Online kick-off for the Nordic Electricity Market Forum 2023

Nordic Council of Ministers

Online Kick-Off - Nordic Electricity Market Forum
April 19, 2023, 09.30-11.00 CEST

2030 Vision for the Nordic Electricity Market

Core Purpose

To provide secure, affordable and sustainable electricity to the Nordic society, through competitive markets

Core Values

Productive and trust-based cooperation across the Nordic countries and between stakeholder groups

Reliable and cost-efficient electricity supply

Transparent and market-based solutions

Constant improvements to low-carbon solutions, a driving force behind innovation and leading the way.

Emphasis on consumer-oriented solutions

2030 Goal

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 Nordic Electricity Market in 2030

A society characterised by digitalisation, automatization and electrification is backed by a highly reliable electricity supply

The electricity market brings increasing benefits to the society as it enables consumers and new market players to contribute to the energy transition with innovative solutions.

The grid infrastructure is smartly operated, cost-efficient, robust and without undue constraints, being optimised from a regional perspective

The Nordic electricity market is a positive driving force in the European electricity market integration, market development and in the effort towards reaching ambitious climate goals

> 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.

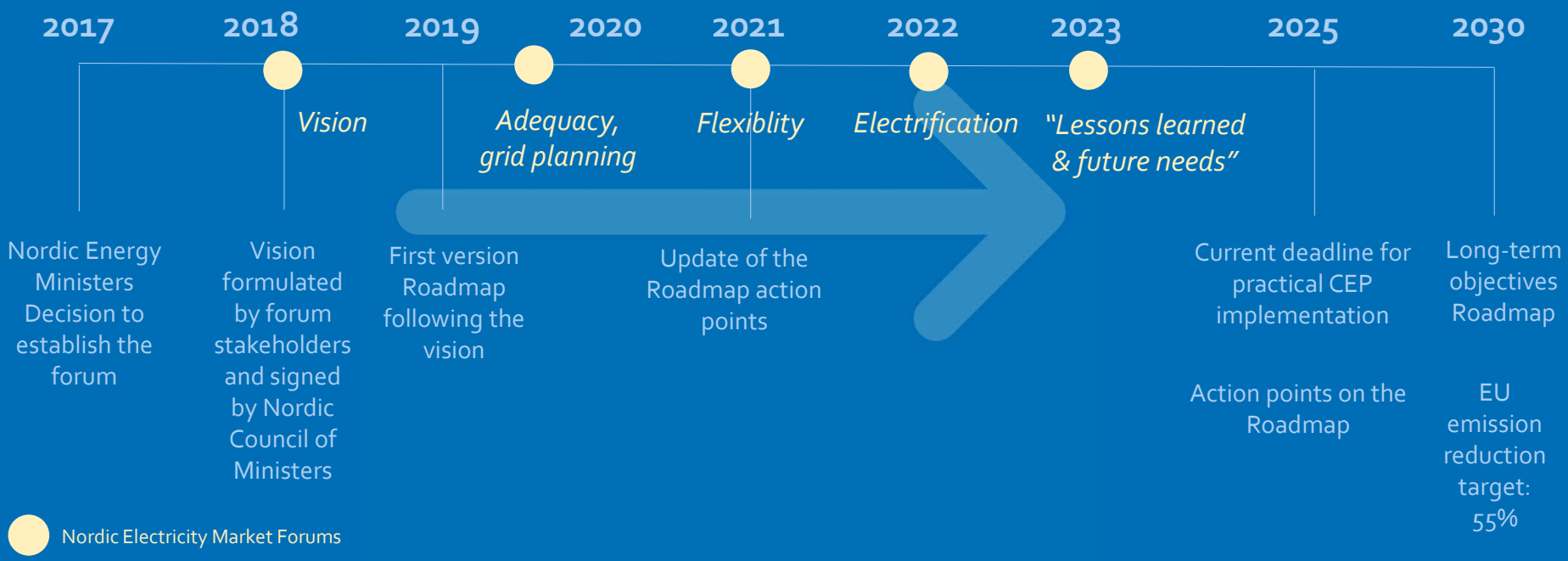
Purpose of the Nordic Electricity Market Forum

Strengthen our common understanding of the vision and roadmap for the Nordic Electricity Market

Explore and mobilize around key topics and focus areas.

