
Sarajevo
19th of May, 2026

Agenda

01

Nord Pool

02

Integration of new markets & BiH Study

03

Southeast Europe

04

Current and future market development

05

Market prices going forward

NORD POOL
A EURONEXT COMPANY

Nord Pool

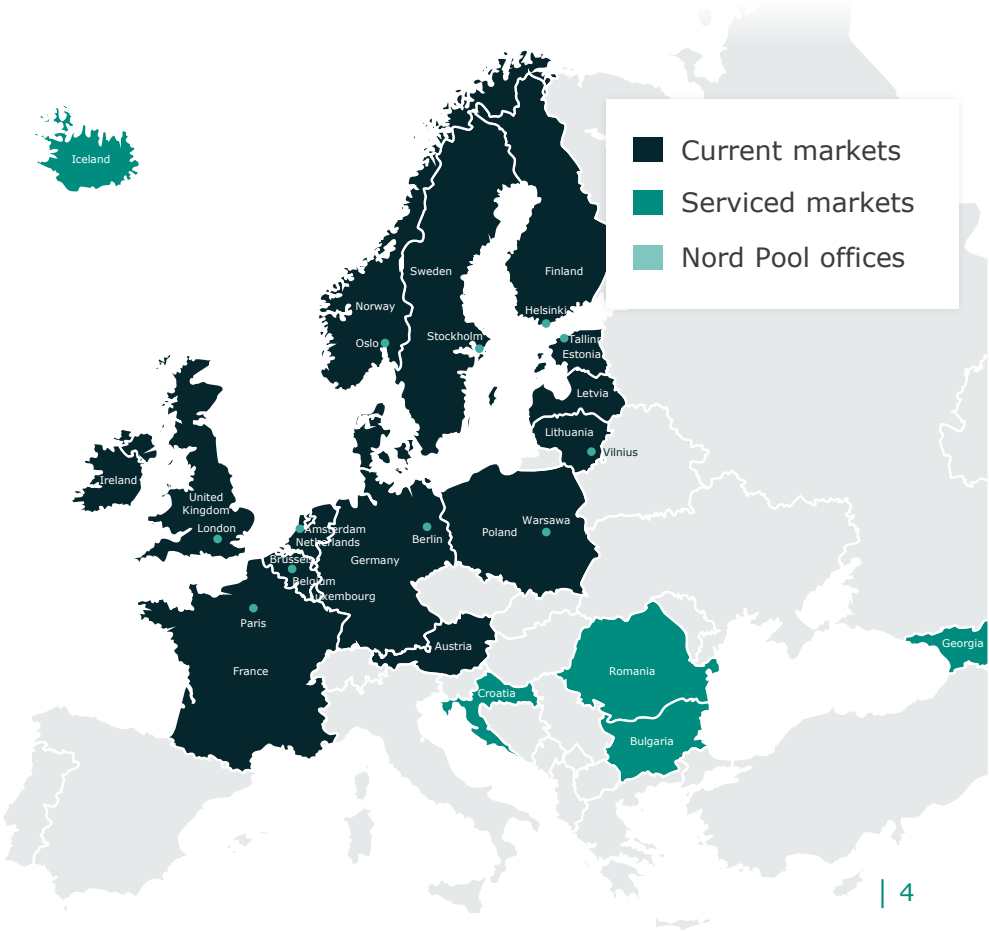
Nord Pool offers power trading and clearing services across Europe

- Nord Pool offers day-ahead and intraday trading, clearing and settlement services
- 500+ customers from 20 countries trade on Nord Pool markets
- Operates in 16 European countries
- Serviced markets in Iceland, Croatia, Romania, Bulgaria and Georgia
- ~150 employees, 35 nationalities, offices in Oslo, Stockholm, Helsinki, Tallinn, Paris, London & Vilnius

1037 TWh
day-ahead

194 TWh
intraday

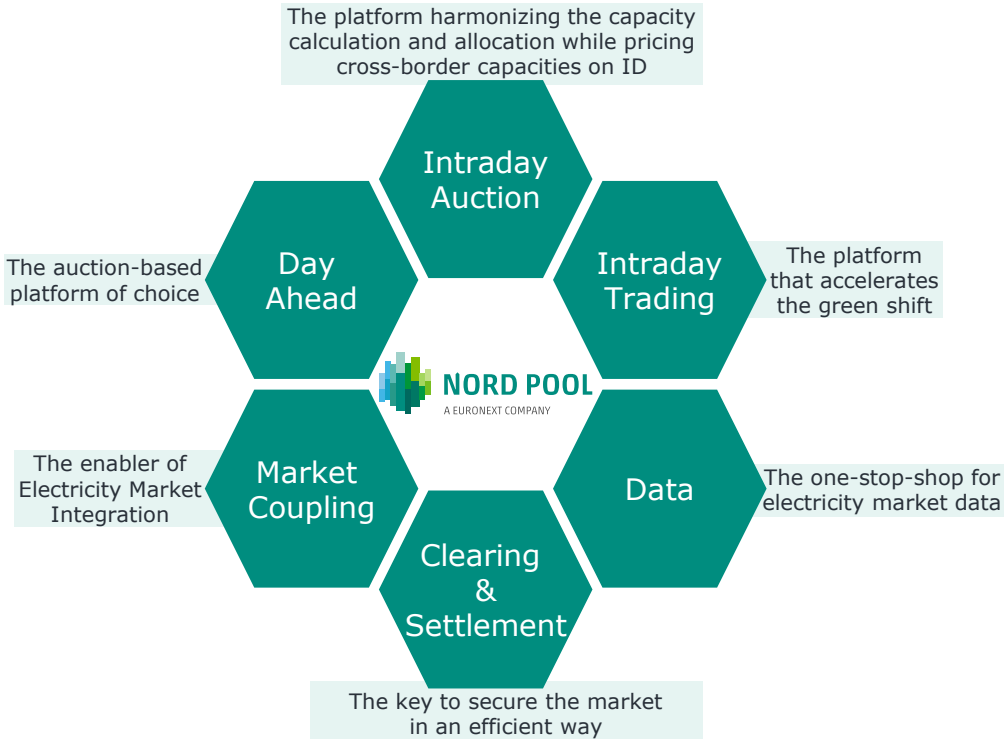
500+
customers



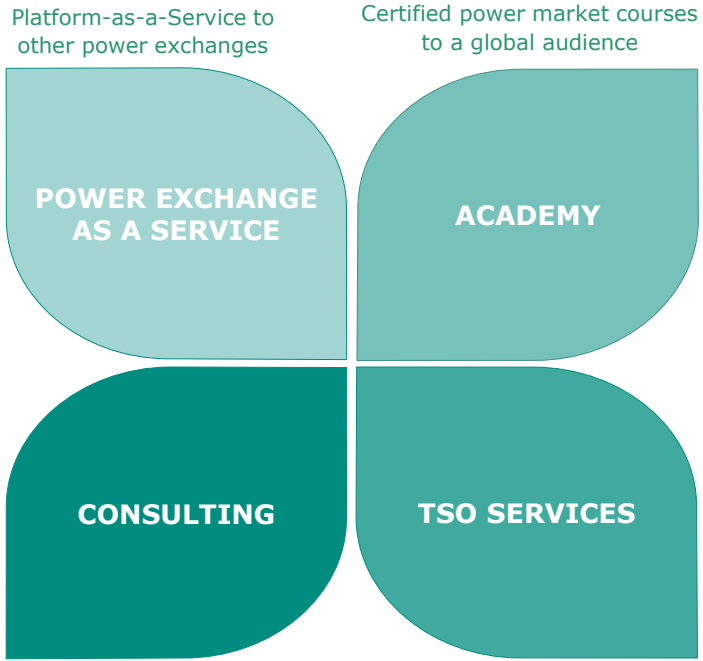
NORD POOL
A EURONEXT COMPANY

In addition to Nord Pool trading and data services we offer a range of additional services such as consulting and academy

NORD POOL CORE SERVICES



NORD POOL STRATEGY & ACADEMY SERVICES



Nord Pool Academy

Providing the highest quality knowledge-sharing and **certified competence building** to a global audience.

