IMPACT OF CREDIT CRUNCH ON ENERGY MARKETS

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ENERGYVIEWPOINTS

DEVELOPING ENERGY MARKETS

apX Group

MAKING MARKETS WORK

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Impact of Credit Crunch on Energy Markets

Editorial from APX

I am pleased to introduce this edition of Energy Viewpoints, at a time when we are hard at work on the integration between APX and ENDEX, the spot market and derivatives exchanges. We have started this integration with a stronger team. As of 1 January, Pieter Schuurs has started his work as our new COO. As a specialist in the financial sector, he has taken on the daily management of ENDEX, its integration and the further development of our clearing facilities.

The credit crisis is an unavoidable topic for this edition of Energy Viewpoints, although there has been no adverse effect on APX. To the contrary, our volumes have increased substantially in the first quarter both on ENDEX and APX. Our products are all cleared, providing a "safe haven" for the energy transactions, either fixed on our screen or concluded OTC and cleared by us thereafter. Many market participants have already intensified their use of our facilities.

This does not take away the worries for the energy market in general. The current situation fuels tendencies for protectionism and nationalist interest. The answer lies in internationalism, and therefore we will push ahead with our integration efforts.

We need to create one European electricity market. APX has been a pioneer in Market Coupling, and a main driving force behind the trilateral market coupling between Netherlands, Belgium and France, still the only successful example of its kind outside Scandinavia. We are also heavily involved in the process towards a broader market coupling including Germany and Luxembourg, and APX is determined to make that a success too. Market integration may result in exchange integration – but we should not mix up those goals. It may be even counter-productive. Market integration should therefore remain our focus, because it will generate the economic optimisation we all need so urgently.

Meanwhile, the new combination of APX and ENDEX, supported by a good clearing solution, gives new opportunities both in the UK market and in the Benelux area. Our UK position is strong and still growing stronger: our UK markets are growing year-on-year (power: +20%, gas: +45%) with volumes that match others. Growth is both in existing products and new products like gas storage, OTC clearing and a power auction. We will take more initiatives in derivatives aimed at a real development perspective for the UK energy market, including integration between UK and the European continent, both in gas and power. True to our mission of market integration, this will ultimately provide a better market solution.

In the Benelux, APX and ENDEX will take initiatives to boost the growth on the gas markets both in spot and derivatives. Together with the NBP in the UK, the Dutch TTF and Zeebrugge form a triangle sometimes called the "Herring hub" that is destined to become one integrated liquid gas market with a European scope. We believe that Europe needs such a central unified market and price index to play a role on the world gas market, supporting better security of supply.

For now, please enjoy what will be the last issue of Energy Viewpoints sponsored by APX. My thanks go to Moffatt Associates for all their sterling work over the last four years in driving this publication forward, and we wish them all success in the future.

If you have any comments, please mail us on apx@apxgroup.com

Best regards

Bert den Ouden
CEO, APX Group

Moffatt Associates' latest quarterly survey reveals that a majority of market participants believe that both market liquidity and wholesale electricity and gas prices will fall in the the next 12 months.

Credit Crunch Reducing Liquidity and Prices

The credit crunch and recession are having a significant impact on both EU wholesale energy market trading and the commercial activities of energy market participants (utilities, energy users and traders).

Members of our Expert Panel see the credit crunch impacting significantly on trading and investment in energy markets **(see table below).** Key conclusions are:

- 70% expect wholesale market prices will fall in the wake of reduced industrial demand and lower fossil fuel prices.
- 64% expect wholesale market liquidity will fall in the next 12 months and a significant minority (47%) expect financial trading will decrease.
- A majority believe tightening credit markets will reduce investment in both fossil and renewable power generation.
- A majority believe that the recession will restrict user investment in energy efficiency but will not motivate governments to intervene to regulate end-user tariffs.

Scenario	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
Wholesale gas prices will fall in the next twelve months	22%	48%	15%	8%	7%
Wholesale electricity prices will fall in the next twelve months	19%	52%	22%	4%	3%
The CO_2 price will fall in Phase Two of ETS [2008-2012]	19%	33%	37%	4%	7%
The CO_2 price will rise in Phase Two of ETS	8%	35%	15%	35%	7%
Financial trading in carbon, gas and electricity markets will decline in the next twelve months	11%	36%	36%	14%	3%
Wholesale energy market liquidity in general will decline in the next twelve months	14%	50%	25%	7%	4%
The recession will force major energy users to increase investment in energy efficiency	0%	36%	36%	18%	10%
Tightening credit markets will reduce new investment in renewable generation	21%	54%	14%	4%	7%
Tightening credit markets will reduce new investment in carbon generation (gas and coal)	15%	37%	26%	4%	18%
Tightening credit markets will reduce M&A activity in the EU energy sector	14%	36%	25%	11%	14%
The recession will increase the likelihood of government intervention to regulate end-user tariffs	14%	29%	39%	11%	7%

Finally, we asked our Panel about the likely impact of the credit crunch and recession on medium/longer term development of the EU energy market. Below are some of their comments:

"In the power market, a lot of recent government interventions or attempts at intervention will have a negative impact on developments because politicians will be more inclined to meddle in the free energy market."

> "It could be 3, 4 or 5 years but it will definitely come back."

"There will be a big impact in the next 18 months but in the longer-term growth will come back, I think it will come back strongly. Any infrastructure will be put on hold, but when demand increases again it will be built and prices will rocket. It could be 3, 4 or 5 years but it will definitely come back."

"There will be pressure on the type of investment, which will tend to be low risk e.g. gas-fired generation, which is easy to construct, not difficult investments such as nuclear. Also, there will be more about affordability for customers, and the environmental agenda will be the short-term victim of the recession."

"I think overall it will delay the development of wholesale and retail markets by taking out smaller and more aggressive players who would help competition."

"In the short-term, there will be greater consolidation and increased market share in generation e.g. the large players such as E.ON and EDF. So, in the medium- to longer-term there will be increased concerns about effective competition and sufficient market liquidity."

"Energy will play a stronger role in the return to economic nationalism and there will be a move from the 'let the market provide' attitude to a desire to control energy policy and support economic recovery."

"With falling liquidity and high volatility the cost of balance sheet resources will impact strongly to wholesale pricing. We may get to the point where risk is properly costed into power and gas."

"Investment in new supply and infrastructure will be curtailed leading to supply shortages. When things do pick up, there will not be the supply available."

"There will be two main effects in opposite directions: Shrinking economies will lower energy demand in medium term. The credit crunch will make financing of new infrastructure more difficult and supply may be affected in the long run if projects are not realised. The first effect is likely to dominate the latter, at least in the short and medium run, since energy is relatively price-inelastic, while the credit crunch poses a severe problem for financing."

Currently, it would appear that the market is **a)** uncertain about the duration of the bearish impact of the recession on wholesale energy prices, **b)** convinced that when recovery begins then electricity and gas prices will bounce back sharply and **c)** hopeful that market liquidity will hold up.

The market detects a clear shift in energy policy focus towards energy security and economic nationalism and away from liberalisation and a belief in market mechanisms.

The biggest threat to wholesale markets is not the credit crunch but the reaction or over-reaction of governments and regulators keen to try and intervene in markets to ensure the lights stay on and energy prices and future energy prices remain low and stable.

Moffatt Associates
February 2009

According to Paul Dawson, Director of Regulation at RWE Trading, a continued commitment to the principles of open and competitive markets and a resistance to excessive intervention should keep market liberalisation on track.

Crunch Time for EU Energy Markets?

SETTING THE SCENE

"A universe that came from nothing in the big bang will disappear into nothing at the big crunch. Its glorious few zillion years of existence not even a memory."

