

Commodity Markets at a Glance

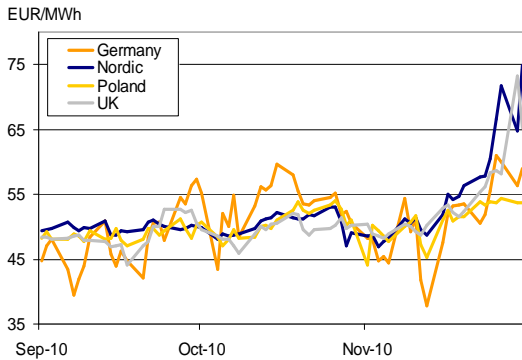
November 2010

Market Letter by Vattenfall Energy Trading

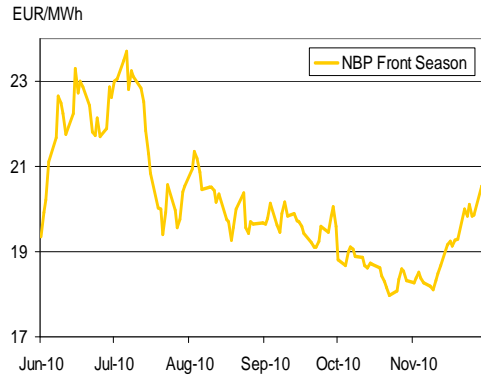
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European Power

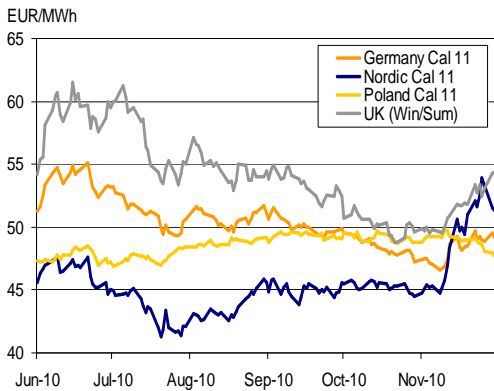
Spot markets: Low temperatures



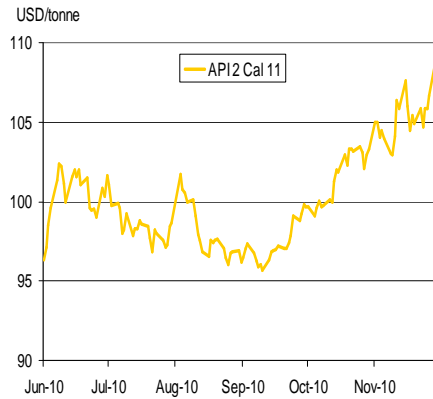
Gas Trading: Weather play



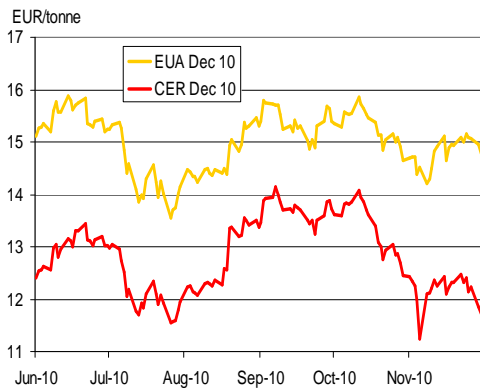
Power term markets: Closer to delivery



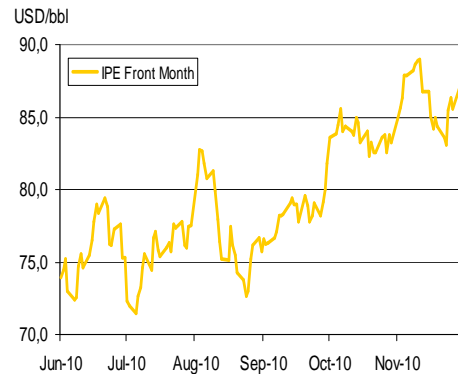
Coal Trading: Bull Run



CO2 Trading: High CER supply



Oil Trading: Volatile prices



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

Commodity Markets at a Glance

1. EUROPEAN POWER

Spot markets: Low temperatures

Spot prices on most European energy markets increased in the course of November. However, the German spot price traded on a 1.77 EUR/MWh and the Polish spot on a 0.05 EUR/MWh lower level than in the previous month. The Nordic spot increased 5.12 EUR/MWh month-on-month. The UK spot traded 6.10 euro higher than in October.