Standardised Certified Courses with online material and interactive streamed presentations by leading experts:

- The Physical and Financial Power Market Course

Next course will be in Vilnius June 2026

- Nord Pool Certified Compliance Course (REMIT)
- Flow Based Market Coupling Course
- Nord Pool Certified Day-Ahead Trader Course.
- Nord Pool Certified Intraday Trader Course.
- New Trade Surveillance Course: best practice for arrangements, systems and procedures
- **Digital Diploma** for all who pass course test.
- **Tailor made trainings** with presentations, online course material and diplomas.
- All courses are available **online, physical** or a **hybrid solution.**

NORD POOL
A EURONEXT COMPANY

Towards a European electricity market

1991 Norwegian power market deregulated

1993 The Norwegian power exchange is established as 'Statnett Marked'

1996 Norway and Sweden join, this is the world's first international power market – called Nord Pool

1998 Finland joins Nord Pool

1999 The first international intraday market is established

2000 The Nordic market becomes fully integrated as Denmark joins

2010 UK and Estonia join Nord Pool

2013 Baltic completed – Lithuania and Latvia join Nord Pool

2014 North-western European power markets are coupled through the Price Coupling of Regions (PCR) project

2015 Nord Pool appointed NEMO in 15 countries

2016 Together with IBEX Nord Pool opens the Bulgarian power market - and with CROPEX the Croatian power market

2018 European intraday market go-live

2019 Nord Pool opens day-ahead markets in Germany, Luxembourg, France, Austria, Belgium and The Netherlands

2020 Euronext acquires Nord Pool

Nord Pool opens intraday market in Poland

2021 Day-ahead trading in Poland launched

North Sea Link commenced operation

2023 Nord Pool celebrates 30 year of powering the market

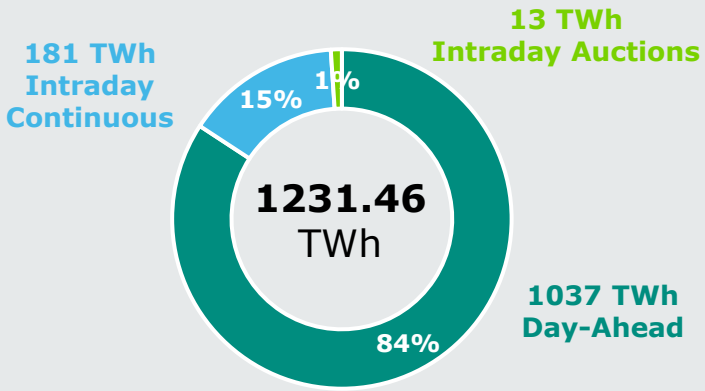
2024 Nord Pool and Elma join to launch Iceland's power market

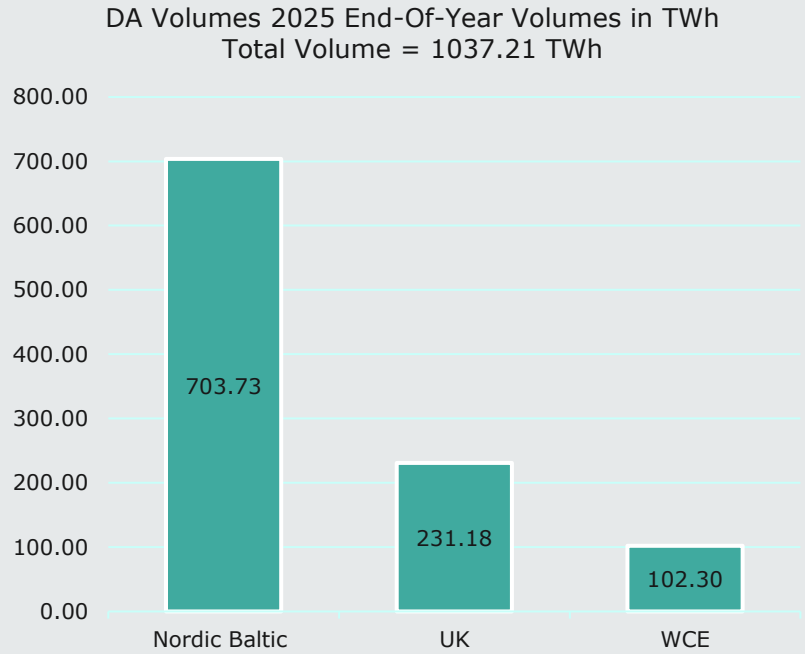
Opening of the Romanian power market together with BRM

2025 Nord Pool enters a new area of business; launching Euronext Nord Pool Power Futures

NORD POOL
A EURONEXT COMPANY

2025 Trading Figures

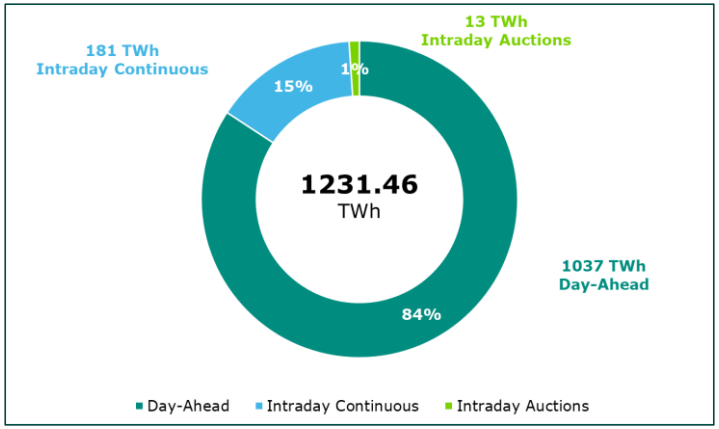


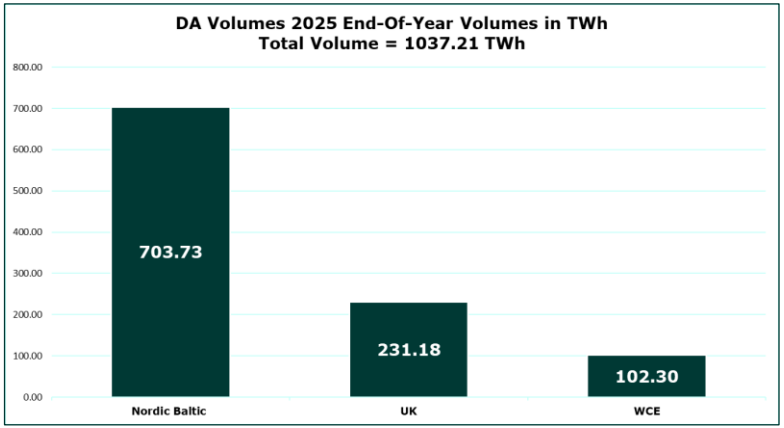


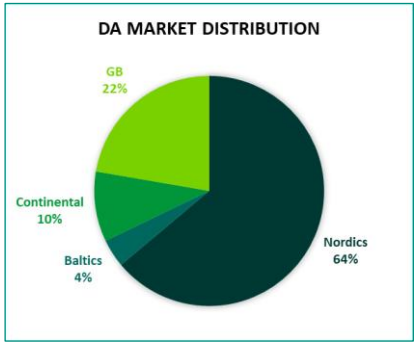
During 2025 a total of 1231.46 TWh* of power was traded through Nord Pool (made up of buy volume and sell volume in TWh).

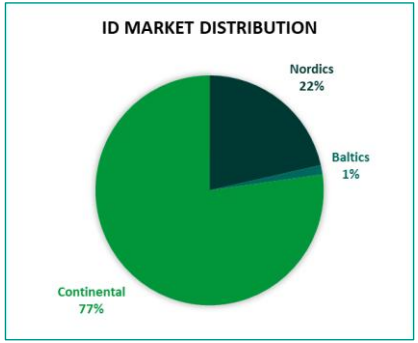
Find out more here.

