Our core markets are the backbone of our business, and the annual trading volume reached a new record again, for the fourth year in a row. We further diversified our product suite, with the introduction of new Intraday auctions, and broke new ground for our services.

Looking back on the achievements of the past decade, during the celebrations of our 10 years of power, also brought up the obligatory contemplation: what lies ahead of us? 2019 was a true turning point on all fronts.

Opening our mind. We continued to redefine our role within the ever-changing energy industry, to further drive forward the decarbonisation, digitalisation and decentralisation of the sector. Our joint fight against climate change brings new responsibilities for all actors. We have taken up ours and continue to make our markets fit for renewables while innovating to create markets that are inclusive of new energy actors, new technologies and new business models.

Opening our means. Embarking on a transformative journey like this requires investments. Our business, our tools and our expertise grow with our challenges. We continue to invest in our systems and we think outside the box when it comes to the ways we want to make our price signal available to new players.

Opening our fields. This means bringing our expertise to new territory. In 2019 we entered the field of balancing services for the first time in our company history. EPEX SPOT also continues to be a reliable partner in projects on a European scale, cooperating with various actors to bring the European power sector closer together.

The past year has also brought a major challenge to our company, which was the technical incident leading to the decoupling of several of our markets in June. It is crucial that we grow from such experiences. Not only on an organisational level but including all processes and instances of the European Market Coupling. Everything we take away from such a crisis makes us more resilient as an energy community.

This has proven true, unfortunately, quicker than anticipated as I am writing these words, the world is being rattled by the Covid-19 pandemic. The organisational setup of our company allowed us to quickly respond to the crisis and to secure the operations of Europe’s wholesale markets in a reliable manner. While I am confident that the energy community will come out of this crisis stronger, even more aware of its responsibility towards society, it is also a time where a look into the possibilities of the future can keep our spirits up.

I look forward to what is to come, to opening new horizons together with our teams, our customers and business partners.

“While I am confident that the energy community will come out of this crisis stronger, even more aware of its responsibility towards society, it is also a time where a look into the possibilities of the future can keep our spirits up.”

Ralph Danielski
Chairman of the Management Board
and Chief Executive Officer of EPEX SPOT
WE ARE PART OF EEX GROUP

EEX Group provides market platforms for energy and commodity products across the globe and gives access to a network of more than 650 trading participants. Based in 17 worldwide locations, it offers trading across various commodities such as power, natural gas, environmental products, freight, metals and agriculturals. As part of EEX Group, EPEX SPOT can offer unique cross-selling synergies to trading members as well as access to unmatched expertise across commodities and markets.

WE GIVE VALUE TO POWER

We give value to electricity by delivering a reliable and transparent price for electricity for every hour of the day and every day of the year. All short-term decisions –what power plant should be ramped up or down?– and long term decisions –what technology should be invested in to remain economically sustainable?– are based on the electricity prices delivered by EPEX SPOT.

But we also bring value to the power sector: by organising markets we absorb complexity, an intricate economic situation is aggregated to a simple market price which contains all the relevant information. We enable trading between hundreds of actors making thousands of transactions, a process that is technically complex and requires a high level of technical skill, expertise and trusted systems.

WE HAVE BUILT A COMMUNITY

As a Power Exchange, our role is comparable to that of a neutral community manager. We have built a true community of customers and we form an essential link with the rest of the power community.

The wholesale market relies on large bidding zones to create a reliable and transparent price signal for electricity in Europe. A maximum of liquidity is pooled in all market areas and electricity flows according to the price signal, from the cheaper to the more expensive region. This way, interconnectors are used efficiently, price peaks are attenuated and security of supply is secured.

In February 2019, the project partners of the ENERA market announced the successful launch of the first local flexibility market in the windy north-west of Germany. ENERA is a market-based solution to tackle grid congestions. EWE and EPEX SPOT launched the ENERA market with AVACON NETZ, EWE NETZ, and TENNET.

In today’s decentralised and digitalised world, renewable energies are accessible to everyone. Energy communities emerge in neighbourhoods and businesses become energy self-sufficient, covering a maximum of their electricity consumption with their own production.

Connecting these microlocal energy communities to our wholesale markets allows prosumers to value their electricity and to adjust production and consumption behavior according to the market price. It's a win-win situation for both; prosumers who get an added economic value for their electricity, and market participants, who have increased trading opportunities.

