part of eex group



Trading at EPEX SPOT 2021



About EPEX SPOT

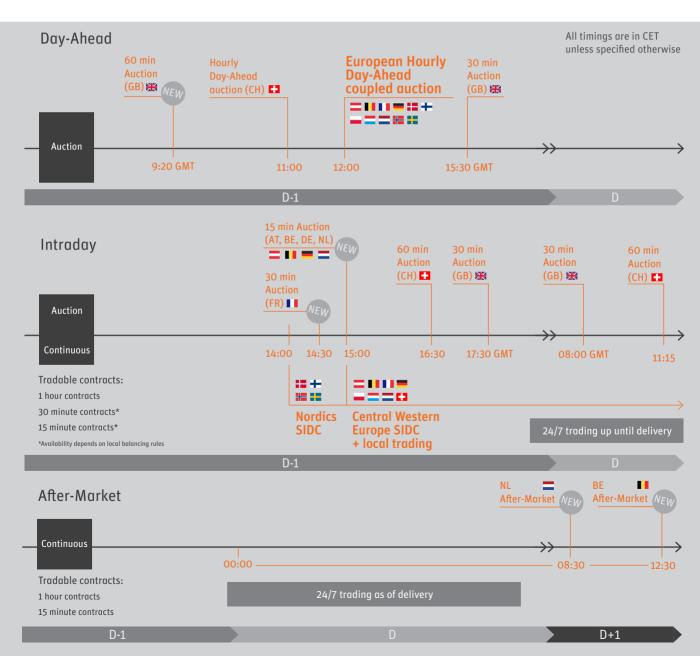
The European Power Exchange EPEX SPOT SE operates organised short-term electricity markets with 24/7 market operation services. In 2020, **our community of over 300 companies has traded 615 TWh** of electricity on EPEX SPOT representing 30% of the European electricity consumption.

From Day-Ahead with physical fulfilment to Intraday trading, After-Market and Local Flexibility products – EPEX SPOT is your partner in trading – boosting innovation and providing a truly pan-European offer across the entire trading value chain.

Market Areas: Austria, Belgium, France, Germany, Great Britain, Luxembourg, The Netherlands, Switzerland, Denmark, Finland, Norway, Sweden and Poland.



EPEX SPOT is a European company (Societas Europaea) in corporate structure and staff, based in Paris with offices or affiliates in Amsterdam, Berlin, Bern, Brussels, London and Vienna. EPEX SPOT is held by EEX Group, part of Deutsche Börse, and HGRT, a holding of European electricity transmission system operators.



Markets and volumes

EPEX SPOT markets

Coming soon

Serviced Power Exchanges



Exchange members



EPEX SPOT is your partner in trading

Innovation

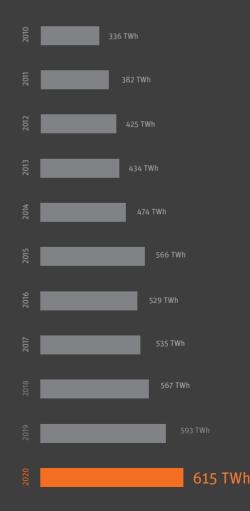
All products and innovations at EPEX SPOT are developed in close cooperation with our customers. The Exchange Council represents our trading community and makes sure all products and innovations are discussed and decided upon jointly with the market.

Member first

With 24/7 market operations call support, geographical proximity, data & reporting services - we are at your service to ensure the most performant and complete trading experience.

Secured markets

Trade with confidence at each step of the process: starting from key safety settings and trade cancellation possibilities on our trading systems; to proven default risk management with our trusted Clearing House, ECC. Our Market Surveillance Office also ensures the markets are running in a fair and orderly manner with their proven expertise.



> dayahead

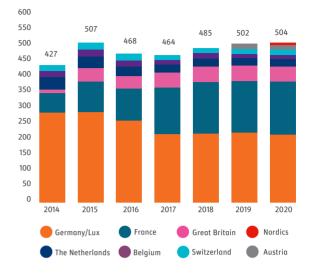
EPEX SPOT operates daily Day-Ahead auctions that are part of the European Market Coupling.

The Day-Ahead price, in particular, the German Phelix, has become a European reference thanks to its underlying liquidity. Apart from Great Britain and Switzerland, all markets are part of the Single Day-Ahead Coupling (SDAC) which stretches across 20 markets from Portugal to Finland and from Ireland to Poland.

Coupled auction market areas: Austria, Belgium, France, Germany, Luxembourg, The Netherlands, Denmark, Finland, Norway, Sweden and Poland.

Local auction market areas: Great Britain and Switzerland

Day-Ahead volumes (TWh)



Tradable Contracts

24 hourly contracts are available on the auction, corresponding to the 24 hours of the following day. Hour 1 starts at 24:00 and ends at 1:00, hour 24 starts at 23:00 and ends at 24:00. Contracts can be traded either in single hours or in blocks of combined hours.

Single hours

Orders contain up to 256 price/quantity combinations for each hour of the following day. The 256 prices are not necessarily the same for each hour. A volume – whether positive, negative or nil – must be entered at the price limits. A price-inelastic order is sent by putting the same quantity at the price limits.