[EUR/MWh]	Germany	Nordic	Poland	UK
Current month av	48,53	54,78	49,98	53,92
Last month av	50,30	49,66	50,03	47,82
Difference	-1,77	5,12	-0,05	6,10

Continental Europe

German Day-ahead Base started at 48.28 EUR/MWh and reached a low of 37.75 EUR/MWh on the 12 November. In the second half of the month, the low temperatures (5-9 °C below normal) pushed up the spot and cause snowfall in the Alps. Wind production decreased in the course of the month and was slightly below average at 6,000 MW. The daily traded average volume at EPEX spot increased by 51 GW to an all-time high of 629 GW.

On 9 November, market coupling in the Central Western European Region started. At the beginning, prices fully converged, but then decoupled at the end of the month. However, temperatures in France also decreased throughout the month. This pushed up the demand and France had to import up to 2,500 MW at the end of the month. On average, France imported 1,000 MW from Germany.

In the Benelux market, the spot started weak. In week 45, the spot cleared 6 euro below the week ahead clearing. The main reasons for this were high wind production, warm temperatures and a French national holiday. In the second half of the month, very bullish weather conditions changed the fundamentals in the spot market. At the end of the month, the Dutch market cleared at 48.50 EUR/MWh (1.10 euro below contract expiry) in the baseload and 60.10 EUR/MWh (0.30 euro above market) in the peak.

Nordic

The Nordic system price came up during November on dry and cold weather. The month started with temperatures slightly above normal, but during the second half of the month the temperature came down to 10°C below normal. It was particularly cold in Finland and southeastern parts of Sweden. Area prices for Sweden, Finland, and for parts of Norway and Denmark reached above 88 EUR/MWh on 30 November. High consumption in combination with low nuclear availability pushed the Swedish, Finish and Danish prices up, while producers in southern Norway kept system price lower. In Sweden the problems to restart the nuclear reactors after yearly maintenance continued with 25% offline on 30 November.

Throughout the month, the hydrological balance weakened by approximately 9 TWh. In the beginning, inflows fell rapidly due to lower temperatures than normal. The precipitation outcomes in Norway and Sweden were approximately 10 TWh, which is around 57% of normal. The natural storage, the snow- and soil water storage, shows a large deficit in both Norway and Sweden.

Poland

Polish Day-ahead Base opened at 44.06 EUR/MWh. The weather in Poland was cloudy and warm with an average temperature of 6°C (3°C above normal) and cloudiness of 6.5 on an 8-degree scale. Monthly demand increased year-on-year by 1.5% mainly due to high exports. Together with unplanned outages it affected some peak hours and supported price spikes. The average price amounted to 50 EUR/MWh for baseload and 57.17 EUR/MWh for peakead.

UK

UK Day-ahead Base opened at 50.33 EUR/MWh and closed at 65.21 EUR/MWh. The prompt was strong on the back of extremely persistent cold weather that pushed gas prices to some of the highest levels seen in the last 18 months. The temperatures also put the UK system under strain and oil fired plants (Little Brook and Fawley) were started up. The average baseload prices traded at 53.92 EUR/MWh, which is a 6 euro jump versus the previous month. Despite a greater plant availability, risk premium returned to the

Commodity Markets at a Glance

market. The cold weather increased demand to some of the highest levels seen.

Term markets: Closer to delivery

Prices on most European term markets traded on a higher level than in the previous month. Only the Polish Cal 11 lost 1.23 EUR/MWh compared to the last of October.

Germany

In the beginning of the month, the German Cal 11 continued its downtrend that started in September, reaching a low of 46.62 EUR/MWh on 8 November. In the second half of the month, prices rose on the back of strong commodities. The green dark spread (Cal11-coal-CO2) reached an all-time low. Increasing spot prices also supported the term market, as the correlation got stronger with approaching delivery of the calendar year contract.

