

**Bord Gáis
Energy Index**
Understanding energy

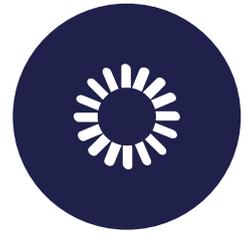
DECEMBER 2015

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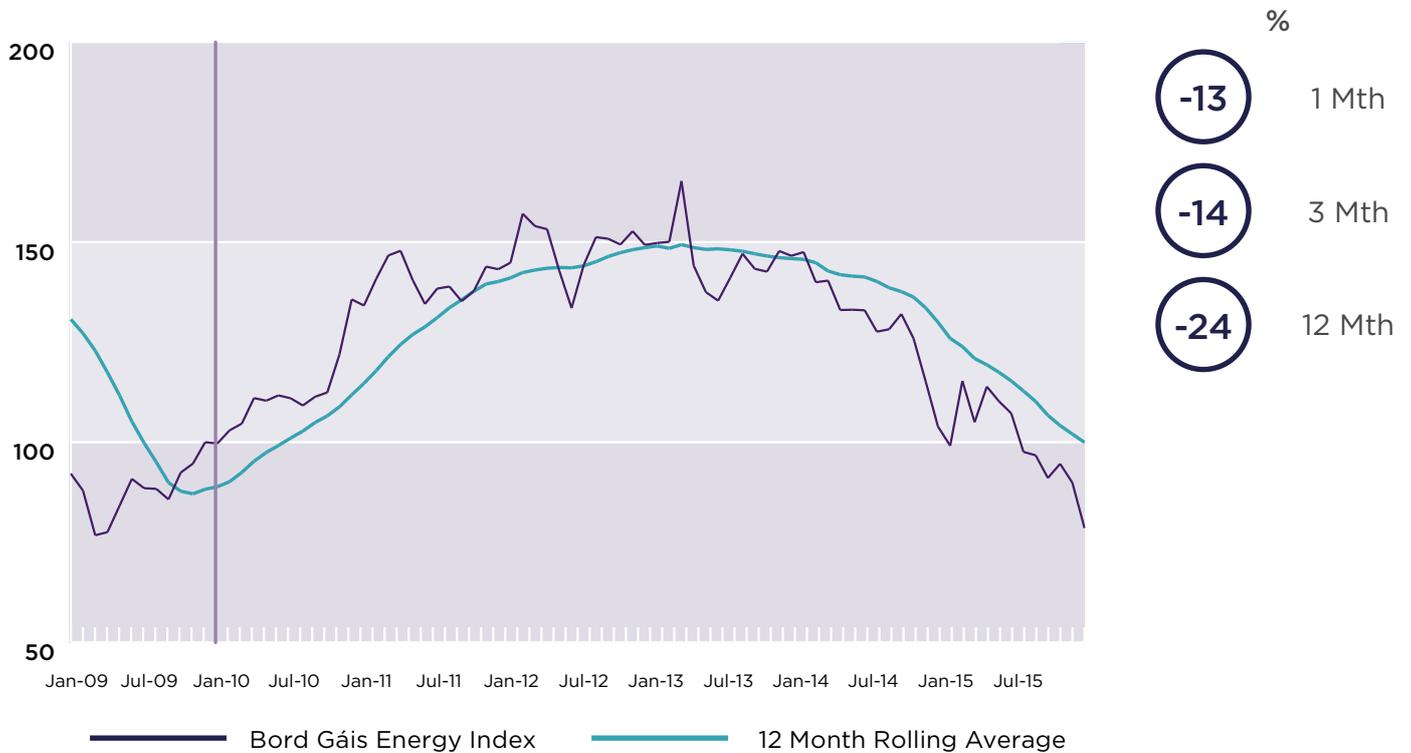


Bord Gáis Energy Index

December 2015



Bord Gáis Energy Index (Dec 31st 2009 = 100)



Summary

In December 2015 the Bord Gais Energy Index fell by 13% month-on-month as the wholesale prices of Brent crude oil (-19%), UK prompt wholesale gas (-9%), European coal (-8%) and Irish wholesale electricity (-6%) all recorded losses month-on-month. The month-on-month falls were exacerbated by a strengthening euro versus the US Dollar and sterling.