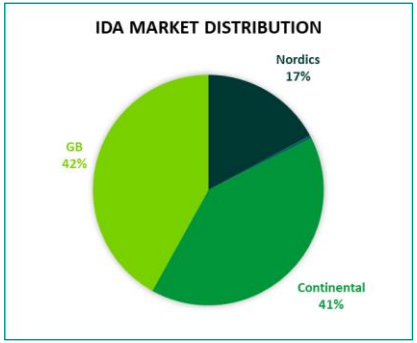
Nord Pool volumes in 2025





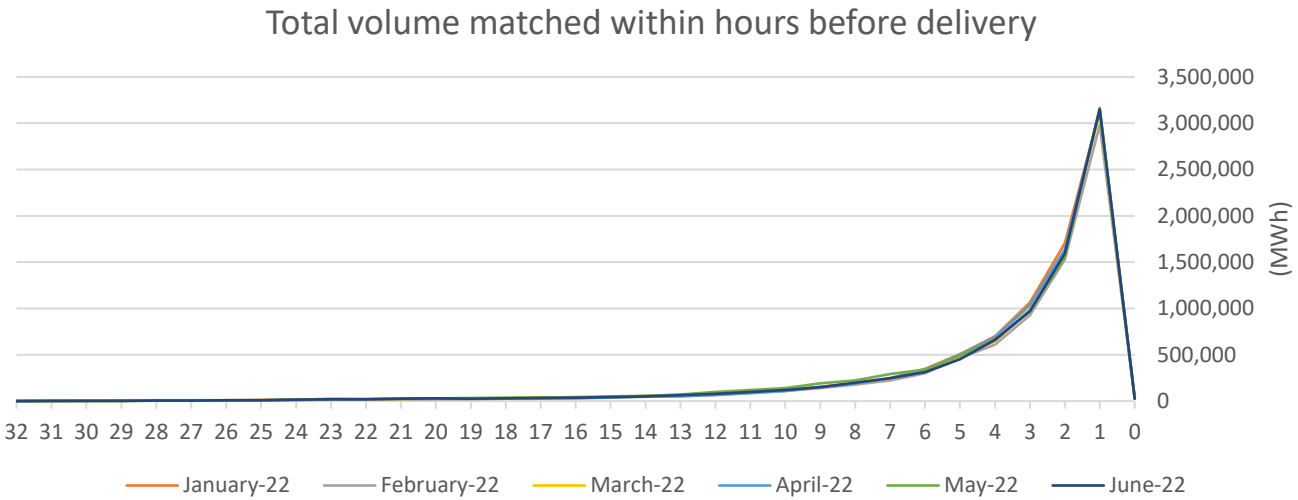




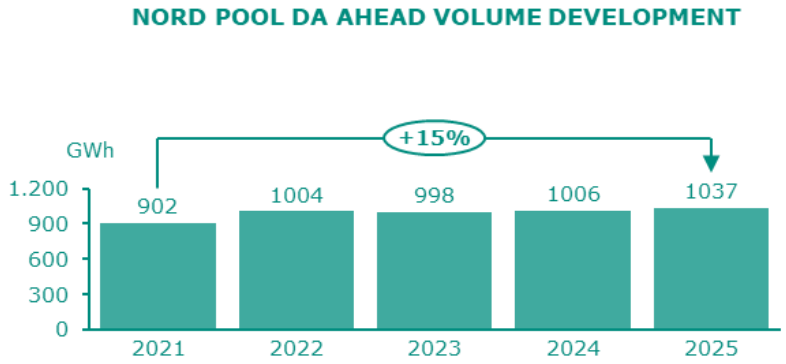


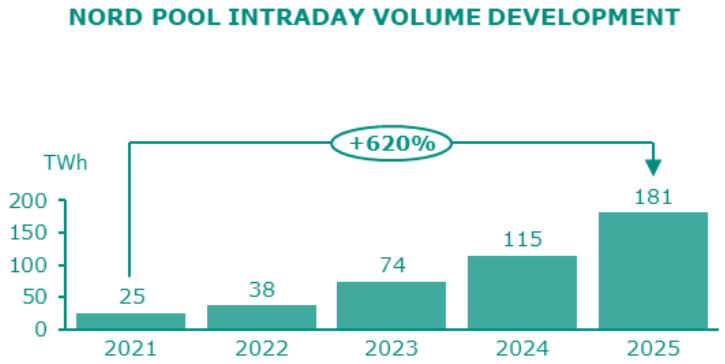
Source: Nord Pool, 12 January 2025

Trading increases as delivery approaches



Nord Pool volume development 2021-2025



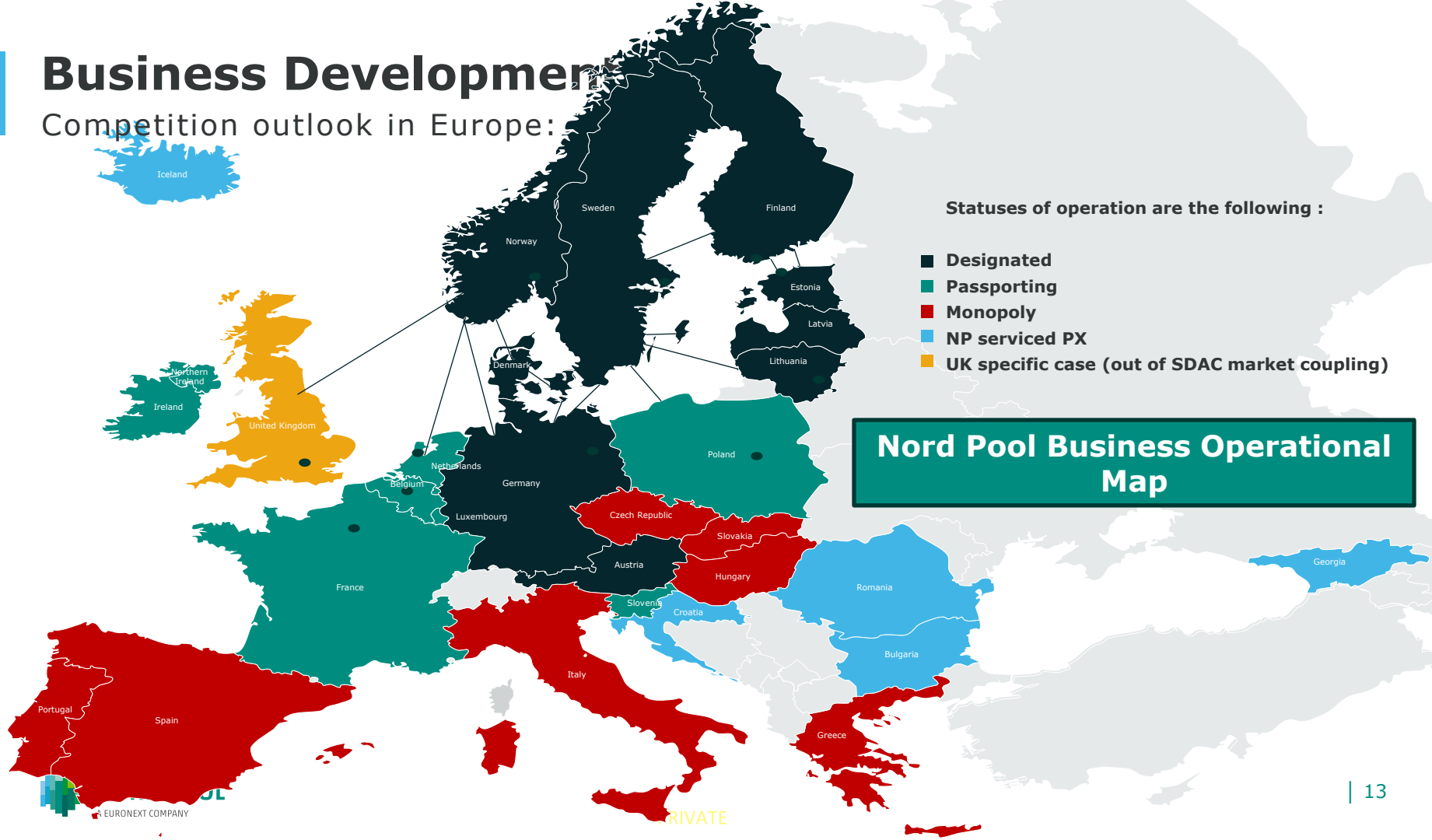


Significant growth in Intraday - 2025 Actuals (TWh)

Market Size (2 sides)	Day Ahead (TWh)	Intraday (TWh)
	2025 actuals	2025 actuals
Germany	600.2	274.14
UK	319.6	89.70
Norway	304.9	3.56
Sweden	265.7	9.12
France	252.1	43.40
Finland	111.8	7.99
Netherlands	109.9	59.95
Denmark	67.6	40.87
Belgium	53.2	20.28
Austria	43.8	29.70
Poland	24.4	6.43
Lithuania	17.7	1.33
Estonia	11.7	0.69
Latvia	11.6	0.36
Total (TWh)	**2194.0**	**587.5**

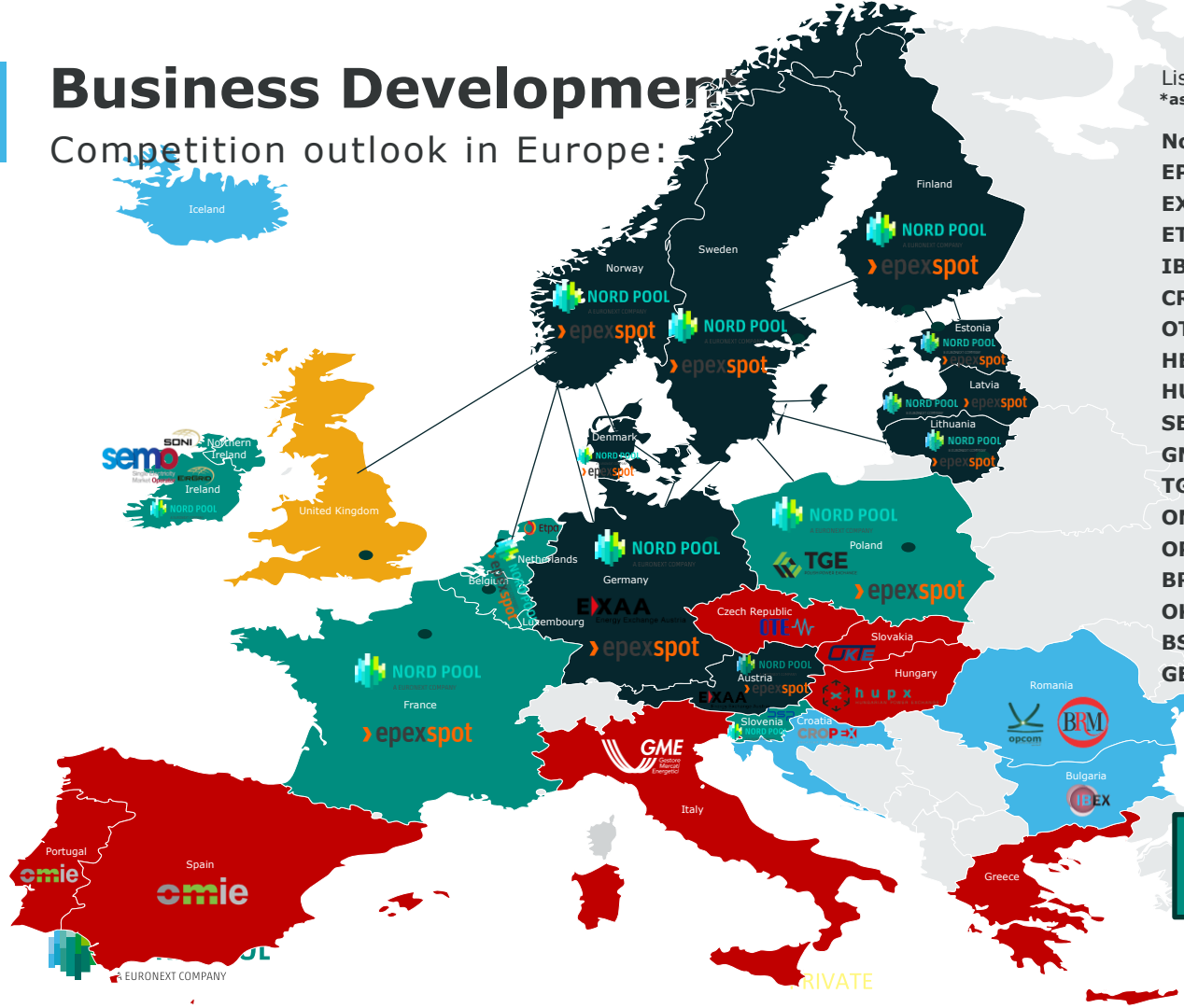
Business Development

Competition outlook in Europe:



Business Development

Competition outlook in Europe:



List of current designated NEMOs*:
***as of August 2025**

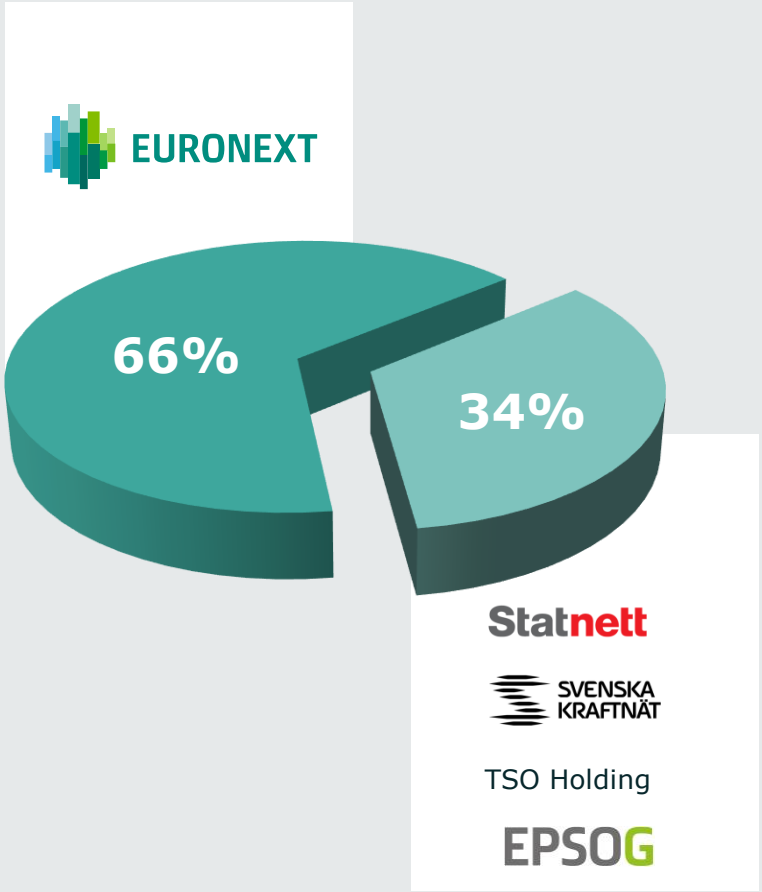
- **Nord Pool EMCO AS**
- **EPEX Spot SE**
- **EXAA AG**
- **ETPA Holding B.V.**
- **IBEX**
- **CROPEX**
- **OTE**
- **HEnEx**
- **HUPX**
- **SEMOpx**
- **GME**
- **TGE**
- **OMIE**
- **OPCOM**
- **BRM**
- **OKTE**
- **BSP**
- **GENEX**

NEMOs Competition Screening Map

Nord Pool ownership from January 2020

Euronext is a pan-European exchange group operating regulated markets in Belgium, France, Ireland, the Netherlands, Norway, Portugal, and the United Kingdom.

Euronext also operates non-regulated activities in 16 countries across the world.



NORD POOL
A EURONEXT COMPANY

Nasdaq open interest was migrated to Euronext Nord Pool 14 March

Financial markets	Day-ahead	Intraday	Balancing markets
The financial power market consists of Power Futures used for price hedging and	Daily pan-European auction where most of the volumes for the next 24-hour cycle are traded. 15 min resolution on contracts traded	24/7 continuous market used to trade closer to delivery. Strong growth driven by growth in renewable energy. energy This is combined with 3 Intraday Auctions	Intra-hour power market directly managed by the national system operator to ensure the right balancing of the frequency of the grid and security of supply
Nord Pool today			**TSO (Statnett)**
1 month => 10 years	Daily Auction	Continuous/Auction	Intra-hour
Reference price	15 min spot price	Continuous price	Market price
Financial contract	Physical delivery	Physical delivery	Physical delivery

NORD POOL
A EURONEXT COMPANY

Source: Nord Pool

NORD POOL
A EURONEXT COMPANY

Integration of new markets & BiH Study

The long path towards a fully integrated market

1993	**World's first international power market:** Nord Pool in Norway and Sweden
2014	North-Western European power markets coupled through the Price Coupling of Regions (PCR) project
2015	Competition of Electricity Market Operators allowed by the EU CACM regulation
2021	Single Day-Ahead Coupling (SDAC) covers the whole of EU mainland
2022	Single Intraday Coupling (SIDC) covers the whole of EU mainland
2023	**The Energy Community Contracting Parties are making efforts to progressively implement the European target model**
2025	15-minute imbalance settlement period and market time unit
2028	**Energy Community Contracting Parties join**

Nord Pool's Experience with Integrating new markets

Local and regional political support

- Securing full local and regional political support is very important
- For example, Baltic integration took years until markets were finally fully integrated in year 2013

Patience, it takes time…

- Everyone locally wants to move fast, but pan-European projects involve many parties, and significant effort is needed.
- In our experience at least 12-18 months is needed for market coupling; similar timeline is expected for EnC integration

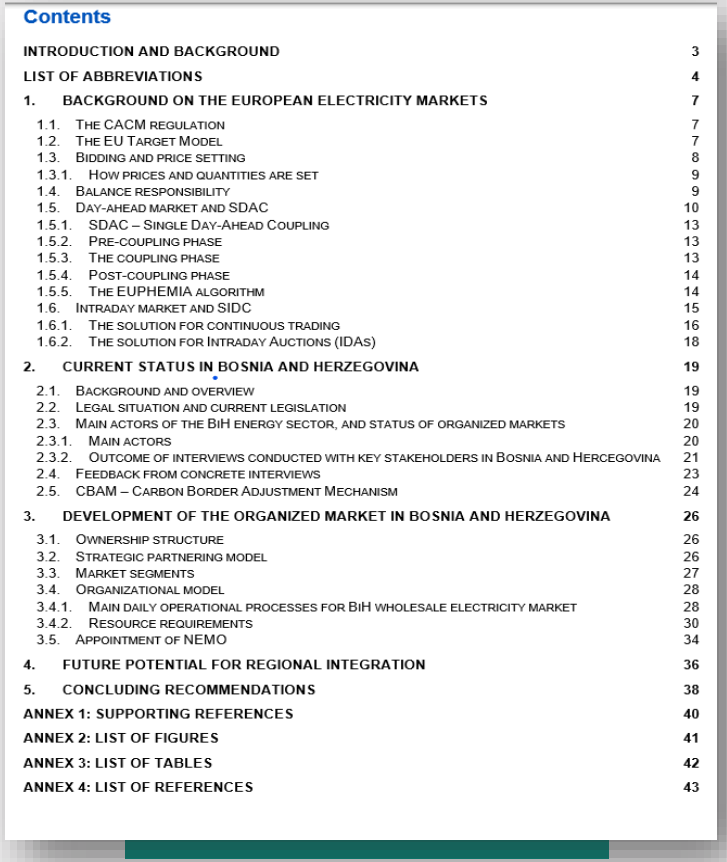
The actual technical implementation is the easy part – Getting there is challenging

- Market coupling is just a practical and technical challenge once everything else, especially legal and regulatory matters are in order

Power Exchange Study for BiH performed in 2024

Key activities

- Interviews with local parties
- CBAM
- Future potential for regional integration for BiH, NEMO designation process, Market Coupling
- Initial plan how to start implementation



Contents

NORD POOL
A EURONEXT COMPANY

Recommendations from study

Urgent need to commence the work on establishing a power exchange in BiH as soon as possible:

- CBAM - so power exchange establishment should be initiated as soon as possible.
- Start with preparatory actions & discussions with market participants in parallel with legal processes.
- Establish a power exchange project involving most important local stakeholders. Make decisions about: founding shareholders, location, name of the power exchange, operational model, potential service provider for IT solutions. Prepare business plan and indicative timeline.
- Prepare for NEMO designation process & analyse other exchanges in the region. Once legal basis is in place apply for NEMO designation.
- Arrange trainings, seminars & events to promote the market.

NORD POOL
A EURONEXT COMPANY

Southeast Europe

Southeast Europe

Ukraine:

A huge market.