The Dutch-German spread remained positive in line with the stronger gas prices and low spark spreads. The strong Belgian spot market traded at the same price levels as France. This affected the curve, with the forward market shifting closer to the French market.

Nordic

Most contracts increased during the month, but contracts further out on the curve increased less than the front contracts. The market slightly came up in the beginning of the month. When the weather turned very cold and dry, the front contracts gained a lot. The Quarter 1/2011 contract increased from 48.80 EUR/MWh on 29 October, peaked on 26 November at 68 EUR/MWh and closed at 62.10 EUR/MWh. On 30 November, the Nordic Cal 11 closed at 51.25 EUR/MWh, which was 6.75 euro higher compared to the last of October. The front contracts came down again at the end of the month. Overall, the market was rather nervous after the extreme rise which ended during week 47.

Poland

In Poland, a record high liquidity of Cal 11 was registered from mid-November on. A jump in turnover

was caused by obligatory trade via the power exchange that was introduced last summer. However, the increasing liquidity did not affect the prices that fluctuated in a very thin sideways channel (around 0.35 Euro). The high spot prices put pressure on the front of the curve as the prices for the front month rose by more than 1 Euro.

UK

UK prices for the Summer 11 contract opened at 49.93 EUR/MWh and went up to 54.35 EUR/MWh until the end of the month. Prices traded up on the back of cold weather and very strong gas prices with sparks staying relatively flat. Hedging levels increased on the back of inefficient gas plants getting close to running levels. The Winter 11/12 started at 55.36 EUR/MWh and largely followed the Summer contract.

Commodity Markets at a Glance

2. CO2 TRADING: High CER supply

Prices for European Union Allowances (EUA) saw a low in the beginning of the month and rose above the 15-euro-level thereafter.

EUA prices started at 14.70 EUR/tonne and reached a low of 14.22 EUR/tonne on 8 November. They increased thereafter and went above 15 euro on the 22 November on the back of stronger power prices. In addition, the EU discussion on stricter guidelines for the usage of Certified Emission Reductions (CER) supported the EUA prices. The daily traded EUA future contract volume on the European Climate Exchange rebounded from its weak levels of the prior few months.

CER prices reached a low of 11.23 EUR/tonne on the 5 November. Afterwards they traded mainly above 12 euro. But at the end of the month, prices declined on the back of 20 million new certificates that came into the market from HFC-projects. Total traded CER volumes have reached record highs (53% versus November 2009).

The average spread between EUAs and CERs was 2.62 EUR/tonne, but increased to 3.12 EUR/tonne on 29 November.

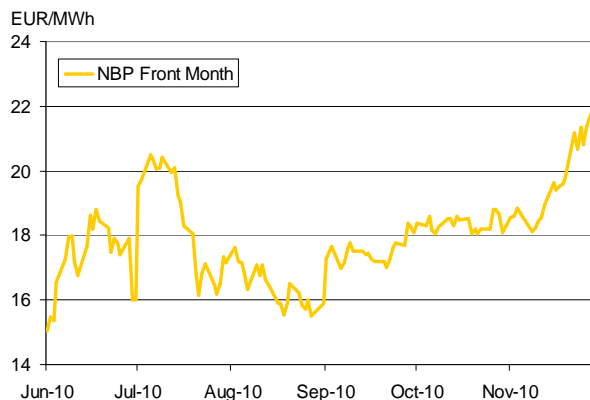
3. GAS TRADING: Weather Play

After reaching a low in the beginning of the month, gas prices went continuously up.

The NBP front month contract opened at 18.56 EUR/MWh, reaching a low on 8 November at 18.14 EUR/MWh. Temperatures below season normal and good supply from LNG and UKCS gas kept the prices down. But the market sentiment changed completely, when the weather forecast started to show cold temperatures ahead (5°C below normal). Gas started to be withdrawn from Long Range Storage early in the winter season to meet the higher demand, which reached 430 mcm on 30 November (80 mcm above season normal). Throughout the month, LNG supply was good and IUK flows switched to import mode (at low levels) as prices started to move above 20 EUR/MWh and all available supply was needed to

meet demand. UK storages were 75% full at the end of November compared to 96% in the previous year. The NBP front summer traded in a range between a low of 18.1 EUR/MWh (9 November) and a high 20.53 EUR/MWh (29 November), following movements in the prompt market.