In December 2015 the Index stood at 79, which is another record low.

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Oil Index



*Index adjusted for currency movements.

Data Source: ICE

Oil

It has been yet another month of weakening oil prices, as oil trades 19% lower over the month to close under \$38 a barrel for the first time in a decade. Oil prices closed November at \$44.61 a barrel and dropped \$7.33 a barrel in December to close the month at \$37.28. This brings the drop in Brent since June 14, when the slide began, to close to 70%.

The global market would appear to be awash with oil and the continued supply glut shows no sign of abating amid tepid demand growth. Despite the steep declines in oil prices, OPEC and non-OPEC producers continue to pump oil at record levels in a grab for much needed revenues and market share.

In tandem with increasing oil production, escalating concerns surrounding the health of the Chinese economy have weighed on demand. China has been the key driver of oil demand growth and data indicating an easing in growth has added to the bearish sentiment surrounding oil.

A further bearish factor is the prospect of the return of Iranian production to an already oversupplied market. A successful implementation of the Nuclear Agreement, from last July, is expected to result in the lifting of sanctions and a potential 500,000 barrels of additional supply. During December the market anticipated that the lifting of sanctions will occur in the first quarter of 2016.

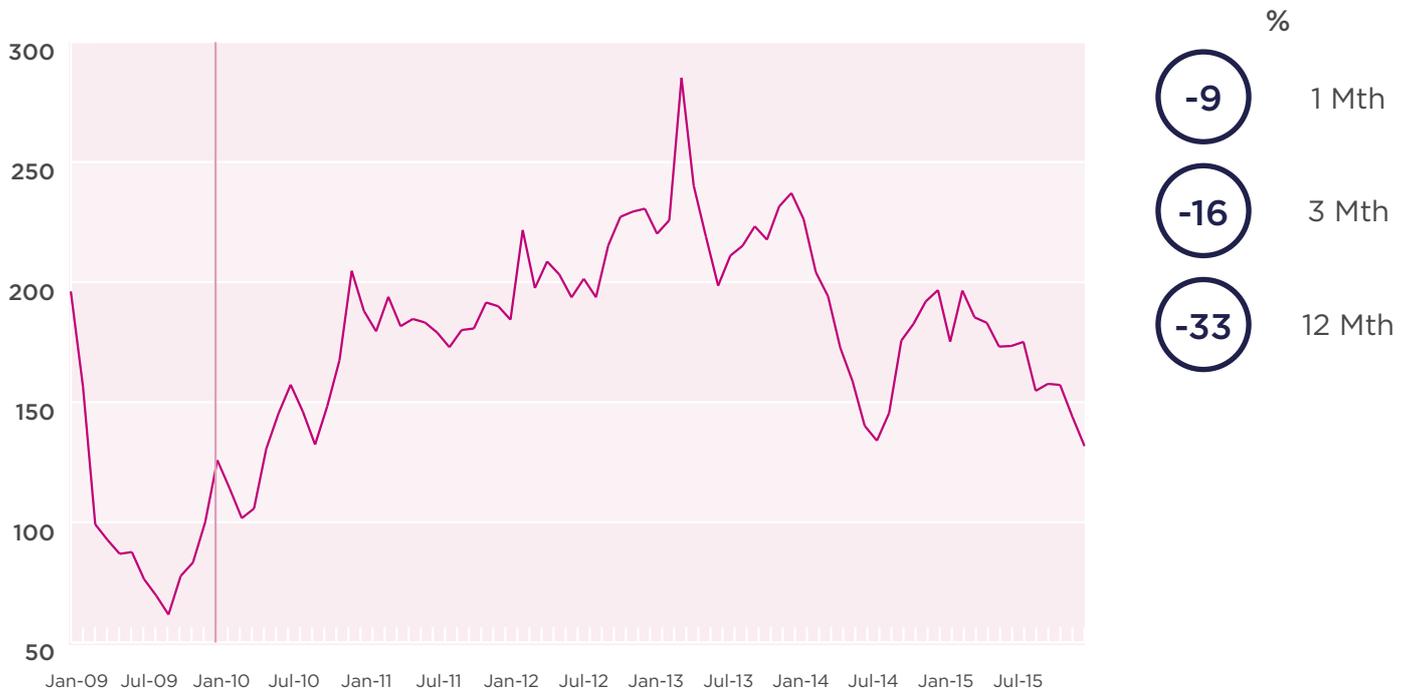
There had been hopes that the OPEC meeting, held on December 4 in Vienna, would be an opportunity for the cartel to act to support prices. However, the escalating tensions between Saudi Arabia and Iran were never far from the surface and the meeting ended in disarray with OPEC appearing to abandon its stabilising role.

