

TRADING ON EPEX SPOT CAPACITY MARKET

AN ORGANISED MARKET
FOR FRENCH CAPACITY
GUARANTEES



THE EUROPEAN POWER EXCHANGE

The European Power Exchange EPEX SPOT SE and its affiliates operate physical short-term electricity markets in Central Western Europe and the United Kingdom. The creation of a pan-European power market is what defines EPEX SPOT's mission. In 2015, its 280 members traded 566 TWh – a third of the domestic consumption in the eight countries covered. 49% of its equity is held by HGRT, a holding of transmission system operators. EPEX SPOT is part of EEX Group.

For more information: www.epexspot.com

CAPACITY MARKET KEY BACKGROUND

The French law effective of the 7 December 2010 establishes a capacity obligation scheme which reformed the electricity market (NOME). It specifies that "each supplier contributes, in accordance with the demand characteristics of its customers, in terms of power and energy, to the security of electricity supply in continental France". The following three main categories of actors are interested in the capacity market:

SUPPLIERS (INCL. GRID LOSSES AND CONSUMERS)

have an obligation to secure/buy guarantees to cover peak consumption of their customers. They are subject to penalties if they do not own, for each delivery year, the amount of capacity guarantees equivalent to the actual peak consumption of their customers.



The certification process by RTE started in April 2015 and exchanges of guarantees have been possible since then. The demand for guarantees of capacity (from suppliers and big consumers) meets the offer for guarantees (coming from capacities certified by producers or demand response operators). The price of capacity reflects Security of Supply needs to cover peak consumption in France.

PRODUCERS

are capacity operators who have an obligation to make all their plants in France certified. They are granted free guarantees by RTE against a commitment to be available during peak demand hours. If availability commitment is not reached, they are subject to penalties.



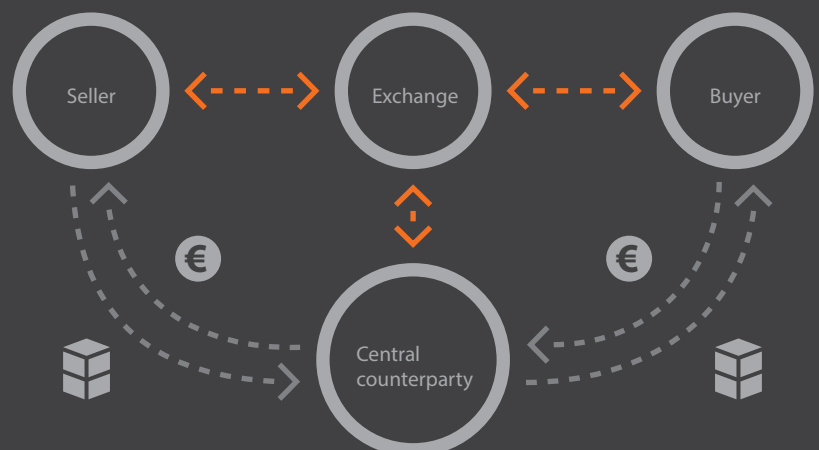
DEMAND RESPONSE OPERATORS

can choose between certification of demand response as capacity, and reduction of consumption as supplier obligation.



WHY AN ORGANISED MARKET PLACE?

- Pooling of liquidity
- Transparency
- Emergence of single reference price
- Payment and delivery security
- Anonymous
- Market rules and surveillance



TRADING GUARANTEES OF CAPACITY ON EPEX SPOT

WHAT DO THE AUCTIONS FOR CAPACITY GUARANTEES LOOK LIKE?

UNDERLYING	TRADING PROCEDURE	TRADING DAYS	DELIVERY PROCEDURE
Capacity guarantee valid for an underlying year only and recorded in RTE registry. A guarantee represents 0.1 MW of capacity	Auction (uniform double sided blind auction)	Between 1 and 6 auctions / year	Nomination by ECC to RTE registry
PAYMENT	PRICE CHARACTERISTICS	MIN. VOLUME INCREMENT	MIN AND MAX PRICE
Upfront payment: cash limits are updated and capacity guarantees are deposited on clearing accounts before the auction	€ per guarantee	1 guarantee	for the capacity guarantee contract 2017: min: 0€ - max: 2 000 € / guarantee