Geographical areas with high renewable generation often experience grid congestions. The abrupt increase of electricity feed-in due to high winds or sun exposure creates a bottleneck on the grid, which has to be solved through costly measures. Our Local Flexibility markets efficiently handle congestions before they occur by incentivizing actors to buy or sell flexibility that triggers additional electricity to be added or removed from the grid.

The wholesale market relies on large bidding zones to create a reliable and transparent price signal for electricity in Europe. A maximum of liquidity is pooled in all market areas and electricity flows according to the price signal, from the cheaper to the more expensive region. This way, interconnectors are used efficiently, price peaks are attenuated and security of supply is secured.
The energy world has been held in the grip of three megatrends, the so-called 3Ds, which have profoundly transformed the sector and continue to do so.

Decarbonisation, the first of the 3Ds, has become the main pillar of Europe’s fight against climate change. By decarbonising various sectors, the European Union plans to be carbon neutral by 2050. The energy sector is at the forefront of this battle with a special focus on electricity generation, which historically relied on conventional power plants, such as coal-fired or nuclear plants.

In parallel to this, technology has evolved quickly, paving the way for digitalisation to transform our everyday lives. Digitalisation is more than just a technical evolution; it’s rather an industrial and social revolution driven by businesses and citizens. The possibilities to use technology to change the way we live, work, and communicate with each other seem endless. This is also true for the electricity sector, the way we steer our electricity use, the emergence of new business models, and the extremely quick pace of innovation in the energy world.

The role of the power market evolves in light of the 3D trends. The most important task of the power market is to efficiently integrate renewables. Because what good does renewable energy do if it doesn’t reach the end consumer? EPEX SPOT has been a pioneer in this field. We introduced our first flexibility products already in 2014 and over the years they have become a cornerstone of decarbonisation. Flexibility products allow market participants to trade electricity in smaller bundles than the usual 60-minute products. In continuous Intraday trading, EPEX SPOT offers 15 minute or 30 minute continuous contracts in seven market areas, complemented by Intraday auctions in three countries – with more to come. In Germany, where net electricity generation of renewables has surpassed fossil generation for the first time in 2019, over 25% of Intraday volumes are traded on 15 minute contracts.

The answer of the electricity sector to this challenge are renewable energies, meaning sources of energy that are not depleted by use, such as water, wind, or solar power. These power generation assets are set up with many distributed small units rather than one large central unit, as it is the case for conventional power generation. This leads to the second megatrend, decentralisation.

Intraday trading, Local Flexibility Markets, Microgrids and the Wholesale Market

Decentralisation Local Flexibility Markets, Microgrids and the Wholesale Market

Digitalisation Application Programming Interfaces (APIs) Partnerships with Independent Software Vendors (ISV’s)

Decarbonisation Flexibility Contracts Real-Time Trading

The market - central pillar of a decarbonised, decentralised and digitalised energy world
FOR THE 12TH TIME, WE HAVE CONDUCTED A DETAILED CUSTOMER SURVEY AT THE END OF THE YEAR TO GAIN INSIGHTS INTO THE WAY OUR MEMBERS PERCEIVE OUR SERVICES, OUR OFFER AND THE TOOLS WE PUT AT THEIR DISPOSAL.

You speak – We listen

A record 160 companies have replied – over 50% of our market participants with general satisfaction largely maintained at 87% despite the challenges we faced throughout 2019. This high engagement is not only important in terms of representativeness of the feedback received but also illustrates that EPEX SPOT’s activity is not a one-way street.

We were able to derive three major topics that are being addressed in the upcoming months: first and foremost, continuing to implement a series of improvements on the M7 system, increasing the number of webinars and topics covered from new products and system functionalities to safety and compliance, and last but not least, sharpening the priorities of projects and products to be delivered in the course of the year to best reflect our member’s needs.

On our Intraday markets, electricity is traded continuously and up to 0 minutes before delivery, to allow for last-minute corrections in case of changing weather or consumption conditions.

The decentralised setup of an energy sector in transition requires new market models. The wholesale market which is highly liquid and covers large bidding zones will be complemented by smaller local markets. The price signal provided by the wholesale market used to be exclusive in use to utilities, suppliers, industrial consumers, trading companies, system operators and aggregators - all actors trading on the wholesale market. With prosumers on the rise, forming small energy communities, the price signal provided by the wholesale market used to be exclusive in use to utilities, suppliers, industrial consumers, trading companies, system operators and aggregators - all actors trading on the wholesale market. With prosumers on the rise, forming small energy communities, a reliable and transparent price signal is needed to provide the missing impetus that allows the new setup to evolve in an economically sustainable direction. The Power Exchange as a neutral actor brings the expertise to provide such a price signal.

