E.ON MarketReport
November 2012

Overview of October 2011 – October 2012

Welcome to the November edition of the E.ON MarketReport, where we look in detail at the energy markets from October 2011 to October 2012.

This report provides an historical 12 month overview of the power, gas, oil, coal and carbon markets. In addition the E.ON Market Report contains month to month commentary and price movements for each of these individual markets.

Last Month in Brief (October 2012)

The wholesale market can typically be very volatile during winter, as temperature forecasts, gas supply and storage issues, power generation costs and cold snaps all have a big impact on market sentiment and trading strategies. October has already showed early signs of volatility in reaction to gas supply concerns by decoupling from a downward trending Brent Oil market and posting strong gains.

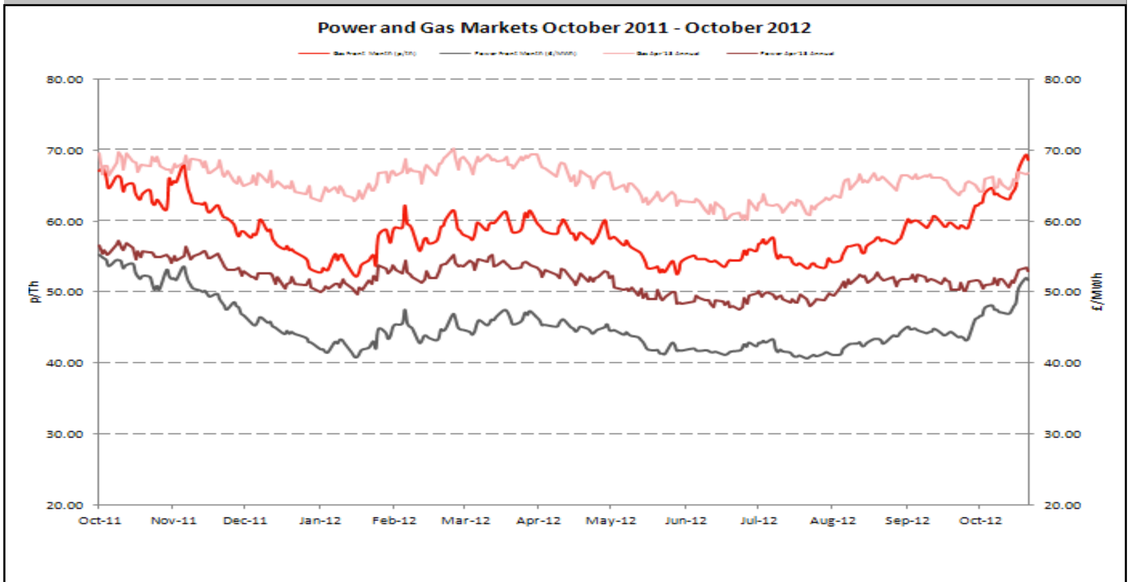
As the market entered October and the Winter-12 contract expired, the markets attention shifts onto the balance of winter products. The front month contract for Nov-12 delivery increased by 10% over the course of the month (01 - 23 Oct), driven by production problems at Norway's Kollsnes processing plant, which limited flows to the UK along with a bullish near term LNG supply outlook.

The Brent Oil market was once again pulled in opposite directions during the reporting period (01 – 23 Oct), however ended with a 4% decrease compared to the start of the month. Shelling across the Turkey/Syria boarded intensified, which increased prices due to the inherent supply risk, however towards the end of the month high stockpiles in the US and poor economic data pulled the price back down.

Power and gas

Movements in the power and gas market

Front month power | Front month gas | Annualised power | Annualised gas



Change in prices from October 2011 – October 2012

The average front month power contract price in October 2012 was approximately 10% lower than October 2011.

The average front month gas contract price in October 2012 was approximately 0% lower than October 2011.

The average Apr'13 annualised power price in October 2012 was approximately 7% lower than October 2011.

The average Apr'13 annualised gas price in October 2012 was approximately 4% lower than October 2011.

