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Day-aheads hit multi-year lows, seasonals rise

Day-ahead power declined 2.8% in April to average £43.7/MWh, its fourth consecutive monthly decline. The contract dropped to £38.5/MWh on 23 April, a 20-month low. Prices have continued to follow the gas market lower, with periods of high wind generation from Storm Hannah and high solar generation over the Easter Weekend also pressuring prices. All seasonal power prices rose in April, up 6.0% on average. Winter 19 power was 5.9% higher, averaging £58.8/MWh, 17.8% higher than April 2018 (£49.9/MWh).

Day-ahead gas experienced its seventh consecutive monthly decline, down 10.3% to average 35.5p/th in April, dropping to a two-year low of 27.0p/th on 23 April as the gas system was oversupplied amid warm temperatures and low demand. Prices have continued to be pressured by the influx of LNG to GB terminals, with 20 tankers arriving across the month. All seasonal gas contracts recovered in April, rising 4.6% on average as support came from a recovery in Brent crude oil prices. Winter 19 gas was up 5.1% to average 56.2p/th, 11.2% higher than in April 2018 when the contract averaged 50.5p/th.

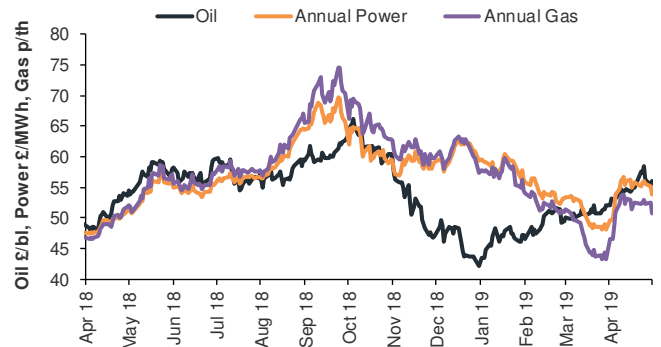
EU ETS carbon reaches a near 11-year high

EU ETS carbon rose for the second consecutive month, lifting 16.4% to average €25.6/t. Carbon prices rose to €27.9/t on 12 April, a near 11-year high. Prices found support from the approaching compliance deadline on 30 April, which is the last occasion for companies to hand in EUAs to account for emissions in 2018. This drove prices higher as total auction volumes halved in the week leading up to Easter weekend, as no auctions took place on Wednesday 17 April due to a fortnightly break in Polish auctions, and on Good Friday on 19 April.

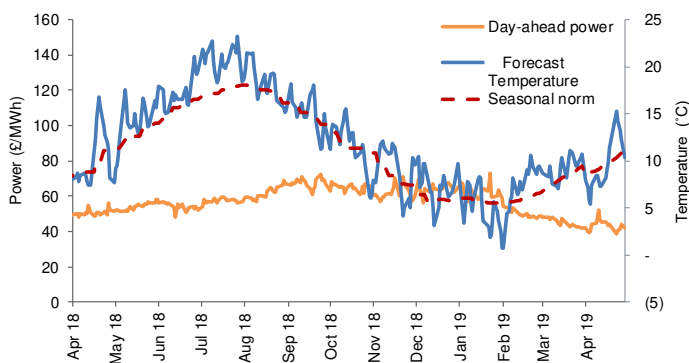
Brent crude oil prices continued to recover in April, up for a fourth consecutive month. Prices rose 6.8% to average \$71.5/bl, peaking at \$75.5/bl on 25 April. Ongoing OPEC+ production cuts have been the key driver in the rise of Brent crude oil prices this year, with support also coming from US sanctions against Iran and Venezuela. News towards the end of April that OPEC+ may not continue production cuts beyond June 2019 led prices slightly lower, with a call from US President Donald Trump for the cartel to lower oil prices pushing prices below \$72/bl.

API 2 coal prices dropped for a fourth consecutive month, down 3.7% to average \$72.9/t in April. Coal prices continue to find pressure from weaker demand amid above seasonal normal temperatures and cheaper gas prices across Europe.