(Professor Paul Davies, Director Cosmology Initiative, Arizona State University)

The financial crisis has pervaded every walk of life and no self-respecting news bulletin or dinner party is complete without considering the impact of the crisis on the weekly supermarket shop and the merits of quantitative easing. In the wholesale power and gas markets, the "Big Crunch" question is whether we have reached the end of the road for competitive markets or whether the push for further liberalisation remains paramount.

In reality, power and gas markets have proved pretty resilient in the face of the crisis, and while not immune from its impact, there is relatively little cause for concern. The departure and consolidation of some market participants has had an impact on liquidity and efforts on netting, credit-risk management and clearing have had to be redoubled to reduce credit exposures.

Nevertheless, market liquidity has held up very well and even as the economic outlook worsens, there is no reason to expect any significant turn for the worse coming down the pipe (or wire!). The main utilities will continue their participation in the market and, despite the challenging circumstances, many banks will continue in the front-line of the commodity markets (which inter alia allow them to diversify their activities away from the more traditional financial markets).

MARKETS STILL EVOLVING

Although it is pretty much business as usual in the traded power and gas markets, that is not to say that these markets are perfect, far from it. European power and gas markets remain in their relative infancy. Electricity market liquidity remains strangled by retail price regulation in France, Spain and Italy and the gas market is still struggling to develop outside North-West Europe.

There is an urgent need to improve information transparency across the board and effective choice at the retail level remains a novelty outside a few isolated regions. However, the regulatory response to these challenges was largely in place before the crisis. Competition and state aid cases are targeting industry structure and foreclosure and the 3rd Energy Package promises a significantly more robust and enforceable regulatory framework. Even in the area of financial regulation – which has understandably received the most scrutiny recently – work is already in progress on tailoring the financial services regime to the power and gas sectors. Indeed, it is hard to think of anything in the regulatory framework that we should be working on that was not in train before the crisis hit.

THREATS TO COMPETITION AND LIQUIDITY

Even with the relative constancy of the market and regulatory response, the crisis nevertheless presents significant threats to competition and liquidity. While many of the regulatory building blocks remain the same, the climate is radically different as trust in markets erodes and energy security and environmental challenges become more acute and politicised. The danger is no longer of insufficient regulation to underwrite competition, but of excessive intervention as inconvenient facts and delicate trade-offs get waved aside in the rush to take "strong" action. Now, more than ever, we therefore need to maintain our focus on the two main pillars of the regulatory agenda:

> "Greater transparency is more important than ever to maintain confidence and liquidity in the wake of the financial crisis."

- **Competition.** The crisis has created the political space to second-guess markets and regulators are exhibiting an increasing desire to dictate where, when and how people trade, e.g. safety valves in emissions markets and a bias toward exchange-based solutions rather than OTC markets (e.g. mandating congestion management via exchanges rather than by system operators). The development of competition between market places and in the provision of clearing and credit-risk management services – including the choice to take counterparty credit risk rather than clear – is a crucial component of an effective market. (Indeed, an increased focus during the crisis on clearers' credit standing – which has on occasion been worse than that of counterparties – has amply demonstrated that a real and effective choice in this area is essential). It would be deeply ironic if the regulatory response to the crisis created de facto monopolies in the name of promoting competition and liquidity.

- **Transparency.** Greater transparency is more important than ever to maintain confidence and liquidity in the wake of the financial crisis. However, the danger is that growing distrust about markets and traders' conduct shifts the debate away from information on market fundamentals towards trade data. Trade transparency is no bad thing: transparency of exchanges and over-the-counter markets is important in demonstrating that markets work well and are not subject to abuse. Indeed, contrary to popular perception, most wholesale markets are already very transparent in terms of events, prices and volumes traded. However, we need to remember that it is impossible to reach any meaningful conclusion on the merit of any individual trade in the absence of information on the prevailing production, transport and demand conditions at the time the trade took place. Despite legal difficulties and widespread opposition, increased fundamental data release should therefore remain the number one regulatory priority. In approaching trade reporting, we also need to resist the (lazy) conclusion that only traders with something to hide would urge caution in this area. Trade reporting has costs, consequences and limitations which – if not handled appropriately – can damage liquidity and competition by raising undue barriers to the entry of new traders into the market.

A continued commitment to the principles of liberalised markets, and resistance to the urge to second-guess and intervene, should keep the liberalisation of the EU power and gas markets firmly on track in the wake of the financial crisis. Far from a "Big Crunch," the coming years should deliver an ever-expanding universe of free-market competition and liquidity. As the outgoing US President put it:

"You can't put democracy and freedom back into a box"
(George W Bush)

According to Adam Cooper, Vice-President of Regulatory Affairs at Merrill Lynch, more competitive energy markets are starting to emerge and, in the current climate, policy-makers need to avoid hitting the panic button.

Avoid Hitting the Panic Button

SETTING THE SCENE

"It's not the bulls and bears you need to avoid – it's the bum steers" Chuck Hillis

The unprecedented upheaval in market economies and the immediate transmission to non-financial sectors has thrown up extraordinary challenges, real threats and some opportunities.

In the eye of such a storm, the industry must continue to ensure that regulatory policy is aimed at positive outcomes and to resist knee jerk solutions such as price capping, the creation of monopoly exchange services, controlling price formation via regulation and a retreat into "economic nationalism."

"A well functioning market also provides the right signals for balanced decisions on investment."

Of course, in wholesale electricity and gas markets, the most immediate concerns relate to trading liquidity and counter-party risk. A well functioning market also provides the right signals for balanced decisions on investment.

NEGATIVE INFLUENCES ON LIQUIDITY

The most immediate impact of the current environment is credit aversion. Credit markets rely on a fluid mix of analysis and trust and, with a breakdown in the quality of risk models, there is necessarily a heavier reliance on trust.

We have witnessed a number of reactions as market parties seek to manage risk while flying blind. Instead of focusing on the immediate impacts, industry needs to consider what measures can be undertaken to reduce the emotive responses to stress situations. Perhaps now is the time to push harder towards central clearing models.

The outcomes of a more fearful environment creates increased short term volatility which is driven by greater credit risks feeding into pricing and creating a more short term trading focus. An uncertain economic recovery timeframe, with consequential impacts on demand levels, could make curve trading a more difficult prospect. However, to date, trading does not appear to be adversely affected, and perhaps this reflects a more mature market where trading has become a tool for broader portfolio management rather than a purely speculative tool as is believed by some market observers.

Consolidation and retreat of some market players will directly impact liquidity. As we saw with the US based merchant trader decline, there can be a drop in market activity. However, so far the level of consolidation and loss has not been as significant as in the past. The true test will come in the first half of 2009 as businesses decide whether trading commodities represents the best use of capital. This will be the case for recent new entrants still looking to build commodities platforms.

The EU's 3rd Energy Package could, in part, reduce liquidity by increasing costs of reporting and there is a small risk of having other capital requirements or heavier regulatory scrutiny on firms not currently subject to such regimes.

The threat of asset deflation along with tougher debt markets will also impact upon investment decisions (along with uncertainty on the demand side). It would be surprising if asset based companies had not spent significant time looking at existing and future programmes to assess whether decisions based on previous macro-economic assumptions were still valid and economic. At the very least, the timing of major infrastructure projects could be impacted.

POSITIVE INFLUENCES ON LIQUIDITY

In this environment, it may be surprising to consider whether there are any positive forces at work to improve market liquidity. The timing of such positive forces are long dated, but if policy responses to the difficult times are considered properly and market participants play an active role, the medium term aim of more active regional and European markets is not a lost cause.

Despite the angst, disappointment and threat to some of the 3rd Energy Package, many elements will help to promote further market liberalisation. One of the main outcomes of the liberalisation programme is the role of the markets to solve risk issues and to better manage assets.

The implementation of the expected measures will be the key to how quickly the reforms will speed market development. As there is already some momentum for reform from earlier packages, domestic actions and competition outcomes, there is reason to believe that resistance will not be as blatant or successful with these measures.

