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## Seasonal power contracts and commodity prices rise

During June, most seasonal gas and power contracts moved higher. Near-term gas contracts experienced losses, whilst near-term power contracts saw mixed movements. API 2 coal and EU ETS carbon prices gained, whilst Brent crude oil prices lowered.

In June, day-ahead gas extended losses, down 10.6% to 35.0p/th, the lowest monthly average in nine months.

Seasonal gas prices increased by an average of 0.8%. In contrast, Winter 17 gas dropped 0.8% to 45.3p/th. Summer 18 gas moved 0.2% lower to 39.3p/th.

Day-ahead baseload power lost 3.4% to average £39.7/MWh. The month-ahead contract rose 2.3% to £39.9/MWh.

Most seasonal baseload power contracts moved higher and on average increased by 1.8%. Winter 17 power climbed 1.7% to £46.2/MWh. Summer 18 power gained 2.1% to £39.5/MWh.

## Oil prices drop amid concerns over increasing output and diplomatic tensions

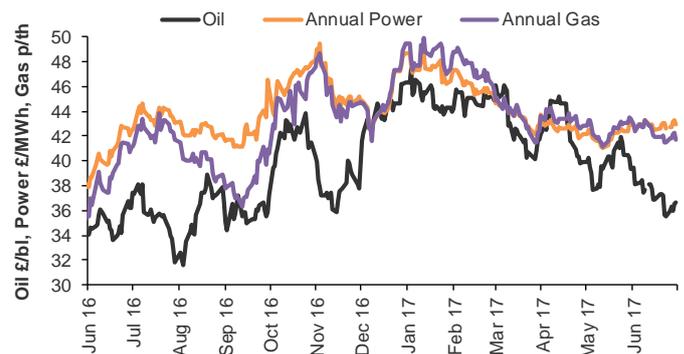
Brent crude oil prices dropped 7.3% to average \$47.8/bl in June.

Prices started the month above \$50.0/bl, but decreased steadily, amid

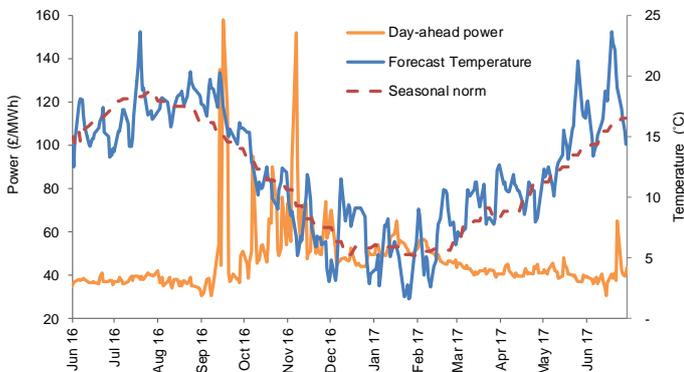
concerns over increasing US crude inventories, rising output from Libya, Nigeria and the US and rising tensions in the Middle East after Saudi Arabia and other Arab states cut diplomatic ties with Qatar. On 22 June prices fell to \$45.2/bl, the lowest price since 14 November 2016. Reports of high OPEC compliance with production cuts, tropical storm Cindy disrupting US oil operations in the Gulf of Mexico and a weakening US dollar provided some support to prices towards the end of the month.

On average, API 2 coal prices jumped 4.6% to \$68.5/t during the month. On Thursday 29 June, prices reached a seven-month high of \$70.5/t, as the euro strengthened against the US dollar. Coal prices were pushed higher by increased demand from China and Europe and higher levels of coal-fired power generation in the US. EU ETS carbon prices gained 6.6% to average €5.0/t.