NBP Front Month in EUR/MWh



Source: Vattenfall Energy Trading

4. COAL TRADING: Bull Run

Cold weather and increasing demand from Asia pushed coal prices up.

API2 coal prices continued its bull run and surged by 7.50 USD/tonne in the spot, 8.10 USD/tonne in Quarter 1/2011 and 6.15 USD/tonne in Cal11. API2 prices have recently been bullish on the back of tightening supply from Colombia due to wet weather and Russia due to railcar shortages limiting exports. But the recent spike seen in the second half of November is owing to the colder weather snap, stronger gas prices and the deterioration in Nordic hydro generation, which is pushing coal up the generation merit order.

Also important was the marked shift in the shape of the forward curve this month from a relatively flat Cal11 to a more pronounced backwardation (4.00 USD/tonne). This was mainly due to the extremely strong front, where paper levels were trading 2-3 US dollar below physical ARA prices. This strength, however, did not carry further than Cal11 and the contango of the curve narrowed markedly, with the

Commodity Markets at a Glance

Cal11/12 spread narrowing to -2 USD/tonne and the Cal12/13 spread narrowing to -3 USD/tonne.

API4 prices also increased, but not as strongly as API2. This caused the implied freight to widen to around 9 USD/tonne in the front and 5 USD/tonne in Cal11 and Cal12.

FOB Newcastle prices also increased significantly this month rising to 112.50 USD/tonne, with increasing demand from Asia (in particular from China who bought a lot of coal to restock ahead of the anticipated colder winter) and limited supply from Australia and Indonesia due to unseasonable heavy rains.

5. OIL TRADING: Volatile prices

Overall, the economic sentiment continued to improve.

The oil market has been volatile throughout November. In the first half of the month, oil was driven up from 83 to 89 USD/bbl on bullish macro data and an improving fundamental picture. Consumer confidence and production figures looked better than expected and diesel demand in China surged. However, renewed worries on the state of the European economy and the sovereign debt crisis strengthened the US dollar considerably. Subsequently, oil moved down to sub 83 levels again. The last days of November witnessed decent speculative flows coming in from the buy side, despite a much stronger dollar so the negative correlation between the two is slowly disappearing.

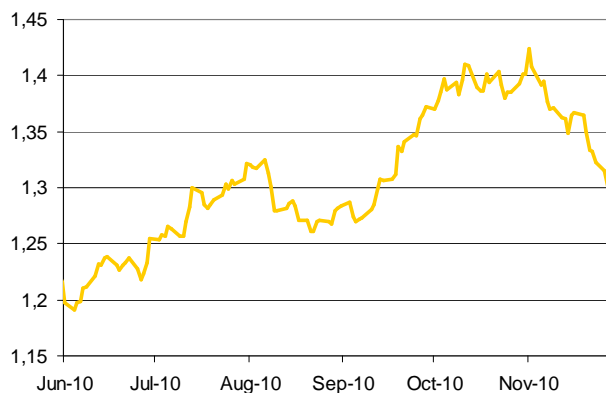
6. FX TRADING: Quantitative Easing

The EUR/USD exchange rate decreased on the back of continuous uncertainties in Euroland and a weakening US dollar.

On 1 November, the EUR/USD exchange rate opened at 1.39 EUR/USD and went down afterwards to 1.29 EUR/USD. Uncertainty on Ireland and other peripheral countries continued to weigh on the euro as single currency.

Last month's first signs of stabilisation of the US economy turned again into raised unemployment figures and lowered growth estimates. Federal Reserve Board Chairman Ben Bernanke defended the American central bank's decision to print dollars in order to purchase 600bn USD in Treasury securities. The second round of the "Quantitative Easing", launched on 3 November, is designed to lower long-term US interest rates. On the other hand, Bernanke blamed China for tightening its monetary policy to curb prices. The US dollar buying interest, however, went up on Korean tensions.

Exchange Rate EUR/USD



Source: Vattenfall Energy Trading

Commodity Markets at a Glance

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
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
UKCS	UK Continental Shelf is the region of waters surrounding the United Kingdom
UNFCCC	United Nations Framework Convention on Climate Change

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E-Mail: trading@vattenfall.de

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