> "The market downturn can also create some opportunities if capital costs of projects decline making them more viable than before."

In addition, a fresh look at the investment needed to integrate markets and diversify supply in gas should gain further impetus from the push toward regional solutions and in response to recent supply disruptions in gas.

Industry driven initiatives, such as the introduction of better market clearing, will benefit trading. Better clearing provides a lower barrier to entry so there can be a reduction in counter-party negotiations and a more homogeneous approach to credit assessment.

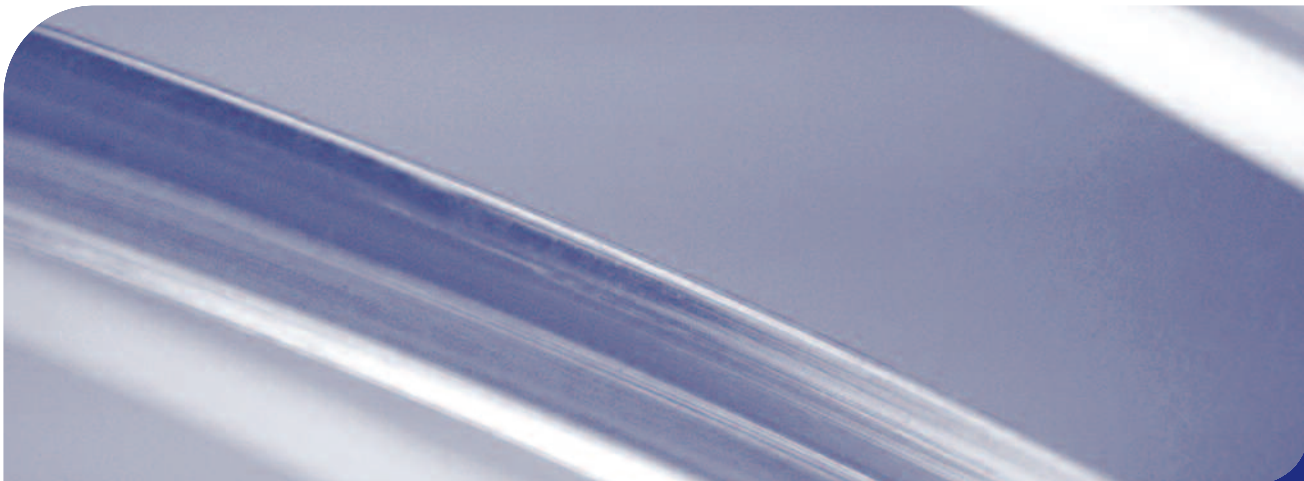
The market downturn can also create some opportunities if capital costs of projects decline making them more viable than before. For example, lower input prices may help pipeline investments, and lower gas prices could help storage projects previously struggling to finance cushion gas.

Even demand destruction may have benefits if restrictive policies such as the ETS bite less allowing the expansion of otherwise constrained industries.

SOME CONCLUSIONS

It is easy to conclude that times are tough and that the outlook will remain uncertain and fearful for a long time. But this would unfairly discount the progress made over the last few years and the promise of further improvements through regulatory changes and a more active pan-European business plans being exhibited by many of the large trading companies.

While the first steps on the path may appear rocky, market players could reasonably ask themselves what they expect the trading environment to look like in 3 to 5 years time, and we suspect that not many would envisage anything but a more active regional market. We can only hope that policy makers and Governments draw the same conclusions and avoid hitting the panic button.



According to Dr Anthony White, MBE, Senior Adviser to Climate Change Capital, the credit crunch has had a depressing impact on the carbon market short term, but may have improved the longer term outlook.

More Volatility in the Carbon Market

SETTING THE SCENE

When the contamination of the financial markets initially came to light, there were optimists who thought that "sustainable investments" could possibly be beneficiaries. After all, "green investments," backed by investment funds or major industrial companies could surely be regarded as more reliable than sub-prime mortgages. At first, this seemed to hold true but, as Summer moved into Autumn and the infection spread into the wider economy, the crisis began to have an adverse impact on the carbon market.

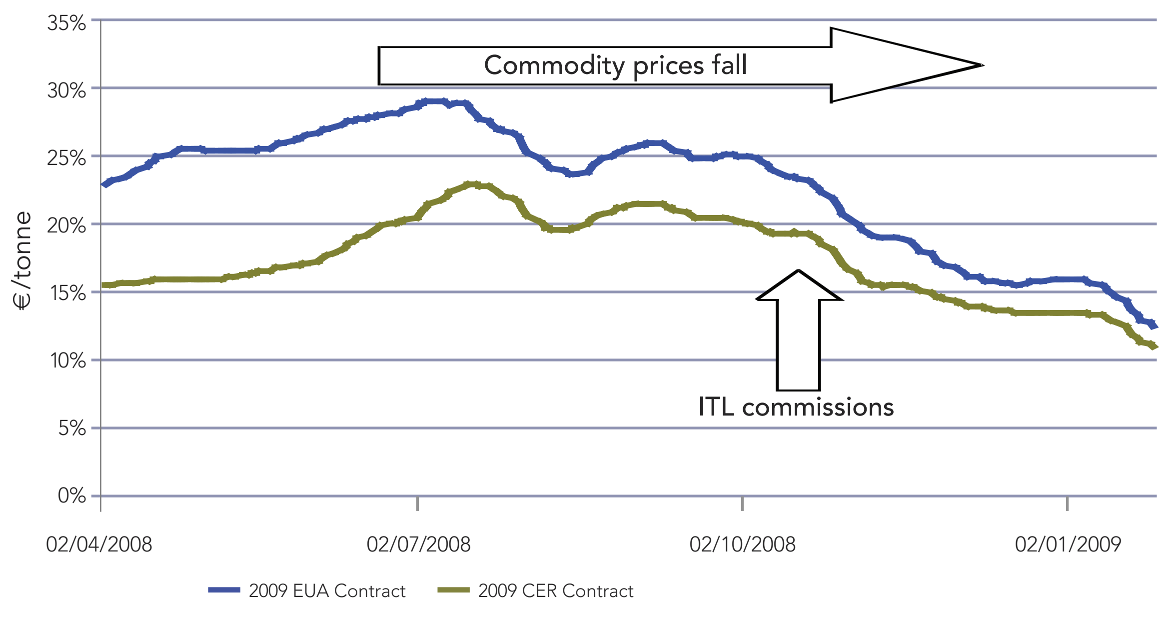
The subsequent credit crunch has affected carbon prices via three price drivers: the economic fundamentals underlying the carbon market; the detailed design of the market; and the trading behaviour of market participants. It would have been satisfying to claim that this was well anticipated before it occurred. However, the application of some hindsight may help prepare for the future.

RECENT PRICE MOVEMENTS

The cost of abatement is the fundamental carbon price determinant and this was adversely affected by the fall in oil prices, which fed through to gas prices. The subsequent price fall was amplified by the reduction in the estimates for economic activity in the EU, which is expected to impact through Phase II of the EUETS. Therefore, both the costs of abatement and the underlying demand for CO_2 allowances fell.

The market was further undermined, paradoxically, by the commissioning of the International Transaction Log in October 2008. As a consequence, this reduced the spread between CER and EUA prices in the run up to October **(See Chart A).** Furthermore, in November, the European governments, primarily Germany and the UK issued 700 mt of allowances. As a result, the CO_2 price in early October was further undermined.

Chart A – Carbon Prices



As the full extent of the financial crisis became apparent during the Autumn, credit for many traders tightened or even became non-existent. Consequently, those with EUAs lodged in their registers realised that their holdings represented a potential source of immediate cash. Or, viewed another way, since the forward curve for EUAs is so flat (2009 EUAs @ €10.7; and 2012 @ €10.9 on 28 January, 2009), their registry holdings represented a very cheap source of finance.