Monthly movement

Front month power contract prices increased by approximately 12% over the course of October, between a range of £46.15 - £51.95/MWh

Front month gas contract prices increased by approximately 10% over the course of October 2012, between a range of 62.1p - 69.3p/therm

Apr'13 annualised power prices increased by approximately 3% over the course of October 2012, between a range of £50.44 - £53.38/MWh

Apr'13 annualised gas prices increased by approximately 3% over the course of October 2012, between a range of 64.11p - 66.95p/therm

Month by month review

October 2012	Towards the end of October the market's attention was firmly on the front end of the wholesale curve, as weather forecasts suggested colder temperatures were approaching and concerns over LNG availability and Norwegian gas flows increased. As a result, front month gas price gained by around 10% and power 12%. Longer dated annualised contracts decoupled from a soft Brent oil market and were held firm by the strong performance on the front month prices. Electricity prices were primarily driven by bullish gas, although continued weakness in coal markets would have limited the gains.
September 2012	Gas and electricity prices were generally bearish throughout September and traded down by around 3% over the course of the month. The main driver behind the losses was weak economic sentiment following disappointing Chinese manufacturing data and rising oil stocks in the US, indicating a slowdown in global energy consumption. Expectations that Saudi Arabian oil production will remain at record high levels helped lower prices. Going into the winter, coal is expected to remain the fuel of choice for power generation given its profit margin over gas. Continued downward pressure on coal prices is adding to the bearish trend for UK electricity prices.
August 2012	Oct-12 annualised power contracts gained by around 6% over the course of the month, driven mostly by strong Brent oil and rising european carbon. Brent crude continued to play a key role in driving prices and during August supported most European energy markets. Off-setting the gains were expectations of higher LNG availability within Europe and the UK during September. This is due to lower demand from Asian where prices have crashed.
July 2012	UK gas prices started to show disconnect from Brent crude oil, which is usually a key driver for longer dated gas contracts. A decrease in demand within the Asian market for LNG has lowered the price and offered

downward support to UK gas prices. The resolution of Norway's off-shore gas and oil production strike allowed prices to move down from some initial gains that were factored in when the strike first escalated.

June 2012

Against a backdrop of comfortable fundamentals in regard to supply and demand, and continued macroeconomic concerns within the Euro zone, UK power and gas prices continued to be traded down throughout the month. Weakness in crude oil, which hit an 18-month low in June has continued to be the main driver for gas and power. Some resistance was met for near-term front month contracts, as volatile gas flows from Norway and wet weather lifted the price.

May 2012

Discussions over Greece and Spain have caused macroeconomic sentiment to sink across Europe and the UK gas and power curves were no exception as front-month and annualised contracts saw month-on-month losses. On the near curve prices fell in line with lower gas demand due to warmer temperatures and high gas flows from Norway, while further out risks to the UK as a result of the Euro zone crisis were highlighted by the Bank of England as it cut its growth forecast for the UK this year from 1.2% to 0.8%.

April 2012

UK gas and power prices traded down throughout April driven primarily by lower oil, carbon and coal prices. News that the UK has officially entered a double dip recession added to the weak macroeconomic outlook that had already been formed and was applying further downward pressure to most fuel markets. Additionally, energy markets reacted to optimistic news that Japan could restart nuclear generation, which would help ease global demand for LNG.

March 2012

Movements within the Brent Crude Oil market were once again the key driver behind UK gas and power prices. The benchmark oil contract has gained around 17% during 2012 and held firm throughout most of March within a tight $4.24 range. There were some bearish factors, including reports that Japan may look to re-start some of their nuclear generation, which would ease global demand for LNG. Overall prices were generally trading sideways resulting in relatively flat movements over the course of the month.

February 2012

Gas and electricity prices were buoyed throughout February by increased demand due to colder than average seasonal temperatures, additional risk premium due to low gas storage and LNG levels and sustained gains within the Brent Crude Oil market.