Blocks

Block Orders encompass several hours at the same price. A block order is executed at the same ratio on all its hours.

Specific conditions:

- Maximum volume per classic block order is 600 MW in DE/LU, AT and FR, 500 MW in DK, FI, GB, NO, PL and SE, 400 MW in NL and BE and 150 MW in CH
- Either buy or sell
- Can be either entirely executed or entirely rejected (All-or-None); or executed above a minimum acceptance ratio defined by traders (curtailable blocks)

- Volumes can be different across hours (profiled blocks):

Profiled Blocks:



Smart and big blocks

Smart and big blocks portfolios are classic portfolios with the additional functionality allowing the submission of linked, exclusive and big blocks.

- Linked blocks are a set of blocks with a linked execution constraint, meaning the execution of one block depends on the execution of its father block. They allow to represent the variation of electricity generation with regards to the market price.
- Exclusive blocks are a group of blocks within which a maximum of one block can be executed, so that electricity is traded at the most profitable moment.
- **Big blocks** are larger than classic blocks with the maximum size going up to 1300 MW and allows to cover large produc tion capacities.
- **Loop blocks** are families of two blocks which are executed or rejected together. They allow to bundle buy and sell blocks to reflect storage activities.

Trading Procedure

A blind auction takes place once a day, 365 days a year. Results are published as soon as possible from 12:50 for all Day-Ahead coupled markets; as soon as possible from 11:10 for Switzerland. The order book opens 45 days in advance and closes one day before delivery at 12:00 for all Day-Ahead

coupled markets, at 11:00 for Switzerland.

Minimum and maximum prices

Min: -500 €/MWh Max: 3000 €/MWh

Minimum price/ volume increment

Price tick: 0.1 €/MWh Volume tick: 0.1 MW



Clearing and Settlement

EPEX SPOT transmits trade information to the central counterparty, European Commodity Clearing (ECC), for settlement and delivery. ECC nominates to the concerned TSO on behalf of the Exchange Member 4 times per hour until the local nomination deadline.

Delivery Zones

50Hertz, Amprion, APG, Elia, NationalGrid, RTE, Swissgrid, TenneT DE & NL, TransnetBW, Energinet, Fingrid, PSE, Statnett, Svenska kraftnät



API (Application Programming Interface)

Order submission and results retrieval are both available through API access, in addition to the client access.

Local GB 60 min Day-Ahead Auction at 9:20 and 30 min Day-Ahead Auction at 15:30

Since 31 December 2020, Great Britain has decoupled from the Internal Energy Market (IEM) and European Single Day-Ahead Coupling (SDAC) due to Brexit. To accommodate this change, the GB 60 min Day-Ahead auction timing has been moved up from 11:00 GMT to 9:20 GMT – allowing market participants to

Trading Procedure

An auction takes place once a day, 365 days a year. Results are published as soon as possible from 9:30 GMT and 15:45 GMT respectively.



quickly react to the results of the daily interconnectors capacity auctions.

The GB 30 min Day-Ahead auction at 15:30 GMT allows market participants to trade half hour contracts and offers further arbitrage opportunities.

Minimum price/volume increment



Price tick: 0.1 £/MWh Volume tick: 0.1 MW

Minimum and maximum prices

Min: -500 £/MWh Max: 3000 £/MWh



API (Application Programming Interface)

Order submission and results retrieval are both available through API access, in addition to the client access.

> intraday

Our Intraday markets cover the entire European region, , from CWE, Nordics and Poland (coming soon). Intraday markets are mainly used for:

- Plan generation and adjust purchases & sales closer to delivery
- Managing forecast errors or unforeseen events
- Adjusting from hourly positions to finer granularities (30 min or 15 min)
- Offering flexible generation as a substitution for renewables
- Enabling cross-border arbitrage and trading

The Intraday market is divided into continuous and auction trading. All Intraday continuous markets of EPEX SPOT run on the M7 trading system, an industry-standard in terms of performance. These markets are by far the most liquid Intraday markets in Europe.

Intraday Volumes (TWh) 100 90 80 60 50 40 20 10 2014 2015 2016 2017 2018 2019 2020

France

Belgium

Great Britain

Switzerland

Continuous Markets

Trading Procedure

- Continuous trading 7 days a week, 24 hours a day, all year around

Minimum price/ volume increment

000

24

Price tick: 0.01 €/MWh Volume tick : 0.1 MW

Minimum and maximum price

Min: -9999 €/MWh Max: 9999 €/MWh



Tradable Contracts

1 hour contracts 30 minute contracts 15 minute contracts

API (Application Programming Interface)

Versatile, performant and standardized API services are available for order submission and results retrieval, in addition to the client access.

Lead Time

Germany/Lux

The Netherlands

- FI: O minutes
- AT, BE, DE, NL: 5 minutes
- GB: 15 minutes for 30 minutes contracts
- FR: 30 minutes
- CH: 30 minutes
- Cross-border (SIDC markets): 60 minutes

The lead time is the time between the end of the trading session and the start of the delivery period.

