

# GLOSSARY OF ELECTRICITY MARKET RELATED TERMS

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#### **TERMS**

# Α

#### **AMR**

**Automatic Meter Reading** 

## **API, Application Programmers Interface**

An IT interface used for developing systems for importing or exporting data between IT systems.

#### **Area Price**

Price per hour for market areas if demand for trade exceeds available transmission capacity.

# **ATC, Available Transfer Capacity**

Part of the Net Transfer Capacity (NTC, see below) that remains available for trading after each phase of the allocation procedure.

# В

# **Balancing Market**

A market system for maintaining the operation balance between consumption and generation of power in the power system. Also called Real Time Balancing Market (RTBM).

## **Bidding Currency**

The currency used in a participant's order. It will be converted to the market's master currency in the price calculation.

## **Bilateral trading**

Direct trading between individual market parties, without involvement of brokers or a power exchange.

## **Block order**

A request to sell or buy a specified volume and price for at least two consecutive hours. Block Orders have an 'All-or-Nothing' condition where the order is accepted when the market price equals the bid price.

## C

#### **CER, Certified Emission Reductions**

Traded in two different products;

- Financial Product Spot contracts (day-ahead)
- Futures contracts for the long term period

The products are developed for trading of certificates for emission reduction.

## **Congestion Management**

The management of the transmission constraints in the grid that ensure that all transmission capacities in the grid are respected. In the price calculation of the Implicit auction, the prices are lowered in surplus areas and raised in deficit areas, which results in different area prices.

#### Contractual flow on Individual Interconnector

The day ahead exchange between two neighbouring areas.

## Clearinghouse

A clearinghouse is a financial institution that provides clearing and settlement services for financial and commodities derivatives and securities transactions. These transactions may be executed on a futures exchange or securities exchange, as well as off-exchange in the over-the-counter (OTC) market. A clearinghouse stands between two clearing firms (also known as member firms or clearing participants) and its purpose is to reduce the risk of one (or more) clearing firm failing to honour its trade settlement obligations. A clearing house reduces the settlement risk by netting offsetting transactions between multiple counterparties, by requiring collateral deposits (also called 'margin deposits'), by providing independent valuation of trades and collateral, by monitoring the credit worthiness of the clearing firms, and in many cases, by providing a guarantee fund that can be used to cover losses that exceed a defaulting clearing firm's collateral on deposit.

## Counterpart

The market operator buying all form sellers, selling all to buyers and thereby ensuring the financial settlement and acts as an intermediate between buyer and seller.

# D

## **DAM - Day-Ahead Market**

Nord Pool Spot's auction based power market with trading a day ahead of delivery day based on sealed participants order and market (equilibrium) price principles.

## **Distributors**

There are around 500 distribution companies in the Nordic and Baltic countries. A distributor ensures that power reaches the end-user. Power is transmitted from the power plant through the central grid and the transmission net to the end-user.

# **Delivery Day**

The day when the traded power is produced and consumed.

#### **Delivery Hour**

The hour when the traded power is produced and consumed.

# E

## **Elbas**

Nord Pool Spot's intraday trading system for the physical electricity market.

## **Elering**

TSO for Estonia

#### **EMCC**

European Market Coupling Company, Market coupling between the CWE region and NPS Nordic Region.

# **Energy derivatives**

Financial contracts for forward (possibly long term) delivery periods that derive their value from an underlying reference price from Nord Pool Spot, such as a spot price or the difference between spot prices in two different market (bidding) areas or between a regional reference price and a market (bidding) area price.

## **Energinet.dk**

TSO for Denmark

## **Equilibrium**

The intersection between the demand and supply curve, which is equal to the market price.

## **EUA European Union Allowances**

Financial Spot contract (day-ahead) and Futures contracts for the long term periods for tradable allowances.

# **Explicit auction of rights**

An auctioning system where TSOs (or other network owners) sell cross border capacity rights with differing maturity for nomination ahead of operation day/hour, and those auctions are independent of energy trading in the respective areas on each side of the border.

## F

#### **Financial Market**

Financial contracts are used for price hedging and risk management. In the Nordic region financial contracts are traded through NASDAQ OMX Commodities. The contracts have a time horizon up to 10 years, covering daily, weekly, monthly, quarterly and annual contracts. The system price calculated by Nord Pool Spot is used as the reference price for the financial market.

