players (Vattenfall, Statkraft, Fortum and DONG) presented their input to the Roundtable:

- The Nordic countries could approach the challenges from the perspective of exploiting underlying opportunities. The Nordic countries have a unique starting point for developing solutions that the EU needs, while creating value for all Nordic stakeholders.
- There seems to be a common understanding on several important issues regarding the Nordic power system, e.g. that a strong CO₂-price should be driving investments into new capacity and that a strong grid will be an important part of the solution in all scenarios. There is also a common belief in the market's ability to solve challenges. Consumers need to be more involved in the market. There is strong support for the Nordic TSOs ambition to "act as one".
- Common Nordic goals for generation adequacy, security of supply and quality of supply, in addition to coordinated 2030-targets is one possible way to ensure a coordinated approach at the political level. Business need visibility and stability in order to take investment decisions going 15-20 years into the future.

- It is also important not to lose sight of near term goals and there is a need for concrete solutions today.
- Access to electricity is becoming more and more important for modern consumers and is it difficult to disregard the national security of supply perspective. The optimization problem is therefore both national, regional and European. However, the Nordic countries can probably go further than most other regions, because of the strong tradition for cooperation, the high level of trust and a geography that supports sharing of resources.
- To promote technological development and innovation, new technologies could receive subsidies until they are competitive. After that, support should be phased out.
- Data storage and biofuels could be two of the biggest opportunities for the Nordic region in the future.
- When a market is subject to political intervention, it can be difficult to calculate a return on investment.
- At the rate certain generation technologies are taxed at the moment, there is a risk that private capital will be withdrawn from the market.
- In order to fully exploit the possibilities in the Nordic region, more interconnector capacity is needed.
- It is necessary to design the key parameters of the retail markets and introduce a customer centric model with one electricity bill.
- The Nordic region should give sufficient attention to issues originating on the borders to the south and to the east. E.g. the current restriction of export capacity from Denmark to Germany to below 20% in average is unsustainable and a market distortion to the disadvantage of Nordic flexible and clean power.
- Energy commission processes are underway in all four of the Nordic countries. This forum may be used for consultation to bring common Nordic challenges and the need for a coordinated approach to the attention of respective governments.

The Authorities view on the development

Christian Pilgaard Zinglersen presented the view on the development on behalf of the Authorities:

- Although many European politicians and stakeholders look to the Nordic region for solutions and inspiration, the Nordics should not become too content with their own achievements.
- It is very important that national power systems complement each other.
- The upcoming EU Governance framework will entail more dialogue and coordination between Member States and the European Commission.
- Therefore, the issues discussed at the Roundtable fit well with the underlying concept of this Governance framework and could constitute one future aspect of such coordination.
- Several insights from the Pentalateral Forum and the Baake Process may be of value to the Nordic cooperation effort and the organization of the Roundtable.
- There are several regional initiatives out there already at the European level, so for Nordic cooperation there is a question either of finding the right division of labor (ie. what would be relevant to develop further at the Nordic level / where to be a “forerunner”) or of using the Nordic framework as a coordinating forum with regard to other regional initiatives and/or EU discussions.
- Accordingly, the Roundtable should discuss whether it aims for an operational in depth approach, or if it is more a tool to coordinate the individual efforts.

A more operational approach may benefit from a stronger organizational framework (such as a permanent Nordic Power Forum)

Workshop and Discussion:**Step 1: Establish a common understanding of what the challenges are****The participants of the Roundtable see the following challenges facing the Nordic power system:**

- The lack of inertia over time is concerning and needs to be addressed with market based solutions to the greatest extent possible.
- More interconnector capacity between the Nordic region and Europe represent both risk and opportunity.
- Maintaining an acceptable frequency quality in the synchronous system.
- Sufficient flexibility to back up a growing share of intermittent generation. The flexibility markets are not functioning well enough and investment signals to potential investors are too weak.
- The Nordic countries should adopt an opportunity-based approach to the challenges identified by the Roundtable.
- Improved conditions for investment into generation. Investment signals are lacking and it is difficult to obtain permits for capacity upgrades in existing hydro plants.
- Certain tax regimes not only dilute investment signals, they reduce incentives for demand response and energy efficiency.
- The current market design is not tailored to a generation side with a large share of intermittent renewables that have zero marginal cost.

Step 2: Discuss possible tools to address challenges**Possible tools to address identified challenges:**

- The Nordic countries need to start thinking about new ways of remunerating flexible generation in the short run. The Nordic countries could develop a market for flexibility that takes advantage of both the flexible resources on the generation side and the high adoption rate of new technology on the consumer side.
- Reducing barriers to demand side participation should also be a priority, such as symmetrical balancing prices and volume thresholds.
- Although taxes are a political question, TSOs and stakeholders should highlight the consequences of choosing a certain tax regime and identify priority areas.
- Start preparing the development of a market design 2.0 and use this forum to ensure a coordinated approach across countries and between regulators, TSOs and market participants.
- TSOs should point out issues for which they believe Nordic harmonization and a common regulatory approach is of value.

Step 3: Next steps**The following steps should be taken in the short run:**

- The Nordic TSOs will respond to the letter² from the Nordic Council of Ministers, sent by Elmarknadsgruppen, and emphasize:

² Attached

- The goal for the TSOs is to develop an efficient and harmonized Nordic electricity system with a well-functioning market where national borders are irrelevant.
- The challenges and tools identified by the Roundtable and the need for political support to tackle some of the more complicated issues.
- Nordic processes need to be aligned with related European processes in relevant areas (e.g. security of supply, generation adequacy and grid planning).
- The TSOs will propose to set up an advisory board to the Nordic Council of Ministers. The group should represent the key players in the full value chain together with representatives from the Commission, Regulators and Energy Authorities. The advisory board shall offer its services to the Nordic council and its working groups to ensure relevance and offer workable solutions.
- The TSOs will evaluate the possible future role of the Roundtable as part of the regional governance development.

It was concluded that a gathering such as the Roundtable has an intrinsic value. Each of the participants takes home a clearer understanding of the roles and issues in the Nordic system.