

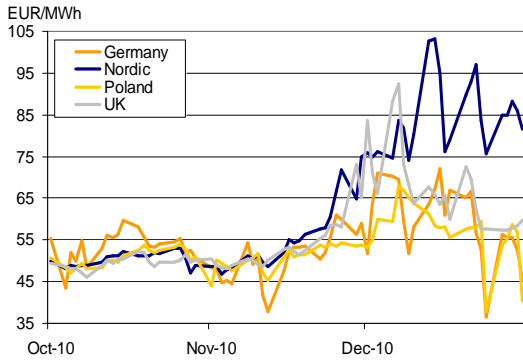
Commodity Markets at a Glance

December 2010

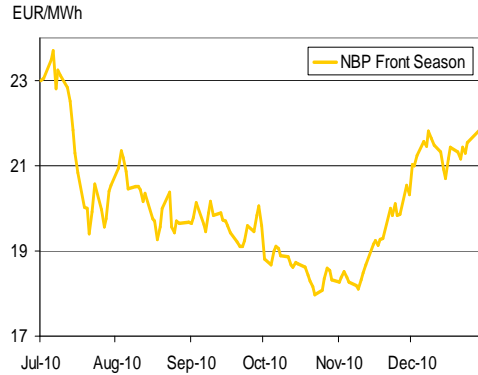
Market Letter by Vattenfall Energy Trading

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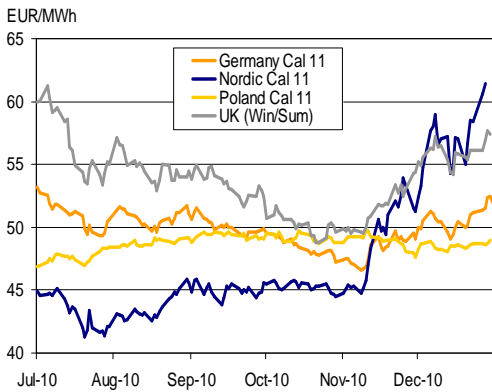
European Power Spot markets: Cold Christmas



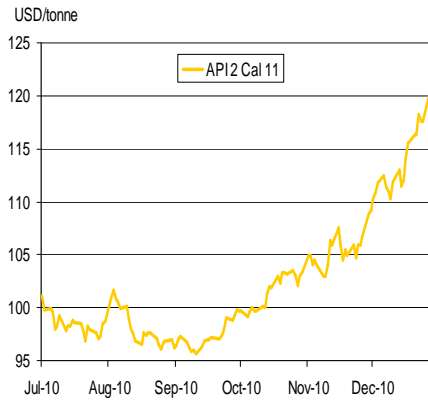
Gas Trading: High demand



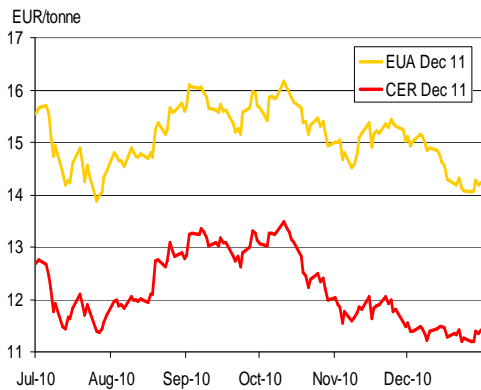
Power term markets: Final spurt



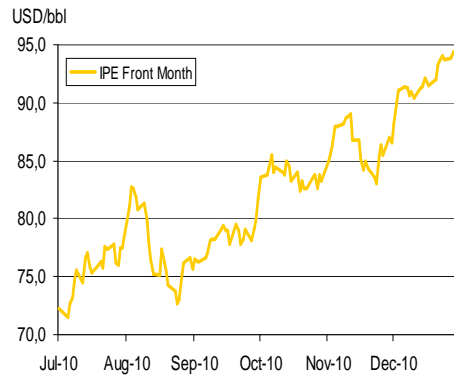
Coal Trading: Two-year highs



CO2 Trading: Slump



Oil Trading: Cold spell



Sources: EPEX Spot, EEX Power Derivatives, Nord Pool, PolPX, Vattenfall Energy Trading

Commodity Markets at a Glance

1. EUROPEAN POWER

Spot markets: Cold Christmas

After stagnation following the financial crisis, power prices in the European spot markets marginally recovered along with a slight increase in industrial demand in 2010. Generation margins were under pressure from increased nuclear load in France and stronger competition from new builds, particularly wind and solar power plants.

Throughout December, spot prices on European energy markets went up. The Nordic system price increased with 26.87 EUR/MWh. UK followed with an 11.74 euro up move. On average, German spot prices gained 7.02 euro and the Polish spot 5.16 euro.