As a result, many traders liquidated their holdings, further undermining the CER prices. This also implies that there is now less cash readily available for investments in CER-generating projects, and the potential for these projects to generate CERs capable of being monetised during the Kyoto period is diminishing, as the end date of 31 December, 2012 draws closer.

MARKET DYNAMICS

The climate change optimists, i.e. those hoping that an international agreement on greenhouse gas emissions will be concluded at the Copenhagen "Conference of the Parties" in December 2009, were somewhat relieved by the EU's confirmation of the energy and climate package during the French presidency. The 20, 20, 20 target for 2020 remained intact, which explains the slight, but short lived, price stabilisation in December 2008.

> "However, it appears that the market is not looking so far ahead."

However, these optimists were disappointed, though not surprised, by the lack of consensus to emerge from the Poznan COP on the structure of the post - 2012 Kyoto regime. Although the EU agreed a slightly higher limit on imports of CERs into the EUETS for Phases II and III (1.611 bt, up from the Commission's proposed 1.43 bt), the outlook for new Clean Development Mechanism projects is still very hazy, especially as only projects registered before the end of Phase II will be able to generate CERs that may be converted into EUAs.

As a consequence, the carbon market, at least interest in new projects, appears to have stalled. The market is waiting for an international agreement to be concluded before capital will be deployed on a large scale; and this is dependent on the attitude of the new administration in the US. There was plenty in Obama's campaign remarks and his inaugural speech to give the optimists some hope; but financiers are likely wait to see the legislation, before investing.

LONGER TERM OUTLOOK

This creates something of a paradox. Whilst the near term outlook for prices is weak on account of the lower economic activity leading to a potential over-supply for Phase II, in terms of EUAs and available CERs, the outlook for Phase III prices remains rosy.

The confirmed CO_2 emissions cap for the EUETS was set on the assumption that the extremely exacting renewables and energy efficiency targets will be met. However, not a single member state within the EU has yet adopted the radical new measures that will be required if these targets are to be met. Therefore EUA prices in excess of €40/tonne are still possible and, given the ability to use Phase II allowances to meet Phase III obligations, some price tension should be expected. However, it appears that the market is not looking so far ahead. Alternatively, the market could be counting on the EU meeting its renewables targets, or that the EU will relax its CO_2 targets. Both would be brave assumptions.

In conclusion, it would appear that the credit crunch has served to depress the carbon market in the short term, but improve the longer term outlook. However, such volatility is not exactly conducive to investment.

This edition of *Energy Viewpoints* includes the results of our latest quarterly survey which monitors trends in the European energy markets.

European Energy Market Trends Survey – Winter 2008/09

This survey is run in association with **EFET** (the European Federation of Energy Traders) and is conducted by **Moffatt Associates,** an independent market research and business strategy consultancy based in London.

The objectives of this research programme are to canvass views on trends in market prices and energy market developments and to monitor changes in market perceptions over time.

Results are based on the views of a representative panel of leading market participants and policy influencers. The survey itself takes the form of a detailed telephone questionnaire and is conducted on a strictly confidential and non-attributable basis. Respondents were interviewed in January 2009.

This quarter we received contributions from 28 senior market participants from 9 European countries (Austria, Belgium, Germany, the Netherlands, Norway, Poland, Spain, Switzerland and the UK).

The key findings are as follows:

MARKET TRENDS

For both **power prices (56%)** and **gas prices (52%),** the prevailing view is that prices will fail over the next twelve months. This remains unchanged from the previous survey, with power price expectations continuing to move down.

Figure 1 Electricity – What will be the underlying trend for spot energy prices across Europe in the coming 12 months?

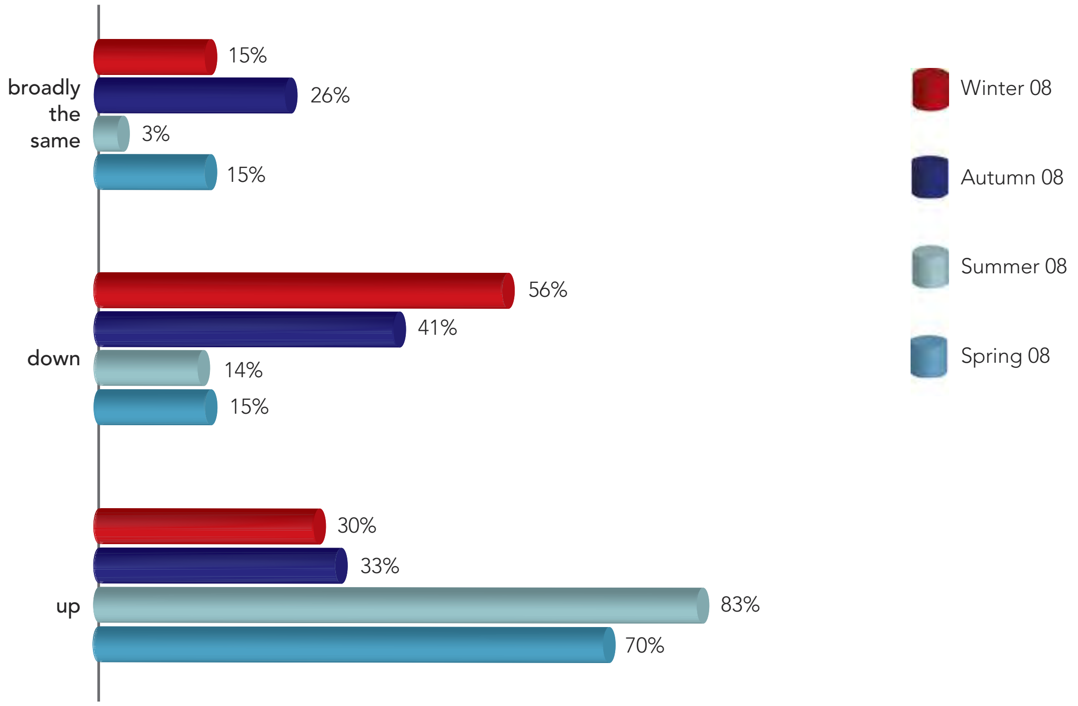
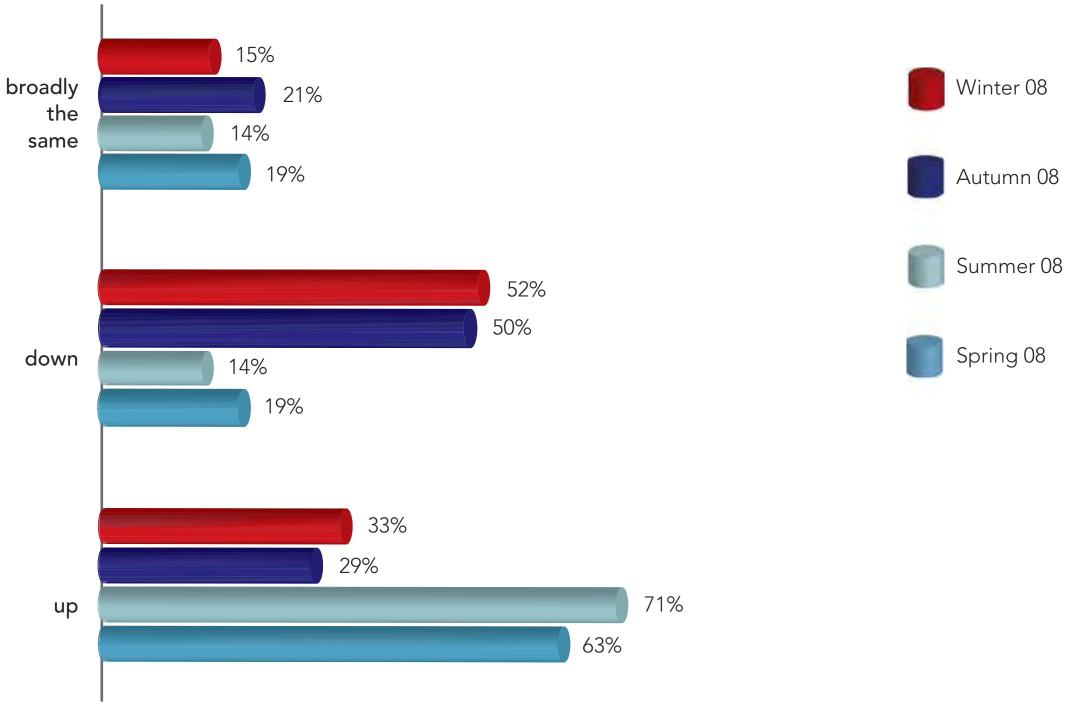


Figure 2 Gas – What will be the underlying trend for spot energy prices across Europe in the coming 12 months?



