





... from all over Europe: EPEX SPOT reunites a strong and growing community of trading members. And a very mixed one – producers, suppliers or commercial consumers. They come together to place bids and offers of power at EPEX SPOT. Our members are the motor of the market. *More on page 25* 

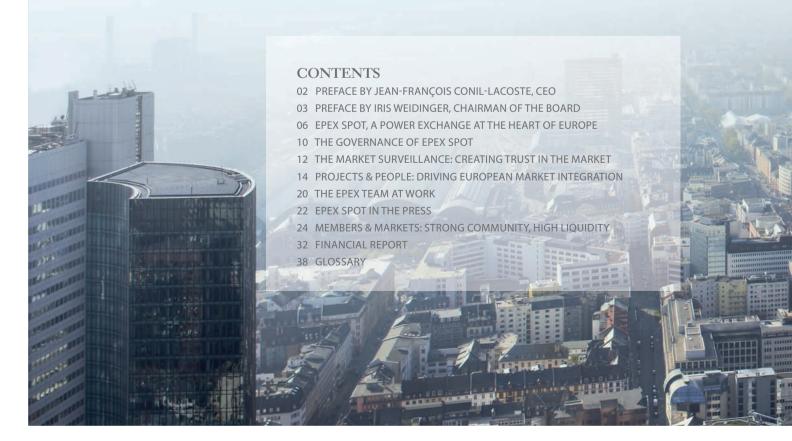
... in four countries: EPEX SPOT covers France, Germany/Austria and Switzerland which are harmonized by our trading systems. Together these countries account for an area of 1200 TWh and 40% of the EU's yearly power consumption.

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... were traded on EPEX SPOT's markets in 2010. You can do a lot with that amount of power: for example, supply 69 million European households for one year – with warmth, light and all the power they need. These 279 TWh are a defining part of the everyday life of European citizens and companies.

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#### POWER FOR TODAY.

Whether you want to trade power for today or the next day: EPEX SPOT is the exchange for the power spot markets in the heart of Europe. It covers France, Germany, Austria and Switzerland. Together, these countries account for more than one third of the European power consumption.

The Paris-based company with a branch in Leipzig has been created in 2008 through the merger of the power spot activities of the energy exchanges Powernext SA in France and EEX AG in Germany. Driving forward the integration of European power markets is the main goal of EPEX SPOT. Our transnational Day-Ahead and Intraday markets are its motor.

POWER FOR TOMORROW.





#### JEAN-FRANÇOIS CONIL-LACOSTE

**CEO of EPEX SPOT** 

# 2010: a year of innovation for EPEX SPOT

he mere figures are impressive. Just two years after Powernext and EEX merged their respective spot power markets, their "baby", the European Power Exchange EPEX SPOT, has grown up to become a major actor in the European power market. In 2010, 194 members have traded 279 TWH on three hubs in four countries. The story of EPEX SPOT tells of the success of our Franco-German cooperation, made possible by the entrepreneurial spirit of its founders.

A closer look reveals that this success is not simply about the increasing volumes traded on our markets, driven by our growing membership community. EPEX SPOT's achievements are in fact built on the market innovations it has introduced, that push the integration of the European Power Market forward. Three key characteristics help to understand the motivation behind our work.

First, EPEX SPOT is a company with customer service at its core. Our members make the market. They are the backbone of the trading experience and a guarantee of liquidity. With our EPEX Trading System, called ETS, introduced in the summer of 2010 across our three markets, we offer an efficient, transparent and secure tool for trading. Liquidity, transparency and security: these are the pillars of a stable market. Servicing other power exchanges with the ETS platform is part of our business model, as can be seen with the Hungarian Power Exchange HUPX building its Day-Ahead market around ETS

Second, EPEX SPOT is an innovator at the core of the European Union. It was the driving force behind the Market Coupling within Central West Europe, which went live on 9 November 2010. Robust market integration, through close and clear-cut cooperation between

power exchanges and TSOs, favors price convergence and the emergence of a unique spot price across most of Europe. It has led to an unprecedented price convergence across the markets of France, Germany, Belgium, Luxemburg, and the Netherlands. This is a result of three and a half years of engineering to couple markets, regardless of their different energy mix. Still, we are not resting on our laurels: The next step, a landmark project of zonal pricing called "Price Coupling of Regions" may include markets from Finland to Portugal and is already in preparation.

Third, the context in which EPEX SPOT is developing its business model is highly challenging. Moving ahead also means being able to integrate different regulatory frameworks. These range from the Framework Guidelines on Capacity Allocation and Congestion Management, to European legislation, or even the various network codes.

2010 showed us the importance of a transnational spot power exchange. It was a year full of technological progress for European electricity markets. System complexity was reduced, market rules were harmonized and global flexibility was enhanced. Behind all these projects stand our teams and it is my conviction that EPEX SPOT is a place where the best people for these jobs have come together. They have found – and they will find - unique solutions in our highly challenging context. I want to thank them for their exceptional efforts and their outstanding accomplishments. Their teamwork is the core of EPEX SPOT. Together we want to continue this success story by paving the way for our vision of the future: the birth of a leading spot power exchange, based on the zonal pricing model, that is both profitable and a global innovator.



#### **IRIS WEIDINGER**

Chairman of the Board of Directors

#### EPEX SPOT is living European market integration

ower markets in Europe have developed at a surprising speed after the European Union embarked on their liberalisation. Energy trading is one of the most visible results of this development. The creation of the European Power Exchange EPEX SPOT has to be seen in this context: a powerful signal that market integration continues.

The team of EPEX SPOT plays an essential part in this. It is not only the self-understanding and the selfconfidence of the employees that the CEO of EPEX SPOT Jean-François Conil-Lacoste once pointed out in an interview: "We are willing and ready to take the role of a key actor in the integration of European spot markets." It is first of all this entrepreneurship, this entrepreneurial spirit which has shaped – and surely will continue to shape – every step on the way ahead. The European price index ELIX, a joint development of EPEX SPOT and EEX, is not only a symbolic parameter showing some market price in a market environment without physical congestions. It is rather an indicator and engine for the creation of an integrated European price zone. It is evident that EPEX SPOT as exchange and pacemaker in the centre of the European power system wants to play, and will play, a central economic role.

Therefore the efforts for further market harmonisation and the huge commitment of the whole EPEX team in the preparation and realisation of Market Coupling in Central West Europe are not an altruistic end in itself. The entire company will benefit on a long term from the strong position, created by the ideas and the momentum from the involved persons in Paris and Leipzig over more than three years.

In this respect, EPEX SPOT has become a supporting pillar of European market integration within a very short time, operating independently and discretely and standing for itself as a company. This development deserves strong admiration. It also testifies to the cooperative model maintained by the EPEX parents, Powernext and EEX. This is reflected in the daily contact, where an enlarged horizon and mutual best practice examples arise from different perspectives and cultures, but also in the general openness to integrate more participants into the circle of actors. In the course of market harmonisation, this is an indispensable foundation of further growth and without any doubt a more and more challenging market environment.

The convincing way EPEX brings together market integration and strengthening of its own position leaves only little room for critics. Sometimes observers might be surprised by the impact of projects like ELIX or easy-to-use ETS on the market. But for a team, an exchange, like EPEX SPOT and EEX considering themselves explicitly as pacemakers, dynamic change is daily business. This is aim and claim at the same time.

#### **EPEX SPOT SE**

1996: European Directive on energy market liberalization

1998: Implementation of the Directive in German and Austrian law

2000: Implementation of the Directive in French law

2001: Establishment of Powernext SA

2002: Merger of the former Leipzig Power Exchange LPX and the EEX Frankfurt to EEX AG

17 September 2008: Creation of EPEX SPOT SE, owned 50/50 by Powernext SA and EEX AG

1 January 2009: Transfer of Powernext power spot into EPEX SPOT SE

1 September 2009: Transfer of EEX Power Spot into EPEX SPOT SE

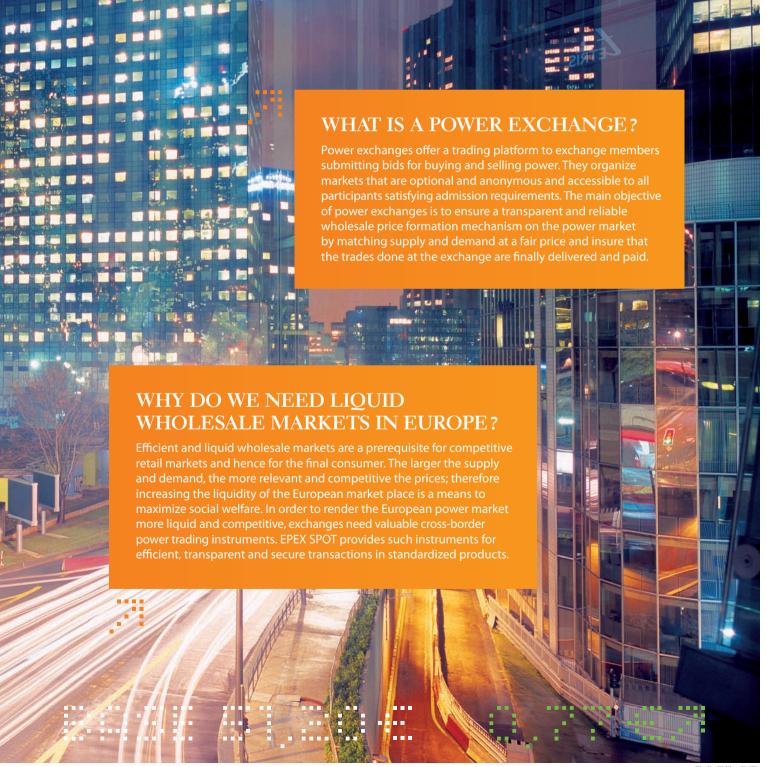


#### Vision

EPEX SPOT and its markets are situated in the heart of Europe. This is why we are naturally driving forward the market-based integration of the European power market. This positions EPEX SPOT to become the European benchmark.

#### Values

A growing and profitable European spot market necessitates excellent customer service. Our members make the market. A trusting relationship between an exchange and its members, as well as clear corporate governance are the keys to success.



# A Power Exchange at

# EPEX SPOT: Our role in the Electrical System and the Wholesale Market for Electricity

The core business of EPEX SPOT consists in operating a power exchange for the German, Austrian, French and Swiss market

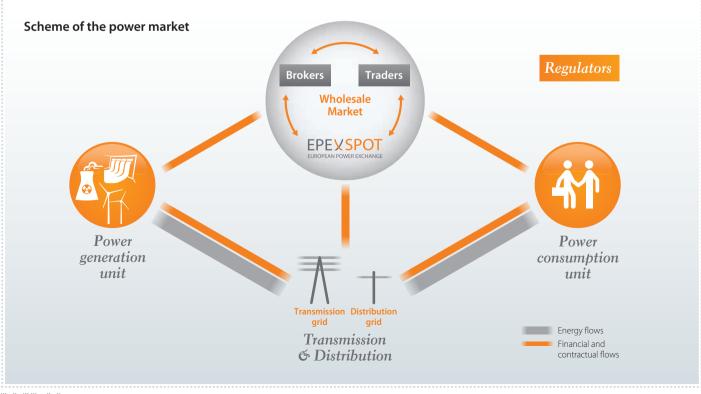
It provides a market place where exchange members send their orders to buy or sell electricity in determined delivery areas. The role of EPEX SPOT consists in matching these orders in a transparent manner, according to the public Exchange Rules which among others describe the priorities and algorithms used for the matching of the orders. As a result of the order matching, EPEX SPOT produces trades which are legally binding agreements to purchase or sell a determined quantity of electricity to a defined delivery area for the matched (or "cleared") price. This price is never higher than the purchase price fixed by the buyer or lower than the sale price offered by the seller. The trades are

immediately transferred to the central counterparty, the European Commodity Clearing (ECC), which becomes the counterparty to the buyer and to the seller who do not know each other. ECC takes the obligations of the buyer (to pay for the electricity) vis-à-vis the seller, and of the seller (to deliver the electricity) vis-à-vis the buyer. It nominates the exchange of energy to the relevant Transmission System Operator responsible for the delivery area and calls for the money pertaining to the trade from the buyer and hands it over to the seller.