[EUR/MWh]	Germany	Nordic	Poland	UK
Current month av	55.55	81.65	55.14	65.66
Last month av	48.53	54.78	49.98	53.92
Difference	7.02	26.87	5.16	11.74

Continental Europe

Due to fundamental reasons and increased market coupling, prices on European spot markets increasingly converged towards year end. In November 2010, the "Central Western European Interim Tight Volume Coupling" that connects Continental Europe with Scandinavia was introduced. In December, German Day-ahead Base opened at 51.69 EUR/MWh. Spot prices reached a high of 72.06 EUR/MWh mid-month on the back of cold weather and demand from Nordic. Despite continuous temperatures of 6°C below normal, spot prices decreased to 45.62 EUR/MWh until the end of the month. The wind production forecast was 5,500 MW. The daily traded average volume at EPEX spot decreased by 16 GWh to 613 GWh.

The average temperatures in France were 3°C below normal. Power plant availability was unusually high, hence, the demand could be mainly met by national power generation. On average, France imported 2,000 MW from Germany.

In the Netherlands, spot prices rose on the back of low temperatures and decoupled from the German

spot. The Dutch Day-ahead base closed at 59 EUR/MWh.

Nordic

In Scandinavia, the year 2010 started with a weak hydrological balance, low nuclear output in Sweden and very cold weather, which supported the Nordic system price to rise above 100 EUR/MWh in February. The hydrological balance strengthened mid-year, but then went down again to -45 TWh towards the end of 2010 and pushed the spot up. On average, the system price in 2010 came out at 53.14 EUR/MWh compared to 35.03 EUR/MWh in 2009.

The system price went up strongly during December on dry and extremely cold weather. The month started with temperatures well below normal; the mean temperature for the month was almost 6°C below normal. The days before Christmas all reactors were running in Sweden and only one on reduced output. Throughout the month, the hydrological balance weakened with approximately 14 TWh and pushed up prices. Inflows were below normal levels during December. The precipitation outcomes in Norway and Sweden were approximately 8.4 TWh which is around 51 % of normal. Snow and soil water levels weakened during the month. Swedish reservoirs stood at 44% of maximum by the end of week 52 which is 23% lower than normal at this time of the year and much lower than at the end of November. Norwegian reservoirs stood at 45% of maximum, which is 26% lower than normal. The natural storage, the snow- and soil water storage, shows a large deficit in both Norway and Sweden.

Poland

The Polish spot prices in 2010 increased by 23% compared to 2009 on the back of growing demand and an increase in marginal cost for coal-fired units.

The year 2010 brought two important changes in Polish Energy Market. Firstly, the market was coupled with NordPool, secondly the new Power Exchange owned by Warsaw Stock Exchange got under way, becoming a competitor of PPX.

In December, temperatures were 5°C lower than normal. The demand increased year-on-year by over 1% and the Minimum Supply Margin decreased by 23%. Due to the market coupling and high prices on

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NordPool, export to Scandinavia doubled year-on-year. The exports to other countries were however much lower than last December. The average price for baseload amounted to 55.14 EUR, representing a 32% growth compared to December 2009. Peak prices grew by 42%. The price increase was triggered by the low Minimum Supply Margin and cold weather. Many unexpected outages took place, rocketing Balancing Market prices to historical heights.

UK

Spot prices have been trading rather evenly throughout 2010. At the end of the year, they broke their conformity with a strong upmove, reaching levels above 90 EUR/MWh. In December, UK Day-ahead Base opened at 83.55 EUR/MWh. The prompt remained extremely bullish on the back of cold weather and very strong gas. Prices turned volatile towards the end of the month with the usual and anticipated glut in power demand, which was not reciprocated in gas demand as there is so much Gas Central Heating in the UK. Day-ahead Base closed at 59.83 EUR/MWh.

Term markets: Final spurt

On the power term markets, prices developed differently throughout Europe. In Continental Europe, long-term prices traded flat and were lower than in the previous year. In Scandinavia, prices traded on a higher level year-on-year. Towards the end of the year, when market participants closed their positions, prices on most European term markets traded up.

Germany

In Continental Europe, future prices went up slightly in the second quarter and back down in the second half of the year.

The German Cal 11 decreased from 50 EUR/MWh to 49 EUR/MWh in the first half of the month. Supported by strong demand from Nordic countries and increasing commodity prices, Cal11 went up 3 euro until the end of the year. Due to the holidays at the end of the month and market participants closing their positions, the traded volumes decreased noticeably. Cal 11 closed at 51.95 EUR/MWh on 31 December, 2.92 euro above the last of November.