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Natural Gas Index



*Index adjusted for currency movements.

Data Source: Spectron Group

Natural Gas

Day-ahead UK natural gas pricing shrugged off seasonal trends in December to post a fall month-on-month as mild weather led to low seasonal demand during the final month of 2015. The NBP day-ahead contract fell 9% in euro terms in December and the monthly average price was 34.16 pence/therm. This was over a third lower than the December 2014 average of 53.75 p/th.

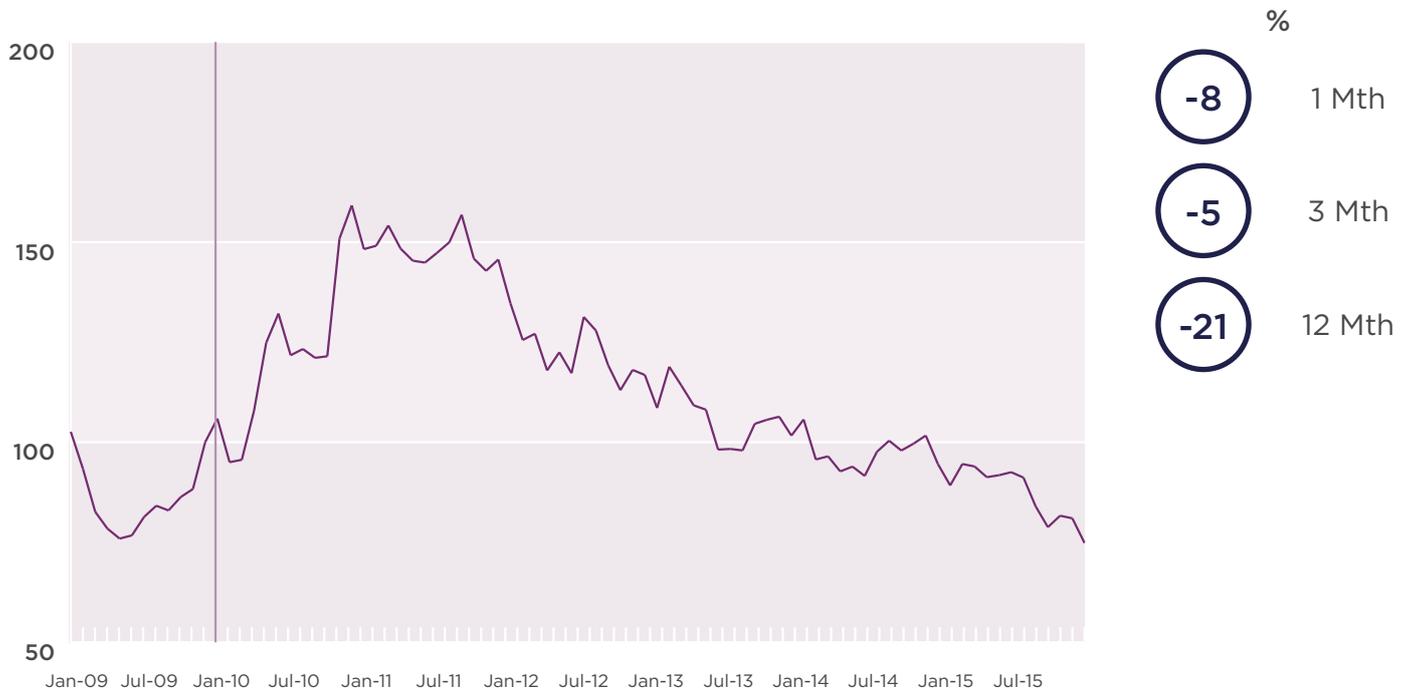
Mild temperatures brought low heating demand for the time of year, reducing the need for storage withdrawals to balance the system. LDZ demand or heating demand totalled 5.046 Bcm last month. Medium-range storage facilities were able to inject into stock at the end of the year, ending 2015 with 1.306 Bcm in stock in comparison to the 1.195 Bcm stock levels on December 31, 2014, National Grid figures showed. In addition, UK Continental Shelf production was up 11% year-on-year to 3.285 Bcm. The low demand and high UKCS production countered bullish factors such as higher exports to Continental Europe and a fall in sendout from the South Hook LNG terminal.