## Crude oil and annual wholesale gas and power prices



## Spot power prices and temperatures

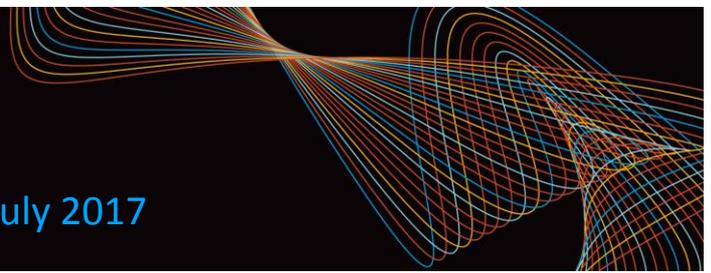


## The month-ahead: July temperatures set to be higher than average

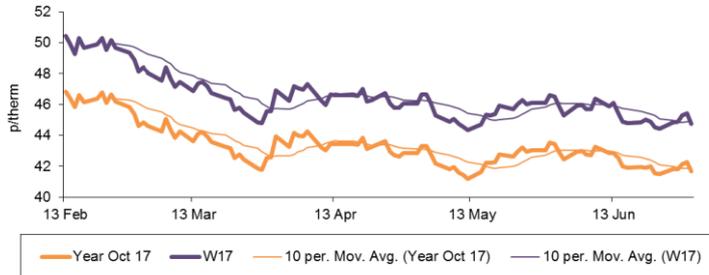
Warm weather is expected in July, with temperatures forecast to be above the average for the time of year, according to the Met Office. The highest temperatures are expected across the south and the east of the UK. Towards the middle of the month, the drier, warmer weather could also extend further north.

High temperatures ordinarily lead to lower demand for gas heating, however particularly high temperatures could lead to increased power demand for air conditioning.

Catalyst Commercial Services' independent approach enables clients to manage their exposure to energy price risk, while at the same time benefiting from a first class service from a range of major and independent suppliers. Catalyst Commercial Services' procurement solutions make it simple, so contact a member of the team to discuss requirements.



## Annual gas prices



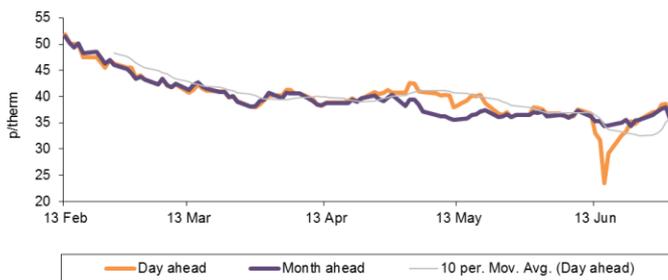
The majority of seasonal gas contracts increased during June, rising 0.8% on average. Seasonal gas prices remained higher than their levels last year. Winter 17 gas fell 0.8% to 45.3p/th, compared to 42.3p/th in June 2016. Summer 18 gas decreased 0.2% to 39.3p/th, compared to 38.2p/th the same time last year.

Centrica Storage Limited (CSL) announced in June that it intends to permanently close its Rough gas storage facility. Following a number of failures during its well testing program, CSL concluded it cannot safely return the assets and facilities to injection and storage operations. In spite of their movements in June, we expect the winter 17 contract to rise, with less supply security for the winter and the summer 18 contract to decrease, amid expectations of lower injection demand.

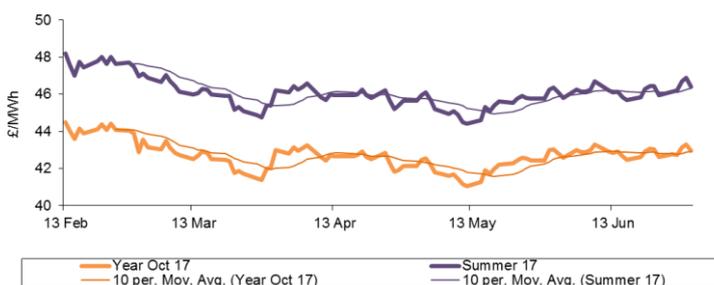
In June, day-ahead gas slipped 10.6% to 35.0p/th, the lowest monthly average in nine months. On 15 June, day-ahead gas fell to 23.5p/th, a nine-month low, as warm weather, high levels of forecast renewables output and low continental exports led to lower gas demand.

Lower spot gas prices can be expected during spring and summer, with reduced demand amid higher temperatures and increased solar output reducing the need for gas-fired power generation. The month-ahead contract moved 4.1% lower to average 36.0p/th.

## Spot gas prices



## Annual power prices

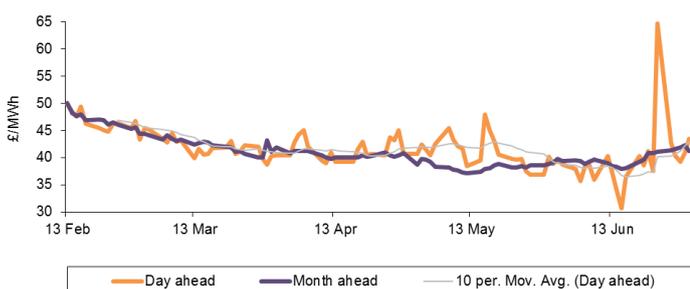


The annual October 17 baseload power contract gained 1.9% to average £42.9/MWh.