Last but not least, EPEX SPOT provides an adequate environment for our highly digitalised customers to make the best of their trading experience on our markets. Our systems have to be stable and reliable to host digitalised trading activity, also referred to as algo trading.

More information on algo trading on page 16.

Lessons learned from the decoupling

In June 2019 EPEX SPOT experienced a technical issue on the Day-Ahead markets which lead to a partial decoupling of the Multi-Regional Coupling (MRC). The root cause of the technical issue was an unsupported order that was entered into the ETS system, causing two consecutive server locks. When the system was up and running again, the deadline for the Market Coupling processes, according to the Price Coupling of Regions, had been reached. The Austrian, Belgian, Dutch, French, German and British Day-Ahead markets were decoupled from MRC.

After further technical issues on the local markets, EPEX SPOT was able to publish firm market results at 15h38 CET. All nominations and payments were completed and settled correctly.

Even though detailed processes are in place for all types of decoupling scenarios, all actors were strongly impacted by this incident, revealing insecurities concerning fallback procedures.

Since then, EPEX SPOT has instigated several dedicated tests and simulations for EPEX SPOT members, to rehearse different scenarios. We have organised a dedicated webinar to present and review the Coupling processes with market participants, collected feedback from trading members and used it to review communication channels and market messages, in order to bring a new level of clarity and guidance to market participants. In addition to this, EPEX SPOT, along with the other involved partners, plays an active role in the different European Market Coupling instances to drive forward the improvement of processes, timings and market messages.

Such incidents are and remain extremely rare, but being prepared is key to secure an orderly market with reliable results.

Renewing our mission
OPENING OUR MEANS
WHAT IS ALGORITHMIC TRADING?
Algorithmic trading essentially describes one thing: a computer is programmed to automatically submit and execute an order, with limited or no human intervention. Put in the global context of the energy sector, however, there is way more to automated trading and its fast spread in the trading community. But let’s start from the beginning.

THE 3D TRENDS
Decarbonisation, the rise of renewables, leads to decentralisation, meaning more and more small installed units complement large power plants. Both trends are furthermore driven by digitalisation, enabling innovation and new business models. The Power Exchange provides the technical environment that allows new trading trends, such as algorithmic trading, to thrive.

API – APPLICATION PROGRAMMING INTERFACE
While all our markets are equipped for algorithmic trading, it plays a particularly important role on the Intraday market. The Intraday market provides flexibility with 15 minute and 30 minute contracts that enable traders to balance their portfolios within an hour, in line with renewable production. Last-minute adjustments can be made up to 0 min before delivery.

Every trading desk has its strategy to optimally use the opportunities provided on the market. To translate this strategy into market activity, they can either trade manually or with an Automated Programming Interface (API). APIs are either provided by an Independent Software Vendor (ISV), developed in-house by our customers or provided by EPEX SPOT directly. APIs work 24/7, with very limited human interference and are scalable and resilient. They allow for extremely fast reactions because they automatically manage the complexity of fundamentals like changing weather conditions, available generation capacities and market developments such as volatility.

HOW IT WORKS
TRADER WITH STRATEGY EPEX API 24/7
- CERTIFIED
- SCALABLE
- RESILIENCE
- MANAGES COMPLEXITY
- MANAGES VOLATILITY
- AUTOMATICALLY FOLLOWS MARKET DEVELOPMENTS
- FAST REACTION
High-frequency trading is a specific subset of algorithmic trading where a trading system analyses data or signals from the market at high speed and then sends or updates large numbers of orders within a very short period.

All APIs available on the EPEX SPOT markets have been put to the test of strict implementation principles and are certified by us to guarantee their safety and the best experience for the market.

**SPEED AND PERFORMANCE – EVERY MILLISECOND COUNTS**

With the automation of trading via APIs, every millisecond counts. The factors speed and data volume become crucial and translate into an increased load on EPEX SPOT side. This means that the trading systems, and the Intraday system M7 in particular, have to cope with a steeply increasing amount of activity. To prepare the M7 system for such load levels, EPEX SPOT has been heavily investing in this system for years: today, over 200 APIs are connected to the Exchange, with 40% following market developments using this technology, and 60% implementing their automated trading strategies.