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Coal Index



*Index adjusted for currency movements.

Data Source: ICE

Coal

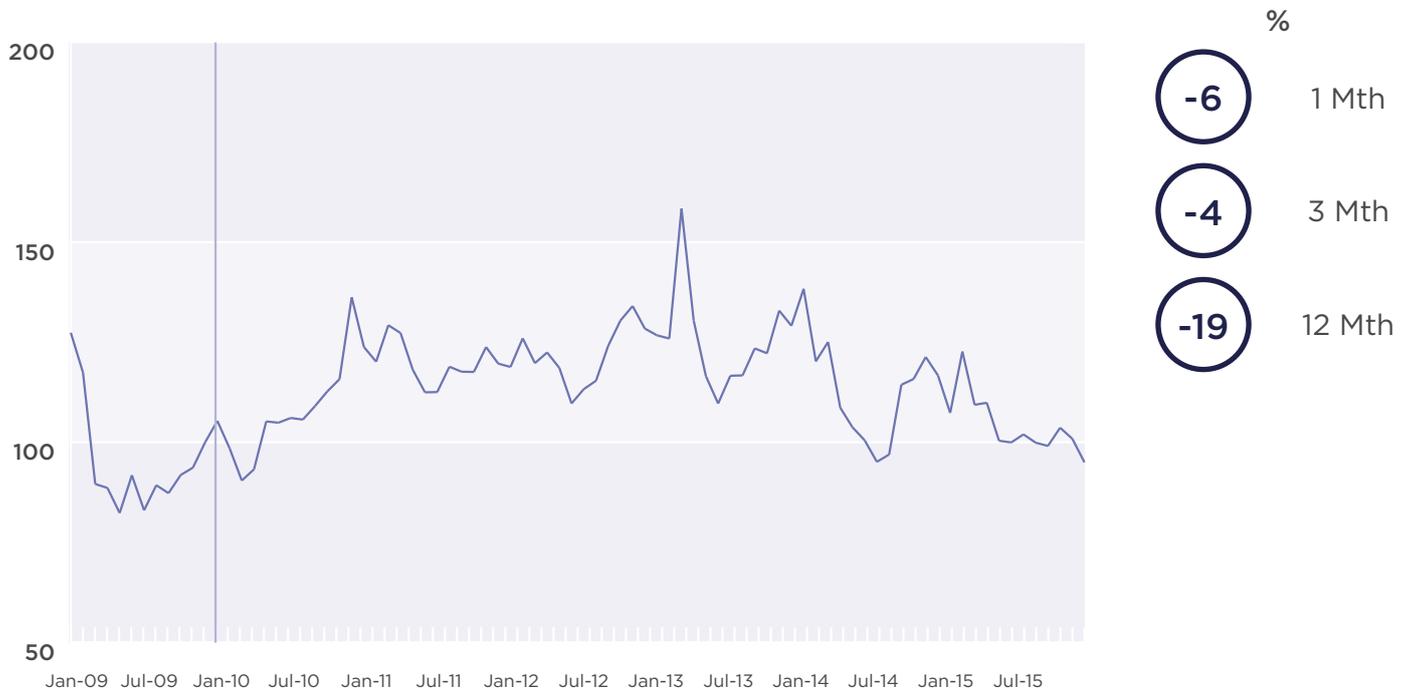
With little price volatility for most of November, the ICE Rotterdam Monthly Coal Futures Contract fell US\$2.50 month-on-month to close the month at US\$47.45, having closed at US\$49.95/mt on November 30. During the month, weakness in gas and oil prices fed through to lower European coal prices. According to Platts, little has traded in the DES ARA market for most of December and most participants pointed at continued subdued demand in Europe for the first quarter of next year.