Most seasonal baseload power contracts moved higher, with an average increase of 1.8%.

Winter 17 power was up 1.7% to £46.2/MWh. Summer 18 power went up 2.1% to £39.5/MWh.

## Spot power prices



Day-ahead baseload power lost 3.4% to average £39.7/MWh. The contract dropped to a nine-month low of £30.8/MWh, on 15 June, with forecasts of high levels of renewable generation. In contrast, on 23 June, the contract jumped to £64.8/MWh, its highest price since December 2016, as forecasts of lower wind and solar generation and higher demand led to expectations of tight supply margins for the following day.

The month-ahead contract rose 2.3% to average £39.9/MWh.



# Energy Element / July 2017

## Key market indicators: 30/06/2017

		Gas (p/th)		Electricity (£/MWh)		Coal (\$/t)	Carbon (€/t)	Brent crude (\$/bl)
		Day-ahead	Year-ahead	Day-ahead	Year-ahead			
This month	30 Jun 17	36.00	41.68	43.50	42.97	69.80	4.95	47.66
Four weeks ago	2 Jun 17	36.70	42.44	38.75	42.58	67.00	5.11	49.12
Last year	30 Jun 16	33.90	42.22	35.70	40.55	55.25	4.55	50.24
Year-on-year % change		6%	(1%)	22%	6%	26%	9%	(5%)
Year high		61.00	49.91	157.73	49.45	78.00	6.52	58.04
Year low		21.50	38.14	30.28	40.08	55.00	3.98	42.11

This table shows the price at the end of this month compared with prices from the previous month and year. The graphs show the position of this month's prices with a red X and the range of prices over the year is represented by the black line.

### Commodities

Carbon: EU Emissions Trading Scheme carbon is quoted as over-the-counter (OTC) latest opening prices. All carbon prices are in euros per tonne (€/EUA).

Coal: Coal is quoted as OTC latest opening prices. All coal prices are in US dollars per tonne (\$/t).

Electricity: UK power base-load and peak-load are quoted as OTC latest opening prices. All UK electricity prices are in pounds per megawatt hour (£/MWh).

Gas: UK National Balancing Point (NBP) gas is quoted as OTC latest opening prices. All UK gas prices are in pence per therm (p/th).

Oil: Brent crude oil is quoted as OTC latest opening prices. All Brent crude oil prices are in US dollars per barrel (\$/b).

### Language/ terms

Bearish: A bearish market shows a general decline in prices over a period of time.

Bullish: A bullish market shows a general increase in prices over a period of time.

Curve: A graph of forward prices over a future time period.

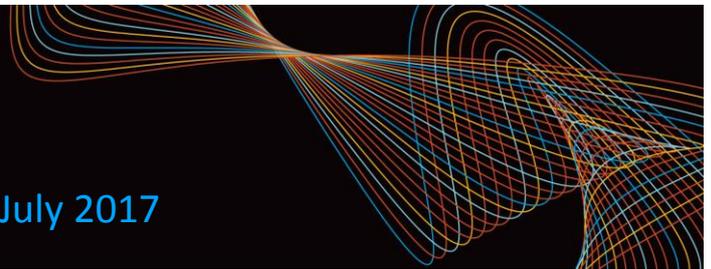
Margin: The indicated UK imbalance of a given settlement period. It is the difference between the sum of the indicated generation available, and the national demand forecast made by National Grid.

Over-the-counter (OTC): The trade of a commodity directly between two parties, often on standardised terms.

Spark/ Dark spread: The theoretical net income of a gas/ coal-fired power plant from selling electricity having purchased the necessary fuel. The clean spark/ dark spread is this net income adjusted for the cost of carbon.

### Disclaimer

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## Queen's Speech pledges energy market green paper

**Delivered to Parliament on 21 June, the Queen's Speech saw the government commit to closely examine markets that are not working fairly for consumers, including bringing forward measures to help tackle unfair practices.**

The government also made further commitments to smart meters, nuclear power, climate change and electric vehicles as it offered insight into future energy legislation amidst plenty of Brexit discussion.

