

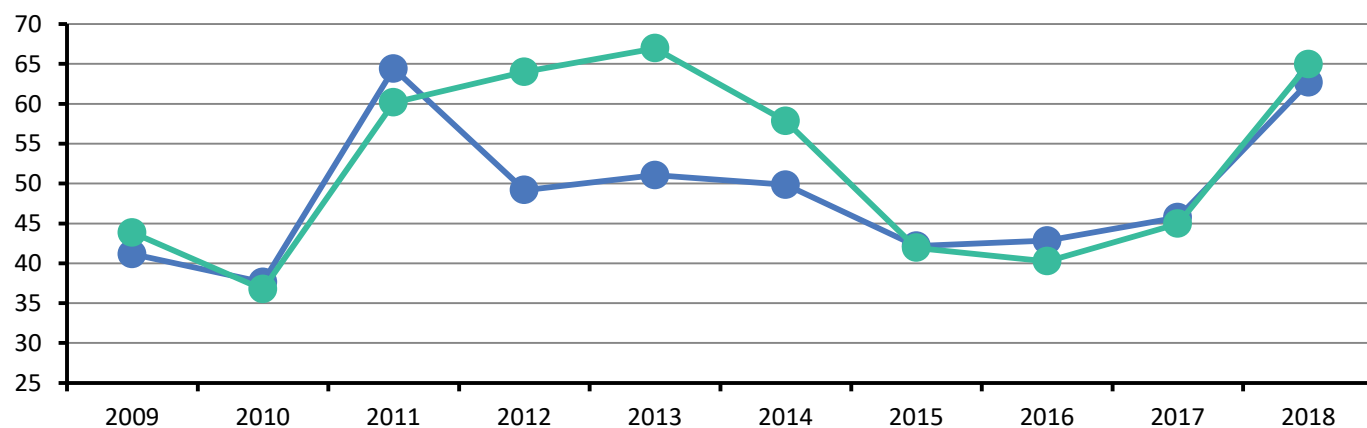
month on month marketview

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Review of
December
2018

Net Cost of Electricity and Gas for a 1st April Contract renewal

Electricity £MWh Gas p/therm



Electricity: base load cost - excludes distribution, taxation and supplier margin and costs

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
41.15	37.63	64.40	48.07	51.73	44.64	35.23	50.78	48.02	58.74

Gas: core gas cost - excludes distribution, taxation and supplier margin and costs

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
43.84	36.75	60.17	61.72	66.86	47.61	31.49	49.11	48.30	57.32

▲: Indicates that there was an upward pressure on prices. ▼: Indicates that there was a downward pressure on prices.

December in summary

December started off as a volatile month for prices with many drivers including gains to Brent crude and cooler weather however this was somewhat alleviated with revised warmer weather and falling oil prices.

Market volatility

December was mostly driven by oil prices and weather forecasts.

Weather

December started mild and changeable with westerly winds, and this pattern continued until the 9th, but there was a cold snap, mainly in the north, between the 3rd and 6th. A Scandinavian blocking high brought a colder quieter spell between the 10th and 14th, especially to eastern parts. Storm Deirdre brought widespread freezing rain on the 15th, which caused considerable travel disruption. The mild changeable weather type returned from the 16th to 23rd. From the 24th onwards it was somewhat more settled with high pressure dominant. A generally westerly flow resulted in mild and mostly cloudy weather, but parts of eastern Scotland and north-east England saw a fair amount of sunshine.

Gas, Storage and LNG News ▼

Gas prices experienced a volatile month in December as a mixture of drivers shifted the market. Brent crude gained at the start of month upon expectations of production cuts to key OPEC members and non-members. On 6th December cuts were agreed to remove 1.2 million barrels per (bpd) – market expectations were roughly half this, resulting in a 5% increase during trading that session for the global benchmark. The front-month price settled above \$62/bbl, yet this was the highest price for the month as concerns over whether such output cuts would actually met, along with wider issues regarding economic activity, lowered the value. This shifted the NBP market at the start of December, dragging the market higher until sell-offs in Brent crude filtered through. Predictions of colder weather in the middle of the month then lifted NBP prices on the prompt, which drove the rest of the curve upwards. Such predictions then began to reverse, compounding the drop in demand that occurs over the Christmas and New Year holiday period. This combined with bearishness in the oil markets, with Brent crude falling to its lowest price for 18 months.

