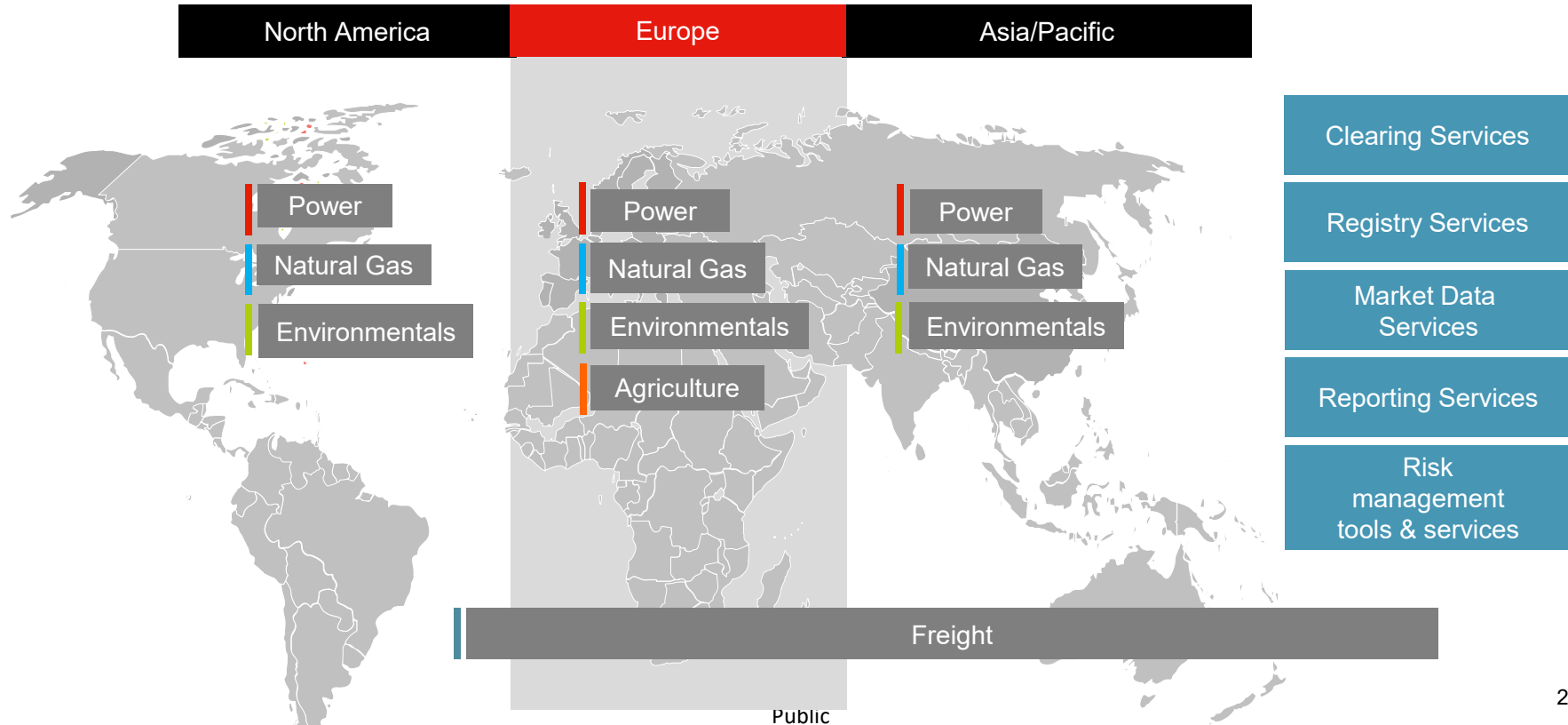


A photograph of a wind farm at dusk or dawn, with several wind turbines silhouetted against a hazy sky. The turbines are arranged in rows across a field. The image is partially overlaid with a semi-transparent grey rectangle and a white rectangle containing text.

EEX plans for the Nordic market

Anje Stiers
NordReg Seminar 23 November 2023

About EEX Group - Operating commodity markets worldwide



About EEX Group - Products overview



Products

Power

EEX Group is the #1 power exchange worldwide, operating on the Power Spot and Derivatives Markets.

› eex
› nodal
› eexasia
› epexspot

Natural Gas

EEX is the leading gas spot exchange and developing its derivatives business.

› eex
› nodal

Environmentals

EEX serves global carbon markets such as EU ETS, North America and New Zealand.

› eex
› nodal

Global Commodities

Our 2022 trading results confirmed EEX Group's position as a major force in global freight trading.