This process guarantees:

- fair and orderly execution of the orders of the exchange members,
- secure delivery and payment of the trades,
- anonymous transactions.

As an important by-product of this process, EPEX SPOT broadcasts the prices resulting from the trades. Since the trades result from a large, open and transparent competition between the orders of the exchange members, they reflect the best information available at the time on the market conditions. They are hence the most reliable prices available for the short-term electricity, either day-ahead for the day-ahead auctions or intraday for the continuous intraday trading.



# the heart of Europe

These prices serve as a benchmark for the transactions of the wholesale market. As depicted in the diagram, after the liberalisation of the electrical markets in Europe, the trade of power has become a key component of the sector next to the production, transmission, distribution and consumption of power.

The free trade of power thus insures competitive prices for the end consumers which have the freedom to choose between numerous suppliers. Independently of the production facilities that the suppliers may or may not have, they are dependent on the wholesale market to deliver the supply of power to their consumers. Moreover, since power cannot be stored, all users of the transmission grids must be balanced in real-time between their resources and consumption of power.

EPEX SPOT provides a critical liquidity outlet for the producers, the suppliers and even the transmission system operators, as well as for the industrial consumers, to fulfill their sales or their purchases in short term power. Meeting these needs balances supply and demand, generating relevant prices for short term power.

# EPEXSPOT EUROPEAN POWER EXCHANGE

#### **Thierry Morello**

COO of EPEX SPOT

"The trade of power has become a key component of the sector next to the production, transmission, distribution and consumption of power."



#### **Heinz Hilbrecht**

Director for Security of Supply, Energy Markets and Networks, DG Energy, European Commission



www.ec.europa.eu/energy/

"Whether producing, transporting, securing, buying or selling – energy issues were centre stage across Europe over the last year as governments and citizens faced up to the challenge of decarbonising the economy. But addressing the energy challenge will also help bring about the return to sustainable growth following the economic crisis of the last number of years. This is why the European Council called for the completion of the internal energy market by 2014. Meeting this goal, and our wider ambitions for 2020, requires the commitment of exchange members, regulators and governments. EPEX SPOT has shown its readiness to make this commitment, playing a central role in introducing market coupling to link up national markets in the north and west of Europe, and setting a good example for marketplaces across the ELL."

# "Merging our activities was both courageous and unexpected"

Interview with Pierre Bornard and Dr. Jürgen Kroneberg, respective chairmen of the boards of Powernext and EEX, the two shareholders of EPEX SPOT

# Powernext and EEX have sacrificed their respective power spot markets on the European altar. Why?

**Pierre Bornard** Today we are at the crossroads in the construction of a pan-European electricity market, an idea which arose in the nineties. We are going from a time when individual countries were optimizing their energy mix to one where electricity generation is being optimized on a pan-European scale. This is not only a huge economic challenge for Europe but the amounts of cash involved are massive, too. It is a great chance for exchanges to create a market on a European level.

**Dr. Jürgen Kroneberg** Merging our activities was both courageous and unexpected, as a lot of players expected us to fight. It was a good decision, both for the European market and the companies. In doing so, we created a transparent power trading platform, with both liquidity and security. We have moved from a national market to a far broader market, thanks mainly to EPEX SPOT. This merger is a good example of successful French and German collaboration, as acknowledged by the German chancellor, Angela Merkel, herself. The results prove that the courageous decision was the right one.

#### How is EPEX SPOT faring today?

- **P B** EPEX SPOT is performing well both in terms of operations and volumes. Its facilities are efficient and appreciated by the traders. Today, EPEX SPOT is recognized for the quality of its platform, its teams, its ability to develop new instruments for the market participants, and its key role in the CWE market coupling.
- JK And the key segment of EPEX is still growing traded power volumes are constantly rising. On the German market, the law on renewable energy has considerably increased volumes. EPEX proved that it is able to absorb the additional volumes and maintain price stability: it demonstrates the confidence that governments and institutions have in EPEX SPOT.

# What is the entrepreneurial model in concrete terms?

**PB** I believe that power exchanges should be profitable institutions and not regulated businesses, as they need to innovate, to create new services and to invest in new ideas and new systems: this requires resources. While EPEX SPOT's two main shareholders have different ownership models, both have chosen to be as inclusive of various interests as possible. Powernext is controlled by electricity transmission system operators (TSOs), but it also has market participants as shareholders.



Dr. Jürgen Kroneberg

JK At EEX, Eurex controls the company, with market participants and representatives of regional institutions as shareholders. This generates permanent stimulation and diversity of opinion: this is a key success factor for both companies and their daughter company. Building a growing, profitable pan-European market with excellent customer service lies at the heart of the company's commitment. EPEX SPOT has also been innovative with regard to developing services for other companies in new regional areas, like EPEX SPOT did in Hungary, by carrying out the technical operations of their market.

#### Major European projects such as Market Coupling have been implemented together with TSOs. How does this cooperation work?

- **PB** The cooperation between power exchanges and transmission system operators is necessary. The TSOs are legally responsible for cross-border electricity exchange and for power system security. On the other hand, power exchanges have the knowledge to develop liquidity as well as a very efficient system that allows cross- border optimization. Both have their respective role to play and specific area of expertise: there would be no market coupling without them.
- JK The entire Market Coupling project shows that the integration of the European power market, facilitated by EPEX SPOT, is done in close cooperation with partner exchanges, TSOs, the European Commission and regulatory bodies. This context is highly challenging. In terms of cooperation between TSOs and the exchange, it is clear that the management of interconnections and



**Pierre Bornard** 

capacity allocation is a separate task from order collection and price determination. They are nonetheless complementary for the benefit of European market integration.

# What challenges will EPEX SPOT face in the next years?

- PB Currently, several market designs do exist for electricity throughout Europe and the rest of the world. Competition is growing in this field too, especially with the US so-called "nodal" model, where Power Exchanges have a very different and limited role. EPEX SPOT will have to play a key role to keep demonstrating that its current model is far more effective in the European context where liquidity, transparency and customer satisfaction are crucial merits. And becoming the European benchmark would open a number of new worldwide opportunities...
- JK It is very important for Europe and EPEX SPOT to further demonstrate the efficiency of its market design, which brings social welfare and customer satisfaction. Consolidation is another challenge. There is still room for more cooperation, but not with any exchange. While EPEX SPOT is keen to listen to its customers, some other exchanges do not have customers: they have users. This is not our model. We can only cooperate with power exchanges that share a similar understanding of their role, their duties and their view of the market! EPEX SPOT's successful model is constantly being challenged: this is positive.

#### **GOVERNANCE**



#### EPEX SPOT SE is a commercial company managed by a Board of Directors made up of four members:



Jean-François
Conil-Lacoste
Chief Executive Officer
of Powernext SA,
Chief Executive Officer
of EPEX SPOT SE



Iris
Weidinger
Chief Financial Officer of
European Energy Exchange
AG, Chairman of the Board
of Directors



Thierry
Morello
Chief Operating Officer
EPEX SPOT SE



Dr. Dr. Tobias
Paulun
Director Strategy and Market
Development of European
Energy Exchange AG

#### Corporate structure

EPEX SPOT is operated by EPEX SPOT SE, a European company which is detained 50/50 by Powernext SA and European Energy Exchange AG and which is based in and operated from Paris.



The Board of Directors is responsible for taking the commercial and economic decisions regarding EPEX SPOT SE and reports to the shareholders during the General Meetings.

#### Organization

EPEX SPOT SE also has the following exchange bodies:

- the Exchange Council;
- the Market Surveillance Office.

Both are two independent bodies that have been put in place in order to ensure state of the art governance rules.

#### Role and members of the Exchange Council

The Exchange Council of EPEX SPOT is an official body of the exchange. 16 members represent the diversity of economic and corporate profiles that exists among the Exchange Members from various sectors: power trading companies, transmission system operators, regional suppliers, brokers and financial service providers, as well as commercial consumers and academics. This diversity reflects the objective of providing an efficient and competitive market in Europe.

The missions of the Exchange Council include in particular the adoption of the Rules and Regulations of the exchange and their amendments as well as the introduction of new trading systems. The body makes sure that the services and products of the exchange correspond to the needs of the market and that they can be implemented in legal and operational terms. Its task also comprises the appointment of the head of the Market Surveillance.

The Exchange Council also takes a position whenever the design of the European power market has an impact on the Exchange or on its capacity to choose, develop, maintain and constantly enhance the trading platforms which suit best the needs of the market. In this respect, the Exchange Council defends the necessary elements of competition in a non-discriminative manner which will guarantee innovation and efficiency among the trading platforms to the benefit of exchange members based on a strict Code of Conduct in line with the EPEX rules.

One of the main topics of the activities of the Exchange Council in 2010 was the final resolution on the Exchange Rules related to CWE market coupling in close cooperation with the TSOs. The Council supported the implementation of a market model for cross border intra-day market on the existing infrastructure.

The Exchange Council members agreed to further strengthen the admission criteria and specification of information rights pertaining to the Market Surveillance office, such as the submission of documents or hearing of persons. The amendments allow EPEX SPOT a greater overview and surveillance of the exchange members. In this respect the Exchange Council took note of harmonizing the process their EPEX SPOT and EEX have of admitting new members to the exchange. The aim is to prevent the situation where candidates are being admitted at one of the exchanges but not at the other, due to different criteria. Objective admission criteria will be set up with the help of a common scoring model in order to determine the reliability of a prospect. In so doing, both exchanges are raising the awareness that by not admitting suspicious candidates, the risk of reputation loss of the markets due to potential VAT fraud and money laundering can be avoided.



Johannes Kindler

Vice-President of the Bundesnetzagentur (BNetzA)



www.bnetza.de

"Every day EPEX SPOT proves with great success its role as a major actor in terms of reliable price formation for the day-ahead markets in Germany, France and beyond. EPEX SPOT makes a strong contribution to increased transparency on power markets, facilitating and enhancing competition.

Bundesnetzagentur and EPEX SPOT have closely collaborated over the last years and succeeded in setting up mechanisms aiming at European Power Market integration. The most prominent result of this cooperation has been the successful launch and the efficient functioning of the Central West Europe (CWE) Market Coupling since 9 November 2010, comprising the French, German, Dutch, and Belgian market as well as the 'Interim Tight Volume Coupling (ITVC)' which provides implicit allocation of capacities between the CWE and the Nordic market. This process could serve as a blueprint for the connection of further european regions.

Thus, EPEX SPOT has become a key driver of market integration in power trading."