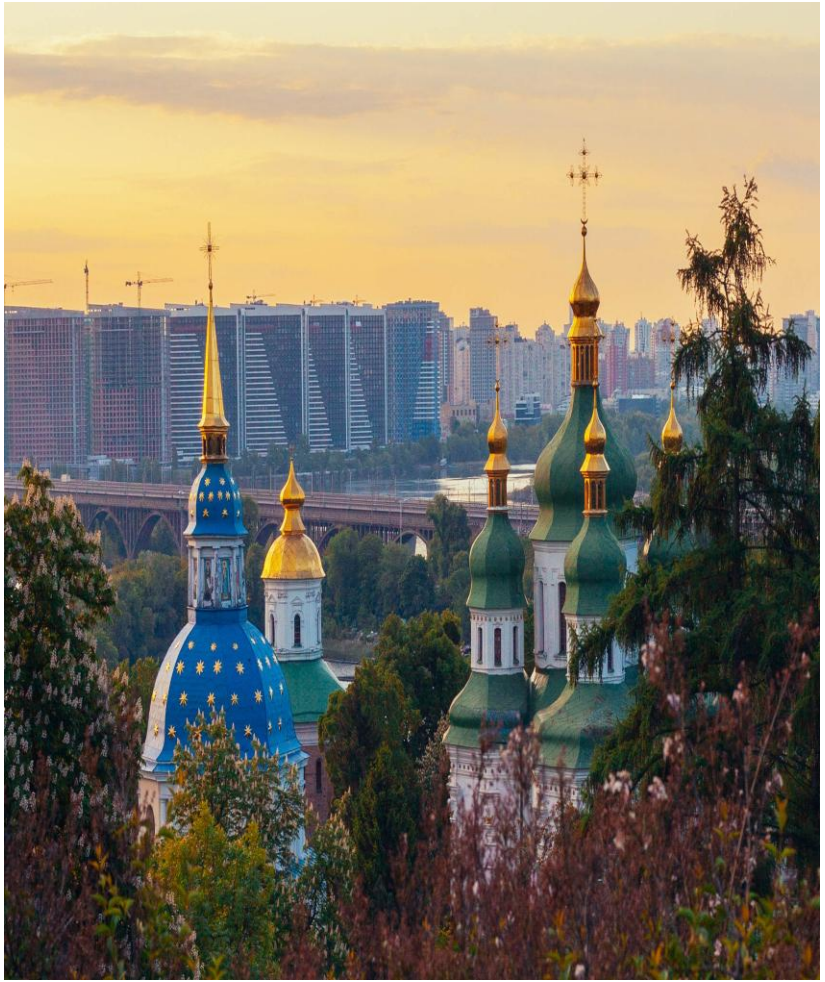
Nord Pool is looking into the market, ongoing development and possible opportunities.

NEMO designation rules to be agreed shortly

2 market operators

One has licence to operate DA & ID markets

From 2029 open for competition



Southeast Europe

Greece:

Nord Pool - increased presence in Greece.

Nord Pool’s owner Euronext has acquired 70 % ATHEX – Athens Stock Exchange

ATHEX owns 40 % of HEnEx – Greek Energy Exchange

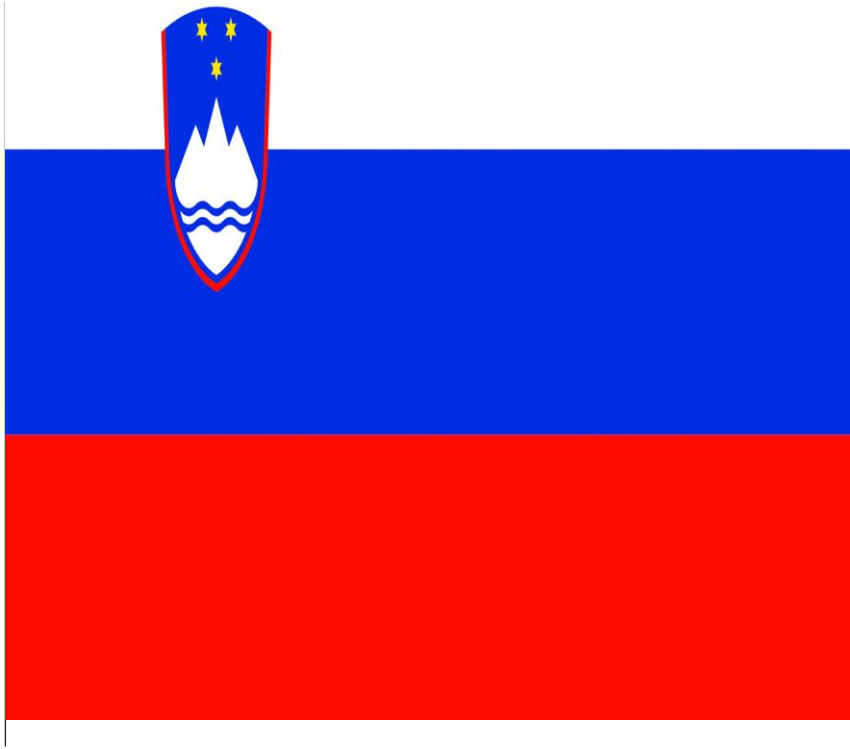
Southeast Europe

Slovenia:

Nord Pool will enter the market

There is currently an ongoing RFC

Expectation of go live DA Q4 2026



NORD POOL
A EURONEXT COMPANY

Current and future market development

15’ MTU SDAC implementation

GO-LIVE SEPTEMBER 30, 2025

- Electricity market regulation Article 8 states:
  - *“NEMOs shall provide market participants with the opportunity to trade in energy in time intervals which are at least as short as the imbalance settlement period for both day-ahead and intraday markets.”*
- Allowing for multiresolution in a bidding zone and cross product matching within or between BZs.
- only 15’ clearing prices will be provided as an official output from EUPHEMIA

NORD POOL
A EURONEXT COMPANY

Intraday Auctions – IDA 1, 2, and 3

SUCCESSFULLY IMPLEMENTED 13 JUNE 2024

- Part of the Single IntraDay Coupling – SIDC – in Europe
- First PAN European Intraday Auctions
- First time ever launch by one ‘BigBang’ approach.
- 15 min MTUs
- Complementing the Intraday Continuous market
- Intraday auctions have been organized locally in many countries in Europe for several years.
- New to Nordic and Baltic countries (2024)
- Harmonize the allocation and pricing of intraday cross-zonal capacity across participating countries.

Development of the Day-ahead market

CHALLENGES AHEAD – DEVELOPMENT OF THE EUPHEMIA ALGORITHM

Future roadmap – upcoming implementations

- Various TSO requirements
- Geographical extensions and market growth
- Topology changes

Also in discussion:

- MRLVC – loose volume coupling with UK (due to Brexit)

ALL NEMO COMMITTEE

CROPEX · epexspot · EXAA · GME · HEnEx · hupx · IBEX · Nasdaq · NORD POOL · OKTE · omie · opcom · OTE · semopx · SOUTH POOL · TGE

http://www.nemo-committee.eu/sdac

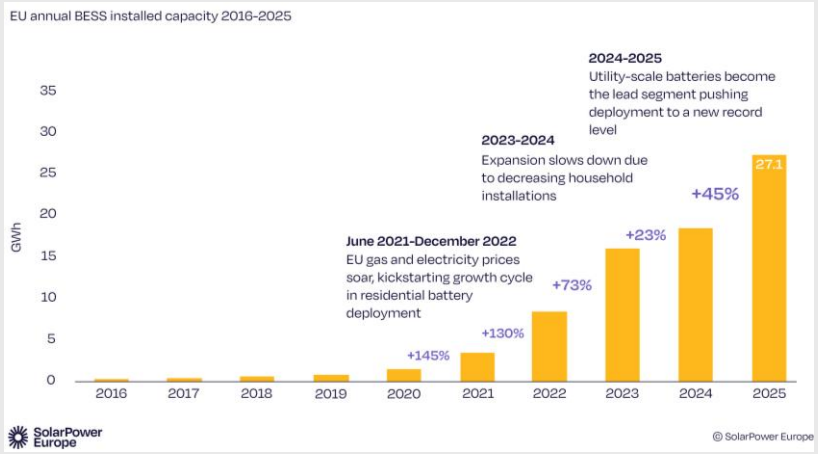
State of the European BESS market

BESS has grown 45% in Europe in 2025, driven by volatility and renewables

+45%
Growth by End-Of-Year 2025

Driven by :

- Volatility in electricity prices: the increase in renewables has led to greater volatility
- Market Growth: with a 12th in-a-row record year in installed storage, BESS becoming the cornerstone of Europe's energy transition
- Arbitrage opportunities: leveraging strategic substantial revenue
- Market's maturity: enhancing interest and investment from investors, developers and market makers