Inspire Nordic dialogue and action contributing towards the vision for the Nordic electricity market

Forum Timeline



Nordic Electricity Market Forum 2023:

— Explore **lessons learned** from and **experiences** with emergency **market intervention** measures to tackle high energy prices in winter 22/23

— Discuss **future needs** and propose **actions for developing the Nordic/European power market** to be better fit to tackle next possible energy shock.

Who will you be hearing from today?

Tatu Pahkala

Senior Adviser, Finnish Ministry of Economic Affairs and Employment & EMG Chair and host of forum

Peter Christian Olsen

Special Advisor Centre for Utilities and Supply, Danish Energy Agency & EMG Member

Professor Nils-Henrik von der Fehr

Department of Economics, University of Oslo

Maj Dang Trong

Senior Adviser, Nordic Energy Research & EMG Secretariat

Julia Karner

Facilitator, Odd Agency

Nordic Electricity Market Forum 2023:

Online kick-off
April 19,
CEST 09.30-11.00

Alignment and dialogue within stakeholder organizations

Lunch-to-lunch event
21. – 22. August,
Copenhagen

Our focus today:

09.30 **Introduction & progress update: Results from Helsinki Forum 2022 and roadmap**
EMG Chair Tatu Pahkala and Peter Christian Olsen, EMG Member

10.05 **What we have learned from the energy crisis and future perspectives on (new) market design**
Professor Nils-Henrik M von der Fehr, Department of Economics, University of Oslo

10.35 **First reflections and input to Forum 2023**
Introducing questions for stakeholder input and a first quick plenum reflection.

10.55 **Wrap-up and next steps**
EMG Chair Tatu Pahkala closes the online kick-off.

Progress update

Results from Helsinki Forum 2022

Developments in roadmap

Nordic Electricity Market Forum 2022

— 70 participants contributed to a lively and good dialogue on "Electrification" at the Helsinki Forum.

— The Forum managed to agree on four recommendations on how "Electrification" could be supported and facilitated in the Nordics.

Recommendations progress

Update April 2023

1 completed action points
7 ongoing recommendation points
2 action points with no progress

Overview of recommendations

Joint Nordic energy transition planning: The reality of a synchronous Nordic electricity grid and an integrated Nordic electricity market makes common planning of the energy transition a necessity.

Promote unique Nordic strengths in Europe: Low carbon firm capacity from hydropower and nuclear, coupled with cost competitive onshore wind and a rising potential for offshore wind can facilitate the creation of power to x hubs and continued expansion of energy intensive industry.

Facilitating the carbon neutral retail customer: Allow customers to become part of the green transition. Customers should be rewarded for choosing electric over fossil fuelled solutions, and for adapting consumption to support the power system.

Promote joint Nordic long term grid planning at ministry level: In total, the Nordic TSOs are planning to invest more than EUR 25 billion in the coming decade. To invest that amount of money efficiently the grid needs to be planned on a Nordic level.

Improve price signals for investment purposes: Customers of and investors in new RES production need to hedge and long term price signals. In the short term, price signals could be improved and operational cost reduced by proceeding with spot marked integration and complementing it with a gradual integration of system operation. Recognize the political potential to support the evolution of market design to allow for electrification.

Think local and facilitate investment in small scale/distributed RES production: There is a lot of European and national legislation trying to support local small scale RES production. It benefits the customers, the environment, reduces the need for grid investment and increases security of supply.

Develop a common Nordic strategy for power to X: Where emission free electricity can't be used directly, it can be used to produce hydrogen and other e-fuels that can be used for transport and industrial processes to electrify them indirectly. This should be thought not only in terms of meeting Nordic domestic consumption but also as an export opportunity.

Invest in Offshore Wind Production and Grids: Electrification requires more electricity production. The biggest potential seems to be in offshore wind but the cost there are currently significantly higher compared to onshore. In addition, the regulatory complexity is higher (onshore "only" national regulation applies).