#### Dr. Günther Rabensteiner

Chairman of the Exchange Council and Member of the Executive Board, Verbund AG

#### Members of the Exchange Council are:

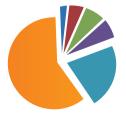
- Mr. Peter Pals, Trianel GmbH
- Mr. Pierre Chevalier, DB Energie GmbH (Vice-Chairman of the Exchange Council)
- Mr. Emanuele Colombo, RTE EDF Transport SA
- Mr. Paul Dawson, RWE Supply and Trading GmbH
- Mr. Emmanuel Deutsch, EDF Trading Ltd.
- Mr. Bill Gebhart, Deutsche Bank AG
- Mr. Nigel Hawkins, ENEL Trade
- Mr. Peter Heydecker, ALPIQ Holding AG (Vice-Chairman of the Exchange Council)
- Mr. Günther Rabensteiner, Verbund AG (Chairman of the Exchange Council)
- Mr. Charles Rankin, Morgan Stanley
- Mr. Christian Triol, Compagnie Nationale du Rhône
- Mr. Joachim Vanzetta, Amprion GmbH
- Mr. Lars Wlecke, E.ON Energy Trading AG
- Mr. Ulrich Woesler, Electrabel
   (Vice-Chairman of the Exchange Council)
- Mr. Vincent van Lith, BHF-BANK AG
- Mr. Jan-Horst Keppler, University Paris-Dauphine (expert)

#### **EPEX SPOT Exchange Council**



- Utilities and Energy Trading Companies
- Bank and financial service providers
- Municipal and regional suppliers
- TSO/AUCTION OFFICE
- Clearing Members
- Commercial consumers
- Other concerned parties

#### EPEX SPOT membership



- TSO/AUCTION OFFICE
- Energy brokers
- Commercial consumers
- Bank and financial service providers
- Municipal and regional suppliers
- Utilities and Energy Trading Companies

#### THE MARKET SURVEILLANCE



#### Creating trust in the market

The Market Surveillance Office is an independent exchange body that directly reports to the EPEX SPOT board as well as to the Exchange Council. It continuously monitors the EPEX SPOT markets and checks that members comply with EPEX SPOT Market Rules and the Code of Conduct. The Market Surveillance acts as a central point of contact that cooperates with all the regulatory authorities.

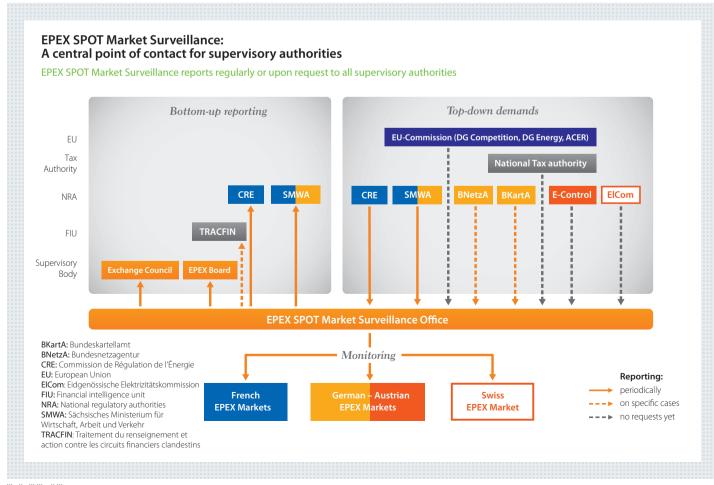
The work is carried out with market indicators and completed by deeper investigations. In case of a suspected breach of Market Rules, the Market Surveillance is entitled to request information from the exchange members, including documents and the beneficiary of a transaction. In case of a proved breach of Market rules, EPEX SPOT SE can decide on a sanctioning procedure (for example membership suspension).

Thus, the Market Surveillance plays a significant role in the achievement of a fair and orderly market.

During this year, the Market Surveillance department has further built up fruitful relations with the EEX Market Surveillance on power markets, and with the supervisory authorities and energy regulators in charge of monitoring the EPEX SPOT markets, as shown in the diagrams below. In addition, the department has been involved in the discussion on market monitoring at a European level (REMIT) and in the pilot project of a central repository of trades.

#### A focus on fighting VAT fraud

VAT fraud is a serious issue within the European Union. Various schemes of VAT fraud have been discovered by the authorities in the past. In general all businesses subject to VAT are vulnerable to VAT fraud. After the detection of VAT fraud on the Carbon Market and the introduction of the Reverse Charge mechanism in some Members States, there is a risk of fraudulent activity moving to energy products.



In this high risk context of possible VAT fraud on the electricity market, EPEX SPOT actively participates in the different actions to fight against VAT fraud. The Market Surveillance coordinates all these actions.

To reduce the risk of fraud on the EPEX SPOT markets, EPEX SPOT – in cooperation with EEX and POWERNEXT – has reinforced its "Know Your Customer" process to accept new companies. EPEX SPOT has set up a Decisional Committee to scrutinize thoroughly the application of new prospects.

The Market Surveillance is involved in the different phases of the company's life on the EPEX markets:

- During the "Know Your Customer" process this body performs additional investigations if the objective criteria are not fulfilled. The Decision Committee makes a decision to admit the prospect with regard to the findings.
- During the members' life, the Market Surveillance monitors the indicators (global and individual) which reveals potential VAT fraud activities.

Another important action is to warn all the stakeholders about the VAT carrousel risk in order to avoid that fraudsters have access to the electricity market through members and available facilities.

EPEX SPOT has participated in different meetings with other Exchanges, TSOs, regulators and Tax authorities to alert on this matter and to show the possible impact on prices and misuse of the market. EPEX SPOT pushes for

an efficient way to assess suspicious activity and, if found, warn the relevant authorities about the companies possibly involved in VAT frauds.



"CRE and EPEX share a common objective of well functioning markets.

Besides the growing integration of day-ahead markets, in which EPEX SPOT already took a major role, confidence in the market is necessary to achieve this objective. It needs adequate pre and post trade transparency, and suitable market monitoring, as forecast by the REMIT proposal.

In this perspective the current cooperation between CRE in its market monitoring function, and the independent market surveillance team of EPEX SPOT should be regarded as a good practice."

# KYC: a way to secure our power market

EPEX SPOT coordinates its actions with the authorities, ECC and other exchanges

EPEX SPOT controls the access to its markets

EPEX SPOT knows its members

EPEX SPOT offers a professional environment to the traders

# The reverse charge – how does it work? The sales tax liability is transferred from the seller to the buyer and the payment of sales tax is shifted to the end of the tax chain VAT Declaration & Payment Transaction No more VAT applied



#### **HUPX - ETS powers** new markets Servicing other power exchanges is part of EPEX **EPEX** implements **ETS** SPOT's business model. So the EPEX Trading System A reliable base for liquid markets: The EPEX trading made its way to Hungary even before being introduced in the German/Austrian market. system, called ETS, is one of the backbones of EPEX's On 20 July 2010 the Hungarian Power Exchange business. Introduced on 16 June 2010 in France and started its Day-Ahead market with the support of followed by Germany/Austria and Switzerland in September, the ETS has the potential to be a door-EPEX SPOT. A total of 418 293.2 MWh was traded in 2010 – with a growing number of members since then. opener to new markets. August 2010 October 2010 Videoconference with **European Electricity** the German Chancellor Index launched When Angela Merkel visited the German EEX on On 18 October 2010, EPEX SPOT launched, in 19 August 2010, she had a special kind of meeting: collaboration with its partner exchange EEX Via video call, EPEX SPOT's CEO Jean-François the ELIX, a hypothetical European reference price. Conil-Lacoste and the German chancellor talked ELIX is calculated daily, based on the order books about the success of the Franco-German Joint of the three EPEX markets – which account for 40% Venture EPEX SPOT. Merkel was especially of European power consumption – and under the impressed by the groundbreaking character of assumption of no congestion between the the cooperation for the European power market. countries. ELIX is a goal to achieve the so-called European copper plate, a symbol for the future of European power market integration. November 2010 Market Coupling goes live December 2010 After three years of planning and development, FITS -The cross-border on 9 November 2010, the long-anticipated market Intraday system starts coupling within Central West Europe (CWE) and the Nordic countries started. Market Coupling optimizes On the 14 December 2010, the final highlight the allocation process of cross-border capacities thanks of a year full of technological advancements to a coordinated price formation mechanism. for EPEX SPOT was brought to the market: FITS, The effects were directly visible: On the very first day, the Flexible Intraday Trading Scheme, debuted prices converged on all CWE markets. in France and Germany. It allows members to trade electricity hourly across borders and to place orders up to 45 minutes before the trade. With its use of the Intraday Capacity System to manage implicit auctions between the two countries, FITS is a new step forward to an even more liquid and flexible market in the heart of Europe.

#### PROJECTS & PEOPLE



#### **Driving European** market integration

With its geographical situation at the centre of Europe, EPEX SPOT is a driver of European power market integration. Its Day-Ahead and Intraday Markets are designed to facilitate cross-border trading.

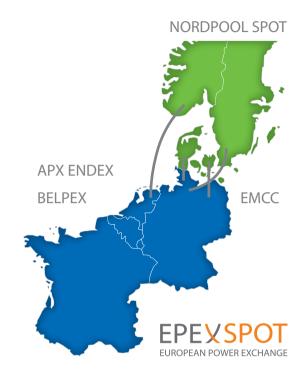
#### **Day-Ahead Markets**

## Market coupling: another step towards market integration

In the electricity sector, the shift towards day-ahead implicit auction mechanisms, supported by day-ahead market coupling initiatives, has further improved the power market liquidity and thus its efficiency, for the benefit of European competitiveness in a global economy.

Market coupling mechanisms allow the optimization of the allocation process of cross-border capacities thanks to a coordinated price formation mechanism, taking into account commercial bids and offers placed by the members of the different exchanges. Market coupling maximizes the social welfare, avoids any artificial splitting of the markets, and sends the most relevant price signal for investment in cross-border transmission capacities. The efficiency of the mechanism is furthermore revealed by an increasing price convergence between market areas. Market coupling mechanisms are based on the reference prices emerging from liquid markets such as the one managed by EPEX SPOT.

EPEX SPOT has a long-standing experience in day-ahead market coupling projects. Between November 2006 and November 2010, the EPEX SPOT French Auction has been involved in the successful Tri-Lateral market Coupling (TLC), integrating the French, Belgium and Dutch day-ahead markets. In parallel, the EPEX SPOT German/Austrian Auction has been volume-coupled since November 2009 with the Nordic region through the governance of EMCC – European Market Coupling Company.



#### The CWE Market Coupling Initiative

Since 9 November 2010, the power markets in Central West Europe (CWE) are coupled – and linked to the Nordic countries. By optimizing cross-border allocation capacities, price convergence between these markets has increased.

A major step of market harmonization has been achieved on the 9<sup>th</sup> of November 2010, with the completion of market coupling in Central West Europe (covering Benelux, France and Germany/Austria), connected to the Nordic regions via EMCC's Nordic-German coupling. EPEX SPOT has provided a crucial role to this project along the three years of its implementation, in close cooperation with other exchanges and transmission system operators.

# EPEX SPOT has harmonized day-ahead trading solutions: ETS & HUPX

The coupling of EPEX SPOT's Day-Ahead market has been considerably facilitated by the new EPEX Trading System (ETS) introduced on the French market in June 2010 and launched in the German/Austrian market area in September. Since then the auctions in all market areas are operated on a unique trading system that has proven to be user-friendly and fast.

ETS is also used by the newly established Hungarian power exchange HUPX. HUPX was successfully launched in partnership with EPEX SPOT and ECC on 20 July 2010, and today provides transparent and reliable reference prices for the day-ahead market in Hungary. EPEX SPOT operates the Hungarian market for HUPX. This cooperation contributes to the harmonisation of the trading and clearing systems in Europe, facilitating further regional integration of the Eastern European electricity market.

#### PCR: the next step for Europe?

In 2009, EPEX SPOT initiated the Price Coupling of Regions – PCR – project, together with the Iberian and Nordic Power Exchanges OMEL and Nord Pool Spot. In 2010, three other exchanges (APX-Endex, Belpex, GME) have joined this open initiative, which is also officially supported by Europex, the European Association of Energy Exchanges.