› eex
› eexasia

Agriculture

EEX offers a broad portfolio of dairy futures as well as processing potato futures.

› eex

About EEX Group – Key Figures

6,350 TWh

Traded on the global EEX Group
power markets

6,669 TWh

Traded on the global EEX Group
gas markets in 2022

Coordination of Day-ahead
Market Coupling for

25

power spot markets

57,981

Contracts traded in
Agricultural Commodities in 2022

More than

800

Trading participants
from 41 countries

Public

222

Emissions Auctions (EUA+EUAA)
in 2022

About EEX Group - European energy spot offering



13 European power
spot markets

11 European gas spot
markets

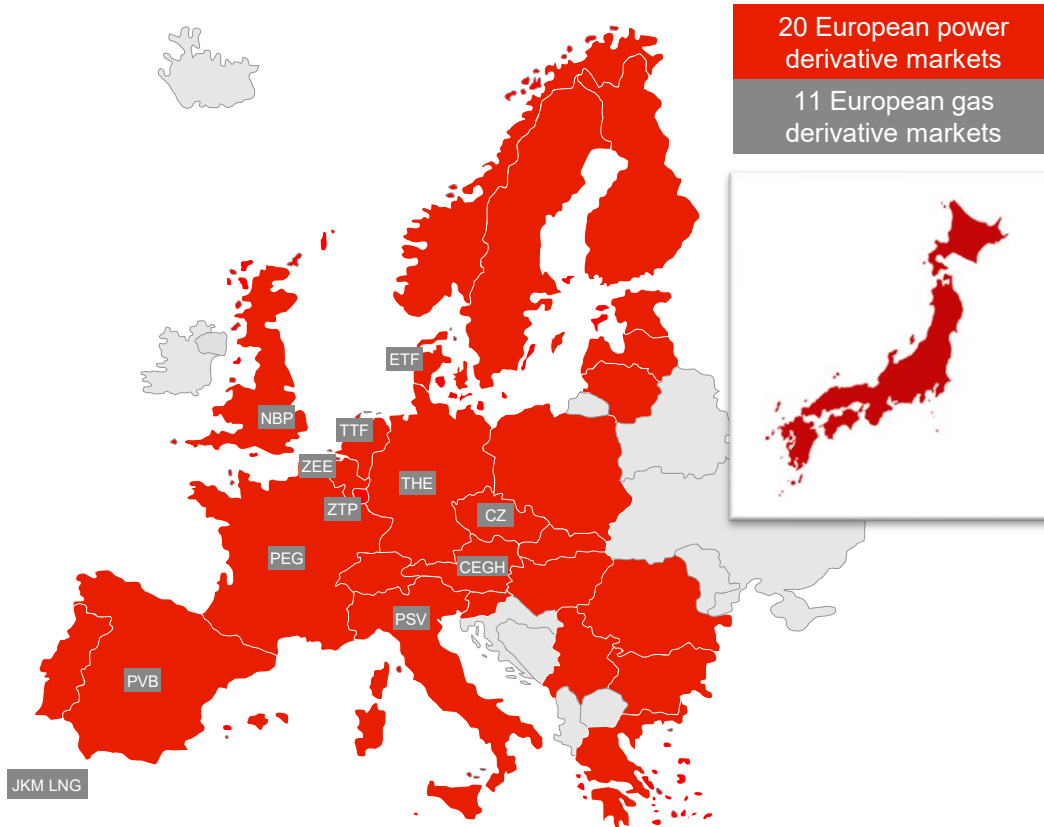
Power

- Day ahead markets through blind auctions, once a day, year round
- Intraday markets with continuous trading up to 5 minutes before delivery
- Day ahead and Intraday market coupling across 19 countries in cooperation with other NEMOs and TSOs
- Offering to expand to other countries

Gas

- Within-day hourly spot contracts
- Each day (ahead) spot contracts
- EEX also publishes spot price references such as EGS1

About EEX Group - European energy derivatives offering



Power

- Maturities until 10 years ahead
- Exchange trading (order book) & trade registration
- Financial settlement & future to spot service for physical fulfillment of contracts
- +20 locational spread contracts

Gas

- Maturities until 6 years ahead
- Exchange trading (order book) & trade registration
- Financially and physically settled futures
- Locational and time spread contracts
- Also futures on JKM LNG and Henry Hub

Simplifying Area Price Hedging with Nordic Zonal Futures

EEX Nordic Zonal Futures



Outright Futures for all Nordic Bidding Zones: one single trade and **one collateral requirement** for hedging area price risk.