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Electricity Index



Data Source: SEMO

Electricity

In line with falling UK prompt gas prices, Irish wholesale prices dropped month-on-month with strong demand and wind levels remaining high as was the pattern of the previous month.

Month-on-month the average wholesale price of electricity fell by 6% in December. Excluding supplier capacity payments the average wholesale price for December was €42.72 compared to €45.87 in November, a fall of €3.15/MWh on the average monthly wholesale price.

In general the wholesale price of electricity can be assessed by examining three components:

- the UK wholesale cost of gas
- the European-wide price of emitting one tonne of carbon
- the clean spark (which is what in general terms a gas powered generator receives in energy payments from the market once the cost of producing a unit of electricity is deducted)

The wholesale cost of imported gas from the UK decreased month-on-month by 9% in euro terms. Irish wholesale power prices typically tend to fall with the cost of imported gas as it is the most significant cost in the production of electricity.

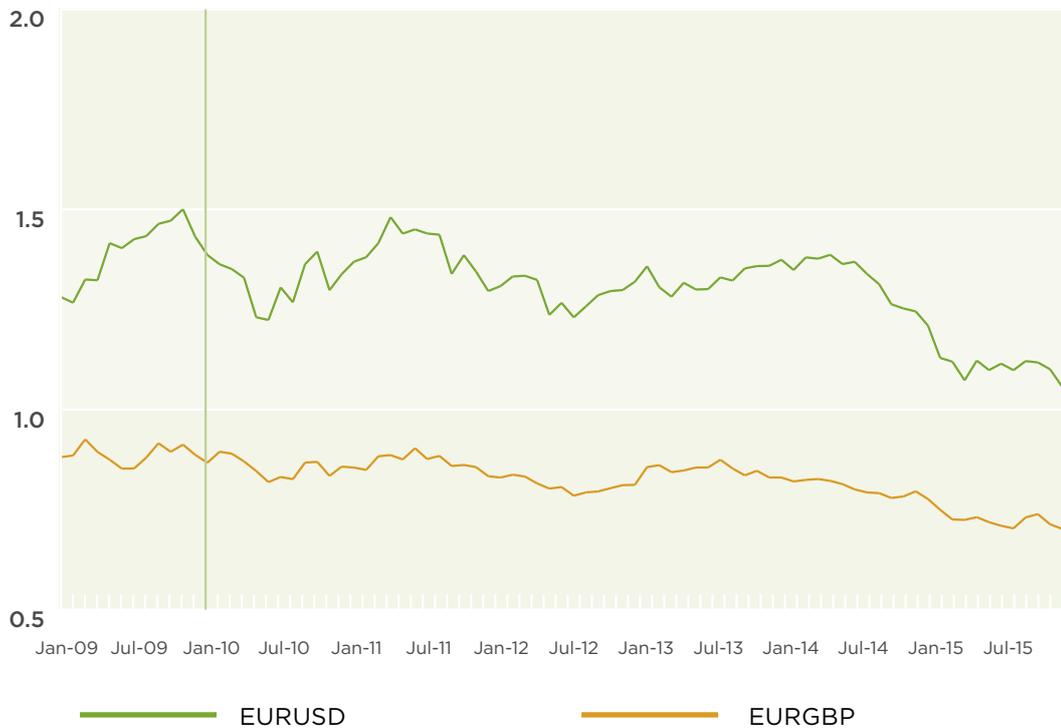
A monthly clean spark of approximately €6.75/MWh was recorded in the month, which was down from the €7.57/MWh observed in November (a fall of 11%). The average spark year-to-date is approximately €7.24/MWh. The falling spark can be partially attributed to the consistently strong wind levels observed during December. Demand levels were up 2.6% on November even with the expected tapering around Christmas week, but month-on-month wind levels increased again in December compared to November. In December 31% of the island of Ireland's demand was met by wind (up over 4% month-on-month). All this extra wind on the system and its consistency has significantly reduced CCGT running and suppressed spark levels.