Key recommendations

1: Joint Nordic energy transition planning
The reality of a synchronous Nordic electricity grid and the integrated Nordic electricity market makes common planning of the energy transition a necessity.

2: Promote unique Nordic strength in Europe
The Nordics have a lot of low carbon firm capacity, coupled with cost competitive weather dependent renewables to enable power to x and continued expansion of energy intensive industry.

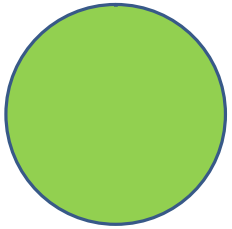
3: Politically promote joint Nordic long term grid planning.
Nordic electrification strategies should give clear political signals to the TSOs how generation and demand might evolve from a Nordic perspective. Grid investment is also required to promote further market integration and use the potential that lies in the abundance of green energy in the Nordics. In total, the Nordic TSOs are planning to invest more than EUR 25 billion in the coming decade. To invest that amount of money efficiently the grid needs to be planned on a Nordic level.

4: Improve the investment environment by looking at permitting processes and price signals.
Customers and investors need long term price signals to hedge. To facilitate electrification the the long-term market design and the permitting processes need to be developed.

Progress overview per recommendation

1. Joint Nordic energy transition planning

ongoing (1), not progressed (1)

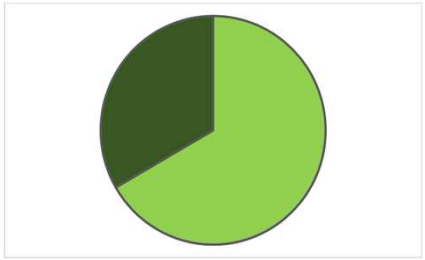


2. Promote unique Nordic strength in Europe

ongoing (3)

3. Politically promote joint Nordic long term grid planning

ongoing (1), not progressed (1)



4. Improve the investment environment by looking at permitting processes and price signals

Completed (1), ongoing (2)

Recommendation 1: Joint Nordic energy transition planning

The reality of a synchronous Nordic electricity grid and the integrated Nordic electricity market makes common planning of the energy transition a necessity.

Examples to realize this recommendation could be:

- A shared Nordic holistic approach to electrification strategies, power to X and flexibility (storage/demand) for example through Nordic coordination of the EU mandated NECP processes
- Consider establishing a hydrogen working group under the Nordic Council of Ministers to address the upcoming EU legislation in a coordinated way.

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Recommendation 2: Promote unique Nordic strength in Europe

The Nordics have a lot of low carbon firm capacity, coupled with cost competitive weather dependent renewables to enable power to x and continued expansion of energy intensive industry.

Examples for actions could be:

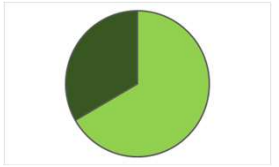
- Nordic insights into good practices on the electricity markets, including retail markets, should be actively lobbied for and included into legislation adopted at EU level
- Defend the Nordic strengths, ie. a clean grid electricity mix in the EU regulation of green/clean hydrogen, RFNBOs and REDII. Avoid European rules that establish obstacles for investments due to extremely complex additionality rules for green electricity/hydrogen.
- Engagement to jointly maximise access to European funding in the Nordics – supporting the green transition of Europe as a whole

Recommendation 3: Politically promote joint Nordic long term grid planning.

Nordic electrification strategies should give clear political signals to the TSOs how generation and demand might evolve from a Nordic perspective. Grid investment is also required to promote further market integration and use the potential that lies in the abundance of green energy in the Nordics. In total, the Nordic TSOs are planning to invest more than EUR 25 billion in the coming decade. To invest that amount of money efficiently the grid needs to be planned on a Nordic level.

Examples for actions are:

- Improve public acceptance for grid investment by politically recognizing the need for it. Explain that grid investment is required to reduce area price differences, increase security of supply and to make room for electrification
- Present clear Nordic climate ambitions and their implications for generation and demand. The ambitions should give the Nordic TSOs clear signals in which direction the Nordic regional plans within the European TYNDP should be taken.