January 2012

Mid-January prices were lifted on expectations of colder weather; however the gains were short-lived as bearish fundamental sentiment returned to the market. Comfortable supply availability for both power and gas filled the market with confidence and even during the cold snap; demand was not troubling the system or causing a shortage. Further out on the curve, bearish signals from the Crude oil market helped prices soften despite tensions between Iran and the US creating some within month volatility.

December 2011

UK gas and electricity prices levelled out during December, following 3-months of steady decline. Reasons for the hold up in prices include increased day-ahead demand and increased buying interest from financial speculative traders. Despite this bullish activity prices were reluctant to move much higher, as fundamentals still remain overly bearish with comfortable supply levels and relatively low seasonal demand.

November 2011

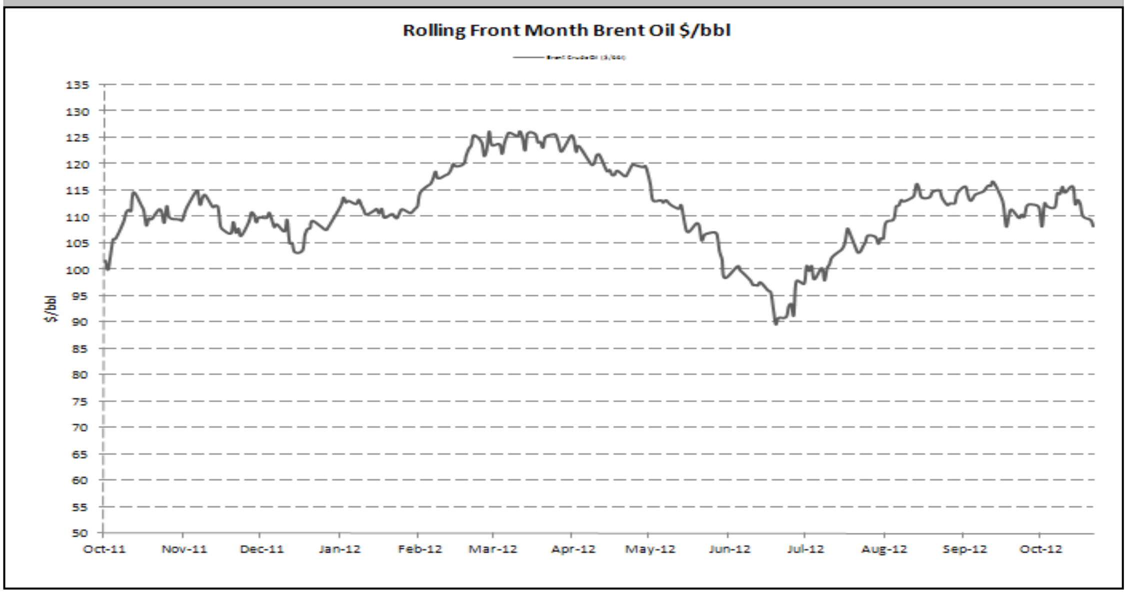
Seasonally mild temperatures throughout most of November kept demand levels lower than usual for the time of year. The subdued demand allowed gas storage facilities remain full and this boosted confidence in the market for the near-term supply outlook.

October 2011 — As we enter the first month of winter'11 the UK supply system coped well with temperature related demand and as a result, trader confidence was given a boost. Prices moved down amid this healthy supply/demand balance. Further downward support was given by ongoing debt concerns within the Euro zone potentially impacting energy demand over future years.

Oil

Movements in the oil market

Rolling front month Brent Crude oil



Change in prices from October 2011 – October 2012

The average front month oil contract price in October 2012 was approximately 3% higher than in October 2011.

Monthly movement

Front month oil prices decreased by approximately 4% over the course of October 2012, between a range of $108.17 - $115.8 / bbl

Month by month review

October 2012 — Brent oil prices jumped on escalating tensions between Turkey and Syria, as shelling along the border intensified. Later in the month prices eventually eased a little following a release of data showing a higher than forecast build-up in US crude stockpiles. The data suggested that US stocks were 46.6mbbl above seasonal norm.