+27.1 GWh
of new battery capacities installed in 2025

77.3 GWh
Total EU installed battery storage

Continental Europe is leading BESS markets

1. Germany
2. Italy
3. France
4. Sweden
5. Finland

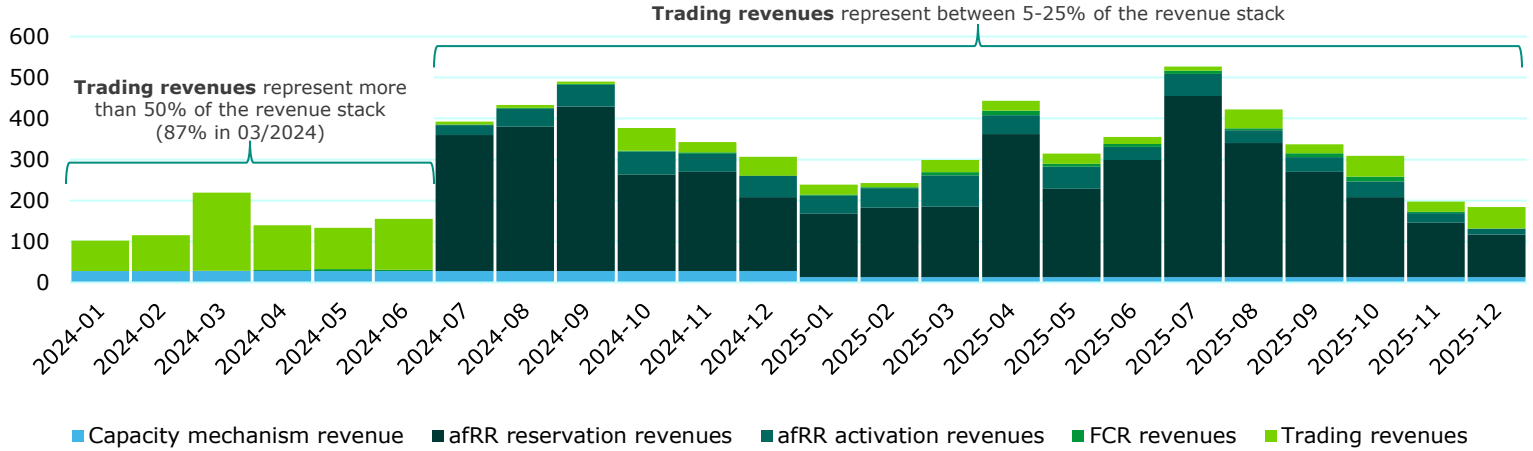
NORD POOL
A EURONEXT COMPANY
CLEANHORIZON

Revenues Structure of Merchant Batteries (1/2)

Battery revenues are coming from several markets, not only from the spot markets / Day-Ahead bottom-to-top spreads

- **Trading revenues**: through Power Exchanges – Day-Ahead and Intraday markets, linked to arbitrage opportunities (buy low and store, sell high and release)
- **Ancillary Services revenues**: through TSO platforms – FCR, mFRR, aFRR, …, linked to TSO needs for balancing/frequence/grid stability purposes (capacity reservation and energy activation)

2-h BESS revenue stack in France (monthly revenues values for 2024 and 2025) – *k€/MW/year*



NORD POOL A EURONEXT COMPANY CLEANHORIZON

Nord Pool and Clean Horizon unveil a solution

NORD POOL
A EURONEXT COMPANY

Nord Pool, the **world's first power exchange** (1996), with more than 30 years in providing liquid, transparent and secure markets
A **trustworthy** independent source of data

The
Clean-Horizon Storage Index
delivered by Nord Pool

Index name	Tickers
Clean Horizon 1-hour Storage Index - Delivered by Nordpool	CHX-1H
Clean Horizon 2-hour Storage Index - Delivered by Nordpool	CHX-2H
Clean Horizon **4**-hour Storage Index - Delivered by Nordpool	CHX-4H

CLEANHORIZON

Since 2009, a leading independent company, with a proven **industry expertise** in **BESS industry,** offering both **market and technical advisory**

NSL

Today Nord Pool runs two NSL auctions

11 00 Hourly auction

15 30 Half hourly auction

Future:

Half hourly auction will be replaced by two IDAs (morning and afternoon) with 15 minute, 30-minute and 60 minute products on Norwegian side and only 30-minute and 60 – minute products on UK side.

NORD POOL
A EURONEXT COMPANY

Flow Based Market Coupling

Go live in Nordics Q4 2024

Why flowbased market coupling?

- Increased utilization of the grid
- More similar prices between bidding areas
- Increased socio-economic welfare for Norway, the Nordics and Europe

But…

- The welfare is not equally distributed
- The complexity makes it less intuitive to understand the flows and prices
- Higher utilization in day-ahead provides less capacity in intraday and balancing

Non-intuitive flows

Definition:

Flow from a high-price zone to a low-price zone

Will occur more often in flow-based optimization when welfare economic cost of a non-intuitive flow is smaller than welfare economic benefit of relieving a congestion

NORD POOL
A EURONEXT COMPANY

Market prices going forward

Natural gas remains dominant price setter

Europe uses a marginal pricing system where the last (most expensive) unit sets the price.

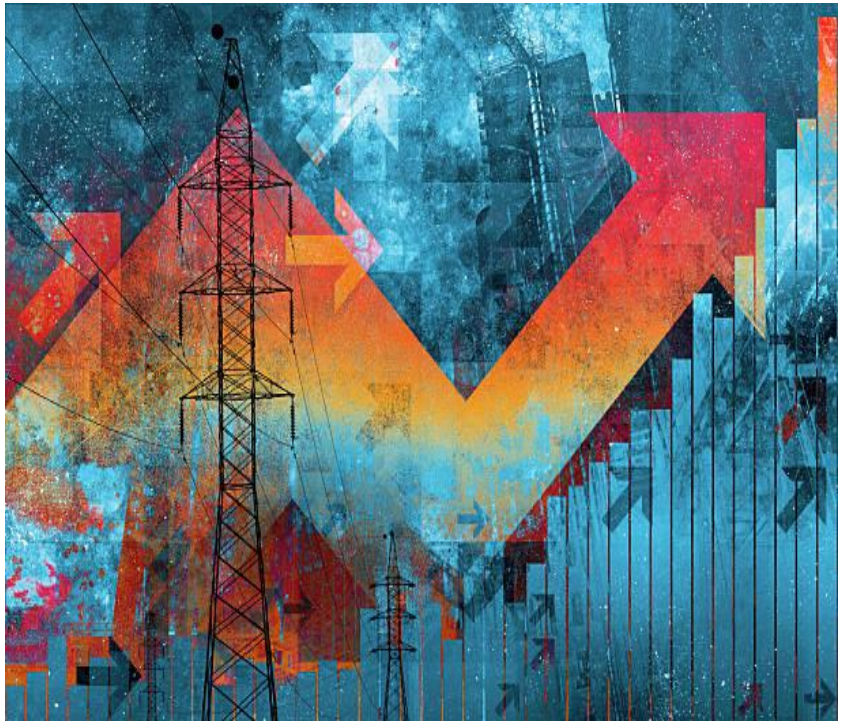
Gas-fired power plants often set that marginal price.

When gas prices spike, electricity prices follow almost immediately

In 2025, higher gas costs were major reason EU electricity prices rose.

Geopolitical tensions (e.g. Middle East conflict) have already pushed gas prices up again in 2026

Electricity prices still track gas even when renewables dominate generation. Gas is still the single biggest short-term drive of European power prices.

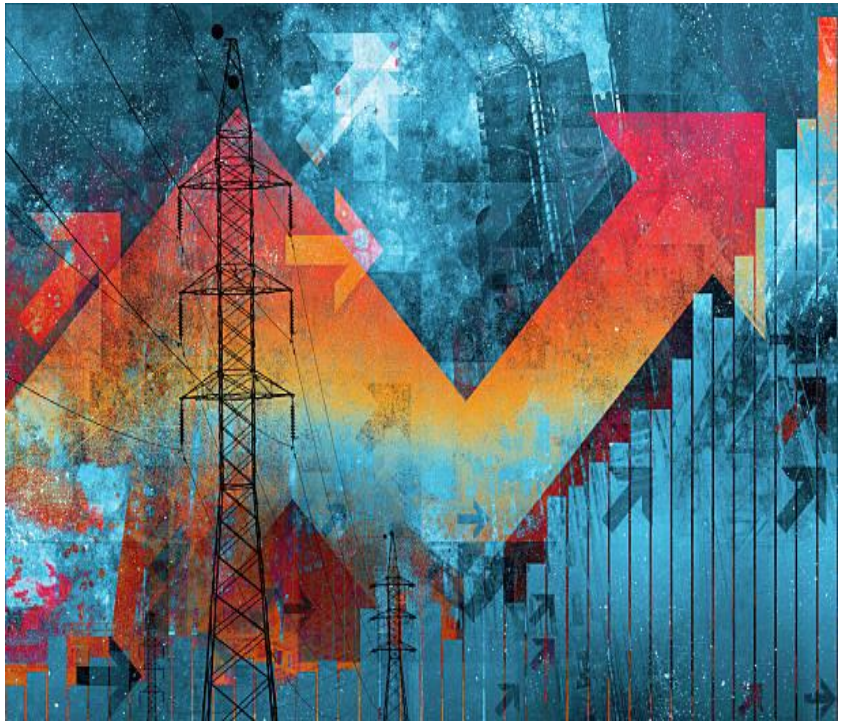


Geopolitics and energy security

Europe’s dependence on imported energy makes prices highly sensitive to global events:

- Wars and supply disruptions (Russia-Ukraine, Middle East tensions) create volatility
- LNG imports, shipping routes, and storage levels now directly influence power prices
- EU policy is shifting toward energy independence and electrification

Expect continued volatility tied to global politics, even if long-term dependence declines.



