



**NORD
POOL**

2022

Annual Review
Stability through
Change

“The fight against climate change is altering the energy sector beyond recognition – Nord Pool is determined to play its part in delivering the opportunities this presents.”

Tom Darell
CEO



Tom Darell
CEO

Introduction

In the fast-moving world of the pan-European power market, it is hard sometimes to take a moment to pause and review a year that has passed. There is no escaping the fact that 2022 was challenging for the power sector generally and no less for us at Nord Pool. I am pleased to say – as you will read in this Annual Review – that we delivered significant projects for our customers, achieving some key ambitions around the products and services we provide for them, while navigating an unprecedented energy crisis.

Against this uncertain backdrop we were reassured that our customers visibly backed our markets: we saw significant market share increase in both day-ahead and intraday, virtually across the board. Beyond that we developed and implemented key European integration projects; maintained a high level of satisfaction among our customers; stayed active in influencing regulatory changes; continued to modernise our systems and infrastructure; increased our investment focus on intraday trading and our data offering; drew closer to our majority owner Euronext, to the benefit of both parties; and, under my guidance in my first full year as CEO, implemented a new organisational structure within the business.

In day-ahead we saw strong market share development in 2022 in all regions, mirrored by impressive intraday volume growth. Without resting on our laurels, I think we can say that we entered 2023 as either a leader or a challenger to be reckoned with, in all the markets in which we operate.

What we have most definitely seen is that the fight against climate change is altering the energy sector beyond all recognition. Nord Pool is determined to play its part in delivering the opportunities this sea change presents to our customers.

Ambitious climate targets to achieve net zero will further drive the penetration of variable renewables into the trading mix. We are already seeing a strong shift towards more algorithm-driven real-time/continuous trading, placing an unprecedented emphasis on the robustness and reliability of our intraday platform. And the green transition brings with it a raft of new territory for us to explore, for example around the flexibility and balancing markets needed so that electricity can be procured locally to alleviate local congestion, or guarantees of origin and other tradable instruments ensuring the traceability of green electricity.

In addition, the energy crisis which was at the forefront of our minds throughout 2022 meant high price volatility, which we see, when coupled with the increasing electrification of society, as driving a need for new data products and services.

We faced 2023 in an environment where the general outlook was uncertain, with an external market and political environment which remained unstable. But at Nord Pool we departed 2022 in an optimistic mood.

We see the day-ahead market maturing, while intraday trading begins to take centre stage. Our western and central Europe markets are growing fast, with significant volumes now being traded during the last hour before delivery. In this setting our focus has to be on delivering the full-service power trading offering to drive the energy transition, which we know our customers demand.

So what now? Our ambition is to be Europe's single trusted location for power trading until delivery, providing access to financial hedging alongside the simple, efficient and robust user experience across all markets which our customers expect and demand, plus the added bonus of superb compliance and data services provision.

With the help of our loyal customers, committed owners and dedicated staff, I have confidence we will achieve all that and more.



2022

The Year in Review

2022 was characterised by the impact of some unpredicted – and unpredictable – events, which only served to highlight the need for the energy sector to rapidly adapt to accommodate fast-changing circumstances.

War in Ukraine was the catalyst for deep uncertainty and unprecedented price volatility, with new highs thrusting the power business into a global spotlight. Over-reliance on imported gas and the hastened need to realise the ‘green shift’ in Europe’s energy provision, created something of a ‘perfect storm’ in prices.

An educating role

Against this backdrop Nord Pool took a position of seeking to educate politicians, pressure groups, the media and – through them – the wider public, about the proper role of a transparent and well-functioning market. This continued into 2023.

An environment of uncertainty and volatility has served to underline the need for Nord Pool to continue to deliver the products and services on which our customers across Europe rely. Only by doing so can we provide efficient, simple and secure power trading, producing trustworthy daily prices.

We entered 2022 by announcing our intention, together with our partner Granular Energy (as part of a consortium of leading energy organisations), to jointly develop a spot market for hourly renewable certificates. This progressed well during the year. The scheme’s first pilot project was launched in the UK, aimed at honing a design to serve as the basis for further developing such markets across Europe. Existing energy certificate schemes fail to reflect the ‘real world’ situation, where availability of renewable energy fluctuates. The Granular Energy system will allow participants to receive hourly certificates for their power generation in the Certigy registry, managed by established Guarantee of Origin registry provider Unicorn, and is open to new participants.