The PCR project is a response to the common wish of regulators, TSOs and exchange members for the rapid implementation of a single day-ahead price coupling solution across Europe. It addresses the implementation of a common price coupling solution through which spot electricity price formation will be coordinated in an area covering Europe from Portugal to Finland and the Baltic. This amounts to over 80% of yearly European power consumption.

The approach is designed to be fully transparent and able to produce reliable reference power prices for all European markets, whatever the operational conditions. PCR also builds pragmatically on the existing arrangements, including the contractual and regulatory frameworks applicable in each region. Such an approach thus minimizes the required changes, and accelerates the speed of implementation.

With the PCR project, EPEX SPOT changes the scale of the market coupling projects, from a regional to a pan-European one.



#### Development of the Price Coupling of Regions (PCR) Initiative

- $\blacksquare$  Markets initially included in PCR 2 860 TWh
- Markets which showed interest to join
- Markets that could join next as part of an agreed European roadmap

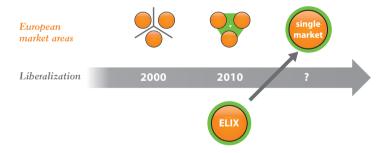
# ELIX: Working towards a truly integrated European market (price)



Since 18<sup>th</sup> October 2010, EEX and EPEX SPOT calculate and publish ELIX, the European Electricity Index for each delivery day at EPEX SPOT. The index is calculated on the basis of the actual aggregated bid and offer curves for all EPEX SPOT market areas.

ELIX is an essential benchmark price for the single European market, as it is the market price that would result in a physically unconstrained market environment. The index is based on the objective of a truly integrated, single European market. It shows the remaining additional benefit that could be achieved through further market integration. France, Germany/Austria and Switzerland stand for 36 percent of the Pan-European electricity consumption and national prices determined in those markets are already used as reference prices across Europe. ELIX displays how close those prices already are to a market price in a fully integrated European market.

ELIX shows the benefit of further market integration and provides regulators and authorities with an important support for policy and investment decisions (e.g. through additional investments in transmission grids): working towards an integrated market in a way which promotes efficiency by using the power of competition.



#### **Intraday markets**

# FITS: A flexible and customer-driven integration of Intraday markets

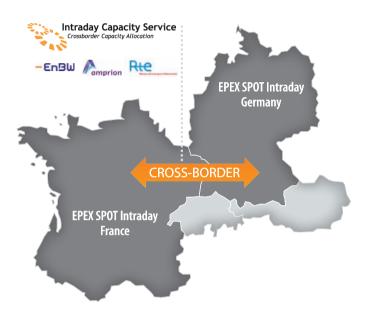
Since 2006, EPEX SPOT has been running competitive intraday markets in Germany and France. These continuous markets are crucial to ensure the flexibility and efficiency of power markets, as they provide the opportunity for exchange members to balance their positions as close as possible real-time. The French and German Intraday markets run by EPEX SPOT have today become the most liquid continuous intraday platforms in Continental markets, with over 11 TWh traded in 2010.

Facilitation of cross-border trading through the integration of intraday markets is increasingly needed, in particular with respect to the efficient use of increasing renewable energy. To answer this need, EPEX SPOT successfully introduced on 14 December 2010 cross-border intraday trading between Germany and France, offering its members the opportunity to access an integrated Franco-German Intraday market place. The two markets are integrated by using the cross-border capacity allocated by Amprion, EnBWTG and RTE.

This Flexible Intraday Trading Scheme – FITS – is the very first of its kind in Europe: it allows that allocation of capacity and EPEX SPOT energy trades are done instantaneously in an optimal way, while preserving parallel access to the capacity for OTC trades, fulfilling efficiently all exchange members' requirements and power system security.

FITS is connected in a non-discriminatory manner to existing TSOs' capacity allocation platform, the Intraday Capacity Service, already used on most of the German borders (DE-CH, DE-FR, DE-NL, DE-DK1). In this scheme, roles are clearly separated between the TSOs, which calculate and allocate the intraday cross-border capacity through a standard capacity platform, and the Exchanges and its members, which request capacity to the capacity platform in a flexible manner. This allowed the implementation of FITS in an accelerated timeframe with a minimum change of existing market rules and infrastructures, and will facilitate further extensions of the mechanism.

FITS thus paves the way for quicker and more flexible integration of the Intraday markets in Europe, favouring innovation to continuously fulfill the needs of the market players.



FITS – the Flexible Intraday Trading Scheme

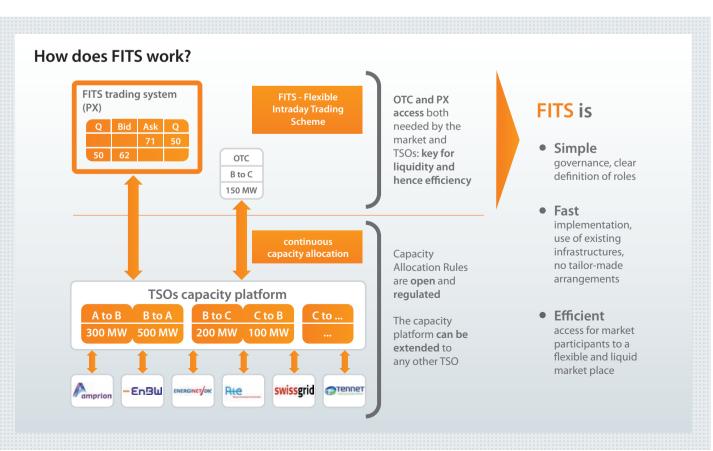
Everywhere the Intraday Capacity is allocated by the TSO platform, FITS can be implemented.

#### **Joachim Vanzetta**

Vice President, Head of Transmission System Operation, Amprion GmbH

"The Flexible Intraday Trading Scheme (FITS) of EPEX SPOT allows the efficient integration of the German and French Intraday markets. The increasing trade volumes confirm the success of the system. A powerful Intraday market is a key element for the TSO to efficiently market and balance the growing amount of renewable energies with stochastic infeed in Germany. Therefore FITS makes a significant contribution to maintain the system security with a high level of volatile renewables in the system."





## THE EPEX TEAM AT WORK





#### EPEX SPOT IN THE PRESS

Present in the energy press as well as in national journals, EPEX SPOT's achievements have been largely covered.



19 March 2010

#### Six marchés européens de l'électricité pour le couplage par les prix

(...) Par sa mise en place, la formation des prix spot de l'électricité sera coordonnée sur une zone qui pourrait couvrir le Portugal, l'Espagne, l'Italie, la Belgique, les Pays-Bas, le Royaume-Uni, la France, l'Allemagne, l'Autriche, la Suisse, le Danemark, la Norvège, la Finlande et les pays Baltes. Zone qui consomme aujourd'hui plus de 80 % de l'électricité européenne. L'initiative des 6 Bourses est ouverte à d'autres marchés prêts à y prendre part sur des bases justes et équitables. Le projet est mené en liaison étroite avec l'ensemble des parties prenantes.



28 January 2010

# Le marché européen de l'électricité en marche

Le couplage des marchés de l'électricité entre la France, l'Allemagne et le Benelux constituera en 2010 une étape majeure dans la construction d'un marché européen intégré, a déclaré le directeur général de la Bourse franco-allemande de l'électricité au comptant EPEX SPOT. Jean-François Conil-Lacoste a cependant observé, dans un entretien accordé à Reuters, que l'avant-projet de loi sur la réforme du marché de l'électricité français constituait un recul pour le développement du marché de gros. (...)

Power European Daily
Electricity Markets

7 October 2010

# EEX and EPEX create ideal European electricity price

Power exchanges EEX and EPEX SPOT unveiled on Thursday a new European electricity index created to provide the industry with a pan-European reference price based on an ideal, non-congested market. EEX and EPEX SPOT will begin publishing the index, branded ELIX, as of 18 October.

#### mondovisione

20 July 2010

#### European Commodity Clearing Launches Clearing For The Hungarian HUPX

From today European Commodity Clearing AG (ECC) will offer clearing services for the Power Spot Market transactions concluded on the HUPX Hungarian Power Exchange (HUPX). The Hungarian power contracts are traded on HUPX in a day-ahead auction using the EPEX SPOT "EPEX Trading System" (ETS).

#### **MONTEL**

23 March 2010

# French reform to reduce market liquidity

France's planned reform of the power market could significantly reduce liquidity' and lead to higher prices, Jean-Francois Conil-Lacoste, CEO of France's EPEX exchange said on Tuesday. The problem concerns 20 TWh pear year of baseload supplies that French transmission system operators (TSOs) currently buy on the wholesale market to compensate for their losses during the transport of power, Conil-Lacoste told Montel. Under the planned bill, TSOs would purchase these supplies at a regulated rate from EDF instead of buying them on the wholesale market, he said. (...)

#### ENERPRESSE

22 July 2010

#### La Bourse hongroise HUPX a lancé son marché électrique day-ahead avec succès

La Bourse hongroise HUPX a lancé, en partenariat avec EPEX SPOT et ECC, son marché électrique day-ahead (...). Un volume total de 2 278 MWh a été négocié avec un prix base de 47,80 euros/MWh. (...) HUPX utilise la plate-forme de négociation EPEX Trading System déjà en service sur le marché français et prochainement sur les marchés allemand/autrichien et suisse d'EPEX SPOT.

#### **Les Echos**

3 February 2010, by Jean-François Conil-Lacoste

#### La France, cette île électrique...

L'avant-projet de la loi de réforme du marché de l'électricité, dite « loi Nome », a été présenté pour concertation. Le poids de notre choix déjà ancien en faveur du nucléaire semble nous figer dans l'illusion tenace d'une forme d'insularité électrique, malgré notre recours désormais massif et fréquent aux importations. La France a été importatrice nette en octobre dernier, une première depuis vingt-sept ans.

#### ParisBerlin

#### DURCHBLICK **IN EUROPAS ENERGIE-DSCHUNGEL**

LA CHANCELIÈRE ANGELA MERKEL MET EN LUMIÈRE LA BOURSE DE L'ÉNERGIE



#### 8 November 2010

platts

#### CWE-Nordic market coupling date confirmed

The Central West European (CWE) and CWE-Nordic power market coupling project will launch as planned on Tuesday, November 9, Paris-based energy exchange **EPEX SPOT** confirmed Friday. On behalf of the project partners, we are pleased to report that the required five days of 'end to end' tests have been completed successfully, and that the combined CWE-ITVC launch date of November 9 is now confirmed, **EPEX SPOT** said in a note to its members, which Platts obtained.

#### **Bloomberg**

25 November 2010

#### Power Premium Falls as France, Germany Converge: Energy Markets

"We're thinking about extending it to the east and to the south." **EPEX SPOT** Chief Executive Officer Jean-Francois Conil- Lacoste also expects market coupling to spread across Europe.

#### DOWJONES

10 November 2010

#### **EPEX SPOT: CWE-Start** ist gut gelungen

(...) So sei es am ersten Tag des Zusammenschlusses des skandinavischen mit dem zentralwesteuropäischen Strommarkt (CWE) gleich zum bestmöglichen Szenario - einer einzigen Preiszone - in den gekoppelten Märkten der drei Börsen EPEX SPOT, Nord Pool Spot und APX-Endex gekommen, sagte Conil-Lacoste. "Wir haben in allen CWE-Märkten volle Preiskonvergenz erreicht", sagte der Börsenchef. Preisgleichheit habe sich bei allen gehandelten Stunden gezeigt.