The Dutch term market was supported by the strong Dutch spot market. Cal 11 moved up approximately 3.50 to 52.50 EUR/MWh. The particular strength in the gas and Dutch spot also led all the Holland – German spreads to widen further.

Nordic

Forward prices also increased in the first quarter but the market turned south when the hydro balance strengthened from March to September. In the beginning of the autumn the market was rather calm despite the weaker hydro balance. But it all changed in the beginning of November, when the market went north, especially the front contracts and front year, for example Quarter1/2011 went from 50 to 78 EUE/MWh in a month. During the same period, the Cal 11 contract came up from 45 EUR/MWh and closed at 61.44 EUR/MWh. The main driver during the gain was the weakening of the hydro balance and the extremely cold weather, especially during the second half of November and December. The market came up a lot on very low trading volumes on the last days of 2010.

Poland

Cal 11 remained stable throughout 2010. Market liquidity increased significantly in the last quarter due to the regulation implemented in September, obliging energy producers to sell 15% of their output on PPX. In December, trends from November went on with a high Cal 11 liquidity. Cal 11 continued its sideways trend, reaching 49.01 EUR/MWh at the end of the year.

UK

With premiums increasing on the spot the term market followed suit. In December, UK prices for the Summer 11 contract opened at 55.22 EUR/MWh and went up to 57.36 EUR/MWh until the end of the month. Prices traded up on the back of cold weather and very strong gas prices with sparks getting slightly stronger as absolute price levels increased. As gas prices increased, inefficient gas plants came under pressure to buy back volumes. The Winter 11/12 started at 59.18 EUR/MWh, largely followed the Summer contract and closed at 61.44.

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2. CO2 TRADING: Slump

The climate conference in Mexico did not have any noticeable effect on emissions trading in December.

CO2 prices traded between 12 and 16 EUR/tonne throughout the year, gaining 8% compared to 2009. Trading volumes in the emissions market decreased in the second half of the year, after reaching record highs in summer.

Prices for European Union Allowances (EUA) opened at 15.10 EUR/tonne on 1 December. Despite overall rising commodity prices CO2 prices went down to 14.24 EUR/tonne until the end of the month. This decrease can partly be explained by the theft of 1.6 million certificates in Romania. Some market participants suspended their activities to avoid the risk to buy stolen certificates. The EUA future contracts trading volume on the European Climate Exchange was 130 million tonnes in December.

Prices for Certified Emission Reductions (CER) started at 11.55 EUR/tonne and went down to 11.41 until the end of the month. The spread between EUAs and CERs decreased throughout the month to 2.83 EUR/tonne on the 31 December.

3. GAS TRADING: High demand

Low temperatures pushed up the gas prices in December.

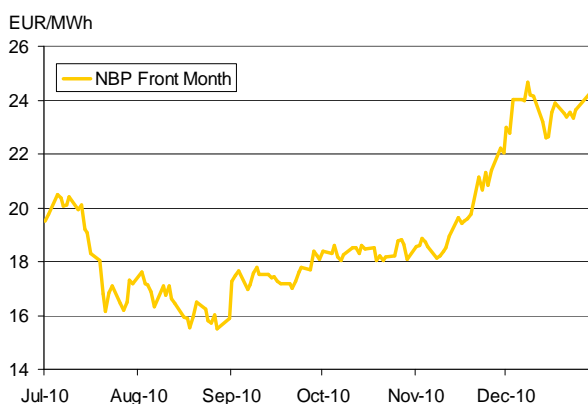
The record cold Winter 2009/10 caused a higher gas demand. In the beginning of the year, gas displaced coal as the fuel of choice of burn as gas prices were extremely low. In the second quarter, the replacement of contract gas with spot volumes drove up gas prices. In summer, liquefied natural gas set the marginal price. In Quarter 4 gas prices went up on the back of cold weather.

In December, the NBP front month contract opened at 22.97 EUR/MWh reaching its low point of 22.60 EUR/MWh on 14 December and moved up to a high of 24.92 EUR/MWh on 30 December. Temperatures between 2°C and 8°C below season normal in the UK and in the continent pushed prices up. The UK

required storages to withdraw at maximum and LNG exports to remain high. This led to continuing worries about decreasing UK storage levels in the first Quarter 2011 driving up the front month. On 22 December the UK experienced its highest demand day ever with 465mcm/day. This was met by a record high supply of 500mcm/day at its highest point indicating that the system does not struggle to balance at prices above 24 EUR/MWh.

The NBP front summer traded in a range between a low of 20.70 EUR/MWh on 15 December and a high of 22.32 on 30 December), following movements in the prompt market.