September 2012 — Over the course of the month (01 - 24 Sept) front month Brent lost almost $6/bbl or 5% in value after industry data showed China's manufacturing sector continued to contract and a rise in US Crude stocks pressured prices downward. The global market also responded to Saudi Arabia's pledge to keep Oil production at record highs to force the price of the Benchmark grades down. Despite all this over-riding bearishness there is still volatility within the market, as Middle East tensions threaten supplies and North Sea production continues to cause anxiety.

August 2012	Brent Oil traded over $116/bbl during the middle of August recording the highest closing price since May this year. North Sea Oil field maintenance reduced output and tightened supply and further support came from the renewed geopolitical tensions in the Middle East as Israel is preparing military action against Iran. The conflict in Syria also has escalated as Saudi Arabia has given advice to their people to leave Lebanon.
July 2012	Brent Crude Oil has recorded strong gains during July trading back above $100/bbl after falling to an 18-month low the previous month. The gains are a result of escalating tensions between the US and Iran and the threat of possible supply disruption through the key shipping lane in the Middle East. Positive economic news helped lift prices as the European Central Bank slashed borrowing costs and the Bank of England announced another £50bn to support the UK economy. These measures would encourage demand for fuel across Europe and China's economies.
June 2012	The benchmark front month Brent Crude Oil contract continued its downward trajectory driven by high Crude stocks in the US, ongoing concerns on Euro zone economic activity and OPEC (Organization of the Petroleum Exporting Countries) keeping production quotas at record high causing a glut in supply across the global market. Brent hit a low of $89.67/bbl towards the end of June, which was its lowest closing price assessment for 18-months.
May 2012	During May Brent hit its lowest closing price for 2012 driven mainly by political action within the Euro zone and reduced anxiety of supply disruption. The Socialist victory in the French presidential election and Greece's fragmented result refreshed worries about the Euro zone debt crisis and pushed Brent prices lower. Additionally, eased fears of supply disruption when the talks between Iran and the West restarted supported the losses.
April 2012	Brent prices fell significantly during the last month as pessimistic reports from China and the US raised concerns about a potential slowdown in the global economy. Additionally, the Energy Information Administration cut its forecast for world oil demand growth for 2012 and 2013 in their monthly report. Prices started the month at around $125 and had soon eroded around $6 by the last week of April where prices stabilised at around $118/bbl.
March 2012	The dispute between Iran and the West over Tehran's nuclear program has lifted Brent prices by about 17% in 2012. Recently, improving German economic sentiment and rising U.S. retail sales have strengthened the bullish sentiment. Additionally, when the U.S. central bank reiterated its plans to keep interest rates low, oil market optimism improved on economic growth prospects.
February 2012	Brent Crude Oil hit a 9-month high during February driven by ongoing tensions between Iran and the west and the possibility of supply disruptions from other nations in the Middle East. Further support was added when news of a second bail-out package to support the Greek debt crisis hit the markets.
January 2012	Continued political tension between Iran and the west added volatility to a Crude oil market that struggled to find any clear direction during January. The potential of supply disruption as tensions grow in Arab regions added risk premium to prices, however, the over-riding negative economic outlook

within the euro-zone continued to plague the value of the Euro, consequently lowering the price of Brent Crude.

December 2011

Oil prices were pulled in opposite directions through Dec 11 leaving the market flat when comparing the start of the month to the end. An 11-month low point for the Euro vs. Dollar exchange rate and further debt concern within Europe pushed prices lower. Upside was driven by political tension between the US and Iran and potential supply disruption following tension in Kazakhstan and Iraq.

November 2011

Crude oil prices were driven higher by renewed hopes that Greece and Italy would resolve their debt issues. Concerns over Iranian nuclear activity added further upward pressure, as well as unrest in Egypt and Syria.