EPEX's trusted, NEMO-harmonised indices as the underlying reference.



Improved Price Transparency for Nordic Bidding Zones and development of robust, long-term price signals.



Improved Liquidity: access to a wider pool of pan-European players can boost liquidity in the Nordics and capture **cross-margining** efficiencies.

Nordic System Price and Zonal Futures on one platform

- The economic equivalent of a “combo” trade involving two positions (EPAD + System Price) is a **single trade in zonal futures**, and therefore a **single margin requirement** and open position.
- The result is the same as the market participant is fully hedged for the respective price area.

Example:

“Combo” Trade		
Contract	Position	Traded Price
EPAD NO2	+ 1	10.20
System Price Futures	+ 1	100.00

=

Zonal Futures		
Contract	Position	Traded price
NO2 Zonal Futures	+1	110.20

- EEX currently offers **System Price futures** with maturities W+5, M+7, Q+7 and Y+6.
- Trading **spreads between zonal futures and the System Price** will be possible.

Nordic Zonal Futures Product Scope

Country	Bidding Zone	Area Price Designation	Base Load Futures
Denmark	DK1	ARH	Days, We, Week, Month, Quarter, Year
	DK2	CPH	Days, We, Week, Month, Quarter, Year
Finland	FI	HEL	Month, Quarter, Year
Norway	NO1	OSL	Week, Month, Quarter, Year
	NO2	KRI	Week, Month, Quarter, Year
	NO3	TRH	Month, Quarter, Year
	NO4	TRO	Month, Quarter, Year
	NO5	BER	Month, Quarter, Year
Sweden	SE1	LUL	Month, Quarter, Year
	SE2	SUN	Week, Month, Quarter, Year
	SE3	STO	Week, Month, Quarter, Year
	SE4	MAL	Week, Month, Quarter, Year

Maturities vary according to:

1. Interconnectors with Continental markets
2. Existing liquidity
3. Prevalence of renewable energy generation capacity

Nordic Zonal Futures Contract Specifications

	EEX Danish Power Base Future	EEX Finnish Power Base Future	EEX Norwegian Power Base Future	EEX Swedish Power Base Future
Market Areas	DK1, DK2	FI	NO1, NO2, NO3, NO4, NO5	SE1, SE2, SE3, SE4
Product type	Cash-settled Power Futures			
Underlying	EPEX Spot Market (Day Ahead) Baseload Price (00:00 - 24:00) for the respective market area			
Contract volume	1 MW x 24 hours x number of calendar days in delivery period			
minimum lot size	1 contract or a multiple thereof			
Pricing and min. Price Fluctuation	EUR per MWh to the second decimal place, minimum price fluctuation EUR 0.01 per MWh			
Final Settlement Price	Monthly Average Price of EPEX Spot Market (Day Ahead) Baseload Price (00:00 – 24:00) for the respective market area as published by EPEX			
Available Maturities	Next 9-13 days, next 2 weekends, current and next 4 weeks, the current and next 6 full months, next 7 full quarters, and 6 full years.	the current and next 6 full months, next 7 full quarters, and 6 full years.	current and next 4 weeks ¹ , the current and next 6 full months, next 7 full quarters, and 6 full years.	current and next 4 weeks ² , the current and next 6 full months, next 7 full quarters, and 6 full years.
Go-Live	Q1 2024			

Liquidity in the Nordics can be unlocked through spread trading

EEX Nordic Location Spreads - DRAFT													
SYS Leading		DK Leading		FI Leading		NO Leading		SE Leading				Conti Leading	
Leg 1	Leg 2	Leg 1	Leg 2	Leg 1	Leg 2	Leg 1	Leg 2	Leg 1	Leg 2	Leg 1	Leg 2	Leg	Leg
SYS	DK1	DK1	DK2	FI	DK1	NO1	DK1	SE1	NO2	SE3	SE1	DE	SYS
SYS	DK2	DK1	NO2	FI	DK2	NO1	DK2	SE1	NO5	SE3	SE2	DE	DK1
SYS	NO1	DK1	NO4	FI	NO1	NO1	NO2	SE2	DK1	SE3	SE4	DE	DK2
SYS	NO2	DK1	NO5	FI	NO2	NO1	NO3	SE2	DK2	SE4	DK1	DE	NO1
SYS	NO3	DK1	SE1	FI	NO3	NO1	NO4	SE2	NO1	SE4	DK2	DE	NO2
SYS	NO4	DK2	NO4	FI	NO4	NO1	NO5	SE2	NO2	SE4	NO1	DE	SE4
SYS	NO5	DK2	NO5	FI	NO5	NO1	SE1	SE2	NO3	SE4	NO2	DE	FI
SYS	SE1	DK2	SE1	FI	SE1	NO2	DK2	SE2	NO4	SE4	NO3	DE	SE3
SYS	SE2			FI	SE2	NO2	NO5	SE2	NO5	SE4	NO4	NL	DK1
SYS	SE3			FI	SE3	NO3	DK1	SE2	SE1	SE4	NO5	NL	NO2
SYS	SE4			FI	SE4	NO3	DK2	SE2	SE4	SE4	SE1	PL	SE4
SYS	FI					NO3	NO2	SE3	DK1				
						NO3	NO5	SE3	DK2				
						NO3	SE1	SE3	NO1				
						NO4	NO2	SE3	NO2				
						NO4	NO3	SE3	NO3				
						NO4	NO5	SE3	NO4				
						NO4	SE1	SE3	NO5				