Crude oil and annual wholesale gas and power prices



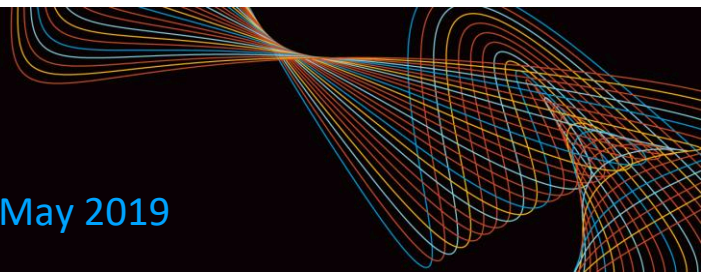
Spot power prices and temperatures



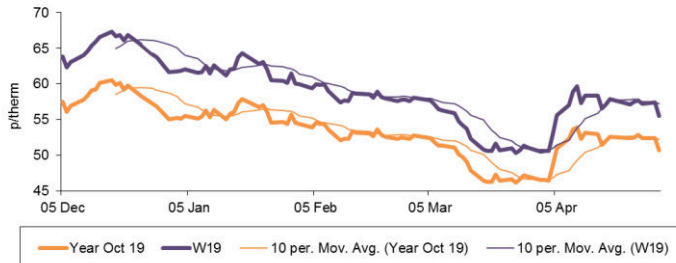
The month ahead: Uncertainty for May

Cooler temperatures are forecast early in May, but are expected to rise above seasonal normal levels towards the middle of the month. Gas demand is therefore likely to be higher early in the month, which could push prices higher. However, gas supplies will remain comfortable as several LNG tankers are scheduled to arrive early in the month, and UK gas stocks are at 45% capacity, which should cap upwards price movements. Support for wholesale prices could come from a recovery in oil if OPEC decide to extend production cuts beyond June.

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.



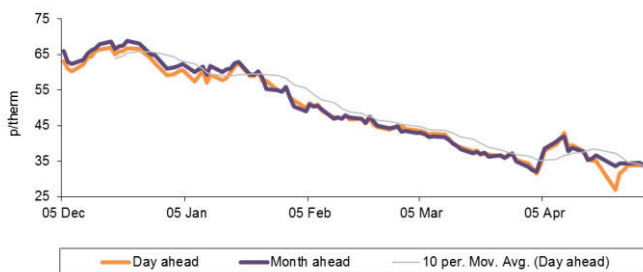
Annual gas prices



All seasonal gas contracts rose in April, increasing 4.6% on average. Winter 19 gas saw the biggest change, gaining 5.1% to average 56.2p/th. Summer 20 gas was 4.9% higher, averaging 46.5p/th in April, a 17.3% increase from the same time last year when it was 39.6p/th.

The annual October 19 gas contract rose 5.0% to average 51.3p/th, 13.9% higher than in April 2018 when it averaged 45.1p/th.

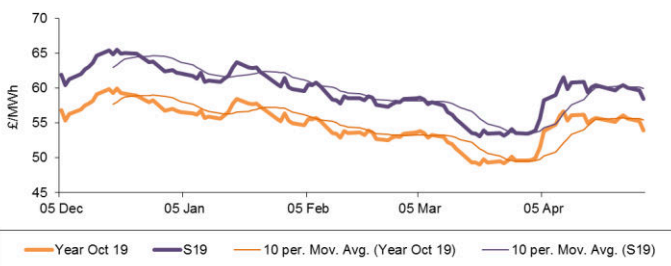
Spot gas prices



In April, day-ahead gas fell for the seventh consecutive month, down 10.3% to average 35.5p/th. The month-ahead (May) gas contract lost 6.6% to average 36.2p/th.

A total of 20 LNG tankers arrived at UK terminals last month, keeping gas supplies comfortable as above seasonal normal temperatures dampened gas demand. Gas storage levels in Europe have also pressured prices, with continental gas stocks in Austria, Belgium, France, Germany, Italy and Holland ending the month above 33.4Bcm, nearly three times the levels at the end of April 2018.