In an increasingly automated world of trading, where speed and ability to handle high load is crucial, the statistics show that M7 is the most performant Intraday trading system in Europe.

**Maximum**

1,393,800

**Average**

1,242,762

M7 orders per day

**THE MAIN ADVANTAGES OF ALGORITHMIC TRADING**

**SPEED**

Algorithms are written beforehand and the set of instructions are executed automatically. This provides much better trading opportunities than the manual alternative.

**COST REDUCTION**

Algorithms do not need constant human supervision. There is, however, necessity to control the behaviour in real time.

**ACCURACY**

Typing mistakes and human errors are reduced.
Over the past years, EPEX SPOT has been working on different projects, with a variety of partners, to bring the benefits of a transparent and reliable price signal to new actors of the power system. The decarbonisation of the energy system has important consequences for the electricity grid, which was originally built for individual large production plants. With the spread of decentralised renewable energy plants—often far away from the centres of consumption—the grid is under pressure. Decentralised consumption and production models are on the rise and we have entered a new era of flexibility, with prosumers, home storage, and local electricity generation widely established. The current market design, however, does not yet efficiently integrate this flexibility to use it to relieve the grid. This is about to change. If we want to enable existing flexibility to unfold its full potential, we need incentives for users to decide if, when and where to use it. Flexibility needs a value. Without value, there is no information about when and where flexibility is needed, and no incentive to create new flexibility.

The market price signal—All available information boiled down to several digits

This is where the price signal comes into play. A reliable price signal is created by supply and demand in a market. Nothing breaks down the complexity of an economic situation as simply and as efficiently as a price signal. The market price is never random and always reflects an actual market situation so that resources can be used optimally. The price signal carries information on the electricity sector as a whole. At EPEX SPOT we develop ways of bringing the benefits of the price signal to all levels of the power system, down to the consumer. It is the very expertise we have as a Power Exchange that qualifies us for this. As a neutral market operator, EPEX SPOT provides a price signal that is transparent and reliable.

Flexibility needs a value. Without value, there is no information about when and where flexibility is needed, and no incentive to create new flexibility.

Combined expertise for market-based sector integration

In 2019 we combined our expertise with Siemens CT, to further open up our markets to decentralised market players, down to the level of a single building. This joint economic reflection has been outlined in a white paper.

By connecting the Building Energy Management System and its optimisation algorithm, developed by Siemens, to the flexibility and wholesale markets of EPEX SPOT, a price signal will be made available to all levels of the value chain. The price signal determines the value of a certain asset or activity at a certain point in time. In a decentralised energy system, the price signal is the missing link between the levels to provide concrete incentives as to which flexibility sources are to be activated and when.

Instead of considering each element of the energy system individually, the holistic approach of sector coupling using renewable energies helps to decarbonise all sectors of the economy. By enabling the market participants to value their flexibility not only within but across these levels, Siemens and EPEX SPOT aim at unlocking the full flexibility potential of decentralised assets to achieve a market-based sector integration.

See schema on the next page.

“As a vendor, we want to help grow market potential for EPEX SPOT by facilitating access. With innovative technology, even individual factories and buildings can be connected. Such symbiosis between markets and physical multimodal coupling can provide the flexibility needed to integrate an ever-increasing amount of renewables, heat pumps and e-cars.”

Head of Technology Field Energy Systems at Siemens Corporate Technology

Stefan Niessen
ANNUAL REPORT 2019

Local optimisation

TO GENERATE ADDITIONAL
ACHIEVE OPTIMISATION, IN

LOCAL / NATIONAL / SUPRA NATIONAL

Revenues for the owner.

Siemens can interact with

System developed by

Energy Management

Building level. The Building

and energy use, on a

assets with data on forecast

buildings combine these

for future use. Energy

needs and even store power

self-supply their electricity

more equipped to

Buildings are more and

Within a building or site.

FOUR LEVELS IN THE ELECTRICAL SYSTEM ARE CONCERNED

LEVEL 1
Within a building or site. Buildings are more and

more equipped to

sell supply their electricity

needs and even store power

for future use. Energy

Management Systems for

buildings combine these

assets with data on forecast

and energy use, on a

building level. The Building

Energy Management

System developed by

Siemens can interact with

such equipped buildings to

achieve optimisation, in

order to generate additional

revenues for the owner.