#### ener gate

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22 November 2010

#### Europäische Strommärkte erfolgreich gekoppelt

Geschaffen wird ein gemeinsamer Day-Ahead-Handel von 1.816 Mrd. kWh, der etwa 60 Prozent des Stromverbrauchs in Europa abdeckt. Die insgesamt 17 Partner bewerten das Projekt anderthalb Wochen nach dem Start als erfolgreich angelaufen. Die Preise an den drei Strombörsen im CWE-Gebiet seien bisher in jeder Stunde konvergent, sagte ein Sprecher der **EPEX SPOT** auf Anfrage von energate.



#### THE POWER OF 194 MEMBERS

/// 24/7 TRADING GMBH /// 50HERTZ TRANSMISSION GMBH /// A2A TRADING S.R.L. /// ADVANCED ENERGY TRADING GMBH /// AGDER ENERGI PRODUKSJON AS /// ALPIQ ENERGY SE /// ALPIQ SA /// ALPIQ SUISSE SA /// AMPRION GMBH /// AXPO A.G. /// AZIENDA ELETTRICA TICINESE /// BARCLAYS BANK PLC /// BECOMAC GMBH /// BERGEN ENERGI AS ( DESIGNATED BROKER) /// BKW-FMB ENERGIE AG /// BNP PARIBAS /// BP GAS MARKETING LIMITED /// BRAUNSCHWEIGER VERSORGUNGS-AG & CO. KG /// BURGO ENERGIA SRL /// CARGILL INTERNATIONAL SA /// CENTRALSCHWEIZERISCHE KRAFTWERKE AG /// CENTRICA ENERGY LIMITED /// CENTROZAP SA /// CEZ A.S. /// CITIGROUP GLOBAL MARKETS LTD. /// CITIWORKS AG /// COMPAGNIE NATIONALE DU RHONE /// CONOCOPHILLIPS (U.K.) LIMITED /// CURRENTA GMBH & CO. OHG /// DANSKE COMMODITIES A/S /// DB ENERGIE GMBH /// DELTA ENERGY B.V. /// DEUTSCHE BANK AG /// DIRECT ENERGIE SA /// DONG ENERGY /// DONG ENERGY GERMANY AG (TM & DESIGANTED BROKER) /// DONG NATURGAS AS /// DORTMUNDER ENERGIE-UND WASSERVERSORGUNG GMBH /// DREWAG STADTWERKE DRESDEN GMBH /// DYNAMIC ENERGY APS /// E&T ENERGIE HANDELSGESELLSCHAFT MBH /// E.ON ENERGY TRADING SE /// EDF TRADING LIMITED /// EDISON TRADING S.P.A /// EDP ENERGIAS DE PORTUGAL SA /// EGL AG /// EGL DEUTSCHLAND GMBH /// EHA ENERGIE-HANDELS-GESELLSCHAFT MBH & CO. KG /// EINS ENERGIE IN SACHSEN GMBH & CO. KG /// ELECTRABEL S.A. /// ELECTRADE SRL /// ELECTRICITE RÉSEAU DISTRIBUTION FRANCE /// ENBW TRADING GMBH /// ENBW TRANSPORTNETZE AG /// ENDESA GENERACIÓN S.A. /// ENDESA TRADING S.A.U. /// ENECO ENERGY TRADE B.V. /// ENEL TRADE S.P.A. /// ENERGA OBROT SA /// ENERGETIC SOURCE /// ENERGI DANMARK A/S /// ENERGIE AG OBERÖSTERREICH TRADING GMBH /// ENERGIE- UND WASSERVERSORGUNG MITTLERES RUHRGEBIET /// ENERGIEDIENST HOLDING AG (GERMAN + SWISS AREA) /// ENERGIEHANDELSGESELLSCHAFT WEST MBH /// ENERGIEUNION AG /// ENERGY & MORE ENERGIEBROKER GMBH UND CO. KG /// ENERGY FINANCING TEAM (SWITZERLAND) AG /// ENERGY TRADING COMPANY S.R.O. /// ENERGYA VM GESTION DE ENERGIA S.L.U /// ENI S.P.A. /// ENOVOS LUXEMBOURG S.A. /// ENSO ENERGY SACHSEN OST GMBH /// ENVIA MITTELDEUTSCHE ENERGIE AG /// ESPERIA S.P.A /// EUROPE ENERGY SPA /// EUROPEAN MARKET COUPLING COMPANY GMBH /// EVONIK STEAG GMBH /// EWE ENERGIE AG /// EWV-ENERGIE- UND WASSER VERSORGUNG GMBH /// EWZ /// EXEN S.R.O /// EZPADA AG /// EZPADA S.R.O. /// FITEN S.A. /// FSE PORTFOLIO MANAGEMENT (DESIGNATED BROKER) /// GALA S.P.A /// GALP POWER SA /// GAS NATURAL SDG S.A. /// GASAG BERLINER GASWERKE AG /// GASELYS S.A. /// GAZPROM MARKETING & TRADING LTD. /// GDF SUEZ /// GDF SUEZ DEUTSCHLAND /// GEN-I D.O.O /// GETEC ENERGIE AG /// GROUPE E AG /// GUNVOR INTERNATIONAL B.V., AMSTERDAM, GENEVA BRANCH /// HOLDING SLOVENSKE ELEKTRARNE D.O.O. /// HÜTTENWERKE KRUPP MANNESMANN GMBH /// IBERDROLA GENERACIÓN S.A.U. /// IMC ENERGY TRADING B.V. /// IN.POWER GMBH /// INTERENERGO, ENERGETSKI INZENIRING, D.O.O. /// IWB INDUSTRIELLE WERKE BASEL /// J. ARON & COMPANY /// J.P. MORGAN SECURITIES LTD. /// JOSEF C. NECKERMANN GMBH & CO. KG /// KALIBRA XE FRANCE S.A.S. /// KARSTADT WARENHAUS AG /// KELAG-KÄRNTNER ELEKTRIZITÄTS-AG /// KES KOMMUNALE ENERGIEDIENSTLEISTUNGSGESELLSCHAFT S /// KI ENERGY TRADING GMBH /// KOPEX SA /// KORLEA INVEST, A.S. /// LICHTBLICK AG /// LINZ STROM GMBH /// LOUIS DREYFUS ENERGY SERVICES L.P. /// LUMIUS SPOL. S.R.O. /// MACQUARIE BANK LTD. (LONDON BRANCH) /// MARK-E AG /// MARKEDSKRAFT ASA /// MERCURIA ENERGY TRADING SA /// MERRILL LYNCH COMMODITIES (EUROPE) LIMITED /// MORGAN STANLEY CAPITAL GROUP INC.///MVM-ADWEST MARKETING UND HANDELS GMBH///NEUBRANDENBURGER STADTWERKE GMBH /// NIDERA HANDELSCOMPAGNIE B.V. /// NOBLE CLEAN FUELS LIMITED /// NOMURA ENERGY MARKETING LIMITED /// NORDJYSK ELHANDEL A/S /// NORSK HYDRO PRODUKSJON AS /// NOVAWATT /// ÖBB-INFRASTRUKTUR AKTIENGESELLSCHAFT /// OMPEX /// OVAG ENERGIE AG /// PCC ENERGIE GMBH /// PETROL D.D., LJUBLJANA /// PFALZWERKE AG /// POLSKA ENERGIA PKH SP. Z O. O. /// POWEO /// PRAZSKA ENERGETIKA /// PRIOGEN HOLDING BV /// REPOWER AG /// REWAG REGENSBURGER ENERGIE- UND WASSERVERSORGUNG A /// RHEIN RUHR PARTNER GESELLSCHAFT FÜR ENERGIEHANDEL MBH /// RHEINENERGIE TRADING GMBH /// RTE (GRID LOSSES) /// RWE SUPPLY & TRADING GMBH /// RWE SUPPLY & TRADING NETHERLANDS B.V. /// RWE SUPPLY & TRADING SWITZERLAND S.A. /// SALZBURG AG FÜR ENERGIE, VERKEHR UND TELEKOMMUNIKATION /// SC TINMAR-IND SA /// SCHWEIZERISCHE BUNDESBAHNEN SBB /// SCOTTISH POWER ENERGY MANAGEMENT LIMITED /// SE SCHERBECK ENERGY GMBH /// SHELL ENERGY EUROPE LIMITED /// SOCIÉTÉ GÉNÉRALE S.A. /// SORGENIA TRADING S.P.A /// SPE S.A. /// STADTWERKE DÜSSELDORF AG /// STADTWERKE FLENSBURG GMBH /// STADTWERKE GIESSEN AG /// STADTWERKE HANNOVER AG /// STADTWERKE KARLSRUHE GMBH ///STADTWERKE LEIPZIG GMBH /// STADTWERKE MUNCHEN /// STADTWERKE VIERNHEIM GMBH /// STATKRAFT MARKETS GMBH /// STEWEAG-STEG GMBH /// STORA ENSO DEUTSCHLAND GMBH /// SÜDWESTDEUTSCHE STROMHANDELS GMBH /// SWB VERTRIEB BREMEN GMBH /// SWH STADTWERKE HEIDELBERG ENERGIE GMBH /// SWISSGRID AG /// SYNECO TRADING GMBH /// TAURON POLSKA ENERGIA S.A. /// TECHNISCHE WERKE LUDWIGSHAFEN AM RHEIN AG /// TEI ENERGY S.P.A. /// THE ROYAL BANK OF SCOTLAND PLC. /// THYSSENKRUPP AG /// TIRRENO POWER SPA /// TIWAG - TIROLER WASSERKRAFT AG /// TOTAL GAS & POWER LIMITED /// TRIANEL GMBH /// TRIMET ALUMINIUM /// UEM /// VATTENFALL ENERGY TRADING GMBH /// VATTENFALL ENERGY TRADING NETHERLANDS NV /// VERBUND AG /// VITOL S. A. /// VORARLBERGER KRAFTWERKE AG /// VW KRAFTWERK GMBH /// WSW ENERGIE & WASSER AG ///

#### MEMBERS & MARKETS



# Strong community, high liquidity

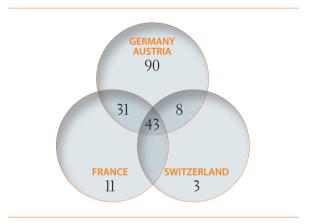
On EPEX SPOT, power can be traded according to two different modalities: auction and continuous trading.

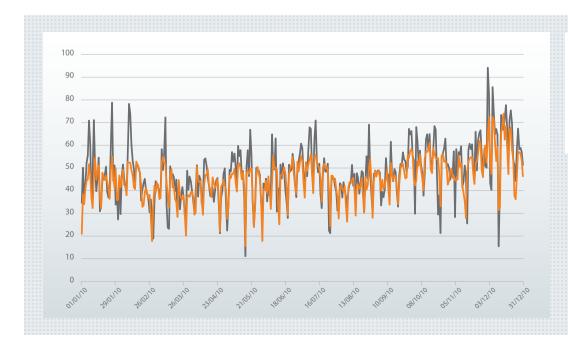
In the **auction process**, all bids and offers for a delivery of power at a specific hour of the following day are collected and one price for every hour in the day is calculated. This price is the optimal price for power, taking into account the characteristics of all orders submitted to the exchange for that specific hour (price, quantity, and relative weight of purchase versus sale...). The auction is the momentum of the spot power market, concentrating liquidity of the market at a specific time of the day and determining reference prices for a particular area.

**Continuous trading** is used on the intraday market, a market which allows a shorter lead time between trading and power delivery. All bids and offers for power are collected in the central order book of the exchange until 45 minutes before the delivery since 29 March 2011, 24 hours a day and 7 days a week and they are matched continuously and in real-time whenever they are compatible in terms of price and product. Continuous trading is a very flexible way to adapt to changing market conditions and to unforeseen events.