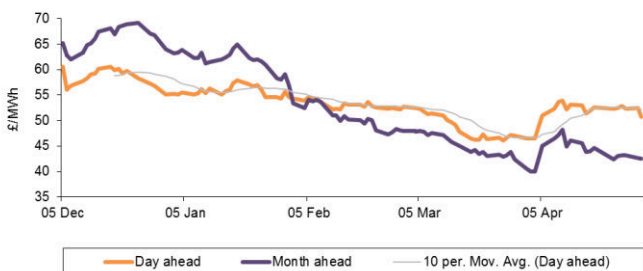
Annual power prices



All seasonal baseload power contracts rose in April, up 6.0% on average. Winter 19 power averaged £58.8/MWh, a 5.9% increase from March. Seasonal power contracts have been supported by a recovery in seasonal gas contracts, as gas-fired power generation continues to dominate our electricity mix.

The annual October 19 power contract gained 6.3% to average £54.4/MWh, up 19.4% from April 2018 when the contract was at £45.5/MWh.

Spot power prices



Day-ahead power fell 2.8% to average £43.7/MWh in April, its fourth consecutive monthly decline. The contract dropped to £38.5/MWh on 23 April, a 20-month low. Month-ahead (May) power was slightly lower, down 1.7% to average £43.8/MWh.

Day-ahead power prices continued to follow their gas counterparts lower, as CCGT generation remained dominant in the supply mix, providing 45.2% of the generation mix in April, up from 39.2% in March.



Energy Element / May 2019

Key market indicators: 30/04/2019

	Gas (p/th)		Electricity (£/MWh)		Coal	Carbon	Brent crude
	Day-ahead	Year-ahead	Day-ahead	Year-ahead	(\$/t)	(€/t)	(\$/bl)
This month 30 Apr 19	34.00	50.70	45.25	53.95	69.80	26.16	72.60
Last month 29 Mar 19	35.30	47.02	42.00	49.62	72.00	22.25	67.77
Last year 30 Apr 18	54.10	47.38	51.75	47.36	85.50	13.62	73.78
Year-on-year % change	(37%)	7%	(13%)	14%	(18%)	92%	(2%)
Year high	79.75	65.85	73.00	61.91	100.15	27.43	86.12
Year low	27.00	46.18	38.50	47.11	68.00	12.86	53.82

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 (\$/bl).

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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Government confident that carbon budgets can be achieved

Energy and Clean Growth Minister Claire Perry told MPs in the Commons Science and Technology Committee that she is confident that the UK will meet its fourth and fifth carbon budgets, despite recent statistics suggesting otherwise.

UK on track to miss budgets

The carbon budgets were set under the *Climate Change Act 2008*. The fourth carbon budget requires the UK to have cut its carbon emissions by 51% by 2025, compared with 1990 levels, and the fifth requires a 57% reduction by 2030.

The government published *Updated Energy and Emissions Projections: 2018* on 11 April, detailing the UK's projected progress from 2018 to 2035. The statistics (represented in the graph) showed that the UK remains on track to miss the fourth and fifth carbon budgets.

Energy minister confident

The Commons Science and Technology Committee questioned Perry on the UK's progress towards the fourth and fifth carbon budgets during an evidence session on 23 April as part of its inquiry into technologies to help the UK achieve its *Clean Growth Strategy* (CGS) aims. In response to questions from MPs, she replied that one-third of the 50 policies or procedures for emissions reductions put forward by the CGS were not yet fully developed. Based on that, she said the UK was 95% of the way towards achieving the fourth carbon budget and 93% towards the fifth.

She added that there has been an acceleration of policy delivery and a reduction in technology cost, as well as an increased focus due to the publication of the IPCC Special Report – following this, the government sought additional advice from the CCC.

Additionally, she said that the government had not yet factored in the carbon reduction effects of the Future Homes Standard which was announced in the Spring Statement. As well as being confident that the UK would achieve the carbon budgets, Perry was also confident that the UK would be “well on the way to thinking about achieving a zero carbon future”. When pressed on specific timescales for when the UK would meet the fourth and fifth carbon budgets, Perry did not provide a response.

The minister remains confident that the fourth and fifth carbon budgets will be met, based on unspecified accelerations that it expects will happen. This is not supported by the government's own figures.