LEVEL 2
Within a local distribution

area, such as a village, smaller city or a city
district. The system automatically

generates offers to other

buildings and market

participants expressing the

willingness to buy, sell or

give access to flexibility. This

flexibility can then be

made available locally to

other participants, covering
areas such as villages or city
districts. The role of the

optimisation is to aggregate

individual offers through

to-peer transactions and to

offer the remaining

flexibility or overload.

(excess supply or additional

consumption needs) on the

local or the wholesale

market.

LEVEL 3
Within a region encompassing larger
cities. On a regional distribution

area, flexibility can be

valued on flexibility markets

operated by EPEX SPOT. They are

complementary to the

wholesale and balancing markets.

LEVEL 4
National or even transnational areas. If there are no grid

constraints, participants can also value their flexibility or

procure with their overload

directly on the wholesale

market, which covers

national and trans-national areas.

BY ENABLING THE MARKET PARTICIPANTS TO VALUE THEIR FLEXIBILITY NOT ONLY WITHIN BUT ACROSS THESE LEVELS, IT WILL BE POSSIBLE TO UNLOCK THE FULL FLEXIBILITY POTENTIAL OF DECENTRALISED ASSETS TO ACHIEVE A MARKET-BASED SECTOR INTEGRATION.

MARKET SURVEILLANCE IN AN ERA OF ALGORITHMIC TRADING

TAKING MARKETS TO ALL LEVELS

TAKING MARKETS TO ALL LEVELS

THE TREND OF ALGORITHMIC TRADING HAS A DIRECT IMPACT ON THE WORK OF OUR MARKET SURVEILLANCE TEAM.

WATCHFUL EYES ON EVERY ORDER

STAYING ON TOP OF THE DATA IN A HIGHLY DYNAMIC MARKET

Algorithmic trading significantly increases the number of orders submitted as well as the com-

plexity of the trading strategies.

The team works with specific indicators and has

introduced complementary monitoring tools,

specifically designed for the needs of the con-

tinuous evolution of the power market. The goal

is to systematically comb through all data

generated by the market and all relevant stake-

holders and to reveal patterns that could point

to suspicious behaviour. Deeper investigations

are done when needed.

One of the risks associated with algorithmic

trading is a very high ratio of unexecuted orders
to transactions. If an extremely large number of

orders results in only a few transactions,

this may raise doubts about the economical

justification behind the orders. This is why

EPEX SPOT has established a so-called order-
to-trade ratio, setting the maximum number of

submitted orders out of which at least one must

result in a trade. Non-compliance with this rule is

penalised.

THE POWER EXCHANGE AS EXPERT ON ALGORITHMIC TRADING

The expertise of the Market Surveillance team allows them to live up to the daily challenges.
The team is composed of profiles from various fields: experts from the political and legal side
work along with system specialists, algorithm

experts, market experts and team members

with trading desk experience.

As Power Exchange, EPEX SPOT has been pro-

viding the environment for algorithmic trading for years and has solid expertise in the field. We are

sharing this expertise with regulators across Europe and attend and organise workshops

and events on the topic.

In addition to this, we take a strong stance for

prevention. Through workshops, e.g. on REMIT

Understanding, and constant dialogue, we sup-

port our customers in meeting requirements to

guarantee a fair and orderly market.
593.2 TWh

Total Traded Volumes

Key Figures

- **Yearly Intraday Volumes (TWh)**
  - Total Traded Volume: 529.3 TWh, 534.7 TWh, 567.3 TWh, 593.2 TWh
  - Day-Ahead: 467.7 TWh, 463.7 TWh, 485.0 TWh, 501.6 TWh
  - Intraday Continuous: 57.0 TWh, 65.8 TWh, 75.4 TWh, 83.2 TWh
  - Intraday Auctions: 4.6 TWh, 5.2 TWh, 6.9 TWh, 8.4 TWh

- **The EPEX SPOT Community**
  - Total Traded Volume: 302 Trading Participants, 21 Certified ISVs, 24 Total Member Admissions in 2019

- **Intraday Market in 2019**
  - Austria: +20.2% Reaching 2.9 TWh
  - Switzerland: 0.8 TWh
  - Germany: 53.7 TWh
  - France: +29.9% Reaching 7.7 TWh
  - Great Britain: Passed the 20 TWh Mark for the First Time and Reached 21.6 TWh
  - Netherlands: +55.7% Reaching 3.3 TWh