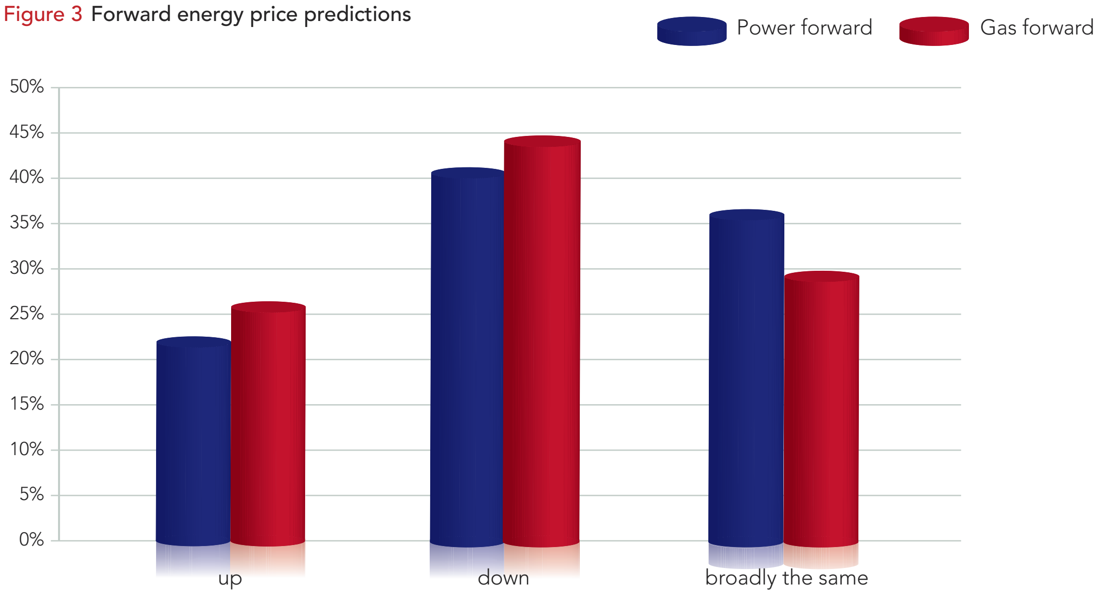
Expectations of **falling power spot prices** have continued to rise, with a further 37% of respondents believing that they will fall over the next twelve months. Only a small minority (30%) of respondents believe prices will rise.

In parallel, **spot gas prices** are also expected to fall over the next twelve months, with 52% expecting falls.

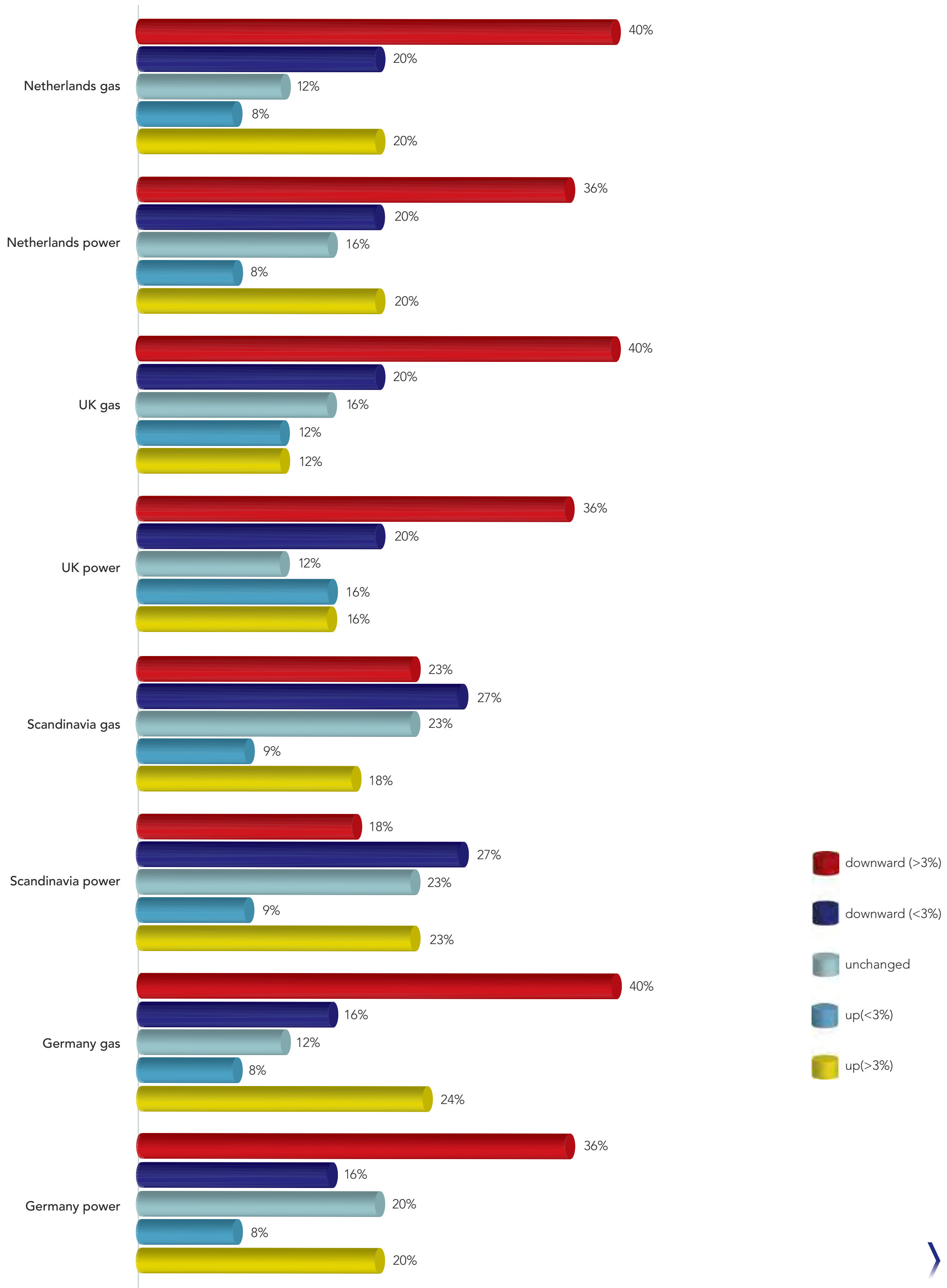
Forward energy prices in Europe have diverged slightly since the last survey with respondents indicating little change in future electricity prices whilst gas price expectations are split between price rises and falls.

Last quarter saw record numbers of participants predicating falling prices. These levels have now fallen to 41% for power (previously 56%) and 44% for gas (previously 57%).

Figure 3 Forward energy price predictions



Do you expect the underlying trend in power and gas prices to move in the following markets over the coming 12 months?