Government Parliament

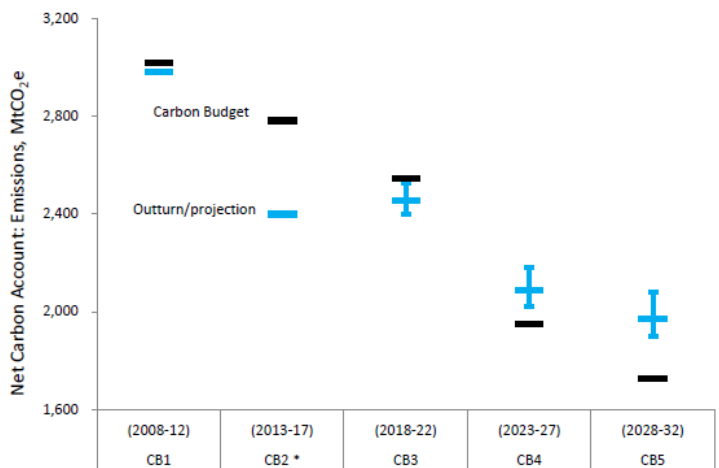
UK operational renewables capacity nears 40GW

The government's latest *Renewable Energy Planning Database* has shown that the UK's operational renewables capacity grew by 175.3MW (0.4%) between December 2018 and March 2019 to just under 40GW.

Published on 16 April, the data showed that storage projects in England were responsible for the majority of renewables capacity growth (113.9MW), with biomass in England and Scotland the second largest growth area (47.6MW). Pipeline capacity, defined as application submitted, awaiting construction and under construction, grew by 1,045.4MW (2.6%) over the period to just over 41GW. Offshore wind was the largest area of pipeline growth, increasing by 668.8MW to just under 9GW. Storage projects accounted for 307.5MW of this pipeline growth, increasing to approximately 6.8GW. Additionally, the solar pipeline capacity has increased by up to 114.3MW to just under 2.5GW, with the majority across England and Wales.

Government

Actual and projected performance against budgets



Source: BEIS



Study finds 71% of businesses have an energy strategy in 2019

A recent business-to-business (B2B) survey by PwC and Energy UK has explored how businesses manage their energy needs and what they are investing in. Over 500 businesses, ranging from the smallest energy consumers up to the largest industrial manufacturers across the UK, took part in the survey.

Over two-thirds of businesses now have an energy strategy

The survey was published on 29 April, two years on from a previous survey, and it found that 71% of businesses now have an energy strategy, up from 65% in 2017, with 53% of business energy strategies including energy efficiency targets. Additionally, the survey found that 46% of commercial and industrial businesses are investing in onsite technologies, with the largest plan for investment placed within renewable generation.

It was also found that 67% of industrial businesses are now expecting to have their energy supply offset by onsite solutions, rather than from the grid within the next five years. 25% industrial and commercial customers also switched energy supplier to capitalise on innovative products or hardware in 2019.

PwC UK Energy Leader Steve Jennings said: "While we tend to lay the obligation for change at the door of suppliers, regulators or legislators, it's important to remember the power that business customers have in this energy transition."

Energy prices a top concern for SMEs

Additionally, the graph above shows that energy prices rank highly in various sizes of businesses' top concerns relating to their energy strategies in the next two years – 46% of SMEs listed this.

Across the SME segment, 42% of smart energy investment decisions continue to be driven by reducing energy costs, with increased attention placed in smart energy technology. 52% of businesses are planning to invest over £100,000 in smart energy technology by 2024, with 57% of businesses found to be planning to purchase at least one smart energy technology in the next two years.

It is clear that more businesses are starting to think about energy strategies. With onsite generation becoming a reality for even small businesses and demand-side flexibility being developed all over the UK, energy strategy has the potential to have a significant impact on businesses overall operational capabilities.