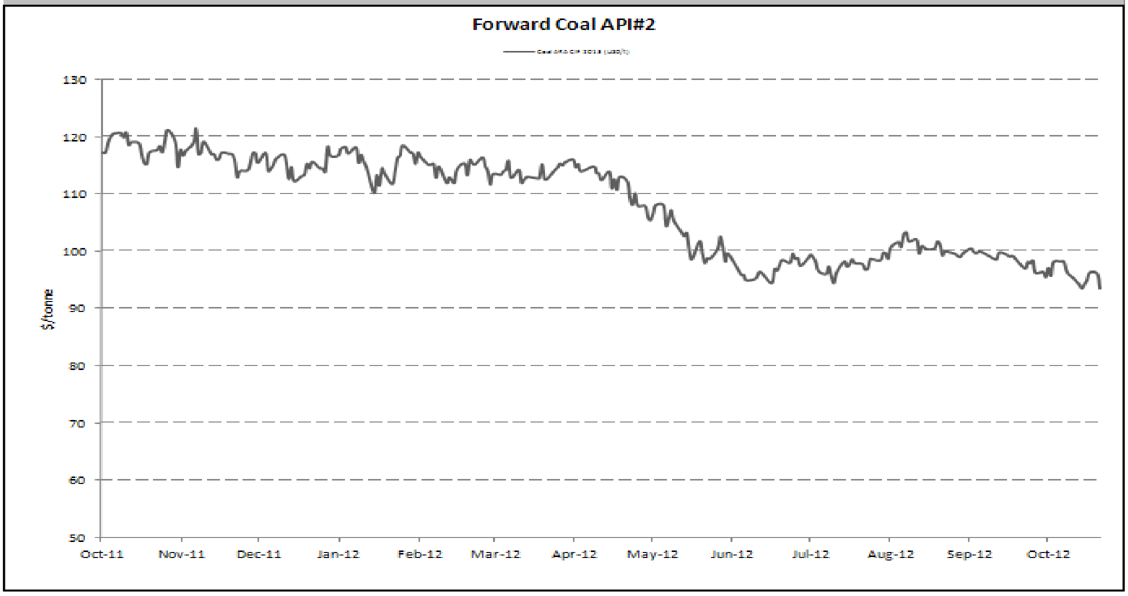
October 2011

October proved to be a volatile month for Crude oil, with prices swinging over $14 within month. The market appeared to lack clear direction, however, prices were given a sharp boost with reports surrounding the Euro-zone debt crisis and a potential recovery plan being the main driver.

Coal

Movements in the coal market

Forward coal 1 year



Change in prices from October 2011 – October 2012

The average forward coal 1 year contract price in October 2012 was approximately 19% lower than in October 2011.

Monthly movement

Forward coal 1 year contract prices decreased by approximately 3% over the course of October 2012, between a range of $93.6 - $98.27 / tonne