## **Fingrid**

TSO for Finland

#### Flexible Order

One-hour sale order for the hour with the highest price within the Day-ahead auction

## Forward contract (financial)

A forward contract is traded the same way as Futures, but with one important difference: In the trading period prior to the due date for all the forward products, there is no mark-to-market settlement. The mark-to-market amount is accumulated as daily loss or profit, but not realised, throughout the trading period.

#### Forward market

Market that operates the buying and selling of energy related products, physical or financial, with maturity dates longer than a day, typically monthly, quarterly, and yearly.

## **Full Supply Contract**

Full Supply Contracts means that the customer can consume whatever he likes and pays the same contract (tariff) price for the whole volume.

#### **Futures, or future contract**

A futures contract (more colloquially, futures) is a standardised contract between two parties to buy or sell a specified asset of standardised quantity and quality for a price agreed upon today (the futures price or strike price) with delivery and payment occurring at a specified future date, the delivery date. The contracts are negotiated at a futures exchange, which acts as an intermediary between the two parties. The party agreeing to buy the underlying asset in the future, the 'buyer' of the contract, is said to be 'long', and the party agreeing to sell the asset in the future, the 'seller' of the contract, is said to be 'short'. The terminology reflects the expectations of the parties – the buyer hopes or expects that the asset price is going to increase, while the seller hopes or expects that it will decrease in near future.



#### **Gate Closure**

The time from which orders are no longer accepted for the given market.

# Н

## **HVDC**

High voltage direct current

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# **Implicit Auction**

Combines the sale of energy and utilisation of cross-border capacity in one process, thus establishing prices in each involved Market Area and planned flows between all areas.

#### Intra-Day market (IDM)

A market offering trading for the current day and after closing of the Day-ahead market also for the following day. In the Nordics this is based on continuous energy trading including cross-border management.



## KontiSkan

High-voltage direct current cable between Sweden and Denmark.

# L

# Litgrid

TSO for Lithuania

## Loose volume coupling

The volume coupler uses partially indicative order information and might not fully replicate the local matching rules.

## M

#### Market area

A geographically limited part of the main grid in which market orders are placed and in which a single market price can be determined per time unit.

## **Marginal Cost**

The producers' costs of producing 1 unit (MWh) from their power plant.

# **Market Coupling**

Market coupling is a process where two or more power exchanges/market operators cooperate by implicit auctioning, utilising the available trading capacity between two or more regions during every hour of operation to secure that the energy flows from the low-price towards the high-price area.

## **Master Currency**

The currency for which the price calculation is done for a given market.

#### Market splitting

Is the process of determining Day-ahead volumes of exchange by implicit auctioning, with splitting up the bidding areas managed by one power market into two or more price areas, while utilising the available capacity between the congested areas.

## **MCP**

Market Clearing Price is price per hour calculated for the orders in defined areas.

#### Member

An entity that has entered into a valid and effective participant agreement or client agreement for trading in Nord Pool Spot's markets. (Participants, client representatives and clients)

#### **MWh**

KWh=kilowatt hour (energy), MWh=megawatt hour (1000 kWh),

GWh=gigawatt hour (1000 MWh), TWh=terawatt hour (1000 GWh)

# N

## **Net Transfer Capacity (NTC)**

Possible exchange programme between market (bidding) areas, compatible with the operational security standards applicable in each area.

## Nordic synchronous system

The synchronously interconnected power system consisting of the subsystems of Norway, Sweden, Finland and Western Denmark. Across the Nordic synchronous system the frequency is synchronised at 50 Hertz. Western Denmark is synchronously interconnected with Europe.

#### NorNed

High voltage direct current cable between Norway and the Netherlands.

## **NWE - North-Western European Price Coupling**

Nord Pool Spot is currently heavily involved in the important North-Western European Price Coupling (NWE) project alongside all the TSOs and power exchanges across the region. NWE Price Coupling is managed by a strong partnership between 13 Transmission System Operators (TSO) and 4 Power Exchanges. This is one of the first projects aiming to implement the pan-European Market Coupling of Day-ahead power markets. NWE is going to couple the Day-ahead markets across Central Western Europe (CWE), Great Britain, the Nordic countries, the Baltic countries, and the SwePol link between Sweden and Poland.

# 0

#### Option

A financial right but not an obligation, at a time to buy or sell securities (typically shares), goods or other benefits for a fixed price. This future price may differ from the security's market value or works.