- **Total Traded Volumes (TWh)**
  - 2019: 593.2 TWh
  - 2018: 567.3 TWh
  - 2017: 534.7 TWh
  - 2016: 529.3 TWh

- **Intraday Auctions (TWh)**
  - 2019: 21.6 TWh
  - 2018: 18.5 TWh
  - 2017: 15.2 TWh
  - 2016: 10.1 TWh
OPENING OUR FIELDS
After an extremely active year in 2018, the Market Coupling partners didn't rest for one moment and continued their joint work towards the European target models throughout 2019. The next major milestone in Day-Ahead coupling will be the implementation of so-called Multi-Nemo Arrangements across Europe, for which the foundation has already been laid in Central Western Europe.

The goal of SDAC is to create a single pan-European cross-zonal Day-Ahead electricity market. An integrated Day-Ahead market increases the overall efficiency of trading by promoting effective competition, increasing liquidity and enabling a more efficient utilisation of the generation resources across Europe. SIDC creates a single EU cross-zonal Intraday electricity market. Buyers and sellers of energy are able to trade electricity continuously across Europe on the day the energy is needed. As renewable production increases, Intraday markets are of growing importance to market participants. This is because it has become more challenging for market participants to be in balance (i.e. supplying the correct amount of energy) after the closing of the Day-Ahead market.

The MNA is already in place in the Central West Europe region. The launch of the MNA in the Nordic region will allow EPEX SPOT offer trading on these new markets. In addition to this, the flow-based methodology will be extended to further geographical areas, namely the Czech Republic, Hungary, Romania and Slovakia. In addition, new interconnectors will be included in SDAC and new releases of the price coupling algorithm are planned.

Intense work also continues to proceed with the implementation of SIDC, which will be complemented by further “waves” of countries such as Greece and Italy joining the coupling mechanism. In addition to this, the target model continues to evolve, and new requirements have to be implemented, such as new pan-European Intraday auctions. These evolutions require not only close coordination between Power Exchanges, Transmission System Operators and market participants, they also call for changes down to every individual system. The European Market Coupling mechanisms absorb an increasing complexity, demanding constant developments and investments from all involved parties.

The ongoing work on new Market Coupling features will keep us busy for many years to come and we look forward to the next steps in this European endeavour.
The EU Guideline on electricity balancing defines the tasks and timelines for the implementation of a European platform for the exchange of balancing energy from replacement reserves (RR). European TSOs from eight countries have launched TERRE, the Trans-European Replacement Reserve Exchange, an implementation project to exchange replacement reserves across borders.

These monitoring services allow us to bring our expertise in operating markets to the TERRE project partners. For us Market Operators it is really interesting to interact with these new partners and to fully dive into the field of balancing markets.

IN 2019, EPEX SPOT STARTED A NEW CHAPTER IN ITS COMPANY HISTORY, WORKING ON TWO NEW BALANCING MARKET PROJECTS FOR EUROPEAN TRANSMISSION SYSTEM OPERATORS (TSOs).

WHAT IS BALANCING?
The European electricity grid operates at a frequency of 50 Hertz. For this frequency to remain stable, TSOs have to balance the electricity grid so the sum of the electricity added to the grid and taken off the grid always remains zero. To do this, there are various balancing mechanisms used across the continent to ensure that the electricity grid always operates at the correct frequency. Historically, each country or region has developed its own set of balancing arrangements. They are based on the need to change generation output to balance the grid.

THE EU GUIDELINE ON ELECTRICITY BALANCING
Entered into force in 2017, it signalled profound changes to the organisation of balancing in Europe. This new EU Guideline will create a harmonised playing field for market participants in Europe where countries can share the resources used by TSOs to ensure generation equals demand at all times. It also allows demand response and renewables to participate in these markets – an important measure to facilitate the energy transition across Europe. With this Guideline, the EU aims at increasing security of supply, limit emissions and decrease costs for the end-consumer.

AND WHAT IS THE ROLE OF THE POWER EXCHANGE IN ALL THIS?
EPEX SPOT is a neutral and independent actor. This avoids any possible conflict of interest that could emerge along the value chain of balancing. As an established and trusted actor in the energy community, we bring to these projects our expertise in developing and operating markets. In 2019, we have worked on two major projects in this field.