Month by month review

October 2012

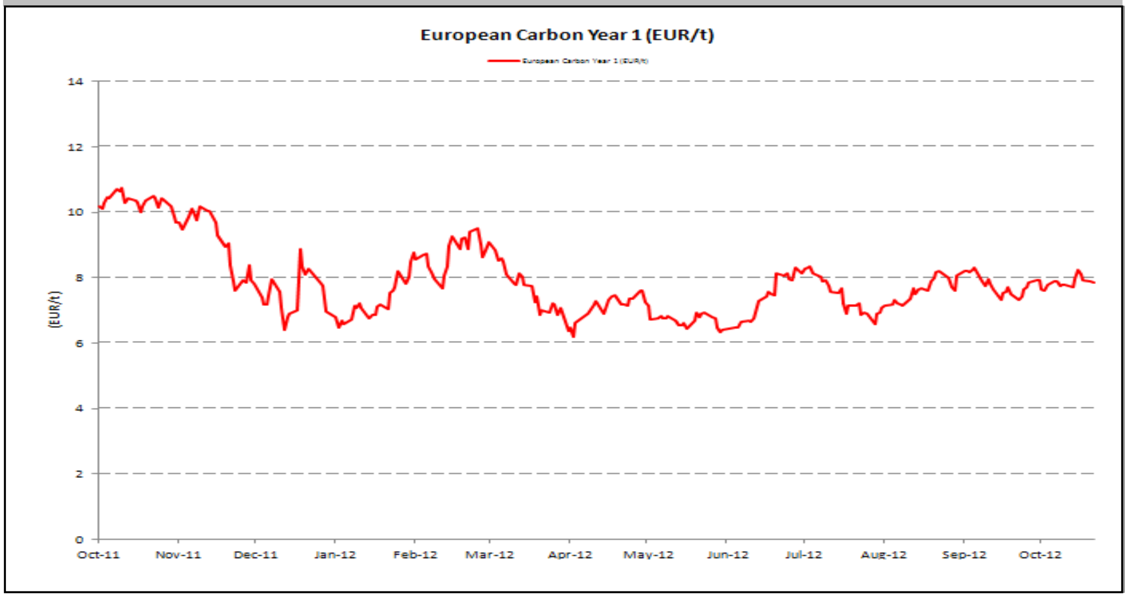
European coal prices continued to decline throughout October with healthy supply and weak demand. Traders noted that worldwide exchanged volumes were poor.

September 2012	The long-term oversupply of coal to major consumers continues to weigh on prices. The benchmark European coal price fell by around 3% over September (01 – 24 Sept) continuing its recent decline. Coal is currently trading around $30/tonne (22%) less than in Sept-2011 and adding to the over-supply are the US who are exporting more coal to the global market since the discovery of shale gas, which has started to dominate in terms of the fuel used for their domestic power generation. Shale gas produces less CO_2 therefore is helping to meet emissions targets.
August 2012	International coal prices continued their recent bearish trend after news that the strike by workers at Colombian rail operator Fenoco is ending.
July 2012	Coal prices edged higher moving up with gains in oil and carbon.
June 2012	International coal prices came under pressure because of persistent economic concerns. Especially the significant decline in oil prices coupled with weak economic data in the EU and the US had influence on the energy complex.
May 2012	Persistent coal oversupplies and revived bearish macro sentiment led to further losses in coal prices.
April 2012	In addition to persistent oversupplied coal markets, a bearish sentiment was concluded at Coaltrans Conference in Beijing as the number of deals done was lower than anticipated. With coal demand seasonally weak and fundamentals still pointing to a rather weak scenario, coal prices at the front end of the curve saw another month of decline.
March 2012	Prices at the front end of the curve came again under pressure due to ample coal flooding the market. Only minor movements were noticed in international coal prices throughout the month.
February 2012	The European coal market continues to be driven by a lack of buying interest resulting in an oversupply of coal around the world. According to reports this could see export prices out of South Africa's Richards Bay (Africa's largest Coal terminal) fall to record lows.
January 2012	Coal prices fell amid soft demand and ample supply, particularly within the Atlantic region.
December 2011	Coal prices were fairly stable during December staying tightly linked to developments in other energy markets.
November 2011	The combination of fresh economic concerns about Italian sovereign debt and the healthy supply situation in the market were the main drivers behind coal prices.
October 2011	Coal prices were being driven mostly by wider macroeconomic sentiment, which was impacting financial and commodity markets throughout October. Although there was some within month price movement, the end result was that prices ended the month range-bound compared with the start.

Carbon

Movements in the carbon market

European Carbon year 1



Carbon overview

Carbon permits have become an increasingly important driver for the price of UK power as more than 70% of UK power stations use coal or gas.

Burning coal and gas releases harmful emissions into the environment. Higher generation means more carbon emissions are produced. Therefore the cost of 'clean' power also takes into account the cost of carbon permits traded under the EU scheme.

