CATALYST ENERGY SOLUTIONS
Energy Element / July 2019

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Day-ahead gas hits two-year low, all contracts fall

Day-ahead gas declined for the ninth consecutive month, falling 12.1% to average 28.0p/th in June. The contract dropped as low as 25.2p/th on 26 June, a fresh two-year low as forecasts of record-breaking temperatures pressured demand profiles, leaving the gas system oversupplied. June saw an increase in storage withdrawals from the previous month, following a decline in LNG send-out as only five tankers arrived, down from 16 the previous month. Seasonal gas contracts dropped by 1.5% on average, following a second consecutive monthly decline in Brent crude oil prices. Winter 19 gas decreased 5.7% to average 51.3p/th, 8.5% lower than in June 2018 when the contract averaged 56.1p/th.

Day-ahead power fell by 4.0% in June to average £39.4/MWh, its sixth consecutive monthly decline. The contract ended the month at £36.1/MWh, a one-month low. Prices have continued to follow the gas market lower, with periods of high wind and solar generation also pressuring prices. All seasonal power prices fell in May, down 1.5% on average. Winter 19 power moved lower by 3.7% to average £55.7/MWh, just 2.0% higher than the contract was a year ago in June 2018 (£54.6/MWh).

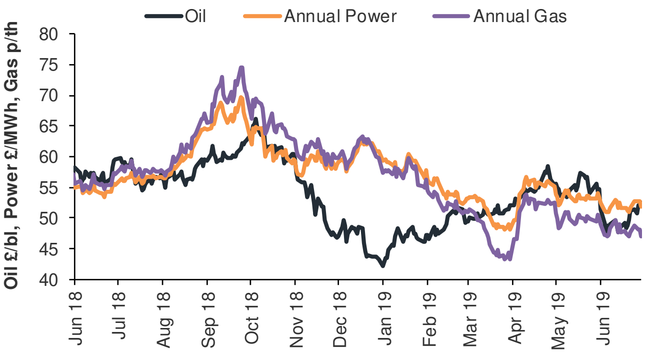
Oil, coal and carbon prices continue monthly decline

Brent crude oil declined for the second consecutive month, down 10.8% to average $62.9/bl in June. Oil prices peaked at $66.8/bl at the end of June as the G20 summit was expected to have positive outcomes for US-China trade talks. This, in combination with the anticipation that OPEC+ (at its meeting on 1-2 July) would agree to extend production cuts into the second half of the year, were enough to offset reports of record US production which had previously driven prices down.

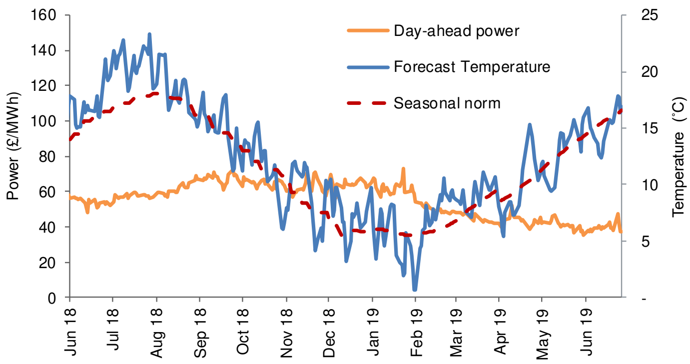
EU ETS carbon fell for a second consecutive month, slipping 1.4% to average €25.2/t. Carbon prices peaked at €27.5/t on 26 June, a fresh two-month high and approaching April's 11-year high of €27.8/t. Prices were supported towards the end of the month by a combination of lower auction volumes, and a heatwave across Europe. The heatwave led to a rise in cooling-demand, some of which was met by thermal generation, and therefore an increase in demand for EUAs. However, Brexit uncertainity continues to cast pressure on EU ETS carbon, as a no-deal Brexit could see UK allowances flood the market.

API 2 coal prices dropped for a sixth consecutive month, down 7.2% to average $64.0/t in June. Coal dropped as low as $62.8/t on 17 June, but recovered to end the month just below $65/t, as demand in Europe rose due to record-breaking temperatures resulting in higher cooling demand.

Crude oil and annual wholesale gas and power prices



Spot power prices and temperatures

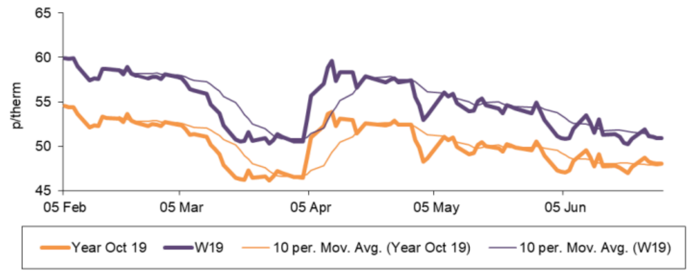


The month-ahead: Prices fall lower

Power and gas demand is expected to fall in line with seasonal norms as above normal temperatures are forecast. This, in combination with a comfortable gas supply outlook, will act to lower gas and power prices.