Spreads are listed with the more liquid market as the leading leg

EEX intends to run a tender for Market Makers for Zonal Futures

Maturities for Location Spreads depends on underlying products, typically: 5 Weeks, 7 Months, 7 Quarters, 6 Years

Location spread trading creates liquidity through linked order books

What are location spreads?

A technical functionality that allows for the simultaneous execution of two combined orders in at least two different contracts in a synthetic order book.

How do location spreads create liquidity?

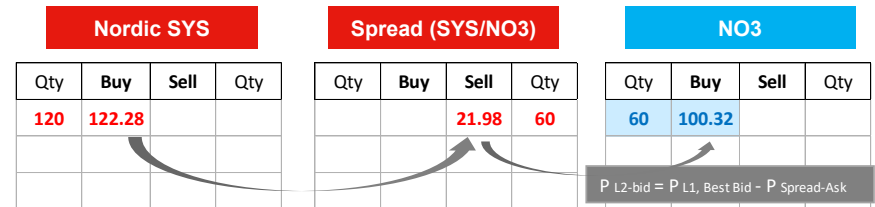
An explicit buy order in an outright future order book and an explicit sell order in another order book, will be automatically mirrored in the respective spread order book. Price discovery is achieved and trading opportunities and thereby liquidity is facilitated.

What is their benefit?

Market participants can efficiently hedge against regional price risks and contribute to increased price discovery and liquidity in linked markets.

Example: System Price-NO3 Location Spread

An **explicit buy order** in the SYS order book and an **explicit sell order** in the SYS-NO3 spread order book will lead to an **implied buy order** in the NO3 order book.



The automatic multiplication of explicit orders into implied orders generates trading opportunities by **bridging liquidity from an anchor market into less liquid markets.**

Multiple scenarios are possible for the creation of implied orders

Order Origins Matrix	Order Book 1		Order Book 2		Spread	
	Bid order	Ask order	Bid order	Ask order	Bid order	Ask order
x - Explicit						
(x) - Implied						
Case 1	x			x	(x)	
Case 2		x	x			(x)
Case 3	x		(x)			x
Case 4		(x)		x		x
Case 5		x		(x)	x	
Case 6	(x)		x		x	

Legend

Explicit order: A buy or sell order entered by a market participant into an order book.

Implied order: An order generated synthetically from two explicit orders registered in an order book. These two orders could be constituted from either two individual legs or one individual leg and a strategy involving that leg.

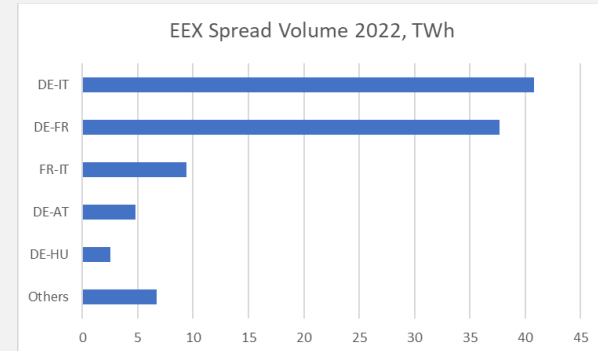
Six possible simple scenarios are shown for implied order creation. More complex scenarios involving more than two spread order books are possible.

Theoretically all markets with linked spreads could influence each other, leading to **increased liquidity and price discovery.**

Location spread trading at EEX



- Since 2014, EEX offers locational spread contracts. In 2022 volumes exceeded **100 TWh**
- **+38 locations spread contracts** ([link](#)), +20 of which traded actively, ½ of which are with German power.
- Also **Hungary, Italy and France are transforming into trading hubs**.
- Location spreads have proven to grow liquidity across EEX markets and facilitate **cross-border trading**.



