Nordic Council
Energy Market Group (EMG)
Att: Fanney Frisbæk

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Visions for the future Nordic electricity market

In Nordenergi's vision, the Nordic electricity market is still one of the world's most competitive, innovative and climate friendly system, which endeavors to serve its citizens in the best way and creates advanced business models for increased competitiveness of the economies of the Nordic countries. The Nordic region has been the forerunner in low carbon transition and has created customer-oriented markets. In 2050 the Nordic electricity energy system is carbon neutral in accordance with the Paris-agreement through zero CO_2-emissions from the production of electricity, a high level of electrification of new sectors of the economy together with the use of bioenergy, hydrogen and district heating. By continuously improving the functioning of the market in a pragmatic way, the Nordic market will aim to maintain its position keeping the customer in the center and take further steps to reap the benefits and strengths of the whole Nordic region.

Below Nordenergi highlights some of the more important items for the coming ten years. One fundamental prerequisite is that the Nordic countries strongly support a 2050 strategy with ambitious targets and is committed to have zero CO_2-emissions from the production of electricity in 2050.

2020-2025

Policy and legislation

- Nordenergi strongly emphasize the necessity of legislation/policy/rules to be general and avoid too much details as it could have unintentional consequences and hampers the inherent innovative capacity of the market and the market participants.
- The Nordic cooperation driving the development of the Nordic electricity market is fostered in a continues dialogue between different stakeholders; the Nordic Electricity Stakeholder Forum being a corner stone.
- The Clean Energy Package is being implemented in a coordinated way in the Nordic countries, hence harmonizing vital parts of national legislation related to the electricity market.
- Political discussions are initiated regarding the context for future development of operation and planning of the Nordic transmission grid towards a more seamless cross-border electricity market.
- The Nordic market will endeavor to provide for further harmonized retail markets to facilitate competitive markets and free movement.
- A common Nordic strategy is developed which aims to secure the system against risks from extreme weather, physical failures, cyberattacks and other risks.
- There's a framework for defining a common Nordic target for security of supply and harmonized methodology in the possible event of shortage situations.

The Transmission and Distribution system

- TSO's operations are further regionalized, and decisions with regional impacts are made through transparent close co-operation and co-ordination on a regional level.
- The Nordic grid plan is prepared in tight cooperation with the European-level grid planning and with extensive stakeholder participation.
- Close and formalized cooperation is established between the Nordic TSOs and market participants to create efficient market solutions.
- Active and competent DSOs to develop an effective distribution system
- Nordic principles for market-based procurement of system services are developed.
- Pursue efforts to facilitate structural dialogue between TSOs and DSOs

The Customers

- Customers participate increasingly in the electricity markets, directly or through service providers, improving their possibilities to benefit from their flexibility.
- By reducing detailed legislation, the market will in competition develop suitable products, giving the customers further possibilities to decide what kind of services they desire.
- Smart meters are essential in the Nordic market for a consumer driven market where change of supplier can be undertaken within 14 days.

The Markets

- European markets for balancing services are established and the new Nordic Balancing Concept has resulted in common Nordic principles for imbalance pricing, supporting the matching of supply and demand in all market situations, particularly effective use of interconnection capacity and more efficient balancing markets. From the starting point of marginal pricing, one price-one balance is applied.
- As the need for flexibility is increasing, the Nordic TSOs have harmonized terms for the participation of aggregated resources. Real-time data is readily available regarding balancing, most important the balancing price, and more of the balancing process is automated.
- Importance of short term markets increases. Markets for 15 minutes' products are available and it is possible to trade up until the beginning of operational quarter.
- The capacity of existing and new interconnectors should be available for cross-border trading supporting both the export of the Nordic RES generation and power import during tight Nordic market situations.
- The Nordic market are prepared for the challenges in the future, including new decentralized production, electrification of new sectors, new market models and increased cooperation between TSOs and the DSOs.
- The Nordic market is increasingly integrated with neighboring regions. Especially efforts are made further integrating the Nordic and Baltic markets into a common Nordic-Baltic market
- Pursue efforts to converge datahub development in all Nordic countries and allow sufficient time to enable a smooth transfer to the 15-minute imbalance settlement and trading period in all Nordic countries and facilitating the development of a common Nordic retail market.
- Close cooperation is also established between power exchanges and market players to provide for a financial Nordic liquid market.
- Nordic TSOs do not own or operate generation and ancillary services assets that hinder fair and open competition in the markets.

District heating and Transport

- District heating and district cooling systems provide additional flexibility for the power system by optimal use of CHP plants, heat pumps, electric boilers, heat accumulators and cold storages
- A low carbon emission electricity system is driving the decarbonization of other sectors across the Nordics. A high level of electrification of the transport system is a key common Nordic effort with

sharing of best practices. The major Nordic roads are increasingly equipped with charging possibilities and available via Nordic roaming agreement.

2025-2030

- Seek to converge national policies in order to progress towards lower CO_2-emissions from the production of electricity with a strong ETS as the basis.
- The whole Nordic market area in terms of electricity, heating and transport is strongly progressing towards carbon neutrality. This is primarily based on an efficient ETS, which should progressively be widened to more sectors (notably heating). Where relevant, measures in the remaining non-ETS sectors are coordinated.
- New grid interconnectors are being built to further integrate the Nordic market and to facilitate further integration with the Baltic, Continental and British power markets respectively.
- The organization of the further integrated Nordic transmission system is adapted according to the political discussions regarding the context for the future development. Operation, planning and the structure of the transmission system is not depending on national borders.
- Electricity suppliers can operate freely across borders. This requires that legislation is further harmonized in all Nordic countries.
- The Nordic market facilitates a high level of electrification of transport and other sectors; thereby creating new green industries in cooperation with industrial actors.

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Nordenergi is the umbrella association of the Nordic electricity industry associations Danish Energy, Energy Norway, Finnish Energy and Swedenergy.