The majority of our Panel (55%) believe that prices are going to fall. This compares to 29% who believe prices will rise and 16% who believe prices will remain unchanged.

Across all markets, the prevailing view is that the **underlying trend** of **gas and power** prices will fall by more than 3% over the next twelve months, with the exception of Scandinavia, where responses indicate a fall of below 3%.

The **greatest downward pressure** it was felt would come in the **UK, German and Netherlands gas markets,** with the power markets in each of these countries not far behind.

KEY FACTORS INFLUENCING ENERGY PRICES

For the five issues listed in the table below, our Panel of experts was asked whether there would be an upward, downward or stable impact on energy prices in the next 12 months. Panel members were also asked to rate, on a scale of 1-5, how **significant** these factors would be in **determining energy prices** over the next five years.

In the Winter 2007 survey, environmental pressures were considered the most significant factor, however our latest survey reveals that movements in fossil fuel prices are now seen as the most important. The significance reported in this month's survey (4.2) is below that of the Autumn 2008 survey in which movements in fossil fuel prices received a significance rating of 4.4. A possible reason for this could be that demand expectations for fossil fuels such as oil have been downgraded due to the economic recession.

Whilst the impact of factors such as market liberalisation, industry consolidation and infrastructure developments has remained relatively unchanged from their position a year ago, environmental pressures (in the wake of depressed CO_2 prices) have cooled significantly with the significance level falling from 4.1 to only 3.0.

Respondents whose companies have cleared traded volumes reported that, on average, 35% of their trading was **cleared** (up slightly from 34% in the previous quarter).

EU ENERGY MARKET TRADING ACTIVITY

EU energy market trading activity (defined as volumes traded – exchanges and OTC) will **remain about the same over the coming 6 months,** according to a majority of respondents, with both gas (54%) and power (54%) markets reaching historical highs. This reflects the impact of the credit crunch.

The survey also revealed expectations of increases in trading activity of below 5% fall to historic lows in both the power (12%) and gas (8%).

The proportion of market activity going through exchanges during the next 6 months, in both power and gas is expected to increase and this probably reflects the importance of reduced credit risk.

	Winter 2007		Winter 2008	
	Direction	Significance	Direction	Significance
Movements in fossil fuel prices	Upwards/Downwards	3.8	Upwards	4.2
Environmental pressures	Upwards	4.1	Upwards	3.0
Infrastructure developments	Downwards	2.4	Downwards	2.5
Market liberalisation	Downwards	2.0	Downwards	2.1
Industry consolidation	Upwards	2.0	Upwards	2.0

Figure 4 Traded Volumes

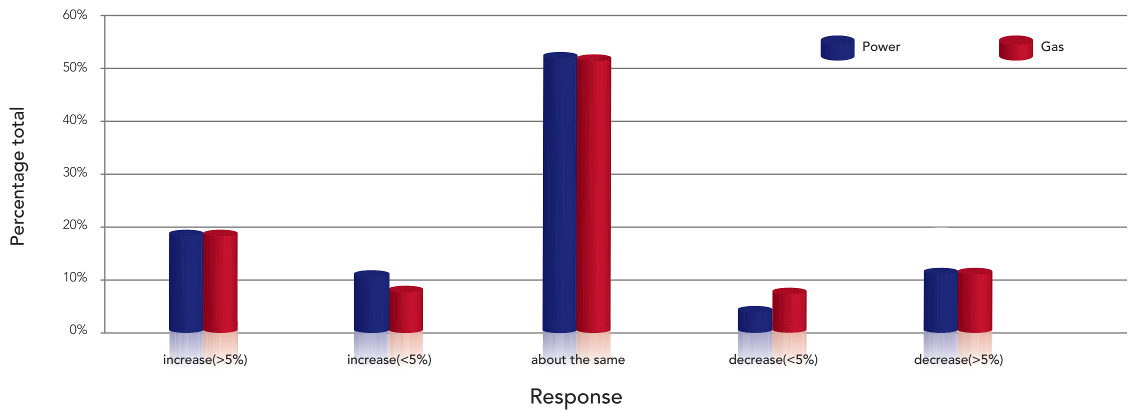
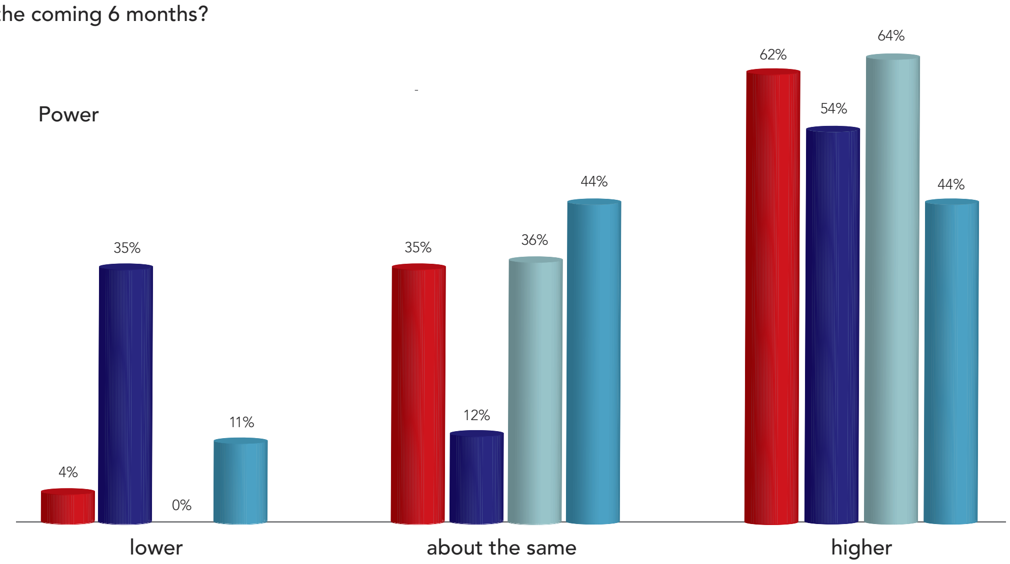
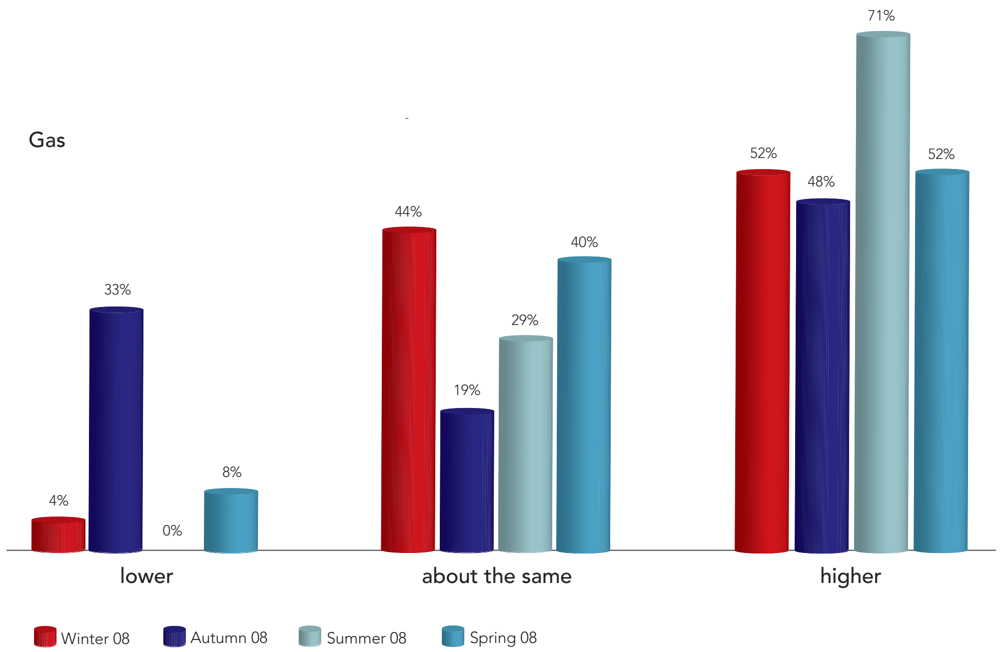


Figure 5 Do you expect a higher or lower proportion of market activity going through exchanges over the coming 6 months?