TERRE MONITORING SERVICES FOR EUROPEAN TSOs

TERRE went live on 6 January 2020 using the LIBRA platform for exchanging Electricity Replacement Reserves (RR), and thus establishing the European RR balancing energy market. EPEX SPOT provides IT monitoring services for the LIBRA platform which is based on a shared IT system and algorithm, optimising the allocation of balancing bids submitted by the TSOs to meet their imbalance needs.

The EPEX SPOT Market Operations team monitors the platform throughout the year on a 24/7 basis and provides a dedicated service desk to provide first-line user support.

This project has shown that close cooperation, at a European level, can optimise the exchange of balancing energy.

“...”

LINDSAY NOBLE
TEAM COORDINATOR MARKET OPERATIONS AT EPEX SPOT
Another essential service of TSOs is the provision of Frequency Response. It ensures that in cases of interruption of supply, the frequency of the electricity system is kept stable at all times. TSOs have different ways of procuring frequency response from the actors of the power market. In Great Britain, where National Grid Electricity System Operator (NG ESO) is in charge of frequency response services, the procurement setup in place until last year was adapted to long-term provision only, largely catered to by conventional electricity producers.

This is why, in line with their System Needs & Product Strategy, NG ESO decided to trial a new route to market to procure frequency response from industry providers, by launching a weekly auction.

EPEX SPOT developed and operates the platform which hosts the Frequency Response auction trial in Great Britain. The weekly, pay-as-clear auctions take place every Friday. Order books close at 9:30 GMT and results are published on the NG ESO website at 14:00 GMT, for service delivery starting the same day. The frequency response auction trial was launched on 29 November 2019, with 10,284 MW traded during the first auction.

The new auction allows the provision of frequency response services to a wider mix of technology types. By moving closer to real-time, less predictable technologies, such as wind, can participate as well, along with industrial and commercial sites and traditional providers.

“The frequency response auction trial supports a core objective of the Electricity System Operator to remove barriers to entry and promote competition. Participation in the auction by new providers supports us in achieving carbon-free operation by 2025 and the net-zero transition. We expect the auction to increase liquidity in the frequency response market, reduce our overall balancing costs, and deliver value for the end-consumer.”

colm murphy
Head of Electricity Market Change Delivery for National Grid ESO
In 2019 EPEX SPOT celebrated 10 years of power, our tenth anniversary. We look back on a decade of achievements that brought the European power sector closer together.

Over the years, the reference price emerging from our liquid and transparent markets has become an essential pillar of the energy transition. Within ten years, the initially Franco-German initiative EPEX SPOT which was created as a joint venture of the exchanges European Energy Exchange (EEX) and Powernext has become a strong Europe-wide business. In its first year under the EPEX SPOT company name, the Exchange registered 203 TWh of traded volume in 2009. This figure was more than doubled in the following decade, with 593 TWh traded in 2019—a new record.

EPEX SPOT has been a forerunner in innovation on the power market, introducing its first flexibility product in 2014. Today, EPEX SPOT has the most diverse trading product portfolio in Europe.

Corporate

2001 Establishment of Powernext SA, operator of the French power market.
2002 Establishment of EEX AG, operating the German and Austrian power market.
17 September 2008 The European Power Exchange EPEX SPOT SE is created as a legal entity, owned 50/50 by Powernext SA and EEX AG.

Coupling & Regulation

1996 First European Directive on Internal Energy Market enters into force, setting the basis for the liberalisation of wholesale energy markets in Europe.
2006 Launch of Trilateral Coupling (TLC): the first market coupling initiative between France, Belgium and the Netherlands established by Powernext and its Dutch counterpart APX.
2009 Powernext Power Spot and EEX Power Spot are transferred into EPEX SPOT SE.

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2002 Establishment of EEX AG, operating the German and Austrian power market.
17 September 2008 The European Power Exchange EPEX SPOT SE is created as a legal entity, owned 50/50 by Powernext SA and EEX AG.

Coupling & Regulation

1996 First European Directive on Internal Energy Market enters into force, setting the basis for the liberalisation of wholesale energy markets in Europe.
2006 Launch of Trilateral Coupling (TLC): the first market coupling initiative between France, Belgium and the Netherlands established by Powernext and its Dutch counterpart APX.
2009 Powernext Power Spot and EEX Power Spot are transferred into EPEX SPOT SE.