### Election results

While the Conservative party won the most seats in the June 8 general election, it fell short of an overall majority, turning to the Democratic Unionist Party (DUP) for a confidence and supply agreement to allow it to operate as a minority government. The loss of seats in the House of Commons, and some of the terms of the DUP for allying with the Conservatives, meant many of the more controversial commitments outlined in the party's manifesto were either scrapped or watered down.



### An eye on microbusinesses

The government will publish a green paper examining those markets that are not working fairly for consumers and intends to extend price protection currently in place for some vulnerable energy consumers to more of those on "poorest value tariffs". The government said it was still considering the best way to do this – through regulator or legislation – with Business and Energy Secretary Greg Clark later writing to Ofgem Chief Executive Dermot Nolan, stating the regulator has the powers available to address problems in the market. Clark asked Nolan to advise him on action Ofgem intended to take in three respects, including ensuring micro businesses are fairly treated.

Industry trade bodies, including the Federation of Small Businesses (FSB), suggested ahead of the election that microbusinesses should fall under the protection of any price cap regime.

A YouGov survey, conducted on behalf of npower Business Solutions, suggested support for such action amongst UK businesses, with over a third (34%) labelling decreasing business energy costs as a priority for the incoming government. However, the implementation of any such price cap will now be dependent on the findings of the government's green paper.

Government also announced an Automated and Electric Vehicles Bill to support the uptake of low-carbon transport by allowing regulatory framework to keep pace with the fast-evolving technology for electric cars. The government will also continue to support international action against climate change – including implementation of the Paris Agreement.

### Smart powers

The government reiterated its manifesto commitment to ensure "smart meters will be offered to every household and small business by the end of 2020". However, the government revealed it will introduce a bill which, it said, will enable it to continue to support the effective and efficient completion of the smart meter rollout past the 2020 deadline.

Of this bill, the main elements are an extension of the government's ability to make changes to smart meter regulations, by five years, and the introduction of a Special Administration Regime. This will provide for the continual operation of the national smart meter infrastructure in the unlikely event the company responsible goes bankrupt.

The government will also put forward the Nuclear Safeguards Bill, establishing a UK nuclear safeguards regime as it leaves existing European arrangements. The new legislation was credited with ensuring the UK maintains its reputation as a "responsible nuclear state".

**With the new government now in place, and the watering down of some pledges in the Conservative manifesto, the energy industry should now have more certainty on the policy future for the sector.**

Cabinet Office npower Business Solutions



### Payments to small power generators to be cut

**The energy regulator has announced that it will change the transmission charging arrangements for embedded generation, in the hope that it will lower bills for electricity users.**

Last year it was revealed that such payments collectively cost customers around £370mn. Ofgem Chief Executive Dermot Nolan said this was one of the reasons the regulator chose to make the change. Ofgem claimed the move would save consumers £7bn by 2034. While energy users may be able to save on bills, concerns have been raised that some businesses may lose out if they have their own power generation equipment.

#### Concerns of distortion

Small-scale power generation, including much of the onshore wind, solar PV, and small and back-up conventional power stations, can receive what is known as a “Triad benefit”. This arises because the power generated from these plants is deemed not to use the transmission network. The electricity supplier off-taking the generation avoids the associated transmission costs, and these are passed through to the power station under the terms of their offtake agreement, termed a power purchase agreement (PPA). These payments are reliant on generation during the three half hours of peak system demand over the winter, and therefore aren’t typically available to solar plant as these are dark evening periods.

Ofgem’s ruling means the triad payment that small generators receive will fall. The exact payment will vary by region, but the largest element (the “residual”) will fall in a phased approach from £47/kW in 2017-18 to between £3/kW and £7/kW in 2020. Ofgem noted that, prior to the decision, payments had been set to rise to £70/kW over the next four years.

Ofgem has highlighted concerns about the charging arrangements for smaller generators for some time, including exemptions and payments collectively known as “embedded benefits”. The regulator acted on the triad payments first, as these are among the largest embedded benefits, and others may follow. Nolan said the regulator’s role was to protect customers and keep costs down, explaining that was why they were acting to reduce the payment.

#### The heart of the issue

The energy regulator’s decision has been met with mixed reaction, with the Association for Decentralised Energy (ADE) – the group representing smaller generators – stating it felt the decision “does not address the heart of the issue”. The ADE explained this was “Ofgem’s approval for the rapid rise in the cost of the transmission network from £943mn in 2007 to £3.7bn in 2021.” Tim Rotheray, ADE Director, said: “We are disappointed that the much larger national benefits that small generators deliver by reducing use of transmission networks remain unexamined, and Ofgem’s new review must investigate how lowering use of the transmission network can save consumers money over the long term.”