In the spring we were able to announce that Tom Darell had agreed to take up the role of Nord Pool’s new CEO. Tom had to ‘hit the ground running’ in an environment of intense interest in the energy sector and was quickly involved in external engagement. Speaking at a number of key power sector events across Europe, he shared Nord Pool’s views on the importance of competition between power exchanges on a level playing field to drive innovation and ensure benefits are delivered for customers and consumers alike.

Addressing a crisis

2022 saw a great deal of speculation and debate among energy sector stakeholders and in the media about high electricity prices, their causes and the background to the energy crisis. As a power market operator across 16 European countries, Nord Pool was well placed to constructively contribute to the discussion around energy markets, price formation and the underlying causes of the crisis. Our approach was consistently to illustrate that the answer to the energy crisis lies in addressing a combination of key factors – lowering demand, increasing supply of renewable generation, strengthening the grid and further integrating European markets.

During the spring we also welcomed the creation of a new representative body comprising all Nominated Electricity Market Operators (NEMOs) and Transmission System Operators (TSOs) – the Market Coupling Steering Committee (MCSC) – which aims to facilitate better decision making for both the day-ahead and intraday timeframes, to ensure coordination and foster efficiency.

A key delivery for the year, one which demanded a commitment of considerable resource from a dedicated team of Nord Pool's expert staff, was the Core Flow-Based Market Coupling project, encompassing the bidding zone borders between Austria, Belgium, Croatia, the Czech Republic, France, Germany, Hungary, Luxembourg, The Netherlands, Poland, Romania, Slovakia and Slovenia.

This project created welcome additional time in the coupling process in the rare, but potentially highly disruptive, event of decoupling. No less than 16 TSOs and 10 NEMOs (including Nord Pool) were involved in the project's launch, bringing a harmonised capacity calculation methodology across 13 European countries, covering a population of 278 million people using an estimated 1,500 TWh of power every year!

A subsequent delay in the announcement of the implementation of the flow-based capacity calculation methodology in the Nordic region, though disappointing, was not unexpected. Nord Pool continues to work closely with our valuable customers in the Nordics to keep them informed of developments.

Our Public Affairs team was keen to enlist the views of our members on the EU Commission's consultation on proposed changes to the Capacity Allocation and Congestion Management regulation (CACM). The team had already, as part of its extensive lobbying activities on the issue, published a **whitepaper** expressing misgivings at the recommendation to establish a single legal entity to perform all market coupling operation (MCO) tasks.

In addition, we publicised to our UK members the British government's consultation seeking opinions on the future shape of the UK energy market. The team further engaged with the European Commission over its proposal to establish a price cap for inframarginal technologies in coupled electricity markets – warning that a poorly designed cap could unfairly penalise generators which have already entered forward hedging/Power Purchase Agreements/'over the counter' contracts.

Nord Pool was active in the process of seeking guidance on whether there was a need to freeze the proposed increase of the Single Day-Ahead Coupling maximum price, due to the exceptional energy market situation seen in mid-2022. We strongly favoured having further guidance on how the Harmonised Maximum and Minimum Clearing Price methodology should be used in such challenging circumstances. This led to a decision that a planned maximum price increase from €4,000 to €5,000 would not take place.

Tangible deliveries

When it came to tangible deliveries, a long-held ambition to have all customers trading on a single auction platform was realised when we successfully migrated all our Nordic and Baltic customers to our new auction system. A huge amount of effort and resource was dedicated to developing the future-fit platform and API that our customers need and demand. Now the final step in this important project has been completed, allowing us to reduce complexity and improve reliability – providing an auction platform that will serve our customers well in the years ahead.

With a unified auction system in place, we aim to explore opportunities to deliver the new products, features and value for money that our customers deserve.

We also refined and updated the information we provide on the variety of order types we offer, to help give greater clarity for customers, as well as launching a new feature in our auction platform allowing members to submit orders for multiple delivery days at one time, via the upload button. This makes life simpler for members wanting to submit an identical order for multiple future delivery days, without uploading each individual day.

Intraday success

Our successful intraday market in Poland proved popular with our central European members, achieving record high daily volumes and a market share which hovered at around 30%, coupled with impressive year-on-year growth in intraday trading. Further, Nord Pool led the way in simulation testing of the 15-minute market time unit (MTU) in the Euphemia day-ahead price coupling algorithm, aimed at enabling more efficient performance of the algorithm across all European markets.