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FX Rates



EURUSD %



EURGBP %



FX Rates

In December, the euro strengthened versus both the US dollar and the British pound.

In the US, solid jobs gains in December's employment report copper-fastened the Fed's decision to raise interest rates from the zero bound for the first time since 2005. The US economy added 211,000 new jobs in November while the September and October jobs numbers were also revised higher. The US central bank's policy setting committee, headed by Chair Janet Yellen, voted to raise interest rates by 25 bps at its meeting on December 15 and 16. The market had widely expected the move and in a statement, the Fed insisted that the pace of hikes would be gradual and dependent on the quality of incoming economic data. In particular, Chair Yellen emphasised that in deciding its next move the Fed would put a premium on inflation which remains below the 2% target.

The euro posted gains versus the US dollar and the British pound over the month after the ECB disappointed markets by expanding their quantitative easing policy by less than expected. The ECB governing council, headed by Mario Draghi, decided at its December 3 meeting to cut its deposit rate further into negative territory from -.2% to -.3%. It also extended its bond buying programme by six months to at least March 2017. However, the market was priced for a bigger cut to the deposit rate and hopes were dashed that it would ramp up the pace of bond buying, currently €60 billion per month. Inflation in the euro area has continued to languish well below the ECB's target rate of 2%. Both headline and core inflation in the euro area remained steady in December, coming in at .2% and .9% respectively. In addition, forward measures of inflation expectations which are closely watched by the ECB also fell over the month. This may prompt further policy responses from the ECB later in the year if the trend continues.



Market Outlook

During the month, IHS Energy issued the Top 10 Issues for global oil markets in 2016. The top issues to watch are:

- 1 Geopolitics never left the oil market and risk has actually increased since the price downturn began in late summer 2014. Given ongoing tensions in the Middle East and other locations, this trend is likely to continue. However, since late 2014 higher geopolitical risk remains overwhelmed by weak fundamentals, allowing the market to accommodate this higher risk via the oversupply, both from production and accumulated stocks. However, as the market rebalances in 2016, geopolitical risk will have a greater impact on the market. This will occur at a time when traditional OPEC spare capacity will be similar to the low levels that drove prices above \$100/bbl in 2008.
- 2 Additional Iranian oil will hit the market even as it remains oversupplied. IHS believes that about 400,000 b/d of incremental supply will come online by the end-2016. An aggressive re-entry strategy could rile Saudi Arabia further, causing an open market share battle. Recent tensions between the countries will cause Saudi Arabia to be more sensitive to what it considers an aggressive action.
- 3 The OPEC decision to not cut production, first set November 2014 and confirmed twice since, appears unlikely to change at this point. There is now a widely held view that OPEC will not cut – but concerns this could be incorrect will cause this issue to be key for 2016.
- 4 Arguably a market share battle has been under way in oil markets since the OPEC decision in November 2014, motivated in part by rising US shale production. In the near-term the battleground will primarily be in Europe, where Iran lost most of its export volumes after the 2012 sanctions. Pushing more barrels into an already oversupplied regional market could push prices even lower and cause additional short-term trade changes.
- 5 US production continues to be key for global oil markets to balance, even as the industry continues to prove resilient through cost discipline. Recently lower prices will place renewed pressure to live within cash flow, particularly as the industry looks forward towards the spring reserve redetermination period. US production is expected to fall to 8.7 MMb/d this summer, with downside risk if prices remain low.
- 6 Despite lower prices, production has surprised to the upside during 2015, resulting from still ongoing momentum from prior years' investments and company incentive to produce as much as possible to make up for lower prices. 2016 is expected to show a decline with the North Sea and Russia declining while many other countries move from minor gains to minor losses.
- 7 For now, IHS Energy believe most companies are pushing production as much as they can in order to make up for the lower price, with lower costs allowing companies to further utilise this tactic.
- 8 At 1.7 MMb/d growth in 2015, demand exhibited both the impact of lower prices and a rebound in China's demand after a decidedly poor showing in 2014, with strong growth coming even despite a relatively weak economic environment, especially in emerging market. IHS expect Chinese oil demand growth in 2016 to be 0.4 MMb/d and this constitutes 30% of global demand. This remains vital for the rebalancing of oil markets and will continue to be watched closely by the markets.
- 9 Since the oil market became oversupplied in January 2014, 700 MMbbl of oil stocks have been built globally and a further 300 MMbbl are expected to have built by mid-June 2016. However, of this aggregate 1 billion bbl stock build, only around half is true over-supply stocks which will act as a market price anchor, the rest are one-time fills such as strategic storage and new operational storage. Global stock levels and strategic stock builds will continue to be watched closely and will strongly influence the speed of any potential price recovery.
- 10 The question of when oil markets will balance (supply is within 0.5 MMb/d of demand, but accumulated stocks still present), is a central focus of markets this year. That timing also indicates when prices can begin to sustainably turn upward. Accumulating all of IHS's views on geopolitics, the return of Iran, Saudi Arabia and OPEC production, market share efforts, US production, costs, demand, stocks, indicate a balance will occur by second half of 2016. A balance that is reached faster would likely occur due to a lackluster Iranian return and/or a sharper falloff in US production. Demand seems less likely to be the cause given weaker economic growth. Should a faster rebalancing occur it would likely be accompanied by sharply higher prices given its unlikelihood at this time.

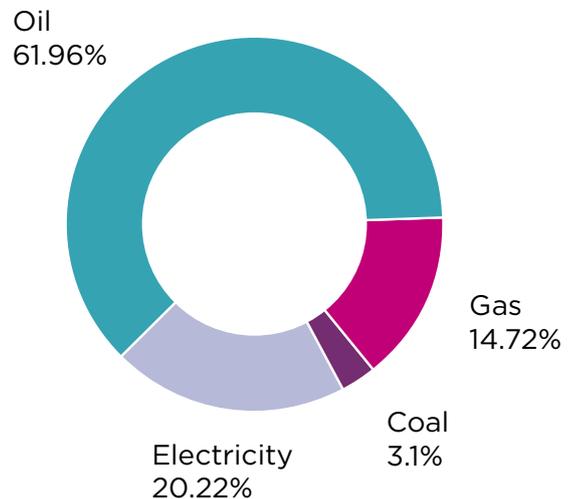
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Re-weighting of Bord Gáis Energy Index

Following the SEAI's 2011 review of energy consumption in Ireland, there was a 6.4% drop in overall energy consumption. Oil continues to be the dominant energy source with most of the oil used in transport and the remainder being used for thermal energy. For the purposes of the Bord Gáis Energy Index, the total final energy consumption in Ireland fell 1,089 ktoe (toe: a tonne of oil equivalent is a unit of energy, roughly equivalent to the energy content of one tonne of crude oil) between 2009 and 2011. This fall was made up of a 1,022 ktoe drop in oil consumption (down 13.5%), a 20 ktoe drop in natural gas (down 12.6%), a 7 ktoe drop in electricity (down 0.3%) and a 40 ktoe drop in coal (down 10.98%). The Bord Gáis Energy Index has been re-weighted in January 2013 to reflect the latest consumption data. The impact has been minimal and has resulted in slight reductions in the share of oil and gas and a slight increase in the weighting of electricity in the overall Index.



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