Over the years, the reference price emerging from our liquid and transparent markets has become an essential pillar of the energy transition. Within ten years, the initially Franco-German initiative EPEX SPOT which was created as a joint venture of the exchanges European Energy Exchange (EEX) and Powernext has become a strong Europe-wide business. In its first year under the EPEX SPOT company name, the Exchange registered 203 TWh of traded volume in 2009. This figure was more than doubled in the following decade, with 593 TWh traded in 2019—a new record.

EPEX SPOT has been a forerunner in innovation on the power market, introducing its first flexibility product in 2014. Today, EPEX SPOT has the most diverse trading product portfolio in Europe.

Corporate

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2002 Establishment of EEX AG, operating the German and Austrian power market.
17 September 2008 The European Power Exchange EPEX SPOT SE is created as a legal entity, owned 50/50 by Powernext SA and EEX AG.
EPEX SPOT’s markets connect countries while offering country-specific services. Numerous projects on consumer empowerment and new market models lie ahead, while the sector is united in its fight against climate change. Today, the Exchange operates markets in Central Western Europe and Great Britain, the Nordic countries are scheduled to join in 2020. We also prepare market launches in the Baltics and Poland. Dedicated to improving social welfare, committed to enabling the energy transition, everybody at EPEX SPOT looks forward to further carving out the role of the European Power Exchange in the energy world.

10 YEARS OF EPEXIANS

SEEING HOW OUR SOLUTIONS CONTRIBUTE TO A BETTER ENERGY UNION IS WHAT MOTIVATES US EVERY DAY.

THE DEVELOPMENT AND TRANSFORMATION OF EPEX SPOT OVER TIME HAVE BEEN EXTRAORDINARY. NOT ONLY THE TEAMS HAVE GROWN, BUT SO HAS THE SCOPE AND IMPACT OF OUR WORK. WE BELIEVE THAT EFFICIENT MARKETS ARE AN INDISPENSABLE ASSET TO ACHIEVE THE ENERGY TRANSITION.

FORWARD

100 EMPLOYEES

200 EMPLOYEES

2009

2019

17 April 2015
EPEX SPOT and APX Group announce their integration in order to form a Power Exchange covering 8 countries.

4 May 2015
New shareholder structure: EEX Group now holds 51% and transmission system operators of HGRT rise to 49%. EPEX SPOT becomes 100% owner of APX.

31 March 2016
Clearing activities for British, Dutch and Belgian markets, formerly operated by APX, are being migrated to European Commodity Clearing (ECC). This lays the foundation for the integration of systems between APX and EPEX SPOT.

13 October 2018
Jean-François Conil-Lacoste, CEO and founder of EPEX SPOT, steps down from his CEO mandate. He is followed by Ralph Danielski.

April & November 2018
Migration of the UK Day-ahead and Intraday markets to ETS and M7 respectively, completing the integration of APX and EPEX SPOT.

2019
EPEX SPOT celebrates 10 years of Power, its 10th anniversary.

February 2019
Launch of enera, the first Local Flexibility Market in the North-West of Germany.

November 2019
Launch of the Frequency Response Auction trial in Great Britain. EPEX SPOT’s first step into the field of balancing services.

1st January 2015
New shareholder structure: Transmission system operators of HGRT take 36.7% stake in EPEX SPOT, EEX at 13.3%, Powernext at 50%.

17 April 2015
EPEX SPOT and APX Group announce their integration in order to form a Power Exchange covering 8 countries.

24 February 2015
Second extension of PCR: Italy and Slovenia join the Multi-Regional Coupling.

15 December 2015
EPEX SPOT obtains NEMO status in all its core markets and announces extension of services to Nordics and Poland.

15 June 2018
Go-live of the European Cross-Border Intraday Solution XBID connecting the Intraday market of 14 countries.

February 2019
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Looking Forward

10 employees

200 employees

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2019

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RENEWABLE CAPACITY
INSTALLED IN EUROPE

CLOSE TO
600 GW

10 YEARS AGO  TODAY

CHARGING STATIONS
ELECTRICAL VEHICLES IN EUROPE

170000
3000
TODAY  10 YEARS AGO

CO₂ EMISSIONS
IN EUROPE

3.1 BILLION TONS

10 YEARS AGO  TODAY

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To learn more about the European Power Exchange EPEX SPOT our market results and our e-learning program, please visit our website.

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United Kingdom

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Mayerhofgasse 1/19
1040 Wien
Austria

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