There was a feather in the cap of Nord Pool's four-strong in-house legal team, which was once again recognised among the law's leading lights in Norway in the Legal 500 GC Powerlist, being described as among the country's "finest legal minds".

As we exited from the shadow of the global pandemic we were delighted at last to be able to hold a series of customer events in the closing months of the year, encompassing meetings in Warsaw, Riga, Helsinki and Malmo. Our aim is always to maintain face-to-face contact with our customers – a luxury denied to us over a period of some 18 months, due to Covid – to better understand their challenges and concerns and to explore ways in which Nord Pool can help.

The decreased threat of the pandemic and resultant relaxing in travel restrictions allowed Nord Pool's knowledge-sharing arm – Nord Pool Academy – finally to start to transition away from its Covid-induced shift to delivering its popular range of power market seminars and courses in a virtual environment, to holding them in-person once again.

The year closed with the welcome announcement that the Single Intraday Coupling (SIDC) had been successfully extended to include Greece and Slovakia, bringing a total of 25 countries under the SIDC umbrella.

Proof of growth

During 2022 a total of 1,077.35 TWh of power was traded through Nord Pool, including the Nordic and Baltic day-ahead market (696.34 TWh), the UK day-ahead market (232.20 TWh) and the central Europe day-ahead market (111.12 TWh). Total intraday trading for the year was 37.70 TWh.

No summary of a year at Nord Pool can end without us taking the opportunity to extend our sincerest thanks to all our customers – regardless of their size or where they trade from – other important power sector stakeholders, owners, Board and all employees for their continued support and commitment to ensuring we can deliver simple, efficient and secure power trading across Europe, now and into the future.

Key Facts and Figures

Trading volume

Trading volume for Nord Pool markets comprises all buy volume (total bought per hour by market participants) plus all sell volume (total sold per hour by market participants) in each bidding zone.

1,077.35 TWh
Total volume traded



696.34 TWh

Nordic and Baltic day-ahead market

232.20 TWh

UK day-ahead market

111.12 TWh

European day-ahead market
(covering Austria, Belgium,
France, Germany, Luxembourg,
The Netherlands and Poland)

37.70 TWh

Nord Pool intraday markets

Nord Pool system price

(average price in EUR/MWh)

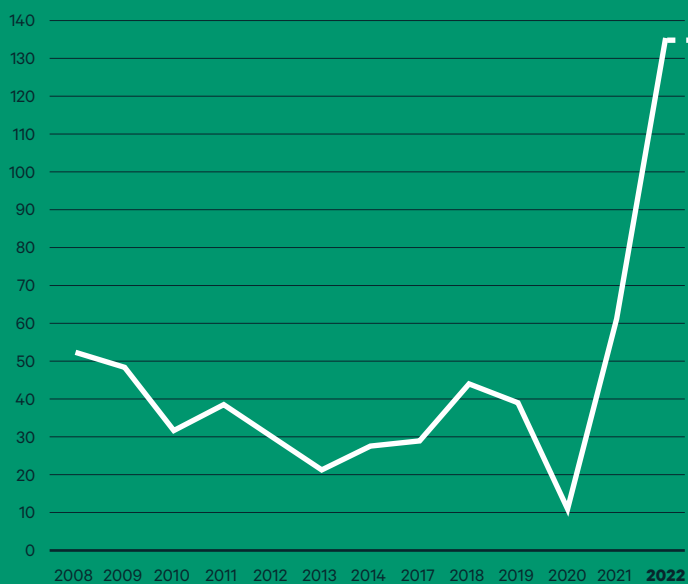
The system price is an unconstrained market clearing reference price for the Nordic region, calculated without any congestion restrictions by setting capacities to infinity. It is worked out locally at Nord Pool after area prices are calculated for all bidding areas. Flows between the Nordics and The Netherlands, Germany, Poland and the Baltics from the area price calculation are taken into account in system price calculation.