Recommendation 4: Improve the investment environment by looking at permitting processes and price signals.

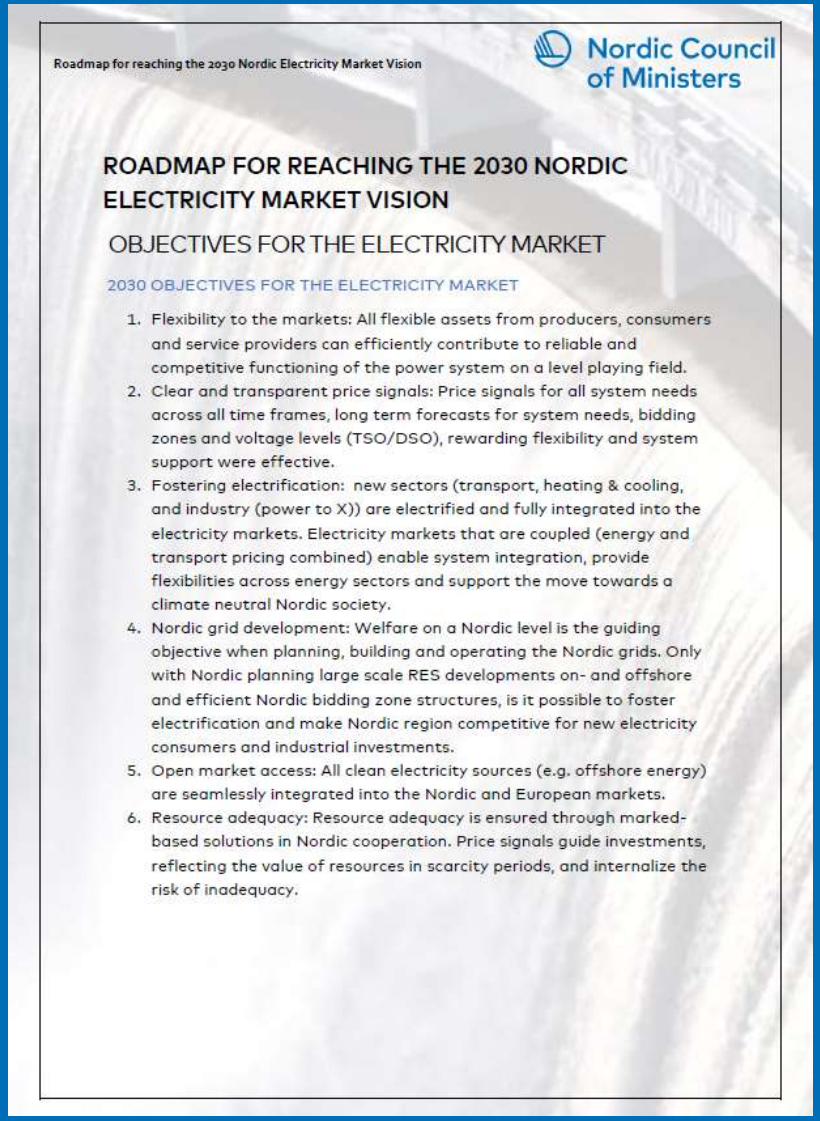
Customers and investors need long term price signals to hedge. To facilitate electrification the the long-term market design and the permitting processes need to be developed.

Examples for actions are:

- Explore the advantages and disadvantages of a more regional approach to system operation. Decisions with regional impact are made through transparent close cooperation and coordination on a regional level. An example is the bidding zones revision process, where the possibilities of cross border bidding zones and bidding zone merges could be taken into consideration, other examples are balancing, grid operation etc.
- Work for a better alignment of energy policy and financial policy. The example is the regulation on bank guarantees that has a considerable negative impact on forward market liquidity.
- Streamline permitting and investment procedures for manufacturing (for example hydrogen), power production and grids. Implement "one stop shop" regulation if possible.