#### Members ...

On December 31<sup>st</sup> 2010, EPEX SPOT membership was made up of 189 different companies coming from all over Europe versus 183 just a year before. Whereas the German/Austrian auction remains the most attractive market segment with 90 companies being active on this segment alone, 43 members have now chosen to be active on the three auctions managed by EPEX SPOT versus 32 one year before. This illustrates EPEX SPOT's integration strength at the European level.





#### DE/AT Day-Ahead prices and DE Intraday prices

- Daily weighted average Day-Ahead (orange line)
- Daily weighted average Intraday (grey line)

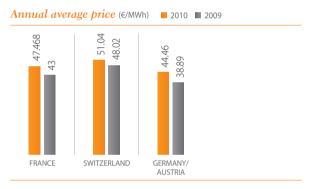
#### ... and Markets

#### EPEX SPOT price trends

#### **Day-Ahead segments**

In 2010, the average annual Day-Ahead prices rose by 14.32% in Germany/Austria, 10.39% in France and 6.29% in Switzerland compared to 2009. This surge came after the fall of prices between 2008 and 2009, when annual average prices across the three areas dropped by 35% to 41%.

Geographic trends have been consistent. Swiss power was the most expensive of the three areas, as it has been over the last years. The average price in 2010 was €51.04/MWh, a 15% premium over the price in Germany/Austria (the cheapest of three areas at €44.46/MWh) and a 8% premium over France (€47.468/MWh). Compared to 2009, volatility fell sharply across France and Germany/Austria while it remained at the same level in Switzerland.



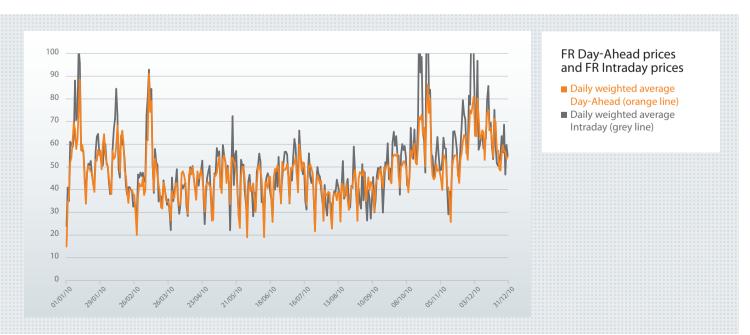
It collapsed from 52% to 25% in Germany/Austria and from 73% to 23% in France and remains at 21% (same level as 2009) in Switzerland.

The high levels of volatility in 2009 in Germany and France were particularly due to the peak of price in France on the 19.10.09 (Baseload was €612.766/MWh) and negative prices in Germany/Austria on 04.10.09 and 26.12.09 (Baseload was €-11.59/MWh and €-35.57/MWh).

#### **Intraday segments**

Intraday prices are correlated to day-ahead prices but exhibit much more volatility than day-ahead prices due to the fact that intraday trading is closer to delivery. The chart below compares the volume weighted daily average of intraday prices and the volume weighted daily average of day-ahead prices.

	Standard Deviation day-ahead	Standard Deviation intraday	Correlation
DE/AT or DE	9.11	12.21	81%
FR	12.06	16.76	88%



#### **Jonas Tornquist**

Head of Transmission and Regulatory Affairs, EDF Trading Limited

"EPEX SPOT has demonstrated its ability to understand fundamental market needs. The CWE spot market coupling and France-Germany continuous intraday trading projects have both been launched with great success during 2010. These initiatives provide excellent examples of what we should be heading for and how projects should be coordinated. The efficiency of these market integration initiatives can be measured in the growth of traded volumes and the improved reliability of daily operations. We look forward to the continued development of these services."



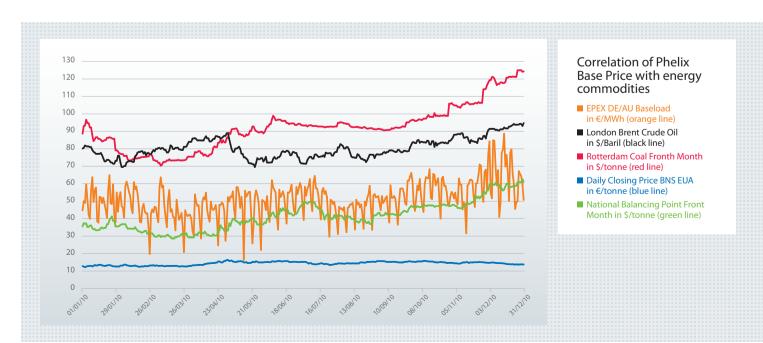
#### Fuel and EU emissions allowances prices

Power prices are closely linked to the specific market conditions prevailing in each local market such as expected power consumption level, availability of power units and weather forecasts:

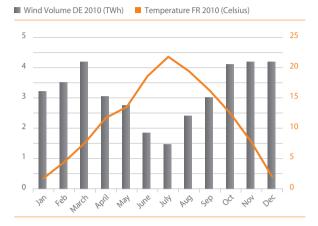
- due to the importance of wind power generation in Germany, the expected level of wind power has a significant impact on the level of German/Austrian power prices;
- France being highly equipped with electrical heating devices, expected temperature variations play a specific role to understand the behavior of French power prices;
- Switzerland relies strongly on hydropower and power prices depend on the level of reservoirs: in an extremely wet year prices tend to drop.

The following chart shows for each month of 2010 the total monthly wind power in Germany and the average temperature in France.

In addition, power prices are highly correlated with the price of other energy commodities (gas, oil and coal) as they are used as fuel for a large proportion of power plants, as well as to the price of  $CO_2$  emission allowances.



#### Monthly wind power in Germany and average temperature in France

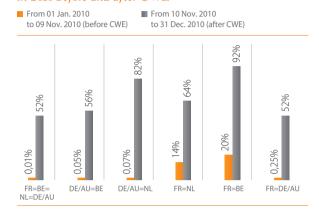


#### Price convergence

The trilateral market coupling initiative that was initially covering France, Belgium and the Netherlands, has been extended since 09.11.2010 to Germany/Austria. In this initiative (Central West Europe market coupling or CWE), an efficient use of the cross-border capacity is in the heart of the whole scheme which eases the convergence of the main European market prices. However, when market conditions differ to a large extent between countries, prices remain different.

In this regard, a 52% hourly price convergence ratio between France and Germany/Austria has been recorded on delivery days from 09.11.2010 up to 31.12.2010 (against 0.24% over the period from 01.01.2010 to 09.11.2010).

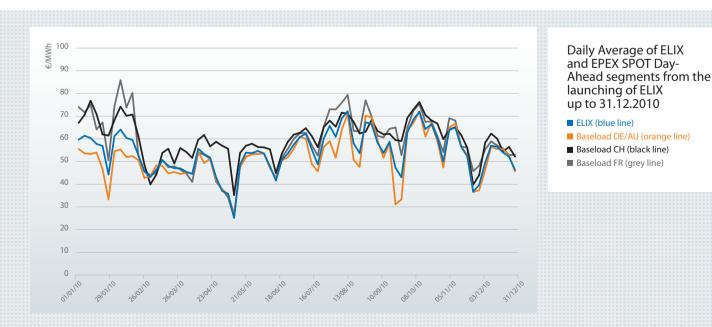
#### Hourly price convergence ratio in 2010 before and after CWE



#### **Trading volumes**

Germany and France have geographically a central position in Europe. Thanks to the relatively important interconnection capacities with neighboring countries, those two countries are a crossroads for power trading:

- the Nordic system relies strongly on hydro power generation. When hydro conditions are poor (resp. good) it imports from (resp. exports to) Germany;
- this also applies to Switzerland which imports from Germany and France when its reservoir levels are poor;
- East European power producers with excess capacity uses it to export to Germany;



• the CWE initiative leads to more efficient use of interconnection capacities and coherent flows between the involved areas than before (DE/AU, FR, NL and BE): no adverse flows (an export is necessarily from an area with a lower price) and no suboptimal flows (different prices even if there is no congestion).

All these facts together with the increasing domestic demand in Germany/Austria, France and Switzerland increase EPEX SPOT volumes and liquidity. This liquidity motivates market players to trade more often than they did in the past and attracts banks and funds which avoid smaller markets.

#### Day-Ahead segments

While Day-Ahead volumes soared by 52.64% in Germany/Austria (205.5 TWh) and by 17.88% in Switzerland (9.4 TWh), French volumes were stable at 52.6 TWh.

The new provisions of the German law on renewables obliges transmission system operators to sell power purchased from renewables directly on the power exchange.

#### Intraday segments

Total Intraday segments volume for 2010 was 11.3 TWh. It rose by 68% compared to 2009.

Since 14<sup>th</sup> December 2010, FITS gives traders the opportunity to be matched against more competitive orders placed on the other side of the border. Over the period from 14.12.2010 to 31.12.2010, cross border trades have represented around 15% of total Intraday volume.

The liquidity increase can be assessed by the total number of trades which rose from 224,808 in 2009 to 350.082 in 2010. That is a 56% increase.

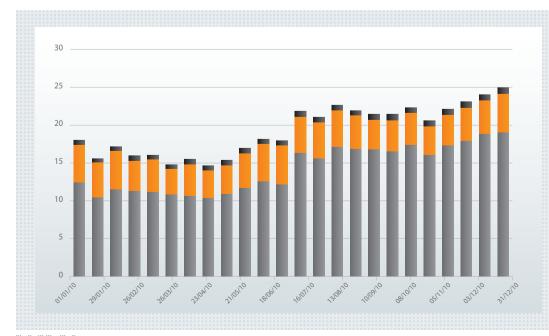
3,067 cross border trades have been recorded over the period from 14.12.2010 to 31.12.2010.

#### **Paul Dawson**

Head of Market Design and Regulatory Affairs, RWE Supply and Trading

"EPEX SPOT has delivered an advanced, robust and usable trading platform and their staff have worked hard to meet our needs. EPEX SPOT has tackled the many practical and regulatory challenges with openness and creativity which positions them well to address a future of greater market integration and competition."





#### Day-Ahead segments volumes

from January 2010 to December 2010 (TWh)

- Switzerland (black line)
- France (orange line)
- Germany/Austria (grey line)

#### E-Learning

#### Why E-Learning?

Based on its know-how and expertise in the European power market, EPEX SPOT has developed a variety of **E-Learning training courses available through high quality media**.

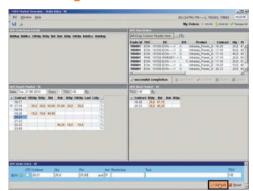
EPEX SPOT, a pioneer in this area, aims through this offer to:

- 1. Update know-how and deepen expertise of its members by offering homemade and up-to-date training
- **2.** Facilitating EPEX certification mechanisms by enabling members to take the examination online
- **3.** Providing professionals of the energy sector with easily accessible and flexible training means
- **4.** Helping knowledge acquisition by proposing training in 3 languages: English, German and French
- **5.** Enhancing European power market understanding by proposing E-Learning training to a large audience

#### E-Learning – a plug and play solution

These training courses rely on an active pedagogy and new technologies and evolve accordingly permanently. The different modules are available on-line on a specific platform. The access is secured by a login and a password granted upon registration.

#### E-Learning – what it looks like



Extract of ComTrader Intraday: Own order book, market overview and order entry.