2022 average

(Nord Pool system price)

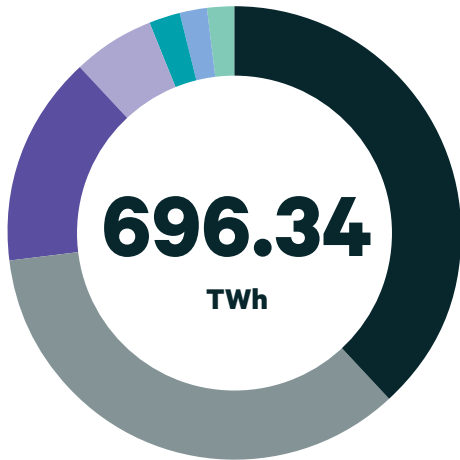
135.86

€/MWh



Day-ahead

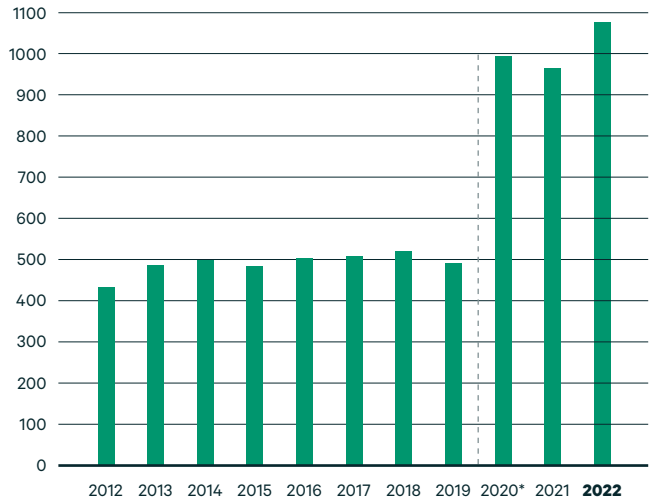
Nordic/Baltic day-ahead volume turnover 2022
(per country in TWh)



- Norway
- Sweden
- Finland
- Denmark
- Lithuania
- Latvia
- Estonia

Traded volume (in TWh)

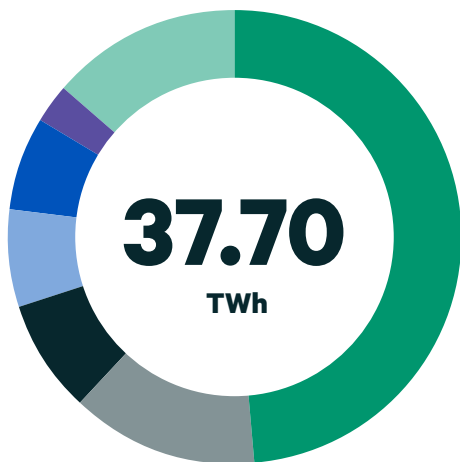
A total of 1,077.35 TWh traded in 2022



* From 2020, trading volume for Nord Pool markets comprises all buy volume (total bought per hour by market participants) plus all sell volume (total sold per hour by market participants) in each bidding zone.

Intraday

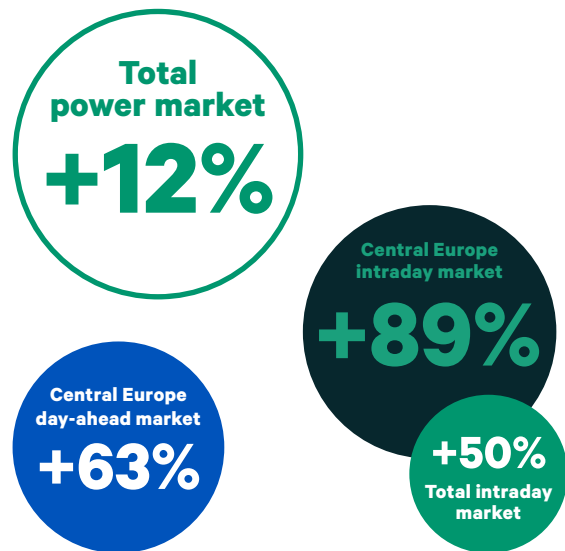
Intraday volume turnover 2022
(per country in TWh)



- Germany
- Sweden
- Others
- Denmark
- Norway
- Belgium
- Finland
- France
- Austria
- Estonia
- Lithuania
- Poland
- The Netherlands
- United Kingdom

Market Growth Highlights

Compared with 2021





Ekaterina Moiseeva
Manager
Market Surveillance

Building Trust in the Market

Nord Pool gives a high priority to ensuring the transparency and integrity of the market we operate, for the benefit of all participants. Our specialist Market Surveillance team, led by Ekaterina Moiseeva, detects suspicious activity and acts to prevent market manipulation or insider trading.