Rapid growth of renewables

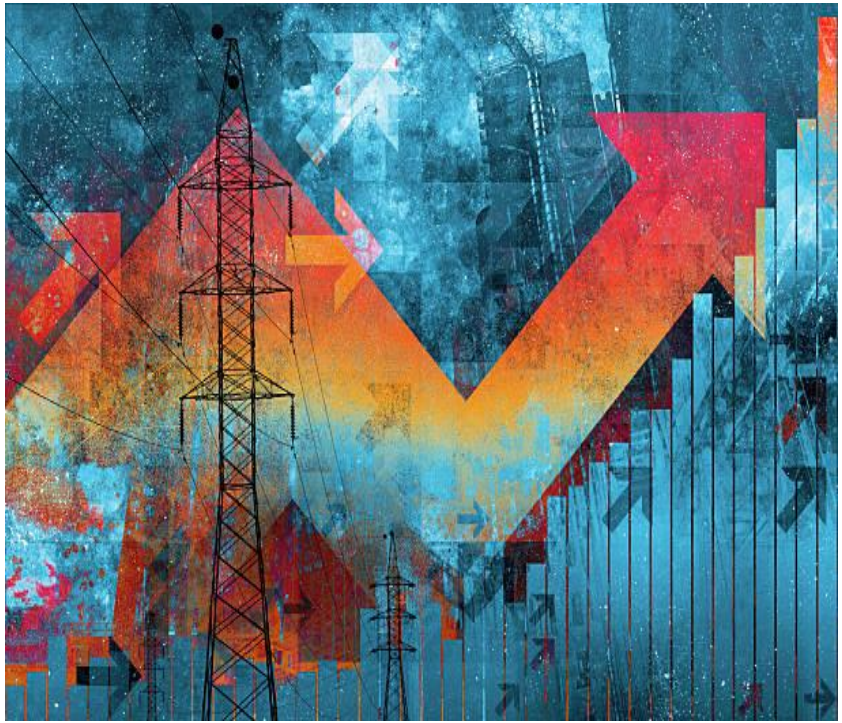
Renewables are expanding fast.

Solar and wind are increasingly pushing prices down.

Oversupply during sunny / windy periods → negative prices

Low supply during calm / dark periods → price spikes

Result: More volatility – cheaper on average, but with sharper peaks and troughs.

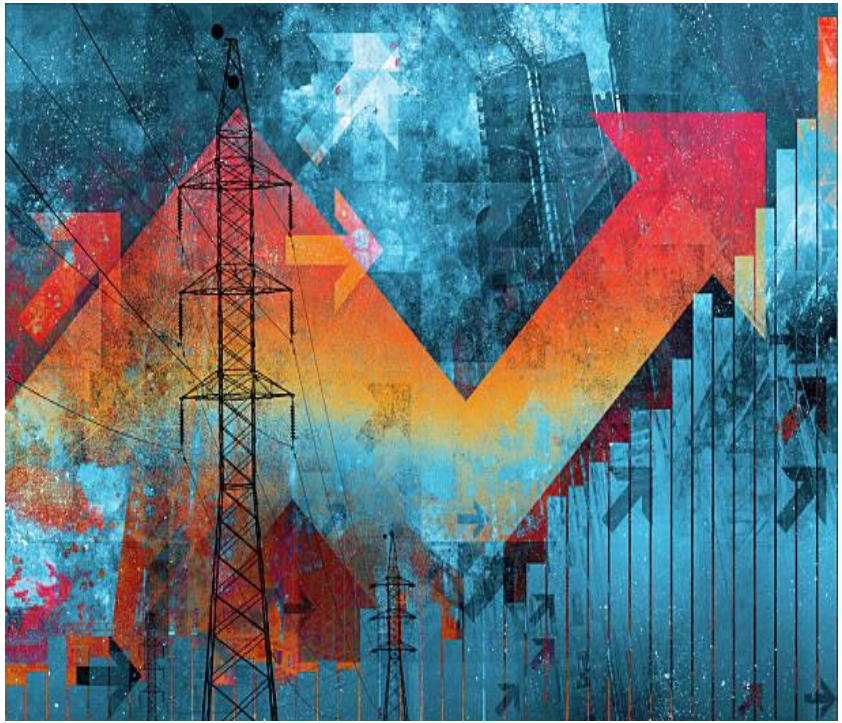


Grid infrastructure and flexibility constraints

A major bottleneck:

- Transmission grids and storage are not expanding fast enough
- Power can’t always move from where it’s produced to where it’s needed
- Lack of storage means excess renewable energy gets wasted (driving prices negative)

Investment in batteries, interconnectors between countries and demand-response systems will heavily influence future price stability.

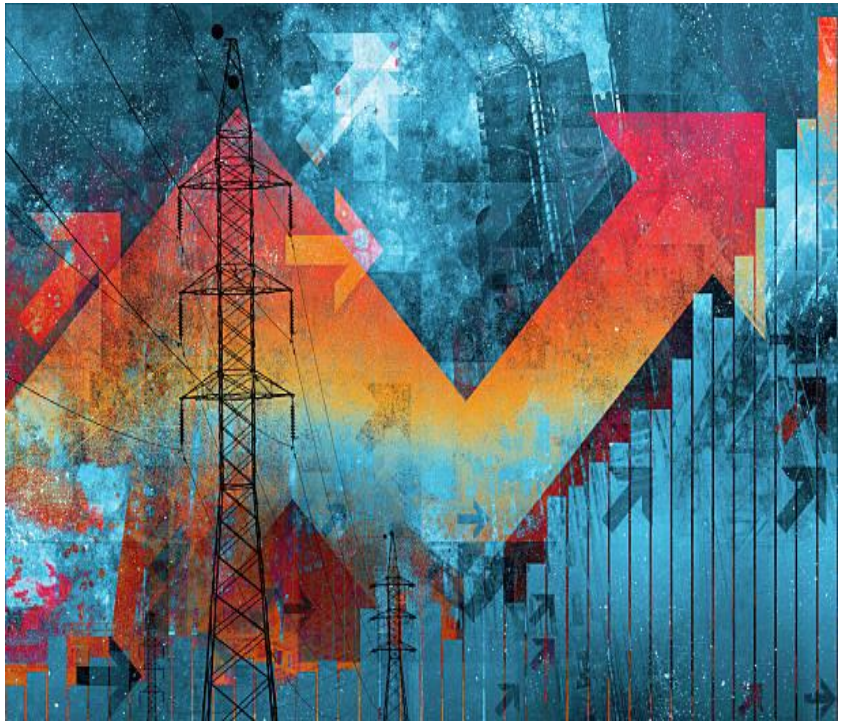


Demand growth from electrification

Electricity demand is rising again after stagnation:

- Evs, heat pumps, and data centers are increasing consumption.
- EU aims to raise electricity’s share of total energy use.
- Demand is expected to keep growing

Strong demand can push prices up, especially during peak periods.

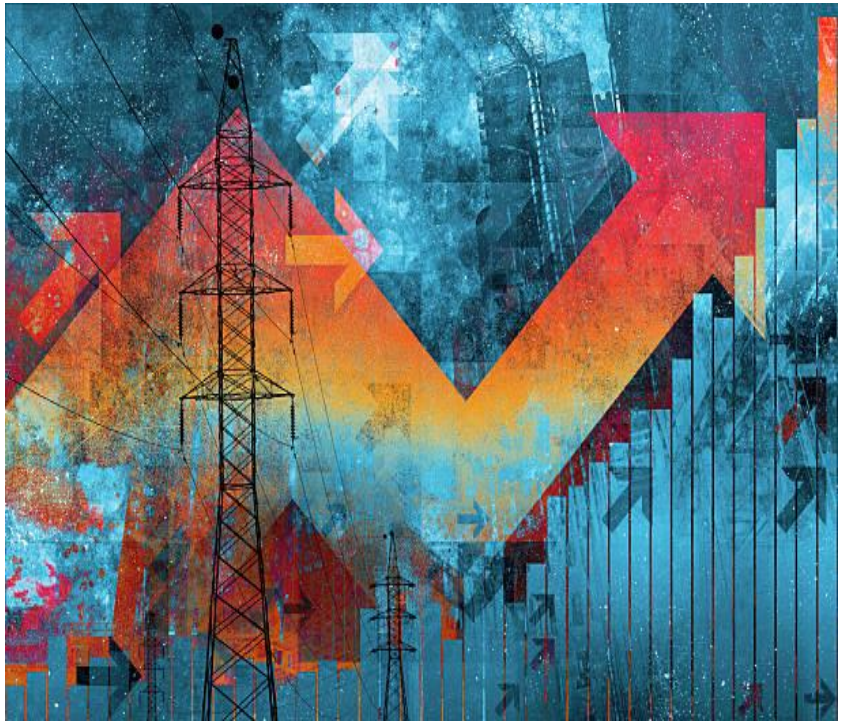


Policy, regulation, and market reform

Government decisions are becoming as important as fuel costs:

- Tax cuts or subsidies can directly lower consumer prices
- EU debates reforming the pricing model to reduce gas influence