NBP Front Month in EUR/MWh



Source: Vattenfall Energy Trading

4. COAL TRADING: Two-year highs

In December, coal prices increased by 17 USD/tonne compared to November.

European coal inventories remained high due to a lack of demand in 2010. Nevertheless, coal prices increased slightly throughout the year and moved up strongly in the last two months of 2010.

Prompt physical and paper prices in Europe surged to two-year highs in December, trading above 130 USD/tonne. Further out on the curve, the gains were not as great: Cal 11 increased by 13 USD/tonne and the Cal 12 by 9 USD/tonne.

The freezing temperatures witnessed across Europe supported the prices increase. Another bullish factor was the increase in demand created by a hydro

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deficit in Scandinavia which brought coal-fired power stations up the merit order. Tightness in supply around the globe as a result of prolonged and heavy rains in the main coal producing regions (Colombia, Indonesia and Australia) and tightness in supply from Russia and South Africa as a result of rail car shortages which prevented coal from being transported to the loading ports also supported coal prices. December saw several Force Majeure declarations issued in Colombia, Venezuela, Australia and Indonesia where mines were either flooded or the harsh weather conditions hampered loadings.

5. OIL TRADING: Cold spell

The market managed to close at the highest levels for the whole year on every oil contract.

The oil price development in 2010 was characterized by economic recovery in the OECD and Chinese economic growth. Oil demand showed strong growth although macro figures were mixed and the sovereign debt crisis swept over Europe. 2010 was a bullish year for investors with oil and equities moving slowly but surely to a two-year high and gold reaching an all time high.

December started at 88.20 USD/bbl for Brent oil. Even with the Eurozone crisis, fears of a rate hike in China and a 10% unemployment figure from the US, a cold spell across the globe was enough to take the market higher. A late 2 dollar spurt helped Brent to finish at 93.61 USD/bbl, representing a gain of 22% year-on-year.

6. FX TRADING: European debt crisis

In December, the EUR/USD exchange rate slightly recovered from the downtrend of November.

The European debt crisis continued throughout 2010 and reached new highs in April as an EU/IMF bail-out of Greece became necessary to reduce borrowing costs and ensure Greece met its short-term debt obligations. The crisis continued into December as Ireland got downgraded further. Economic data out of Germany have been surprisingly robust throughout the year.

In the US, the housing-markets and unemployment rates were a drag on the economy. A deteriorating budget deficit and lack of austerity measures did not support the USD, which in trade weighted terms lost 3.8% in 2010. At the end of the year, upward

Exchange Rate EUR/USD



Source: Vattenfall Energy Trading

revisions growing on the back of tax reductions and inflation expectations led to higher interest rates. 10-year Treasuries went up from 2.80% to 3.55% in December.

China showed strong growth in general and infrastructure spending in particular throughout 2010. The growth that continued in December added to global demand for resources which in turn supported commodities. Inflation hit a two-year high around 5%, mainly driven by increased commodity prices and labour costs.

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ABBREVIATIONS USED

API2	All Publications Index at the Amsterdam-Rotterdam-Antwerp Range
API4	All Publications Index for South African free on board (FOB) coal
ARA	Amsterdam-Rotterdam-Antwerp, major coal importing ports in northwest Europe
C4	Voyage freight rate between Richards Bay and ARA
CCGT	Combined Cycle Gas Turbine
CDM	Clean Development Mechanism
CHP	Combined Heat and Power Plant
CER	Certified Emission Reduction, resultant of an emission-reducing project in developing countries that has been certified
ECX	European Climate Exchange
EEX	European Energy Exchange, Leipzig
EPEX Spot	European Power Exchange, German-French Spot Exchange, Paris
ETS	European Union Emission Trading System
EUA	European Union Allowance
FOB	Free on board: A shipping term which indicates that the supplier pays the shipping costs from the point of manufacture to a specified destination.
IMF	International Monetary Fund
IPE	International Petroleum Exchange, London
IUK	Interconnector UK – gas pipeline connecting UK and Europe
LNG	Liquefied natural gas
MCM/D	million cubic metres per day
NBP	National Balancing Point, gas hub in Great Britain
N ₂ O project	CDM Project to Reduce Nitrous Oxide (N ₂ O)
OECD	Organisation for Economic Cooperation and Development
OPEC	Organisation of the Petroleum Exporting Countries
OTC	Over-the-counter trading
PPX	Polish Power Exchange Towarowa Gielda Energii SA
TSO	Transmission System Operator
TTF	Title Transfer Facility, virtual gas trading hub in the Netherlands
UNFCCC	United Nations Framework Convention on Climate Change

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