Nord Pool has a dedicated department comprising market surveillance experts whose role is detecting, analysing and reporting any suspect market behaviour.

Based on regulatory guidance, any suspicious activity must be detected and reported in a timely fashion to the responsible National Regulatory Authorities (NRAs) and ACER (the Agency for Cooperation of Energy Regulators).

To ensure this, Nord Pool has implemented arrangements and procedures to detect any potential cases of market manipulation or insider trading.

Assessing risk

These arrangements are based on risk assessment of the markets that Nord Pool operates. The Market Surveillance team starts by identifying all different types of market manipulation or insider trading that may occur, estimates the likelihood and consequences of such activities and ensures that the identified risk areas are covered by specially developed automated tools and/or specific checks.

Examples of risk areas that the team especially focuses on include generation capacity withholding in the day-ahead market, or transmission capacity hoarding in the intraday. All procedures are reviewed, updated and adjusted as necessary – at least annually. Regular audits are performed to make sure that monitoring arrangements remain fully effective.

Transparency and integrity

In addition to monitoring activity, the Market Surveillance team regularly meets market participants and National Regulatory Authorities (NRAs), provides advice on specific trading practices, as well as organising courses and workshops related to market integrity and transparency. One direction of this work is to clarify grey areas in regulatory guidance, whenever that is possible and to align the understanding of all interested stakeholders. Market Surveillance is also active in providing the team's views on market design, with a view to ensuring transparency and integrity, now and for the future.

Market Surveillance – the European setting

Market Surveillance at Nord Pool is an important first line of defence when it comes to detecting and reporting suspicious activity.

REMIT (the Regulation on wholesale Energy Market Integrity and Transparency) formulates the legal responsibility for power exchanges to establish and maintain a market surveillance function. This is true also in the multi-NEMO (Nominated Electricity Market Operator) setup, where several power exchanges may be operational in the same country. Cases reported by power exchanges are investigated and finalised by the responsible NRA(s).

It is often the case that the exact timelines and procedures involved in pursuing and/or prosecuting potential market manipulation and insider trading are dependent on relevant national legislation.

ACER monitors at the European level, also reporting suspicious cases to the NRAs. ACER further contributes to the monitoring process by issuing guidance (www.acer.europa.eu/remit/about-remit/remit-guidance) that is commonly used by NRAs, as well as by market monitoring teams.

Acting on suspicious activity

Nord Pool notifies the authorities based on alerts generated by its dedicated internal monitoring systems, ad-hoc analysis, or any outlier events, that attract the scrutiny of our market surveillance experts.

To achieve this, the Market Surveillance team welcomes input from market participants and any other interested individuals who may become aware of irregular trading behaviour.

Our team can always be contacted on: market.surveillance@nordpoolgroup.com. All correspondence is handled in strict confidence.

“Nord Pool has robust arrangements and procedures to detect any potential cases of market manipulation or insider trading.”

Guidance and education

Nord Pool's Market Surveillance team is active in providing guidance to market participants, as well as educating third parties about the team's mission and tasks. We are keen to share expertise and best practice; the following links and information may help you to become more market aware.

Market Surveillance – what we do

youtu.be/aV0yqx5v2fE

Transmission capacity hoarding – what it is and what constitutes manipulative practice

- Introduction to capacity hoarding youtu.be/FanPjnQ8RvE
- Detailed example youtu.be/sGwZd8QEXUE

Regular newsletters on relevant topics, including how cases are investigated, previous years' statistics, and the team's view on specific trading practices
www.nordpoolgroup.com/en/trading/Market-surveillance/newsletter/

Market Surveillance and market participants' reports on regulatory subjects

- REMIT Best Practice: sector review on how to comply with REMIT for market participants: www.nordpoolgroup.com/en/services/compliance/remit-best-practice/
- Inside Information Threshold report – qualitative and quantitative study looking into an appropriate threshold for publishing inside information: www.nordpoolgroup.com/en/trading/Market-surveillance/expert-reports/

We are always open to receiving questions and comments concerning market surveillance in the power sector, simply contact Nord Pool's Market Surveillance team: market.surveillance@nordpoolgroup.com.

Delivering Across Europe

Where we operate now

Serviced markets

Nord Pool offices



**NORD
POOL**