#### To know more about our training modules

Visit our website at www.epexspot/elearning, you will find there:

- Training descriptions and demos
- Tariffs
- Registration procedure

#### Contact: elearning@epexspot.com

Audrey Gaussuron

E-Learning

Administrator

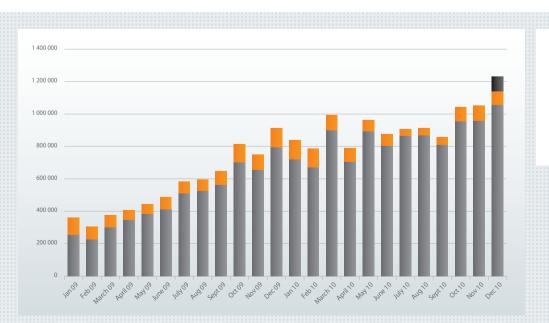
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#### Intraday segments volumes

from January 2009 to December 2010 (MWh)

- Intraday cross-border (black line)
- Intraday France (orange line)
- Intraday Germany (grey line)





#### Balance sheet

The following balance sheet reflects the financial situation of EPEX SPOT SE before distribution of the net income of the period. The financial statements are established according to French GAAP which corresponds to IFRS.

ASSETS	31/12/2010 (12 MONTHS)	31/12/2009 (15 MONTHS)	Deviation
FIXED ASSETS			
INTANGIBLE FIXED ASSETS			
Concessions, patents and similar assets			
Concessions, patents and similar assets	5 625 591	1 459 672	4 165 919
Depreciation of concessions, patents and similar assets	-1 716 870	-1 064 644	-652 226
Goodwill	1 544 079	1 544 079	0
Intangible fixed assets in progress	0	2 132 387	-2 132 387
Total intangible fixed assets	5 452 800	4 071 494	1 381 306
TANGIBLE FIXED ASSETS			
Other tangible fixed assets	92 420	42 420	50 000
Depreciation of other tangible fixed assets	-34 862	-30 481	-4 381
FINANCIAL FIXED ASSETS	0	0	0
Total FIXED ASSETS	5 510 358	4 083 433	1 426 925
CURRENT ASSETS			
DEBTS RECEIVABLE			
Trade debtors and related accounts	6 469 337	2 847 692	3 621 645
Other debts receivable	1 857 910	1 809 008	48 902
Liquid assets	11 476 349	12 807 094	-1 330 745
Prepayments	5 314	5 129	185
Total CURRENT ASSETS	19 808 909	17 468 923	2 339 986
IOIAI CURREINI ASSETS	19 000 909	17 400 923	2 339 900
OVERALL TOTAL	25 319 267	21 552 356	3 766 911
OVERALL TOTAL STOCKHOLDER'S EQUITY AND LIABILITIES			
OVERALL TOTAL  STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES			
OVERALL TOTAL STOCKHOLDER'S EQUITY AND LIABILITIES	25 319 267	21 552 356	3 766 911
OVERALL TOTAL  STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES  Share Capital Premiums on shares issued, mergers, contributions Legal reserve	<b>25 319 267</b> 4 973 094	<b>21 552 356</b> 4 973 094	<b>3766911</b>
OVERALL TOTAL  STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES Share Capital Premiums on shares issued, mergers, contributions	25 319 267 4 973 094 2 607 960	21 552 356 4 973 094 2 970 447	3 766 911 0 -362 487
OVERALL TOTAL  STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES  Share Capital Premiums on shares issued, mergers, contributions Legal reserve	4 973 094 2 607 960 362 487	21 552 356 4 973 094 2 970 447 0	3 766 911 0 -362 487 362 487
OVERALL TOTAL  STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES  Share Capital Premiums on shares issued, mergers, contributions Legal reserve Profit for the financial year	4 973 094 2 607 960 362 487 9 831 470	21 552 356 4 973 094 2 970 447 0 7 249 750	3 766 911 0 -362 487 362 487 2 581 720
OVERALL TOTAL  STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES Share Capital Premiums on shares issued, mergers, contributions Legal reserve Profit for the financial year Total capital and reserves	4 973 094 2 607 960 362 487 9 831 470	21 552 356 4 973 094 2 970 447 0 7 249 750	3 766 911 0 -362 487 362 487 2 581 720
OVERALL TOTAL  STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES Share Capital Premiums on shares issued, mergers, contributions Legal reserve Profit for the financial year Total capital and reserves  PROVISIONS FOR LIABILITIES AND CHARGES	25 319 267  4 973 094 2 607 960 362 487 9 831 470 17 775 011	21 552 356 4 973 094 2 970 447 0 7 249 750 15 193 291	3 766 911 0 -362 487 362 487 2 581 720 2 581 721
OVERALL TOTAL  STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES Share Capital Premiums on shares issued, mergers, contributions Legal reserve Profit for the financial year Total capital and reserves  PROVISIONS FOR LIABILITIES AND CHARGES Provisions for liabilities	25 319 267  4 973 094 2 607 960 362 487 9 831 470  17 775 011	21 552 356 4 973 094 2 970 447 0 7 249 750 15 193 291 475 000	3 766 911 0 -362 487 362 487 2 581 720 2 581 721
STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES Share Capital Premiums on shares issued, mergers, contributions Legal reserve Profit for the financial year Total capital and reserves  PROVISIONS FOR LIABILITIES AND CHARGES Provisions for liabilities Provisions for charges Total provisions	25 319 267  4 973 094 2 607 960 362 487 9 831 470  17 775 011  575 000 61 636	21 552 356  4 973 094 2 970 447 0 7 249 750  15 193 291  475 000 31 799	0 -362 487 362 487 2 581 720 2 581 721 100 000 29 837
STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES Share Capital Premiums on shares issued, mergers, contributions Legal reserve Profit for the financial year Total capital and reserves  PROVISIONS FOR LIABILITIES AND CHARGES Provisions for liabilities Provisions for charges	25 319 267  4 973 094 2 607 960 362 487 9 831 470  17 775 011  575 000 61 636	21 552 356  4 973 094 2 970 447 0 7 249 750  15 193 291  475 000 31 799	0 -362 487 362 487 2 581 720 2 581 721 100 000 29 837
STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES Share Capital Premiums on shares issued, mergers, contributions Legal reserve Profit for the financial year Total capital and reserves  PROVISIONS FOR LIABILITIES AND CHARGES Provisions for liabilities Provisions for charges Total provisions  DEBTS PAYABLE	25 319 267  4 973 094 2 607 960 362 487 9 831 470  17 775 011  575 000 61 636 636 636	21 552 356  4 973 094 2 970 447 0 7 249 750  15 193 291  475 000 31 799  506 799	3 766 911 0 -362 487 362 487 2 581 720 2 581 721 100 000 29 837 129 837
STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES Share Capital Premiums on shares issued, mergers, contributions Legal reserve Profit for the financial year Total capital and reserves  PROVISIONS FOR LIABILITIES AND CHARGES Provisions for liabilities Provisions for charges  Total provisions  DEBTS PAYABLE Trade creditors and related accounts Tax and social security debts payable Other debts payable	25 319 267  4 973 094 2 607 960 362 487 9 831 470  17 775 011  575 000 61 636 636 636	21 552 356  4 973 094 2 970 447 0 7 249 750  15 193 291  475 000 31 799 506 799	0 -362 487 362 487 2 581 720 2 581 721 100 000 29 837 129 837 968 396
STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES Share Capital Premiums on shares issued, mergers, contributions Legal reserve Profit for the financial year Total capital and reserves  PROVISIONS FOR LIABILITIES AND CHARGES Provisions for liabilities Provisions for charges Total provisions  DEBTS PAYABLE Trade creditors and related accounts Tax and social security debts payable Other debts payable Deferred income	25 319 267  4 973 094 2 607 960 362 487 9 831 470  17 775 011  575 000 61 636 636 636  2 583 964 4 252 166	21 552 356  4 973 094 2 970 447 0 7 249 750  15 193 291  475 000 31 799  506 799  1 615 568 4 106 770	0 -362 487 362 487 2 581 720 2 581 721 100 000 29 837 129 837 968 396 145 396
STOCKHOLDER'S EQUITY AND LIABILITIES CAPITAL AND RESERVES Share Capital Premiums on shares issued, mergers, contributions Legal reserve Profit for the financial year Total capital and reserves  PROVISIONS FOR LIABILITIES AND CHARGES Provisions for liabilities Provisions for charges  Total provisions  DEBTS PAYABLE Trade creditors and related accounts Tax and social security debts payable Other debts payable	25 319 267  4 973 094 2 607 960 362 487 9 831 470  17 775 011  575 000 61 636 636 636  2 583 964 4 252 166 71 490	21 552 356  4 973 094 2 970 447 0 7 249 750  15 193 291  475 000 31 799  506 799  1 615 568 4 106 770 129 928	3 766 911 0 -362 487 362 487 2 581 720 2 581 721 100 000 29 837 129 837 968 396 145 396 -58 438

#### Comments to balance items

- Concessions, patents and similar rights: The net amount of this item is 3 909 KEUR compared to 395 KEUR last year. The gross amount increased by 4 166 KEUR and is amortized according to the straight-line method over a duration of 36 months. The investments in 2010 concern essentially the EPEX Trading System (ETS), the project Central West Europe (CWE) and the Intraday Cross-border project.
- **Goodwill:** The goodwill results from the merger between the exchange market of Frankfurt and Leipzig in 2002. It has been attributed to EPEX SPOT SE when EPS (the German spot markets) was merged into EPEX SPOT on January 1, 2009.
- Intangible fixed assets in progress: On December 31, 2009 the intangible fixed assets in progress amounted to 2 132 KEUR and contained essentially investments for the CWE and ETS projects. ETS was launched on June 16, 2010 and CWE on November 09, 2010. On December 31, 2010 there are no more assets in progress because all investments were capitalized in 2010.
- Trade debtors and related accounts: This item (6 469 KEUR) increased by 127% referring to last year (2 848 KEUR). Following the launch of the CWE project on November 09, 2010 invoicing to the respective partners took place in large part in December 2010 and was not cashed-in on December 31, 2010. Trade debtors concerning CWE amount to 2 665 KEUR on December 31, 2010 (459 KEUR on December 31, 2009). Furthermore there was further billing in December 2010 in relation with the end of the TLC project (344 KEUR) and for services to HUPX (85 KEUR).

- Other debts receivable: This item relates essentially to deductible VAT amounting to 1 380 KEUR (balance on December 31, 2009: 1 809 KEUR).
- **Liquid assets:** The total "cash" of EPEX SPOT SE amounts to 11 476 KEUR and is placed on current accounts (Paris & Leipzig).
- Capital and reserves: The share capital is unchanged to 2009 and amounts to 4 973 KEUR. From the net income of financial year 2009 (7 250 KEUR), 362 KEUR has been attributed to the legal reserve (rule: 5% of yearly net incomes, until legal reserve amounts to 10% of the share capital). The amount of 362 KEUR has been distributed out of the position "Premiums on shares issued, mergers, contributions".
- **Provisions for liabilities:** This item contains a provision of 575 KEUR for business risks. At December 31, 2010 there was no legal case pending.
- Trade creditors and related accounts: This item increased by 968 KEUR (+60% compared to previous year) mainly due to billing of costs from CWE project parties (454 KEUR on December 31, 2010 compared to 30 KEUR prior year) and the Intraday Cross-border project which was launched in 2010 (540 KEUR on December 31, 2010).
- Tax and social security debts payable: This position contains essentially income tax and business entity tax amounting to 2 132 KEUR to be paid in 2011, turnover tax payable of 972 KEUR and furthermore personnel and social security debts payable (bonuses, holiday pay and social security fund) of 1 071 KEUR compared to 707 KEUR on December 31, 2009.