**While reducing the triad benefit will reduce transmission costs for consumers in the short term, the absence of these revenues over the longer term may impact the pipeline of new and existing small-scale power plant.**

Ofgem ADE

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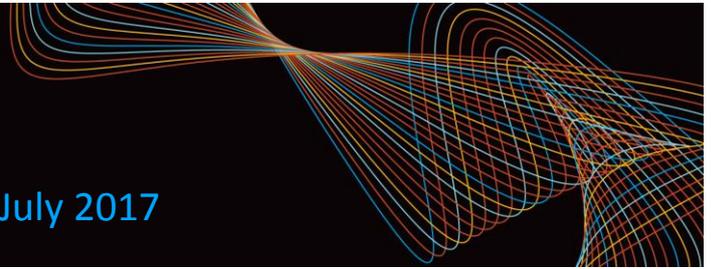
### Measures introduced to help microbusinesses engage in the energy market

Microbusinesses could see significant savings on their energy costs, following reforms introduced on 26 June by the competition watchdog the Competition and Markets Authority (CMA).

The CMA has introduced a range of measures to help microbusinesses engage in the energy market. These include requiring suppliers to publish tariffs for microbusiness online, allowing for the easier comparison of deals. Suppliers will also no longer be allowed to insert termination fees and no-exit clauses into rolled over contracts, and other suppliers will be able to write to microbusinesses that have been on a supplier’s default tariff for 3 years or more.

According to the CMA’s investigation into the energy market, around half (45%) of UK-based microbusinesses were stuck on their supplier’s most expensive “default” tariffs. It is hoped the remedies from the CMA will help microbusinesses to save up to £180mn/year.

CMA



## National Grid forecasts higher electricity capacity margin this winter

**National Grid has predicted up to a 9.9% surplus of electricity generating capacity in its *Winter Review and Consultation* for 2017-18, compared to 6.6% in winter 2016-17.**

The assessment compares the de-rated capacity, which considers the likelihood that each technology will be generating during peak demand periods, against the expected peak demand during the winter months.

National Grid's initial analysis suggested the margin for 2017-18 would be in the range of 7.2% to 9.9% (3.7GW – 4.9GW) on a transmission demand basis. On an underlying demand basis, the figure equates to a range of 6.2% to 8.2%.

The year also marks the first delivery of the capacity market. National Grid noted that some generators currently available had not been successful in capacity market auctions, meaning these units may not be available this winter. The margin range had been used to reflect this uncertainty.

The document added the importance of embedded generation and demand response modelling in the GB security of supply assessment is "clearly growing".

### Overview 2016-17

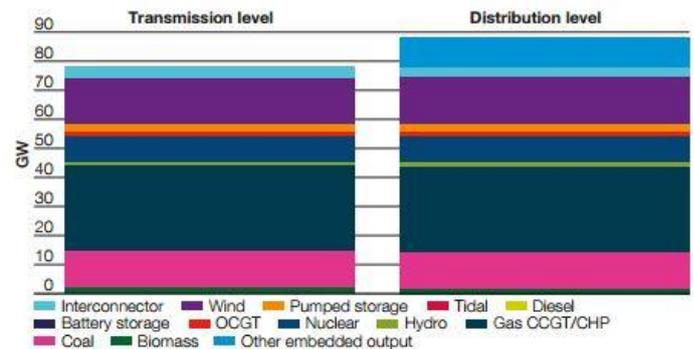
In 2016-17, transmission system demand was 50.9GW; peaking 1.1GW lower than National Grid had forecast in its *Winter Outlook Report*. Demand was said to be consistently lower throughout winter when compared to winter 2015-16, despite colder weather.

National Grid explained transmission demand is influenced by temperature, wind, interconnector flows and embedded generation, as well as customer demand management. It said the difference for 2016-17 had been mainly caused by a fall in weather corrected demand and an increase in non-weather related embedded generation. There was higher output from wind generation than forecast during peak hours, providing 10% of total energy generation, while coal generation increased from a third of demand in winter 2015-16 to almost half of GB's electricity production over winter 2016-17. This year's *Winter Outlook Report* will be published in October. The consultation will close on 14 July.