Politics and global economics

Early in December saw the Dutch economy minister indicating that Dutch production at the Groningen field could drop below 5 bcm as early as 2023. Gasunie support the

Dutch economy minister's suggestion with a letter to the Dutch parliament indicating that production at the Groningen site may not be necessary by 2023-2024. This is expected to be made achievable by the construction of a new nitrogen plant which is scheduled to become operational by Q1-22. This site is expected to have a production capacity of 180,000 cbm/year which would equate to around 7 bcm/year of low-calorific gas.

Oil ▼

Brent again traded lower in December despite OPEC members and non-members agreeing to a 1.2 million barrel per day production cut at the start of the month. Continued concern over stagnating economic growth in developed nations amid trade tariffs between the US and China outweighed output cuts from chief producers, with Brent crude reaching its lowest price level in 18 months towards the end of December. Indeed, the global benchmark front-month product reached \$50/bbl, a level not seen since July 2017.

Coal ▼

December saw coal prices fall further, with demand in Europe lower as a result of warmer-than-average weather. Other markets also fell off as data suggested Chinese coal stocks are higher than previous years. Six major coastal power plants recorded a total of 16.92 million tonnes in coal inventories, up nearly 6 million tonnes year on year. There was some price support mid month as concerns of a cyclone in Australia threatened to disrupt exports. As a whole, however, prices closed the month below where they opened, reflecting the generally weaker demand outlook.

Carbon ▲

EUA prices jumped 25% in just 5 days in December as polluters aimed to buy their full quota of allowances to offset emissions before the Dec 2018 contract expired. Indeed, prices hit a 3 month high as the front-year contract ceased trading on Monday 17th December. The product expired in the final auction of the year and the last until 7th January – the first affected by the Market Stability Reserve. Bullishness was also seen on the Dec 2019 product, with the liquidity improving as it became the front product.

Looking Ahead

Key drivers to look out for in January are surrounding LNG. LNG sendout is forecast around 100mcm/d for UK and NWE combined. This volume competes with storage withdrawals and flexible pipelines. LNG also poses a strong bullish risk from current prices. If Asian prices rise on higher demand; or there are more small outages such as that in Angola, Europe is the first area to be impact (also indirectly).

Disclaimer: The above information is based on current market data available at the time of producing this document and is subject to change. ECA cannot be held responsible for movement in the commodity market.

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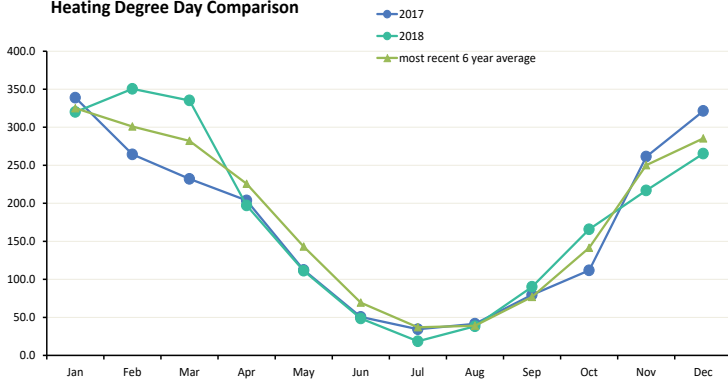
month on month weather review

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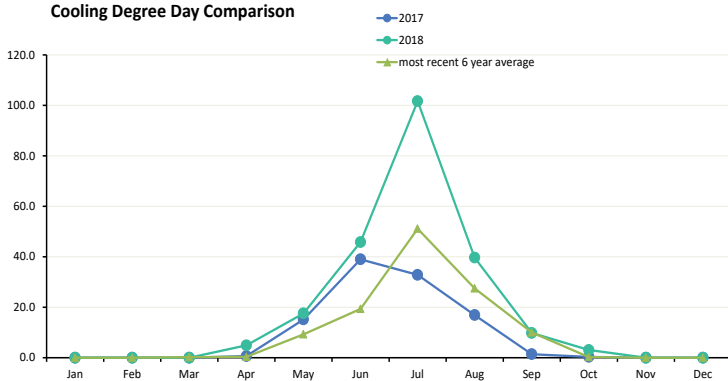
Review of December 2018

Degree days are a representation of the length of time and severity with which the outside temperature either drops below (heating days) or goes above (cooling days) 15.5°C, and therefore it is assumed that heating or cooling is required.