Cost of producing 'clean' power = price of generation fuel + price of carbon

Burning coal generates more than twice as much carbon as burning gas, hence if the price of carbon increases, the effects are felt more strongly in coal generation. Carbon price therefore directly affects the demand for both gas and coal as a generation fuel.

Change in prices from October 2011 – October 2012

The average European carbon front year contract price in October 2012 was approximately 24% lower than in October 2011.

Monthly movement

European carbon front year contract prices decreased by approximately 1% over the course of October 2012, between a range of €7.6 - €8.24 / tonne

Month by month review

October 2012	European carbon prices hit a five week high towards the end of October, breaking out of its recent sideways trend. The reason for the gains was attributed to a temporary supply issue, as auctions of new emissions allowances have been delayed.
September 2012	Carbon continued to trade within a tight range of less than €1 hardly testing any upside. Analysts suggest that high levels of coal burn has increased emissions across the EU, however a glut of allowances due to slow industrial consumption has made burning cheap coal a commercial option.

August 2012	The carbon market has been supported in recent weeks by optimism that the EU will move next month to withdraw allowances from the market and growing optimism in energy markets about an upcoming effort by large EU nations to tackle the Euro zone debt crisis.
July 2012	Carbon prices dropped sharply, as reports circulated that the plan to remove excess carbon allowances from the market was proving to be more complicated than originally presumed. This led to market back into a position where CO2 permits are grossly over-supplied and the price subsequently dropped.
June 2012	Emissions prices have been taking direction from Euro zone developments over the past month, in particular the Euro/Dollar exchange rate, with the Dec-12 contract dropping as low as 6.17 EUR/t as the Euro fell against the dollar. Gains were recorded at the end of June due to a move to set-aside excess carbon permits to help support the market.
May 2012	Carbon prices were driven lower by plummeting oil prices last week. Uncertainty about the future of the Euro zone following the Greek and French election results added to bearish sentiment.
April 2012	Dec-12 EUAs fell back below 7 EUR/t at the start of the month, as rising Spanish bond yields revived concerns about the Euro zone, triggering falls in equity markets and the Euro.
March 2012	Carbon prices dropped below €8 after Poland blocked a proposal to reduce emissions. The move is the latest stage in the failure of EU carbon policy that has seen the European carbon trading price collapse.
February 2012	Colder weather and demand for Carbon allowances added support to prices during the start of the month. Prices were then given a further significant boost as EU parliamentary leaders agreed to support a motion in the Industry Committee vote at the end of the month.
January 2012	The price of European Emissions continued to hover around record low levels for most of January.
December 2011	European carbon prices continue to plummet driven mostly by ongoing economic concerns within the Euro-zone.
November 2011	The carbon market was cautious over demand levels due to ongoing economic concerns within the Euro-zone.
October 2011	Trade volumes were moderate during October within the European Carbon market, missing strong market drivers and impulses. Traders appeared to be waiting for clear messages surrounding the Euro-zone bailout plans before fixing out positions.

Useful web links

For more information about E.ON, the following links may be useful:

Business Energy	eonenergy.com/business
Business Energy Connections	eonenergy.com/bec
Sustainable Energy	eonenergy.com/sustainable
Carbon Reduction Commitment	eonenergy.com/crc

The following links provide further information on the energy industry:

Defra	defra.gov.uk
The Department for Business, Enterprise and Regulatory Reform (BERR) formally DTI	berr.gov.uk
The Department of Energy and Climate Change (DECC)	decc.gov.uk
Health and Safety Executive	hse.gov.uk
National Grid	nationalgrid.com
Met Office	metoffice.gov.uk
Ofgem	ofgem.gov.uk
Environment Agency	environment—agency.gov.uk
Consumer Focus formally Energywatch	consumerfocus.org.uk
The Carbon Trust	thecarbontrust.co.uk
The Energy Institute	energyinst.org.uk
The Energy Saving Trust	est.org.uk
The National Energy Foundation	nef.org.uk
Petroleum Economist	petroleum-economist.com
Live oil prices	thisismoney.co.uk/oil-price

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