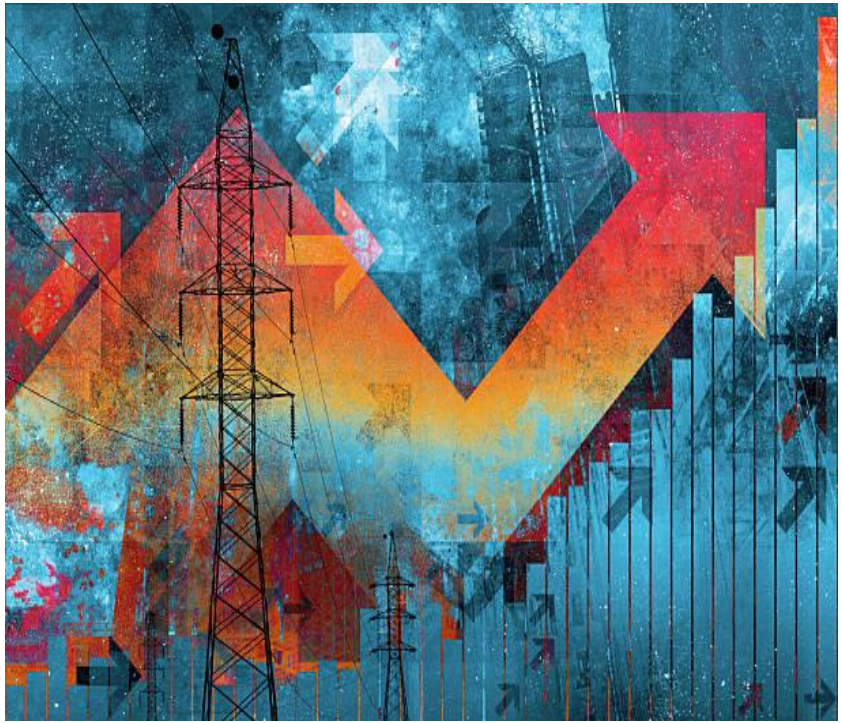
Policy choices will increasingly determine who pays and how much volatility is allowed



Weather and climate effects

Climate change increases both extreme demand events and supply variability.

- Cold winters → higher demand → higher prices
- Heatwaves → spikes in air conditioning demand → higher prices
- Wind and solar output variability directly affects supply

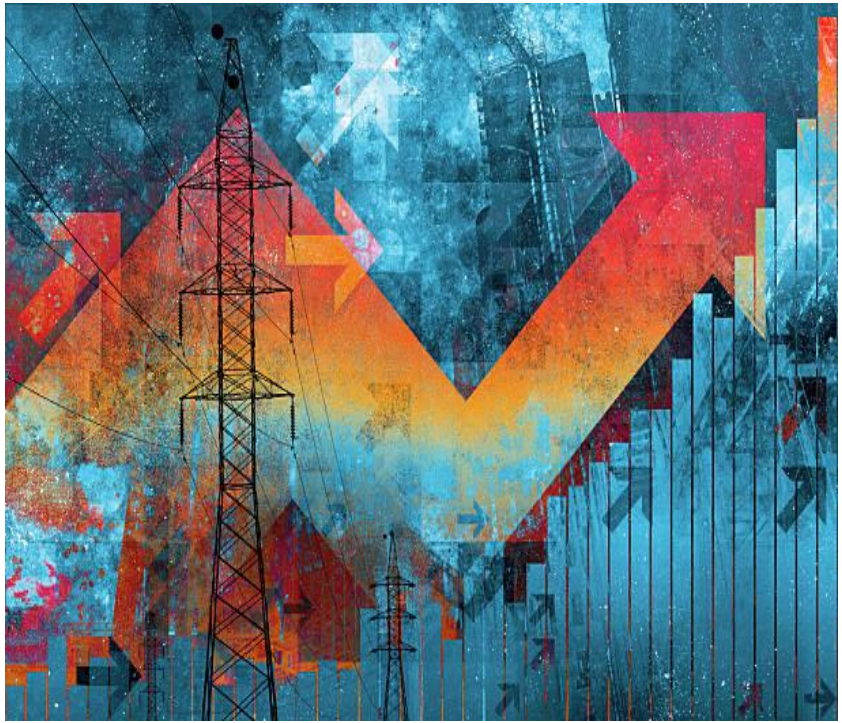


Carbon pricing

EU’s carbon market adds a structural cost:

CO2 prices increased which raises cost of fossil-fuel generation (especially coal and gas)

Over time this supports renewables and keeps fossil-based electricity structurally more expensive.



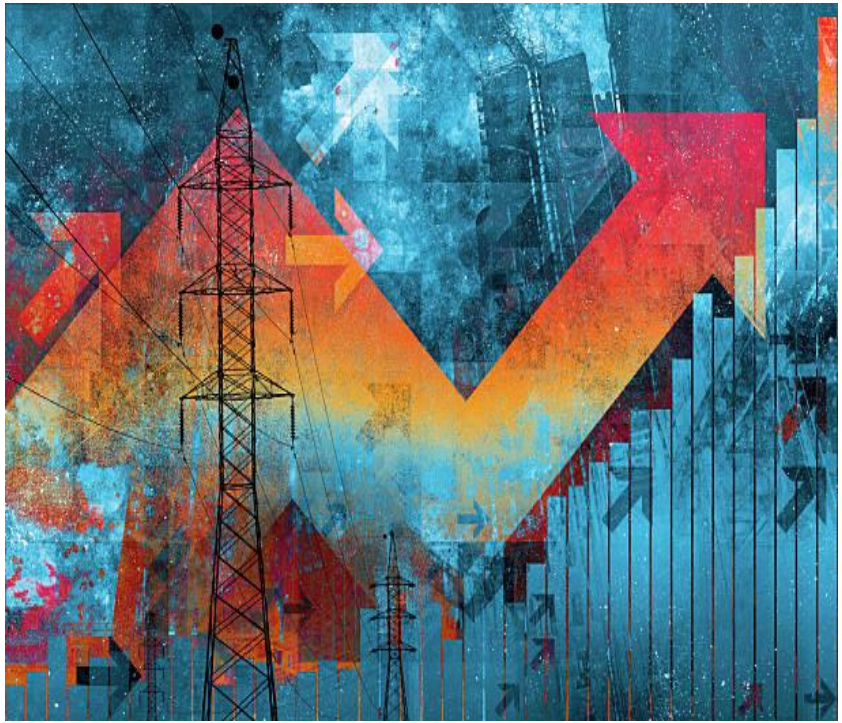
Industrial demand and competitiveness pressures

Europe faces a structural problem

- Electricity prices are 2-3x higher than in the US or China.
- This affects industrial demand and policy decisions.

If industry relocates or reduces output:

- Demand falls → prices may soften But if electrification of industry accelerates:
- Demand rises → prices increase



What matters most going forward

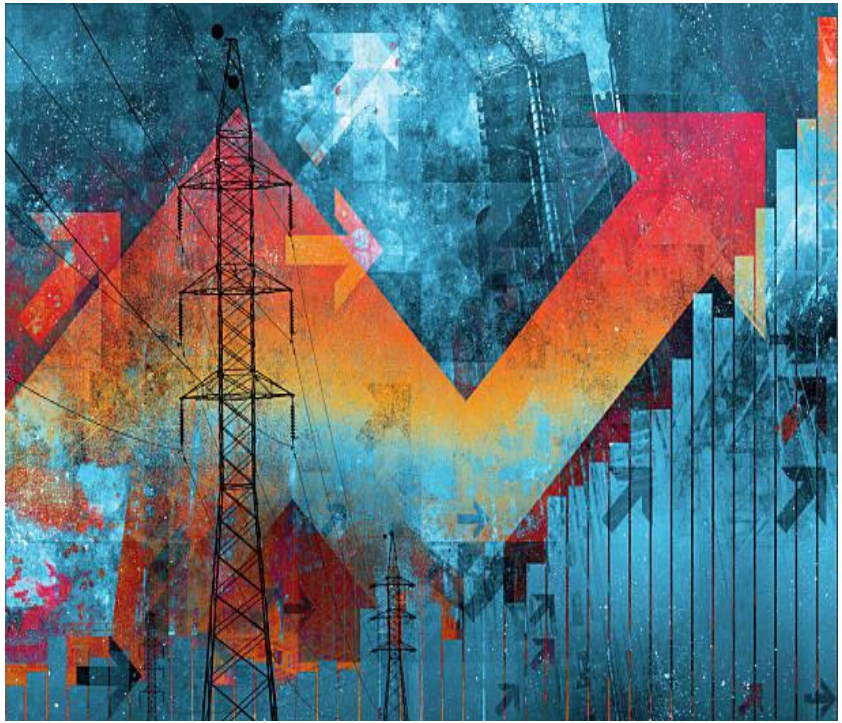
Downward pressure on prices:

- More renewables (low marginal cost)
- Improved storage and grids (if built fast enough)
- Policy interventions

Upward / volatile pressure:

- Gas price exposure
- Demand growth (Evs, industry, AI/data centers)
- Weather extremes
- Geopolitical shocks

Gas still dominates today –but over time, grid capacity, storage, and market design will matter just as much as fuel prices.



Isidora Micic

Senior Power Market Expert

Isidora.Micic@nordpoolgroup.com

+47 90 26 28 92

Nord Pool Academy | Nord Pool (nordpoolgroup.com)