The Nordic market will decide where liquidity will be pooled

**EEX will
provide
choice for
the Nordics**

Zonal Futures for all Nordic bidding zones expected **to go live in Q1 2024**.

Current set of **Nordic System Price futures will remain listed at EEX**.

In addition, the **EEX locational spread trading functionality will be made available** for trading spreads between Nordic System Price Futures and Zonal Futures as well as between some Zonal Futures and EEX's power futures in other European markets, such as Germany or The Netherlands.

With Zonal Futures and System Price futures both available, **we enable the market to choose what works best for their trading needs**

Benefits

1

Ease of risk management

- Zonal Futures will enable Nordic market participants to hedge their price risks more efficiently, as only one transaction is needed.

2

Connecting Nordic and Continental European markets

- Zonal Futures and EEX's spread trading functionality will ease the access of Continental players to the Nordic market

3

Market participants decide where and how to trade

- EEX will offer the full choice of products (System Price and Zonal Futures + spread trading functionality), allowing for every trading strategy.

4

Easy access

- Zonal Futures will be available to all participants already active in EEX Nordic Power
- New clients have the choice to become member of the EEX or access the market through the broad network of indirect market access providers

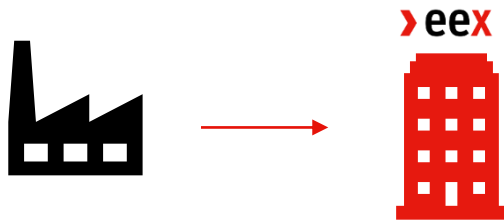
5

Capital efficiencies

- Zonal Futures allow for more efficient collateral management due to potential cross-margin effects with other zones or even other European power markets

How can companies access EEX's Nordic Power Futures?

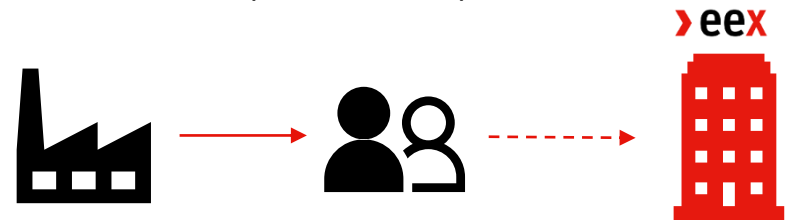
Via own EEX membership
(direct access)



Trading participant holds membership with exchange/CCP and accesses the market directly

All clients already admitted to trade Nordic Power at EEX will be automatically admitted to trade Nordic Zonal Futures

Via market access provider
(indirect access)



Trading participant holds contractual relationship only with access provider

Market is accessed indirectly via the access provider's membership

Direct Access

› eex

- Pass the trader exam
- Choose the specific technical access
- Fill in the admission documents

› ecc

- Find a Clearing Bank and sign a NCM agreement
- Fill in the KYC and admission documents

Admission to the exchange
EEX

Admission to the Clearing House
ECC

Indirect Access

Trade EEX products without becoming an exchange member

- EEX members, (ie. Banks) provide access to EEX products for non-members (“Access Provider”).
- The non-member trades via the member ID of the Access Provider.
- Several access options available, depending on each Access Provider’s offering, e.g. the non-member uses:
 - Its own trading frontend
 - The trading screen of the Access Provider, or
 - No frontend at all, where everything is handled by the Access Provider.

In all cases, the Access Provider remains legally and operationally responsible for any transactions concluded under its member ID.



List of Market Access Providers available at:
<https://www.eex.com/en/indirect-access>

ECC Clearing Network

Broker Community

600+
Participants

29

Clearing Members

ABN AMRO Clearing Bank N.V.
 Banca Akros SpA
 Banca Popolare di Sondrio SCPA
 Banco Santander, S.A.
 Bayerische Landesbank
 BNP Paribas SA.
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 Commerzbank AG
 Citigroup Global Market Europe AG
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Macquarie Bank Europe
 MAREX Financial Limited
 Mizuho Securities USA LLC
 Morgan Stanley Europe SE
 Morgan Stanley & Co Intl plc
 National Bank of Greece SA
 Oesterreichische Kontrollbank AG
 Raiffeisenbank a.s.
 Renta 4 Banco S.A.
 Skandinaviska Enskilda Banken AB
 Société Générale SA
 StoneX Financial Ltd
 UBS AG
 UniCredit Bank AG

Thank you!

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