Roadmap for reaching the 2030 Nordic Electricity Market Vision

"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. This is the main goal of the Nordic 2030 Vision for the electricity markets".



Objectives of the Roadmap

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.

2. Clear and transparent price signals — Clear price signals for all system needs across all time frames, price areas 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 integrated into the electricity markets with their flexibility. Electricity markets enable system integration and support the move towards a cleaner Nordic society.

4. Nordic Grid Development — Welfare on a Nordic level is the guiding objective when preparing Nordic grid development plans considering large scale RES developments on- and offshore and designing Nordic bidding zone structures.

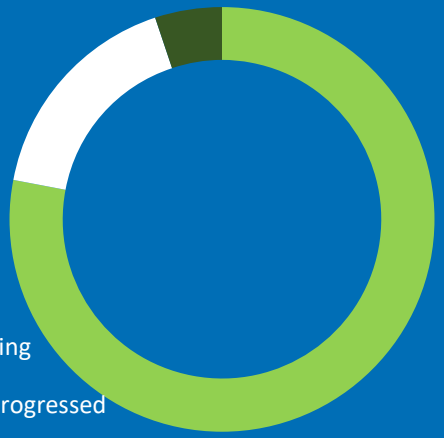
5. Open market access — All clean electricity sources are seamlessly integrated into the Nordic market.

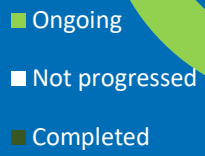
6. Resource Adequacy — Resource adequacy is ensured through marked-based solutions. Price signals guide investments, reflecting the value of resources in scarcity periods, and internalize the risk of inadequacy.

Roadmap Progress overview

2022

2023

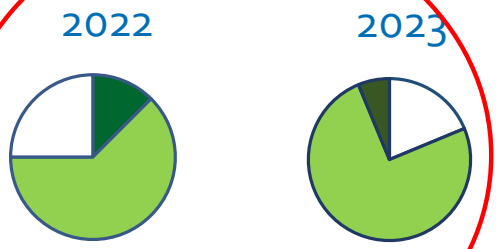




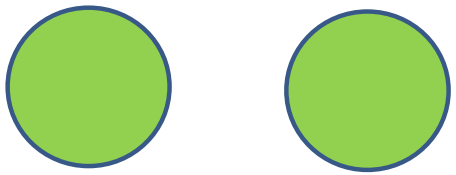
4 completed action points
41 ongoing actions points
14 action points with no progress

3 completed action points
46 ongoing actions points
10 action points with no progress

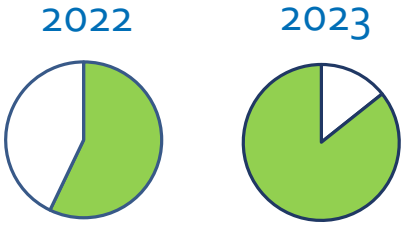
Progress from 2022 to 2023



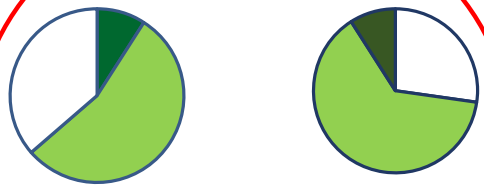
1. Flexibility to the markets



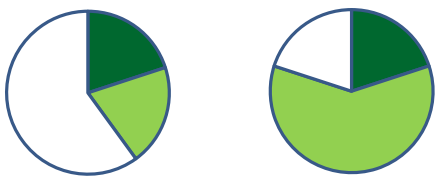
2. Clear and transparent price signals



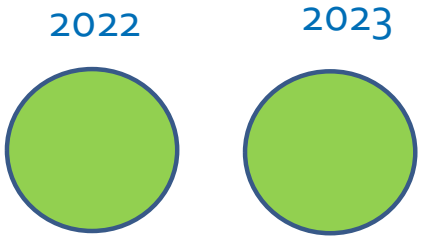
3. Fostering electrification



4. Nordic grid development



5. Open Market Access



6. Resource Adequacy

Objective 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.