There was a 15% increase in the number of Panel members who believed there would be an increase in exchange activity for power, with 62% now believing this to be the case. Gas also increased by 8% to its current level of 52%.

There was also a significant increase in the number of respondents who believe activity will not change in either gas or power, at the expense of those who in the last survey indicated a possible decline.

“There is also concern about the reliability of Russian gas, and the need to build storage and infrastructure to mitigate these risks.”

FINALLY, PANEL MEMBERS WERE ASKED WHAT (IF ANY) SIGNIFICANT DEVELOPMENTS DO YOU EXPECT IN THE EUROPEAN ENERGY MARKETS IN THE NEXT 6 -12 MONTHS?

The main issues that respondents felt would be significant were the knock on effects of the current credit crisis and its possible implications for future investment, with this also affecting demand issues such as reductions in demand from industrial users as the European economy contracts. There is also concern about the reliability of Russian gas, and the need to build storage and infrastructure to mitigate these risks. The Panel also felt that governments would intervene in the market more and that market consolidation will continue to occur across Europe.

APX Group News

APX ENDEX MERGER FINALISED – New COO Appointed

On 12 December 2008 the merger with APX Group and ENDEX was finalised after having received the approval of the Dutch Ministry of Finance. Pieter Schuurs has been appointed as COO of APX Group extending the number of statutory directors currently consisting of Bert den Ouden (CEO) and Lucas Schmeddes (CFO) from two to three. His first priority after joining the company has been to take charge of ENDEX operations and safeguard continuity. Pieter's vast experience in financial exchanges, clearing and financial products in general will contribute to the further growth of APX Group and its ambition to further expand its activities in energy derivatives. The two energy exchanges first signed an agreement of transaction in 24 September 2008, allowing ENDEX to become a full subsidiary of APX B.V. and part of the APX Group. As a result of the merger, APX Group has become the largest European gas exchange.

FIRST UK POWER AUCTION SUCCESSFULLY LAUNCHED

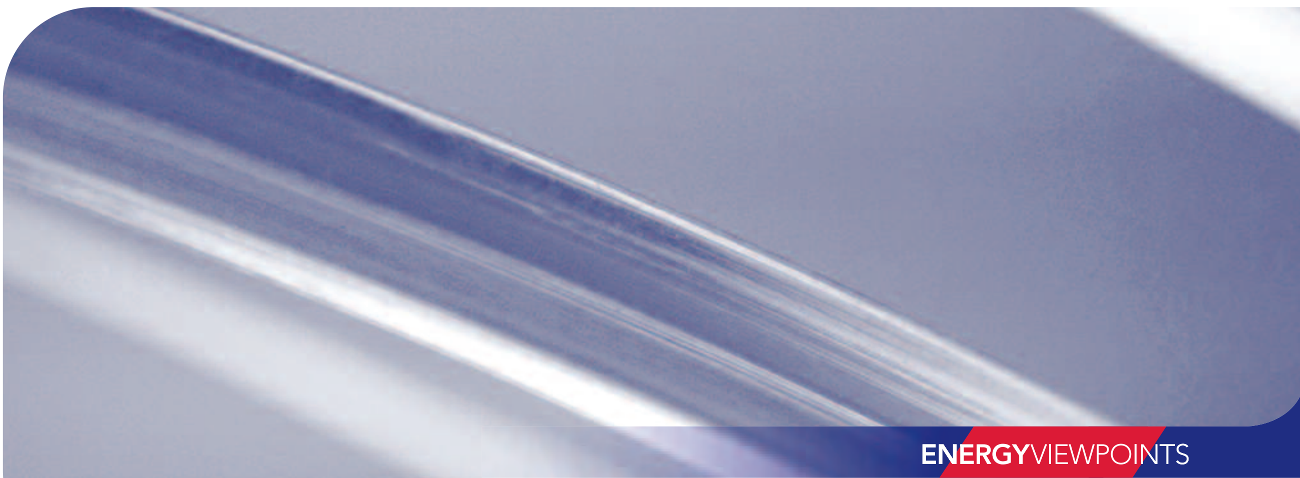
In December 2008, the first UK Power Auction was launched on the APX Power UK market. Although still in its early days, the UK Day-Ahead Auction has already gained much industry support and is still on track for providing a focus for liquidity and the creation of a transparent and reliable reference price for electricity in the UK. Since the launch, 38 GWh has been traded on the Power UK Auction, with a total of 4,063 trades.

SECOND ANNIVERSARY OF THE TRILATERAL MARKET COUPLING (TLC)

On 21 November 2008, the Trilateral Market Coupling (TLC) celebrated its second anniversary. The TLC which links the Belgian, Dutch and French electricity markets was launched by APX, Belpex and Powernext and TSOs, TenneT, Elia and RTE in 2006. The mechanism has been jointly operated, with continued success, using a single algorithm which enables a coordinated and efficient day-ahead power price formation on all three markets in addition to the optimisation of day-ahead cross-border trades between the three countries.

Each market now benefits from increased resilience favouring the reduction of short-term price volatility. The three prices on Powernext, Belpex and APX were identical 65% of the time on an average basis of the 2 first years of coupling. Those results are improving and the convergence of day-ahead prices gets stronger: the average of identical prices was 60% of the time the first year, and increased up to 70% of the time the second year.

The TLC has had an impressive operational performance record, without any interruption during the last 18 months. The publication of the market results for all three exchanges follows a common gate closure time at 11:00 CET, with the results data available on average within a quarter of an hour. This is a clear result of the operational excellence and the smooth co-ordination between the partners.



NEW SERVICES

The Enhanced EuroLight-Trayport Interface was successfully implemented in November 2008, which facilitates the trading of APX cleared products through the Trayport GlobalVision 8.5.2 screens. The translator has several improved features including the support of a fuller range of APX contracts, an easy to use installation wizard and offers the ability to co-mingle APX prices with the OTC brokered market, providing the trading community with greater price transparency. APX has also set up a support team to assist Members with their installation of the new interface.

In January 2009, APX Group introduced a reduction of TTF transaction fees for trading on the APX Gas NL market. The new transaction fees mean a 25% fee reduction for the APX Gas NL Members and are an important step towards market integration as they will bring the APX and ENDEX Gas NL / TTF fee structures in line with each other.

RECORD VOLUMES

APX Power UK volumes totalled 1,101 GWh in October 2008 (October 2007: 932), making it the highest monthly volume ever traded at APX Power UK market. In addition, APX Power UK had the highest daily (transaction day) volume record on 11 October 2008.

