

The Nordic market will decide where liquidity will be pooled

EEX provides choice for the Nordics

Zonal Futures for all Nordic bidding zones are now live since 25 March 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

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, NEMOharmonised indices as the underlying reference.



Improved Price Transparency for Nordic Bidding Zones and development of robust, longterm price signals.



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

Benefits

Large pool of participants

- The Zonal Futures enable Nordic market participants to hedge their price risks more efficiently and allows new players from Continental Europe to participate in the market.
- Connecting Nordic and Continental European markets
- With Zonal Futures and EEX's spread trading functionality, we provide any trading opportunity that market participants may wish
- Market participants decide where and how to trade
- EEX provides the full choice of products (System Price and Zonal Futures + spread functionality)

Easy access

- Zonal Futures are 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

Capital efficiencies

 Zonal Futures allow to hedge price risks with one single product, thus allowing for more efficient collateral management due to potential cross-margin effects with other zones or even other European power markets

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+11 and Y+10.
- 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 |
| Delillark | DK2 | СРН | Days, We, Week, Month, Quarter, Year |
| Finland | FI | HEL | Month, Quarter, Year |
| | NO1 | OSL | Week, Month, Quarter, Year |
| | NO2 | KRI | Week, Month, Quarter, Year |
| Norway | NO3 | TRH | Month, Quarter, Year |
| | NO4 | TRO | Month, Quarter, Year |
| | NO5 | BER | Month, Quarter, Year |
| | SE1 | LUL | Month, Quarter, Year |
| Sweden | SE2 | SUN | Week, Month, Quarter, Year |
| Sweden | SE3 | STO | Week, Month, Quarter, Year |
| | SE4 | MAL | Week, Month, Quarter, Year |

Maturities vary according to:

- 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 (D | ay Ahead) Baseload Price (0 | 0:00 - 24:00) for the respective | ve market area | | | | | | |
| Contract volume | 1 MV | x 24 hours x number of cale | endar days in delivery period | | | | | | | |
| mimimum 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 | | | | | | | | | |
| Settlement Window | The determination of the daily settlement prices takes place between 3:50 pm – 4:00 pm CE(S)T | | | | | | | | | |
| 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 weeks², the current and next 6 full months, next 7 full quarters, and 6 full years. | | | | | | |

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Liquidity in the Nordics can be unlocked through spread trading

| EEX Nordic Location Spreads | | | | | | | | | | | |
|-----------------------------|--------|------------|------------|---------------------|-------|-------|-------|-------|-------|-------|-------|
| Conti S | oreads | SYS - Zona | al Spreads | Inter-zonal spreads | | | | | | | |
| Leg 1 | Leg 2 | Leg 1 | Leg 2 | Leg 1 | Leg 2 | Leg 1 | Leg 2 | Leg 1 | Leg 2 | Leg 1 | Leg 2 |
| DE | SYS | SYS | DK1 | DK1 | DK2 | FI | NO3 | NO2 | NO5 | NO3 | SE3 |
| DE | DK1 | SYS | DK2 | DK1 | FI | FI | NO4 | NO3 | NO4 | NO4 | SE1 |
| DE | DK2 | SYS | NO1 | DK1 | NO1 | FI | NO5 | NO3 | NO5 | NO4 | SE2 |
| DE | NO1 | SYS | NO2 | DK1 | NO2 | FI | SE1 | NO4 | NO5 | NO5 | SE3 |
| DE | NO2 | SYS | NO3 | DK1 | SE3 | FI | SE2 | NO1 | SE1 | SE1 | SE2 |
| DE | NO5 | SYS | NO4 | DK1 | SE4 | FI | SE3 | NO1 | SE2 | SE1 | SE3 |
| DE | SE4 | SYS | NO5 | DK2 | FI | FI | SE4 | NO1 | SE3 | SE1 | SE4 |
| DE | SE3 | SYS | SE1 | DK2 | NO1 | NO1 | NO2 | NO1 | SE4 | SE2 | SE3 |
| DE | FI | SYS | SE2 | DK2 | NO2 | NO1 | NO3 | NO2 | SE1 | SE2 | SE4 |
| NL | DK1 | SYS | SE3 | DK2 | SE3 | NO1 | NO4 | NO2 | SE2 | SE3 | SE4 |
| NL | NO2 | SYS | SE4 | DK2 | SE4 | NO1 | NO5 | NO2 | SE3 | | |
| NL | SYS | SYS | FI | FI | NO1 | NO2 | NO3 | NO2 | SE4 | | |
| PL | SE4 | | | FI | NO2 | NO2 | NO4 | NO3 | SE2 | | |