**The increase in capacity margin for the second successive year should allay concerns over security of supply and is encouraging for the first main delivery year of the capacity market.**

National Grid

Generation capacity by fuel type, as well as expected embedded generation contribution, for winter 2017-18



Source: National Grid

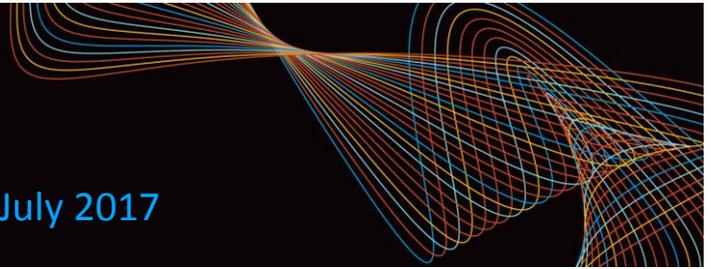
## Large companies and public sector "can do more" to reduce emissions

UK organisations are not doing enough to reduce emissions, according to new analysis from Philips Lighting.

Philips found an average UK organisation reported CO2 emissions equivalent to 2,421 homes' energy use for a year. Organisations included in the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme were found to have emitted over 41mn metric tonnes of carbon dioxide in 2015-16, while less than half (45%) reporting to the scheme were actively engaging employees to reduce carbon emissions at work.

Nicola Kimm, Head of Sustainability, Environment, Health and Safety at Philips said: "The CRC scheme was designed to reduce the emissions of those organizations with the largest carbon footprints in the UK, but our analysis suggests that the country's largest public and private sector bodies still have a long way to go."

Philips Lighting



## Mayor of London announces low-carbon funding for small businesses

A new £1.6mn Clean Tech Incubator, *Better Futures*, has been launched by the Mayor of London to help 100 London-based small businesses in delivering low-carbon products to help tackle the causes and effects of climate change.

The incubator will spark the development of a clean-tech cluster for London. This will lead to the development of a hub for low-carbon industries in the capital. The announcement was made as Sadiq Khan outlined his vision for London to become the world's leading "Smart City" at the launch of London Tech Week on 12 June.

Mayor of London

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## Innovate UK prioritises energy as it launches new funding

UK businesses and research organisations have been invited to apply for a share of £15mn to develop innovative infrastructure solutions.

Innovate UK cited energy as one of its priority areas for funding. This included energy systems that flexibly match changing energy supply and demand profiles at local, regional or national scale. Other projects of interest included nuclear fission innovations that lead to major cost reductions, improved asset integrity and developing the supply chain, and offshore wind innovations resulting in significant reductions in the cost of energy.

Innovate UK said £5mn is available for projects lasting between three and 12 months, while £10mn will go towards supporting projects that last up to three years.

Innovate UK

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## Government continues clean energy drive with new investment

The government has announced £35mn of funding from the BEIS Energy Innovation Programme will go towards smart heating systems and innovation in using hydrogen as a heat source.

New BEIS Minister of State Claire Perry announced the funding on 20 June while speaking at the Rushlight Showcase. £10mn will support the Energy Systems Catapult second phase of work on the Smart Systems and Heat Programme, which aims to help develop local energy plans alongside Local Authorities. It also works to lower energy bills and support the development of the UK's low-carbon heating projects.

A further £25mn will be invested in potential uses of hydrogen gas for heating. Uses for the money include testing the possibility of domestic gas pipes for hydrogen and developing a range of innovative hydrogen appliances. This investment follows the government's commitment to double energy innovation investments set out in the Industrial Strategy green paper, to £400 million per year by 2021.

Government

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## Rough gas storage to permanently close

Centrica Storage Limited (CSL) has confirmed it intends to make all relevant applications to permanently end its Rough facility's status as a gas storage site.

The decision follows failures of wells and facilities at the site during testing. CSL concluded it cannot safely return assets and facilities to injection and storage operations. It also felt from a commercial perspective, costs of refurbishment or rebuilding the facility and replacing the wells would not be economic.

The Rough site is the largest natural gas storage facility in GB, where gas is stored in the summer for withdrawal during the winter. Trade union the GMB warned closure of the site raised fears over the UK's reliance on imports for its energy supply. National Officer for Energy, Stuart Fegan said the UK's gas-powered energy supply had to be secured.

Centrica GMB

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