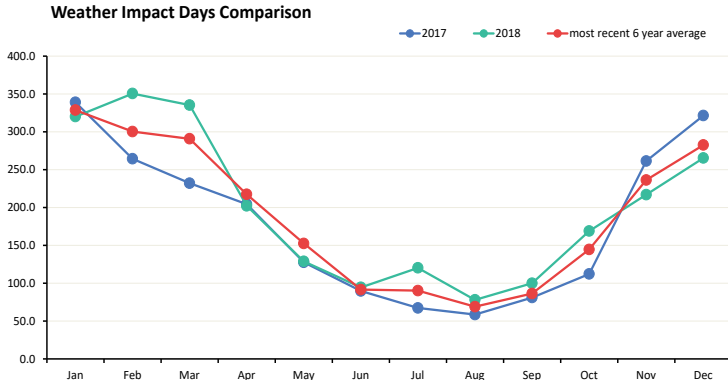
Heating Degree Day Comparison



Cooling Degree Day Comparison



Weather Impact Days Comparison



Heating 2017/18: Summary

2018 Summary v 6 Year Average

(* Positive numbers = warmer, negative = colder than 6 year average)

2018	Nov	Dec	Year total
DD	33.2	20.1	-18.7
%	13.3%	7%	0.9%

2018 v 2017 Summary

(* Positive numbers = warmer, negative = colder than 2016)

2018	Nov	Dec	Year total
DD	44.4	56.1	-105.5
%	17%	17.5%	-5.1%

Cooling 2017/18: Summary

2018 Summary v 6 Year Average

(* Positive numbers = warmer, negative = colder than 6 year average)

2018	Nov	Dec	Year total
DD	0	0	105.1
%	0%	0%	89%

2018 v 2017 Summary

(* Positive numbers = warmer, negative = colder than 2016)

2018	Nov	Dec	Year total
DD	0	0	116.3
%	0%	0%	109.3%

Weather impact days 2017/18: Summary

2018 Summary v 6 Year Average

(* Positive numbers = warmer, negative = colder than 6 year average)

2018	Nov	Dec	Year total
DD	19.4	17.2	211
%	8.2%	6.1%	9.2%

2017 v 2016 Summary

(* Positive numbers = warmer, negative = colder than 2016)

2018	Nov	Dec	Year total
DD	44.4	56.1	420.3
%	17%	17.5%	16.5%

Met office UK summary

December started mild and changeable with westerly winds, and this pattern continued until the 9th, but there was a cold snap, mainly in the north, between the 3rd and 6th. A Scandinavian blocking high brought a colder quieter spell between the 10th and 14th, especially to eastern parts. Storm Deirdre brought widespread freezing rain on the 15th, which caused considerable travel disruption. The mild changeable weather type returned from the 16th to 23rd. From the 24th onwards it was somewhat more settled with high pressure dominant. A generally westerly flow resulted in mild and mostly cloudy weather, but parts of eastern Scotland and north-east England saw a fair amount of sunshine.

The provisional UK mean temperature was 5.8 °C, which is 1.9 °C above the 1981-2010 long-term average. Rainfall was 99% of average and sunshine was 92% of average.

Utility impact summary

Following the recent trend it has been another mild month with temperatures above the average and above 2017. This is likely to have been reflected in your utility bills if sites have been regulating their heating requirements, your bill may have seen a reduction since last year with the heating impact having been lower by 17.5%. As expected there has statistically been no requirement for heating this month, this is the same as last year so there has been no change there.

2018 has had slightly more demand for heating than 2017 at 5.1%, and also more demand for cooling at 109.3%. This indicates a colder winter and warmer summer during 2018 than we had in 2017 and follows the generally accepted view of scientists that seasonal temperatures are becoming more extreme.