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.

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.

Objective 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.

NordicTSOs

- 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 .
  - 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).

Objective 3: Fostering electrification

New sectors (transport, heating & cooling and industry (power to X)) are electrified and integrated into the electricity markets with their flexibility. Electricity markets enable system integration and support the move towards a cleaner Nordic society.

EMG

- Contribute within the ministries to the national "electrification strategies" that are being formulated and by reminding of the neighbouring 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).

NordREG

- Assess regulatory barriers giving negative incentives for flexibility, taking into account 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.

NordicTSOs

- The Nordic TSOs strategy on sector integration is published and alive.
- 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. .

Objective 4: Nordic Grid Development

Welfare on a Nordic level is the guiding objective when preparing Nordic grid development plans considering large scale RES developments on- and offshore and designing Nordic bidding zone structures.

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.

NordREG

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

NordicTSOs

- 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.

Objective 5: Open market access

All clean electricity sources (e.g. offshore energy) are seamlessly integrated into the Nordic market.

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

NordREG

No actions in roadmap

NordicTSOs

- 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.

Input to Forum 2023 & First reflections

Stakeholder input to forum

A first quick reflection

Nordic Electricity Market Forum 2023:

Online kick-off
April 19,
CEST 09.30-11.00

Alignment and dialogue within stakeholder organizations

Lunch-to-lunch event
21. – 22. August,
Copenhagen

Preliminary program

Monday August 21st

12.00	Arrival lunch
13.00	Opening of day 1 of forum & Key Note Speaker
13.45	Speaker presentations & panel discussions
14.30	Break
15.00	Focused group work & dialogue • Interactive session • Reflection in plenum
16.30	Wrap-up & check-out
17.00	Cocktail & Appetizers

Tuesday August 22nd

09.00	Opening of day 2
09.15	Focused group work & dialogue
10.30	Break
10.45	Plenary sharing & dialogue with politicians
11.15	Concluding speaker
11.45	Closing of forum
12.00	Departing Lunch

Michael Pollitt

Leonardo Meeus

New strategy program

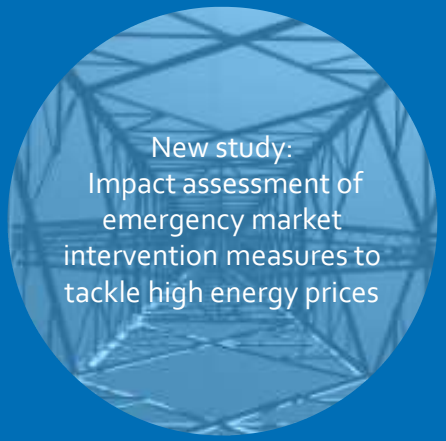
About the Copenhagen Forum:

Lunch-to-lunch gathering at Nordatlantens Brygge in Copenhagen focusing on "Lessons Learned & Future Needs"

Times in preliminary program can be subject to change

Registrations via invitation only - distributed within coming weeks.
Point of contact: Maj Dang Trong, EMG Secretariat

Alignment and dialogue within stakeholder organizations



1. From your perspective as a stakeholder in the electricity market, what has been your **main challenges** and **what has worked well during the energy crisis** this past winter?

2. Looking ahead, what **mid/long-term actions** would you like to propose for **developing the Nordic/European power market** to be better fit to tackle a next possible energy shock?

Following the online kick-off, you will receive these questions and a template for submitting your input.
We ask you to submit your input to the EMG Secretariat no later than May 26th

Let’s get started already today with a first quick reflection…

Question 1

From a consumer perspective, how have you been affected personally by the energy crisis?

Question 2

Have you changed your electricity supplies contract?

Question 3

What are your looking forward to most with our gathering in Copenhagen?