PwC

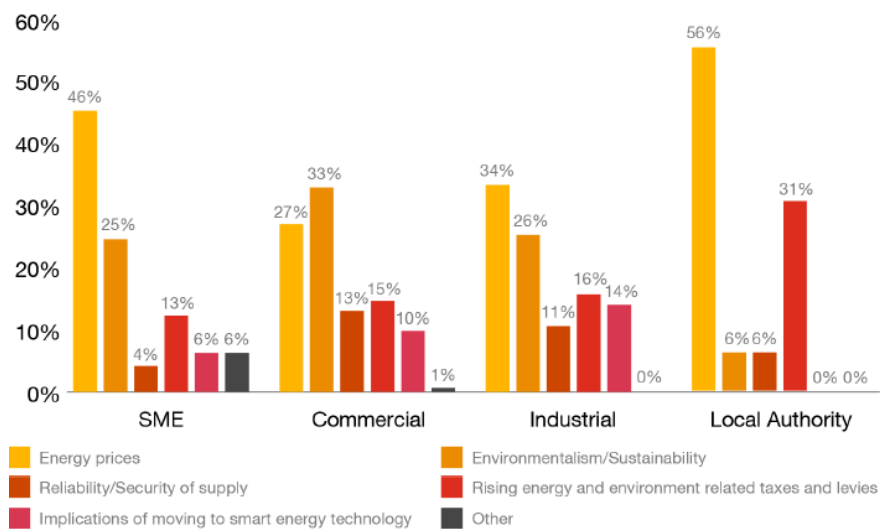
Coal-free record broken over Easter weekend

Britain broke its record for the longest period without generating any electricity from coal over the Easter weekend. UK Coal, a Twitter account which posts hourly updates of National Grid ESO's coal generation, tweeted on 22 April that Britain went for 90 hours and 45 minutes without any coal-powered generation, breaking the previous record of 76 hours and 10 minutes set in April last year.

As reported by the BBC on the same day, National Grid ESO Director of Operations Duncan Burt told BBC Radio 5 Live that recent sunny weather had reduced energy demand and added that solar generated roughly one-quarter of Britain's electricity over the Easter weekend. The government has committed to phasing out coal generation by 2025.

No link

Businesses' top energy strategy concerns in next two years



Source: PwC, Energy UK

BEIS Committee urges clear policy direction on CCUS

A cross-party committee of MPs has urged the government to provide clear policy direction on carbon capture usage and storage (CCUS) technology, concluding that implementation of the technology “will be necessary to meet the UK’s existing climate change targets at least cost”.

MPs urge specific targets

CCUS is a term which covers a range of technology which is used to remove carbon from the atmosphere and combat climate change. The Commons Science and Technology Committee published their report on this, *Carbon Capture Usage and Storage: Third Time Lucky?* on 25 April. It was the culmination of the committee’s CCUS inquiry which was launched on 29 May 2018. The report set out the recommendations that the committee would like to see implemented to support CCUS in the UK.

In the report, the committee welcomed the government’s ambition concerning CCUS but urged it to adopt specific CCUS targets in line with the recommendations of the Committee on Climate Change – to target the development of the first CCUS projects in at least three clusters by 2025, rather than current government aims of “in the 2030s”.

The committee recommended the timetable for CCUS policy delivery to be accelerated to enable CCUS commissioning from 2023, to avoid the additional cost of recommissioning disused oil and gas pipelines after they have been decommissioned. It is expected that CCUS technology would make use of existing oil and gas infrastructure. The committee also recommended a specific target for the government to store 10mn tonnes of carbon by 2030 and 20mn by 2035 to keep the UK on track to meet the 2050 climate change targets.

Stakeholders say deployment will bring costs down

Additionally, the committee heard from CCUS stakeholders who said they were optimistic about the cost of CCUS falling, but only through its deployment. The report said that the lack of clear policy on CCUS is putting off investors, which is a hindrance to deployment. The committee recommended that, rather than seeking unspecified cost reductions, the government should aim to bring forwards projects at least cost. It was also concerned about the future of industries which will struggle to decarbonise. CCUS, it said, can impose significant costs on industrial processes so will require substantial policy support if those industries are to keep up with the UK’s decarbonisation policy. If it is not deployed, the committee warned that the UK’s cost of meeting targets under the *Climate Change Act* could double, rising from approximately 1% to 2% of GDP per annum in 2050.

Climate change and decarbonisation are rising up the political agenda so solutions such as CCUS will need to become viable for large-scale deployment in order to contribute effectively.