#### Profit and Loss Account

The income statement of 2010 covers a 12 month period (fiscal and financial year of EPEX SPOT SE) compared to a 15 month period prior year. The duration of the financial year 2009 amounts to 15 months because of the contribution of the spot activity from Powernext SA and the actions EPS with a retroactive effect on October 01, 2008.

	31/12/2010	31/12/2009		
OPERATING INCOME	(12 MONTHS)	(15 MONTHS)	Deviation	
Sales of services				
Net turnover	30 121 602	23 987 694	6 133 908	26%
Other income	203 943	1 678 858	-1 474 915	-88%
Total income	30 325 545	25 666 552	4 658 993	18%
Operating charges				
IT costs	-2 791 210	-2 977 072	185 862	-6%
Personnel costs	-3 956 061	-2 905 453	-1 050 608	36%
Overhead costs	-8 070 490	-7 881 231	-189 260	2%
Operating taxes	-144 372	-957 509	813 137	-85%
Extraordinary expenses	-83 822	-444 210	360 388	-81%
Operating charges	-15 045 955	-15 165 475	119 520	-1%
EBITDA	15 279 590	10 501 078	4 778 512	46%
Adjustment transfer	-129 639	-396 166	266 527	-67%
Amortization, tangibles	-5 202	-8 471	3 269	-39%
Amortization, intangibles	-651 405	-167 367	-484 038	289%
EBIT	14 493 344	9 929 074	4 564 270	46%
Other interest and similar income	69 595	201 866	-132 271	-66%
Financial profit	69 595	201 866	-132 271	-66%
Income tax	-4 731 469	-2 881 191	-1 850 278	64%
PROFIT OR LOSS	9 831 470	7 249 749	2 581 721	36%

#### Comments to income statement items

• Net turnover: The turnover increased by 26% compared to prior year and is due to the increase of variable fees.

	31/12/2010	31/12/2009	Difference	
Turnover	30 121 602	23 987 694	6 133 908	26%
thereof				
variable fees <sup>(a)</sup>	21 914 223	16 778 216	5 136 007	31%

#### (a) Variable fees:

The increase of the volume on the German/Austrian market (+50%) has to be associated with the EEG effect.

	31/12/2010	31/12/2009	Deviation	
Power Spot (GWh)	278 654	205 551	73 103	36%
Power Spot D/A (GWh)	215 699	143 866	71 833	50%
- Auction D/A (GWh)	205 479	138 204	67 275	49%
- Intraday D (GWh)	10 220	5 662	4 558	81%
Power Spot F (GWh)	53 630	53 678	-48	0%
- Auction F (GWh)	52 630	52 648	-18	0%
- Intraday F (GWh)	1 000	1 030	-30	-3%
Power Spot CH (GWh)	9 325	8 007	1 318	16%

- Other income: This item contained on December 31, 2009 further charging of TLC and CWE project costs to the TSOs which are included in the position "service providing income" on December 31, 2010.
- **Staff:** This item increased significantly because of new hire of 10 staff members in 2010.
- Operating taxes: This item decreased due to the modified presentation of the business entity tax of EPEX SPOT Leipzig on December 31, 2010 which is included in the position "income tax".
- Extraordinary expenses: This position concerns the payment for a business risk.
- **Amortization, intangibles:** The depreciation increased significantly as a result of the capitalization of investments concerning the projects launched in 2010 in particular the ETS and CWE project.
- Other interest and similar income: This item corresponds to the interests for the current bank accounts (Paris and Leipzig).
- Corporate tax: This position amounts to 4 731 KEUR and contains the income tax and additional contribution to income tax due in France (1 549 KEUR) and the income tax and additional contribution to income tax due in Germany (3 183 KEUR). The tax rate based on the EBIT (earnings before interest and taxes) amounts to 34,9% for EPEX SPOT SE, Paris and to 31,6% for EPEX SPOT SE, Leipzig.

	31/12/2010
Corporate tax	4 731 469
thereof	
FRANCE	
income tax France	1 523 678
additional contribution	
to income tax France	25 102
	1 548 780
EBIT (France)	4 434 994
tax rate	34,9%
GERMANY	
income tax Germany (KSt)	1 488 972
additional contribution	
to income tax Germany (SolZ)	81 895
business entity tax Germany (GewSt)	1 611 822
	3 182 689
EBIT (Germany)	10 058 350
taxe rate	31,6%

EPEX SPOT submitted an Advance Pricing Agreement to German and French tax authorities in 2010 concerning the cost and revenue division between the headquarter of EPEX SPOT SE in Paris and the branch in Leipzig.

# GLOSSARY



#### **AUCTION**

Procedure for making transactions after a period of time during which the orders entered by exchange members in the order book are accumulated, but not executed. The price determination algorithm aims at optimising the total welfare, for example the seller surplus, the buyer surplus and the congestion rent.

#### **BALANCE RESPONSIBLE PARTY**

Legal entity obligated to pay a TSO for the after-the-fact imbalances of a grid-user coming within the Balance Responsible's Perimeter.

#### **BALANCING MARKET**

Market managed by TSOs in order to guarantee the availability of power reserves in day-ahead and intraday to ensure global supplydemand balance in real time.

#### **BASELOAD**

Characterises the type of load for the delivery of electricity or the procurement of electricity with a constant output over 24 hours of each day of the delivery period (see Peakload).

#### BID

Document by which the member submits the price and the quantity for which it seeks to make a transaction. Orders are binding buy or sell orders.

#### **BUNDESKARTELLAMT (BKARTA)**

The Bundeskartellamt (Federal Cartel Office) is an independent competition authority whose task is to protect competition in Germany.

#### BUNDESNETZAGENTUR (BNETZA)

The Bundesnetzagentur (Federal Network Agency) is a German authority whose task is to provide, by liberalisation and deregulation, for the further development of networks and markets as is the case of electricity. The Agency has rights of information and investigation as well as the right to impose graded sanctions.

#### **CLEARING**

Financial and physical settlement of transactions.

#### COMMISSION DE REGULATION DE L'ENERGIE (CRE)

The CRE is an independent French administrative authority whose task is to regulate the electricity market.

#### **CONGESTION RENT**

Price difference between two markets linked by market coupling arising when there is congestion on the border.

#### **CONTINUOUS TRADING**

Unlike in an auction, orders may be executed as soon as they are placed in the order book. Competing orders in the order book are prioritised firstly by their price and then by their time stamp.

#### **CENTRAL WEST EUROPE (CWE)**

Region encompassing the power spot markets of France, Germany, Belgium, Netherlands and Luxembourg, which are coupled since 9<sup>th</sup> November 2010.

#### **DAY-AHEAD MARKET**

Part of the spot market where a commodity is tradable one day before delivery.

#### **DELIVERY**

The physical fulfilment of transactions is called delivery.

#### **DELIVERY AREA**

Power transportation grid managed by a TSO.

#### **E-CONTROL**

As the Austrian independent regulation authority, E-Control is responsible for drawing up and enforcing market rules. Its job is to strengthen competition and to ensure that this does not compromise security of supply and sustainability.

#### **ECC**

European Commodity Clearing AG. Central counterparty for all transactions done on EPEX SPOT.

#### EIDGENÖSSISCHE ELEKTRIZITÄTSKOMMISSION (ELCOM)

ElCom is Switzerland's independent regulatory authority in the electricity sector. ElCom monitors electricity prices as well as electricity supply security and regulates issues relating to international electricity transmission and trading.

#### **ELIX**

European Electricity Index . ELIX is calculated daily, based on the order books of the three EPEX SPOT markets – which account for 40% of the European power consumption – under the assumption of no congestions between the countries.

#### ETS

Electronic system operated by EPEX SPOT that allows exchange members to trade on EPEX SPOT Market Segments. The EPEX Trading System (ETS) is used for the day-ahead market.

#### **EXCHANGE MEMBER**

Legal entity that has signed a trading agreement with EPEX SPOT.

#### **EXCHANGE RULES**

Part of the rules and regulations of EPEX SPOT that sets forth the terms on which EPEX SPOT carries out its duties and on which Exchange Members trade on the market.

#### **FITS**

Flexible Intraday Trading Scheme, used for the intraday market. It enables exchange members to trade cross-border freely between Germany and France, on an integrated market platform.

#### IMPLICIT / EXPLICIT

An auction is called implicit, if market price calculation and cross-border capacities are calculated simultaneously. If cross-border capacities are determinated separately by the TSOs, it is called explicit.

#### **INTRADAY MARKET**

Part of the spot market where the commodity is tradable up to 45 minutes before physical fulfilment.

#### **MARKET CLEARING PRICE**

Synonym for auction price. The market clearing price corresponds to the intersection between the aggregated supply and demand curves.

#### **MARKET COUPLING**

Market Coupling is a method to manage capacity congestions between adjacent power spot markets by optimizing the capacity allocation. It allows the matching of power exchanges' orders and the implicit allocation of the available cross border capacities received from the TSOs.

#### **MATCHING**

Combination of two compatible opposite orders that leads to a transaction.

#### **NOMINATION**

Daily declaration of power supply, of purchase and sale or of imports and exports made to the TSO by the balance responsible party. Physical delivery of transactions is fulfilled by means of reporting schedules and nominations to the TSO.

#### ORDER BOOK

Centralisation by the trading system of buy and sell orders and ranking based on the execution priority determined by the matching algorithm.

#### **OVER THE COUNTER (OTC)**

An OTC contract is a bilateral contract in which two parties agree on how a particular trade or agreement is to be settled in the future.

#### **PEAK LOAD**

Characterizes the load type for the delivery or procurement of electricity at a constant load over 12 hours from 08:00 am until 08:00 pm on every working day (Monday to Friday) during a delivery period.

#### **PHELIX**

Physical Electricity Index. Calculated on a daily basis by EPEX SPOT, the Phelix is the average price for base load (Phelix Day Base) and peak load (Phelix Day Peak) electricity traded on the German/Austrian Auction.

#### **PRICE COUPLING**

Price coupling between different countries allows creating a single exchange zone – and consequently single price zones when interconnection capacities do not limit cross-border power exchanges.

It contributes to improve the market liquidity and participates in the creation of a single European electricity market.

#### **REMIT**

Regulation on Energy Market Integrity and Transparency. It is a proposal by the EU Commission of a harmonised EU-wide regulation of energy markets.

#### SÄCHSISCHES MINISTERIUM FÜR WIRTSCHAFT UND ARBEIT (SMWA)

Saxon ministry of economy. Part of the responsible German market surveillance authorities.

#### **SPOT MARKET**

Market on which transactions regarding products are concluded and/or registered which are settled within a period of two settlement days. Settlement can take place immediately (intraday), the following day (day-ahead) or two days ahead.



#### **SPREAD**

The price range between best bid and best ask.

#### **TRACFIN**

The "Traitement du renseignement et action contre les circuits financiers clandestins", TRACFIN, is a service of the French Ministry of Finances. It fights money laundering.

#### TRANSMISSION SYSTEM OPERATOR (TSO)

Entity in charge of operating the power transportation grid in a given delivery area.

#### **VOLATILITY**

Volatility is a measure of the price fluctuations in the course of one day. The additional margin parameter and the spread margin parameter can then be determined on the basis of volatility.

#### **VOLUME COUPLING**

Volume coupling is a coordinated day-ahead auction involving two or more power markets. Cross-border volumes computed by an Auction Office are transferred to the power exchanges, which consider them as price inelastic bids into their local system. The calculated flows are based on anonymous order books and the available transmission capacities, while the pricing authority remains with the involved power exchanges.





#### Conception, realisation & design

Lonsdale (www.lonsdale.fr)

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