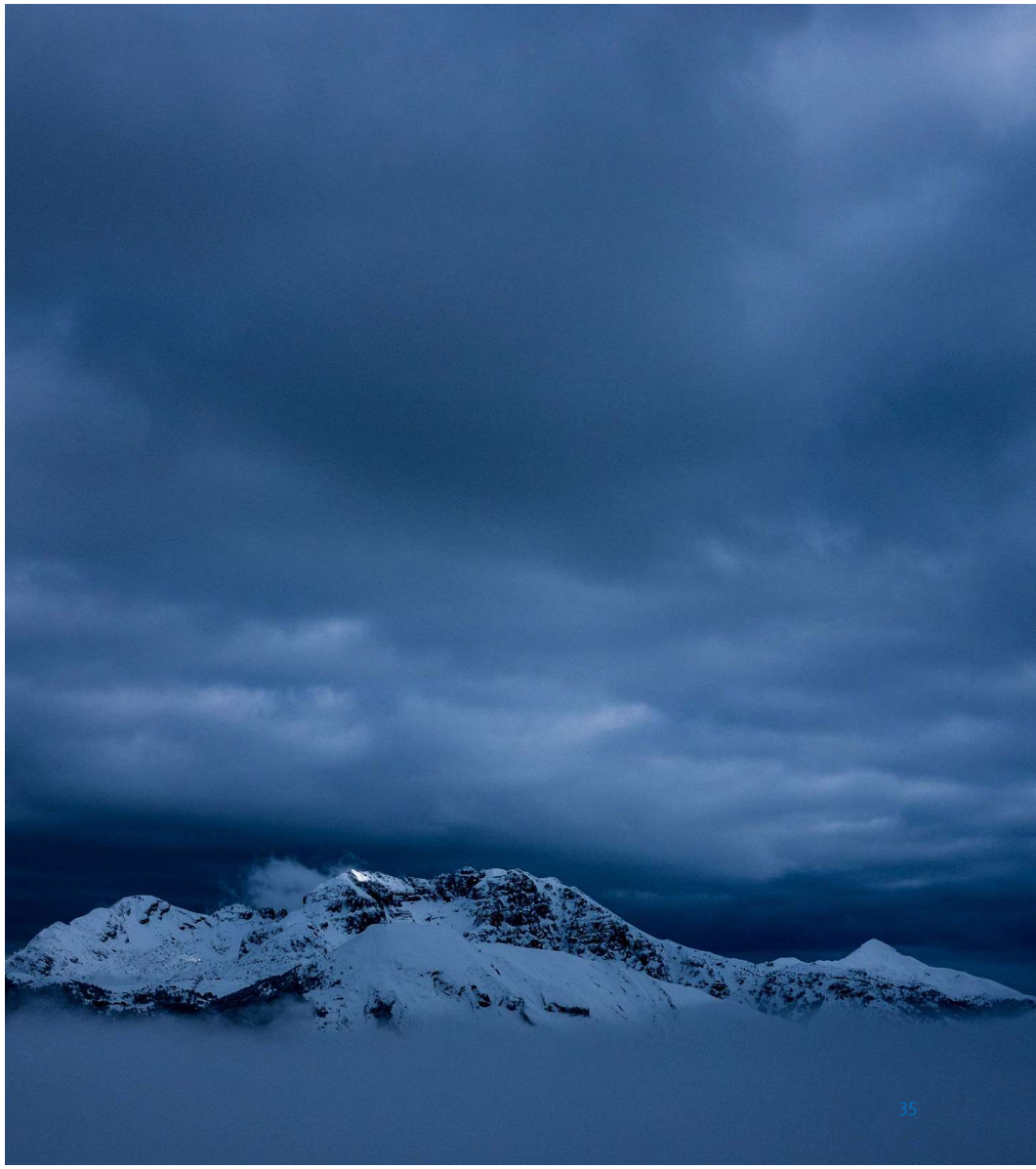
Go to slido.com on your phone and ent
er code #2882739

Wrap-up and next steps….

Next steps

— You will receive an **email with questions and instructions** for how to provide you input to the forum discussions. Submit your input no later than May 26th

— **Register your participation in Copenhagen** via link that will be distributed within the next weeks. Register no later than end of June.



Until we meet in Copenhagen for Nordic Electricity Market Forum 2023,

Thank you!

Nordic Council of Ministers