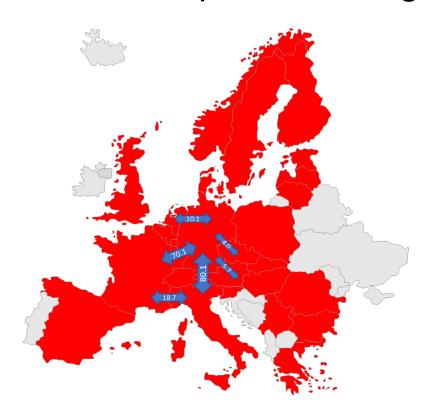
Spread creation rules:

- 1. Conti leg always leads
- 2. SYS leg always leads
- 3. Inter-zonal spreads are created in alphabetic and numeric order

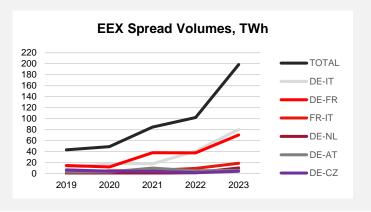
Maturities for Location Spreads depends on underlying products, typically: 5 Weeks, 7 Months, 7 Quarters, 6 Years

8

Location Spread trading at EEX



- Since 2014, EEX offers locational spread contracts. In 2023 volumes doubled YoY and exceeded 200 TWh
- +38 locations spread contracts (<u>link</u>), +20 of which traded actively, ½ of which are with German power.
- Also Italy and France are transforming into trading hubs with the Czech Republic as the main connector to Eastern Europe.
- Location spreads have proven to grow liquidity across EEX markets and facilitate cross-border trading.



Location spread trading creates liquidity through linked order books

What are location spreads?

Location spreads are a technical functionality that allows for the simultaneous execution of two combined orders in at least two different contracts in a synthetic order book. Linked order books also generate automatic multiplication of explicit orders – see opposite example.

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 | | |
|----------------------|--------------|-----------|-----------|-----------|-----------|-----------|--|
| x - Explicit | Bid order | Ask order | Bid order | Ask order | Bid order | Ask order | |
| (x) - Implied | | | | | | | |
| Case 1 | Х | | | Х | (x) | | |
| Case 2 | | Х | X | | | (x) | |
| Case 3 | Х | | (x) | | | Х | |
| Case 4 | | (x) | | Х | | Х | |
| Case 5 | | Х | | (x) | X | | |
| Case 6 | (x) | | Х | | X | | |

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.

Legend

Order Book: The electronic list of buy orders and sell orders for a specific future.

Bid Order: An order to buy a future.

Ask order: An order to sell a future.

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.

Leg: A term used when referring to the execution of a trading strategy with more than one component.



13

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

> eex

Direct Access

> eex

- Pass the trader exam
- Choose the specific <u>technical access</u>
- Fill in the admission documents

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- Find a <u>Clearing Bank</u> and <u>sign a NCM</u> agreement
- Fill in the KYC and admission documents

Admission to the exchange **EEX**

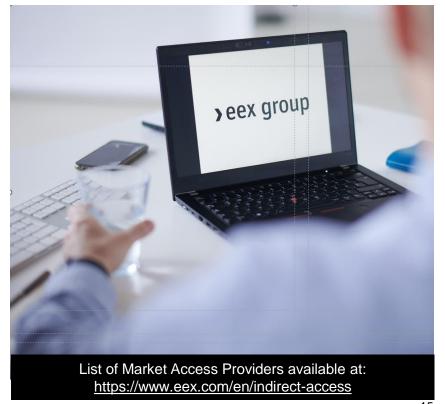
Admission to the Clearing House ECC

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.