Parliament

Parliament approves climate emergency motion

Parliament approved the Labour Party’s motion to declare a climate emergency on 1 May. The Labour Party said in a press release that Parliament is the first in the world to declare a climate emergency. Labour Leader Jeremy Corbyn said it “will set off a wave of action from parliaments and governments around the globe”. The motion also called on the government to reach net-zero emissions before 2050. The proposal does not legally compel the government to act.

Additionally, on 30 April, the Welsh government declared a climate emergency. Welsh Minister for Environment, Energy and Rural Affairs Lesley Griffiths said this announcement draws attention to the “significance of the latest evidence from the Intergovernmental Panel on Climate Change and highlights the recent climate protests across the UK”.

Labour

Welsh Government

First of kind CCS costs in different UK industries



Source: BEIS Committee, Global CCS Institute



Climate advisory group: UK should phase out greenhouse gas emissions by 2050

The Committee on Climate Change (CCC) has recommended that the UK achieve net zero greenhouse gas (GHG) emissions by 2050 in a new report published on 2 May. The CCC set out its recommendations for what the government needs to implement over the next decades, as well as areas where acceleration is required, detailing specific targets for different parts of the UK.

The report, entitled *Net Zero: The UK's Contribution to Stopping Global Warming*, urged the UK to legislate “as soon as possible” to reach net zero GHG emission by 2050 (a 100% reduction in GHG emissions on 1990 levels), without the use of international carbon credits. Also, the CCC has concluded that since Wales has less opportunity for carbon storage and relatively high agricultural emissions that are hard to reduce, it should aim for a 95% reduction by 2050. Scotland, however, “has greater potential” so should aim to achieve the target by 2045.

It is expected that a net zero GHG target can be met at an annual resource cost of up to 1-2% of GDP to 2050, the same cost as the previous expectation for an 80% reduction from 1990.

CCC

NIC calls for new diesel lorry sales to be banned by 2040

The National Infrastructure Commission (NIC) recommended that the government set out a strategy to ban all sales of new petrol and diesel HGVs by 2040 as part of a wider effort to decarbonise freight by 2050. Published on 17 April, the report stated that a new Freight Leadership Council should be created, calling on government and industry leaders to devise clear objectives that meet UK climate goals. The NIC also advised the government to provide the industry with sufficient time to plan its investments to deliver the supply of zero emission freight vehicles

Additionally, the NIC called for the government to develop data standards for freight to support local authorities by 2020. Ofgem should also instigate essential requirements for distribution network operators (in partnership with the freight industry) as part of RII02-ED2 in 2023 to unlock future infrastructure opportunities

NIC

Coal-fired electricity generation down 52%

The government released its latest energy production and consumption statistics on 25 April, covering the period from December 2018 to February 2019. Electricity generation by Major Power Producers (MPPs) reduced by 6.2% overall, with coal-fired generation down 52% and gas down by 1.1%. Total fuel use by MPPs for electricity generation also fell 7.8%, compared to the same period the previous year. Gas continues to provide high levels of electricity generation, reaching 46.3%, with renewables reaching 29.5%, nuclear at 18.3% and coal at 5.4%. Bioenergy fuel use also increased 33% compared to the same period the previous year.

Lastly, the data showed that primary energy consumption in the UK on a fuel input basis fell by 4.8%, while on a temperature adjusted basis, consumption fell by 2.3%. Indigenous energy production rose by a significant 8%, with bioenergy, oil, gas, wind and solar output playing a central role. The use of renewables also rose by 6.9%.

Government

National Grid ESO finds “near-term uncertainty” for demand-side flexibility

National Grid Electricity System Operator (ESO) published its *Demand Side Flexibility Annual Report 2018*, exploring policy, regulatory and market developments over the last year and recent trends. Covering demand-side response (DSR), which enables businesses to sell electricity through onsite generation and onsite energy storage, as well as accessing cheaper electricity by evolving consumption behaviour outside of peak times, the report highlighted that policy and regulatory changes are enabling a more flexible and smarter energy system.

However, “near-term uncertainty” is making the business proposition for demand-side flexibility (DSF) more complex. Greater participation in Balancing Service Tenders has also led to increased liquidity and competitive prices, ensuring lower costs to consumers.

National Grid ESO