#### Order

A participant's request to sell or buy power in the market.

## **OTC (Over-the-counter)**

Trade between market participants via a broker, without involvement of a power exchanges. NASDAQOX Commodities however offers clearing of these contracts.

## P

# **Participant**

A legal entity who has signed the participant agreement.

## **PCR – Price Coupling of Regions**

This is an initiative of six European Power Exchanges, to develop a single price coupling solution to be used to calculate electricity prices across Europe, and allocate cross-border capacity on a Day-ahead basis. This is crucial to achieve the overall EU target of a harmonised European electricity market. The integrated European electricity market is expected to increase liquidity, efficiency and social welfare. PCR is open to other European Power Exchanges wanting to join.

#### Price Area

A geographical area, consisting of one or more Market Areas, which has a common price in a given time period. Thus in the case of several Market Areas forming a Price Area it reflects that no congestion exists between those Market Areas. A part of the total Day-ahead market area having equal price. A price area may consist of a single order area or, more often, of two or more bid areas.

#### **Price calculation**

The matching of orders.

## **Price coupling**

A coupling system which in one step establishes both prices and volumes for each coupled market, based on all orders from all markets that are coupled. Market areas are considered in an anonymous manner in the coupling system. Market splitting is a form of price coupling, where all orders; pricing per bidding area and settlement is handled by one power exchange. A price coupling system can be placed in a unique legal entity or can be a unique system that is shared by the local power exchanges.

#### **Producers**

There are more than 370 companies responsible for power production in the Nordic and Baltic countries.

# R

#### **Reference Price**

A price based on a calculation where a set of Market Areas is defined as a basis for the calculation.

#### Region

ERGEG Region: one of the seven Regions originally defined in the Congestion Management Guidelines 2006/770/EC.

Market region: cluster of market (bidding) areas that share a unique price coupling system which generates both prices and volumes.

## S

## Settlement

Calculation of the participant's amounts, fees and security requirements for the physical buying and selling based on the area price.

#### **System Price**

The average daily price that disregards bottlenecks in the Day-ahead market. The reference price for the financial market.

#### **SLA**

Service Level Agreement

## Statnett

TSO for Norway

#### Svenska Kraftnat

TSO for Sweden

## **Suppliers**

There are around 370 companies supplying Nordic and Baltic end-users of power. A supplier buys power either directly from a producer, or through Nord Pool Spot. In general, a supplier then resells it to small- and medium-sized companies and households. There is high competition between energy suppliers within each country.

T

#### TLC

Tri-Lateral Coupling, Electricity market area of France, Belgium and the Netherlands.

## **Traders/Brokers**

A trader represents the entity which owns the power while the trading process is taking place. For example, the trader may buy power from a producer and sell it to a retailer, or the trader may choose to buy power from one retailer and sell it to another retailer. There are many routes from the producer to the end-user. Brokers play the same role in the power market as estate agents do in the property market. A broker does not own power, but instead acts as an intermediary. A retailer may, for example, ask the broker to find a producer who will sell a given amount of power at a given time.

## **Trading Capacity**

The maximum amount of power that can flow from one market area to another. The transmission system operators determine the trading capacities for each hour of the day. Capacities can thus vary from hour to hour.

# **Trading Day**

The day the DAM auction price is calculated for the next Delivery Day.

## **Transmission capacity**

Defines how much power that can be transported through the power grid.

#### **TSO**

Transmission System Operator. Company responsible for the national high voltage grid.

#### **Tight volume coupling**

The volume coupler replicates the local matching rules and uses more precise order information than in the loose volume coupling case.

U

## **UMCP**

**Unconstrained Market Clearing Price** 

#### **UMM**

Urgent Market Message. Members at Nord Pool Spot markets have an obligation to provide Nord Pool Spot with information concerning plans for maintenance as well as changes of these plans and outages for plants or facilities for production, use or transmission within or directly connected to the Nordic Electricity Exchange Area. These messages are sent from the member to Nord Pool Spot using a software application. Nord Pool Spot publishes these messages on the web.



## Volume coupling

A coupling system that partly or fully replicates the matching rules of each coupled market and utilises indicative or actual anonymous order information. The algorithm determines the volume of exchanges between the underlying regions/markets. The local power exchanges utilise the generated cross-border volumes to locally determine their bidding area(s) prices and volumes.

#### **VPP**

Virtual Power Plant