Clearing and Settlement

ECC nominates to the concerned TSO on behalf of the exchange member every 15 minutes.

Delivery Zones

50Hertz, Amprion, APG, Elia, NationalGrid, RTE, Swissgrid, TenneT DE & NL, TransnetBW, Energinet, Fingrid, PSE, Statnett, Svenska kraftnät

Trade Registration



OTC clearing services allowed for hourly and block orders.



Nordics

Austria

DE, AT, BE & NL 15 min Intraday auctions and FR 30 min Intraday auction

Trading Procedure

A blind auction takes place once a day, 365 days a year. Results are published as soon as possible from the given times below. The order book opens 45 days in advance. All timings are in CET/CEST.

Closure of order book: DE 15:00, AT 15:00, BE & NL 15:00, FR 14:30 Results publication: DE 15:10, AT 15:20, BE & NL 15:40, FR 14:50 Tradable contracts: DE 15 min, AT 15 min, BE & NL 15 min, FR 30 min

Clearing and Settlement

EPEX SPOT transmits trade information to the central counterparty, ECC, for settlement and delivery. ECC nominates to the concerned TSO on behalf of the Exchange Member until the local nomination deadline.

Minimum and maximum prices

Min: -3000€/MWh Max: 3000€/MWh



Minimum price /volume increment

Price tick: 0.1€/MWh Volume tick: 0.1MW

GB 30 min Intraday coupled auctions with Ireland and CH 60 min Intraday coupled auctions with Italy

Trading Procedure

A blind auction takes place twice a day, 365 days a year in GB and CH. Results are published as soon as possible from the given times below. The order book opens 14 days in advance. Timings are in GMT/BST for GB and CET/CEST for CH.

Closure of order book: GB IDA1 17:30, GB IDA2 8:00, CH 16:30, CH 11:15 Results publication: GB IDA1 18:00, GB IDA2 8:30, CH 16:45, CH 11:30 Tradable contracts: GB IDA1 30 min, GB IDA2 30 min, CH 60 min, CH 60 min



Clearing and Settlement

EPEX SPOT transmits trade information to the central counterparty, ECC, for settlement and delivery. ECC nominates to the concerned TSO on behalf of the Exchange Member until the local nomination deadline.



Minimum and maximum prices

Min: GB -150€/MWh Max: GB 1500€/MWh CH -500€/MWh CH 3000€/MWh



Minimum price/volume increment

Price tick: GB 0.1 £/MWh CH 0.1€/MWh Volume tick: 0.1MW



> aftermarket

The After-Market is a new product on the continuous trading segment where you are able to adjust your physical positions in the ex-post timeframe, once the final information on production and consumption are available. It can be instrumental in reducing imbalance settlement costs. The products are available on the M7 trading system – allowing you to trade Intraday & After-Market through one trading screen.

Tradina Procedure Countries: BE & NL Opening of the trading session: at delivery start Closure of trading (CET): BE 12:30 on the Day after Delivery (D+1), NL 8:30 on the Day after Delivery (D+1) Minimum and maximum prices More services: Market Data & API offers Min: -9999€/MWh Exchange members and third parties can benefit from a range of Max: 9999€/MWh additional services: - e-learning, to better understand the power market and take the trader exam - market data and indices, as soon as available, to derive crucial Minimum price /volume - API solutions, to customize your trading experience increment Price tick: 0.01€/MWh Contact us: marketdata.sales@epexspot.com Volume tick: 0.1MW elearning@epexspot.com Link to webshop: https://webshop.eex-group.com

EPEX SPOT Market Operations

Auction Hotlines (incl. Intraday) DE: +49 341 33 96 807 1 • FR: +33 1 73 03 96 10 • NL: +31 20 305 4042 • GB: +44 207 220 3444

Continuous Intraday Hotlines DE: +49 341 33 96 807 2 • FR: +33 1 73 03 77 00 • NL: +31 20 305 5079 • GB: +44 207 220 3444 Fax (only applicable for the Continuous Intraday market), DE: +49 341 21 56 111 • NL: +31 20 305 4002 • GB: +31 20 305 4002

E-mail: powerspot@epexspot.com

EPEX SPOT SE, 5 boulevard Montmartre, 75002 Paris (France), info@epexspot.com, www.epexspot.com

Offices: Quarter Plaza, Transformatorweg 90, 1014 AK Amsterdam (The Netherlands); Marktgasse 20, 3011 Bern (Switzerland); Treesquare, Square de Meeûs 5-6, 1000 Brussels (Belgium); Regus at The Chancellor Office, Rahel-Hirsch-Straße 10, 10557 Berlin (Germany); 11 Westferry Circus, Canary Wharf, London E14 4HE (United Kingdom); Mayerhofgasse 1/19, 1040 Vienna (Austria)

How to become a member

- 1. Contact us to find the membership that suits you best E-mail: sales@epexspot.com, Tel +33 1 73 03 62 62
- 2. Find a clearing bank or sign a direct clearing agreement with ECC