ECC Clearing Network

Broker Community Clearing Members ABN AMRO Clearing Bank N.V. Macquarie Bank Europe Banca Akros SpA MAREX Financial Limited Mizuho Securities USA LLC Banca Popolare di Sondrio SCPA Banco Santander, S.A. Morgan Stanley Europe SE Bayerische Landesbank Morgan Stanley & Co Intl plc 600 +BNP Paribas SA. National Bank of Greece SA BofA Securities Europe SA Oesterreichische Kontrollbank AG Commerzbank AG Raiffeisenbank a.s. **Participants** Citigroup Global Market Europe AG Renta 4 Banco S.A. Citigroup Global Markets Limited Skandinaviska Enskilda Banken AB Société Générale SA Goldman Sachs International StoneX Financial Ltd Intesa Sanpaolo **UBS AG** J.P. Morgan Securities plc UniCredit Bank AG KELER CCP Ltd. Joh. Berenberg Gossier & Co. KG

Margin Requirements: Initial Margin Rates

Positions in EEX Nordic Zonal Futures are subject to ECC initial margin requirements.

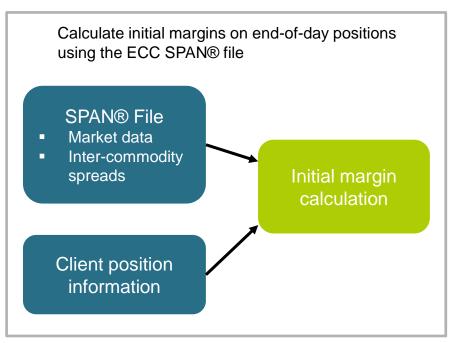
ECC will calculate the margin rates on each ECC Business day according to ECC's standard margin methodology.

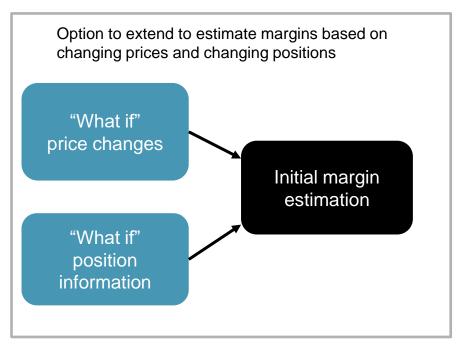
To find the current ECC margin rates applicable to Nordic Futures:

- 1. Visit the ECC website at https://www.ecc.de/en/risk-management/margining
- 2. Click or scroll down to Reports & Files
- Click on "Scanning Ranges"
- 4. Download the latest Scanning Ranges or Intercommodity Spreads .csv files and apply text to columns.
 - The EUR value for Initial Margin can be found in the "PriceScanRange" column.
 - The credit applied to the combination of two commodity positions can be found under the "Credit" column.

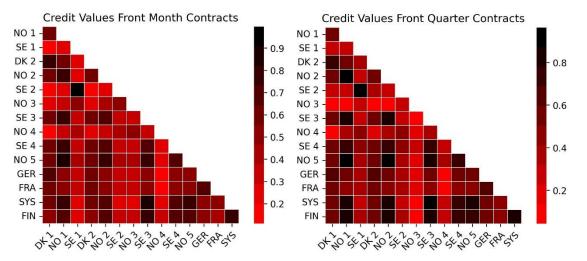
Lacima Analytics Margin Simulator

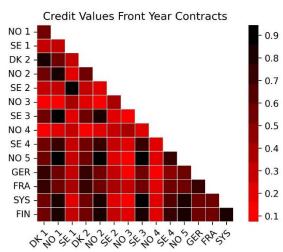
An easy-to-use tool to estimate margins for current and potential portfolios





Margin Requirements: Inter-commodity spreads





Inter-commodity spreads will apply for correlated opposing positions, reducing the overall margin requirement for portfolios

Margin spreads depend on correlation across commodities, regions, periods and profiles

Matrices above show the indicative correlation between the different Nordic zones and related countries in the front Month/Quarter/Year contracts

Disclosing Inside Information under REMIT

The EEX Transparency Platform as a central Inside Information Platform (IIP) enables market participants to fulfil their disclosure obligations under REMIT.

Our Service

- ✓ Effective and timely data publication on a central IIP
- Automatic data forwarding to ACER and, if additionally required, to NRAs and ENTSO-E
- ✓ Report efficiently and easily with the EEX Inside Information

 Messenger (browser-based) or connect directly to our web service

 API

 ✓ The service of the service





> 200 market participants from 16+ countries report data to the EEX Transparency Platform.

Your Advantages

- Regulatory approved by ACER as IIP and Registered Reporting Mechanism (RRM)
- ▼ REMIT 2.0 ready and high availability including backup solution
- Secure and certificate-based solutions
- √ Technical validation and checks ensure highest data quality
 Approved third-party provider for ENTSO-E

#centralplatform

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Thank you