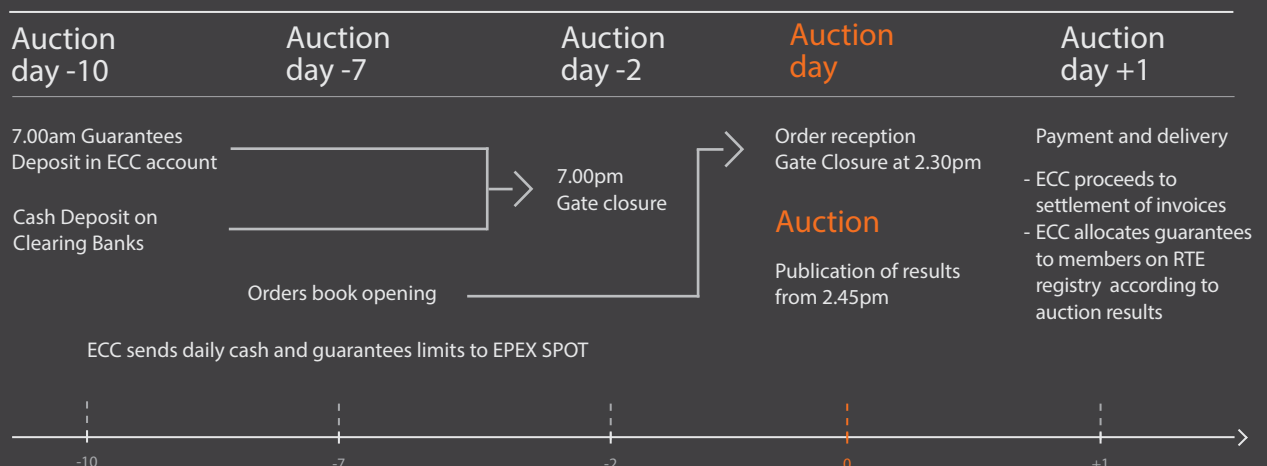
TRADING PROCESS

UNIFORM DOUBLE SIDED BLIND AUCTION

- Orders are accumulated in the order book.
- Once the order book is closed, orders may not be modified or cancelled.
- Buy orders are aggregated to a demand curve, sell orders are aggregated to an offer curve.
- All trades on a specific product (guarantee of capacity for a given reference year) are executed at the same price.

FROM BIDDING TO SETTLEMENT

- Participants who wish to sell during the next auction put guarantees on the ECC account of the RTE registry for capacity guarantees, and can only submit bids corresponding to the quantity transferred.
- Participants willing to buy have to deposit cash on their clearing bank's account which will determine their financial trading limit for the auction.
- Payment of capacity of guarantees is initiated the day after the transaction.



WHY TRADE ON EPEX SPOT AUCTIONS?

- Benefits from trading on an **organised market place**
- **Simple and user friendly** web interface to submit orders
- Proven and **robust algorithm**
- Execution of volumes at **fair market price** used as reference
- Private transmission of **confidential results**

TRADING SESSIONS: NUMBER OF AUCTIONS PER YEAR

Target calendar of auctions.

2017 calendar might not stick to this target due to the start-up phase of the process. It will be confirmed before end 2016.

	DY-4	DY-3	DY-2	DY-1	DY	DY+1	DY+2	Number of Auctions per guarantee
Target nb of auctions/ Guarantee	1	4	4	6	1	1	1	18
When	October	April June October December	April June October December	February April June October September December	April	April	December	-

*DY stands for "Delivery year". It is the year on which obligation of supplier is based and plant availability is checked. Each guarantee is named after DY. For instance, guarantee 2020 is the guarantee product which is based on 2020 peak consumption and plant availability.

MARKET ACCESS

For EPEX SPOT members: Companies that are already EPEX SPOT members need to complete a Trading Agreement Annex as well as technical forms for the portfolio and trader setups that they can request at membership@epexspot.com

For EPEX SPOT non-members:

1 CONTACT

Contact EPEX SPOT
Email: sales@epexspot.com
Tel +33 1 73 03 61 98

2 FIRST STEPS

- Find a Clearing Bank
- Open an account in the RTE registry for guarantees of capacity

3 KYC QUESTIONNAIRE

- Fill in the "Know Your Customer" questionnaire
- If the scoring of EPEX SPOT is positive, the admission process begins

4 SUBMISSION

Submit documents for administration to EPEX SPOT and to European Commodity Clearing (ECC)

5 CHECK

The documents are checked by EPEX SPOT and ECC

6 TRADER EXAM

Approval as an Exchange Member by EPEX SPOT

7 TECHNICAL SET-UP

Connection to the trading systems of EPEX SPOT

8 ADMISSION

You may now trade on EPEX SPOT

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