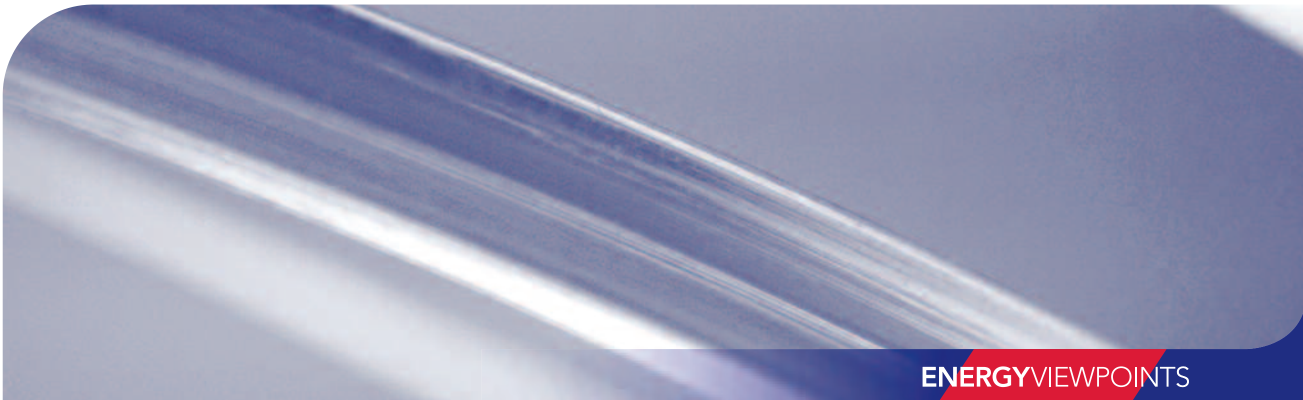
The clearing service for APX Power UK reached a volume 58 GWh in December 2008, which is the highest volume ever cleared by APX Group.

January 2009 volumes experienced a 10% year-on-year growth, recording 2,289 GWh compared to January 2008 (2,073 GWh), making it the highest monthly volume ever traded at the APX Dutch Power market.

NEW MEMBERS

The APX Group welcomed Morgan Stanley Capital Group as a full trading Member of APX Gas NL in October 2008. In November, Vitol S.A, joined APX Power NL. Vitol S.A is already a Member of APX Power UK, APX Gas UK and Belgian APX Gas ZEE.

Afval Energie Bedrijf and Mercuria Energy Trading then joined the APX Power NL market in December 2008, while DONG Naturgas AS joined the APX Power UK market. The APX Group now has over 225 memberships.



APX Indices

APX POWER NL DAY AHEAD AVERAGE PRICES

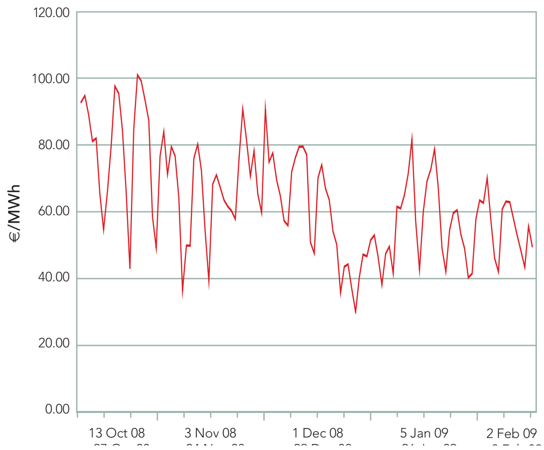
The APX published average prices are comprised of base load, off peak and peak load (07.00 – 23.00) prices based on the average price (in Euro/MWh) of Dutch power traded every day on APX for delivery the next day. Weekend prices are only comprised of base load prices and volumes.

APX GAS NL TTF DAY AHEAD INDEX

The Index is a volume weighted average price (VWAP) of all day-ahead trades executed and matched on APX at the TTF gas hub between 06.00 and 18.00 CET (05.00 and 17.00 UK time) for delivery the next day.

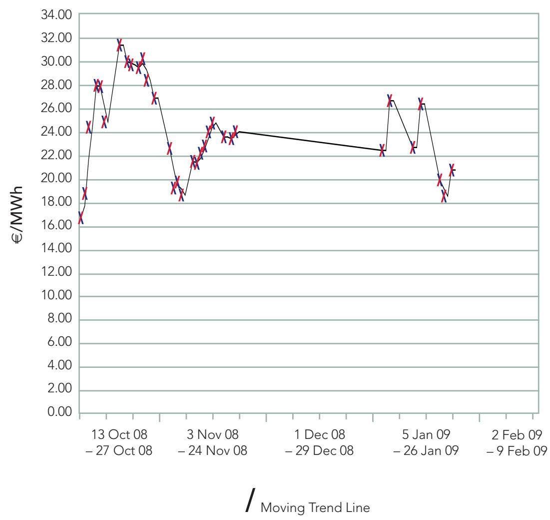
APX Power NL – Day Ahead Index

Source: APX NL Historic data © APX NL



APX Gas NL – TTF Day Ahead Index

Source: APX Group Historic data © APX Group



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APX POWER UK SPOT INDICES

The APX Power UK Spot Indices are based on the APX Power UK Reference Price Data (RPD) which is a half hourly price derived from the volume weighted average price of all Half Hour, Two Hour and Four Hour Block contracts traded within seven calendar days of market closure on APX Power UK.

Spot Price Index (base load) – The average of the RPD prices for all 48 half hour settlement periods.

Peak Load Index – The average of the RPD prices for half hour settlement periods between 07.00 –19.00.

Extended Peak Load Index – The average of the RPD prices for half hour settlement periods between 07.00 – 23.00.

Off Peak Index – The average of the RPD prices for the Off Peak half hour settlement periods, between 23.00 – 07.00 and 19.00 – 23.00 in the same EFA day.

APX GAS UK INDICES

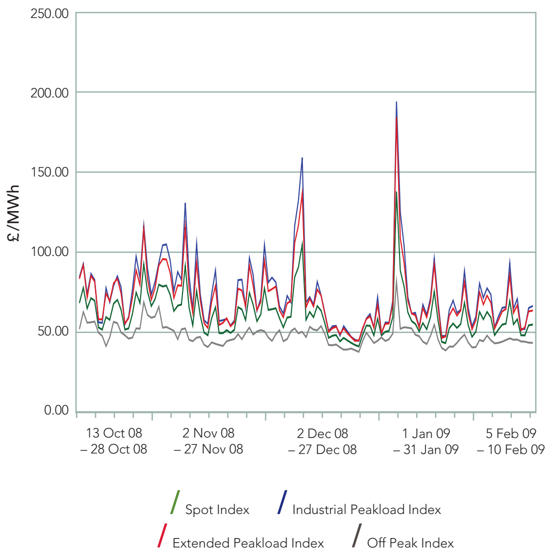
SMP buy is the highest price that gas was traded (buy or sell) by Transco in its Network Code balancing role for delivery that gas day. In the event of no Transco action, the SMP buy is calculated by a default setting of 0.0287p/kWh (0.8411p/therm) from the prevailing SAP.

SAP is the volume weighted average price of all trades on the OCM platform.

SMP sell is the lowest price that gas was traded (buy or sell) by Transco in its Network Code balancing role for delivery that gas day. In the event of no Transco action, the SMP sell is calculated by a default setting of – 0.0324p/kWh (– 0.9496p/therm) from the prevailing SAP.

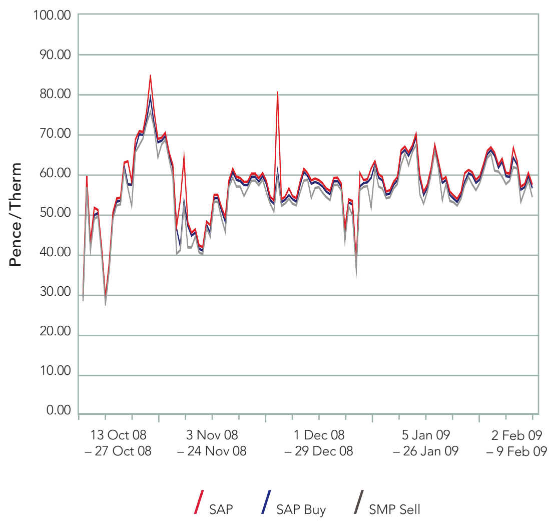
APX Power UK Spot Indices

Source: APX Power UK RPD Indices © APX Power UK



APX Gas UK Indices

Source: APX Gas Historic data © APX Gas



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