However, both Brent crude oil and EU ETS carbon are expected to rise in July. Suggestions from OPEC members that the group will extend production cuts for up to nine months provides a tighter outlook for the market, whilst EU ETS auctions will see EUA volumes halve in August. These factors will feed into gas and power prices and act offset falls from lower demand.

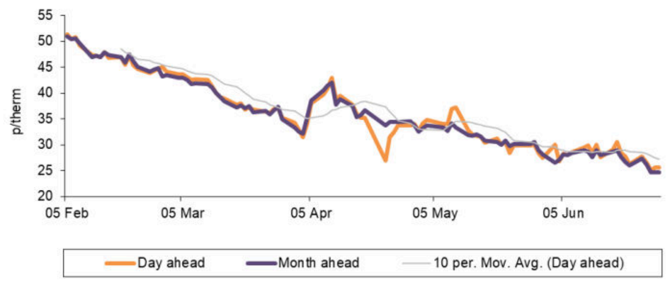
Annual gas prices



Nearly all seasonal gas contracts fell in June, down 1.5% on average. Winter 19 gas dropped 5.7% to average 51.3p/th. Summer 20 gas fell 1.7%, averaging 44.4p/th in June, a 1.1% increase from the same time last year when it was 43.9p/th.

The annual October 19 gas contract went down 3.9% to average 47.9p/th, 4.3% lower than in June 2018 when it averaged 50.0p/th.

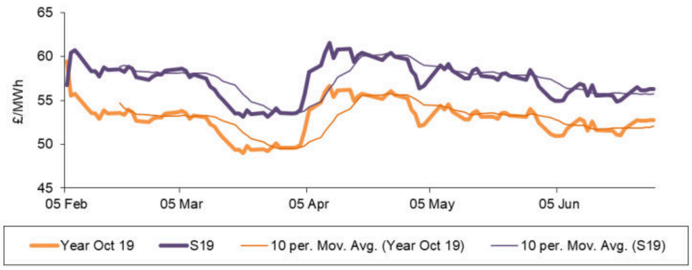
Spot gas prices



In June, day-ahead gas fell for a ninth consecutive month, dropping 12.1% to average 28.0p/th. The month-ahead (July) gas contract was down 14.6% to average 27.2p/th, down 41% from the same time last year (46.0p/th).

Only five LNG tankers arrived at UK terminals last month, which, despite lower gas demand amid record-breaking temperatures, resulted in storage withdrawals during June. GB gas storage levels ended the month at 0.67bcm (48% capacity), falling from 0.76bcm (54%) at the end of June.

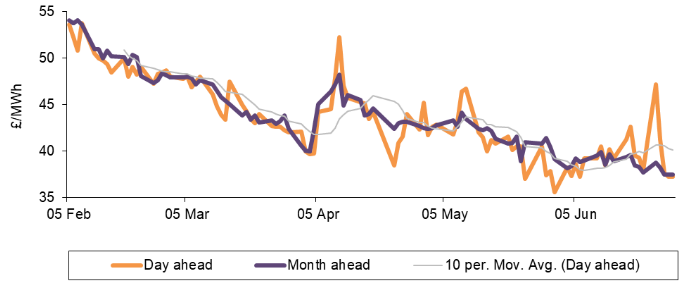
Annual power prices



All seasonal baseload power contracts declined in June, down 1.5% on average. Winter 19 power averaged £55.7/MWh, a 3.7% decrease from May. Seasonal power contracts have mostly mirrored their gas counterparts, as gas-fired power generation continues to dominate our electricity mix.

The annual October 19 power contract dropped by 2.8% to average £51.8/MWh but was up 4.3% from June 2018 when the contract was at £49.7/MWh.

Spot power prices



Day-ahead power fell 4.0% to average £39.4/MWh in June, its sixth consecutive monthly decline. The contract ended the month at £36.1/MWh, a one-month low. Month-ahead (July) power was down 8.1% to average £38.6/MWh, 18.2% lower year-on-year (£47.2/MWh).

Day-ahead power prices continued to follow their gas counterparts lower, as CCGT generation remained dominant in the supply mix, providing 47.3% of the generation mix in June, up from 46.6% in May.

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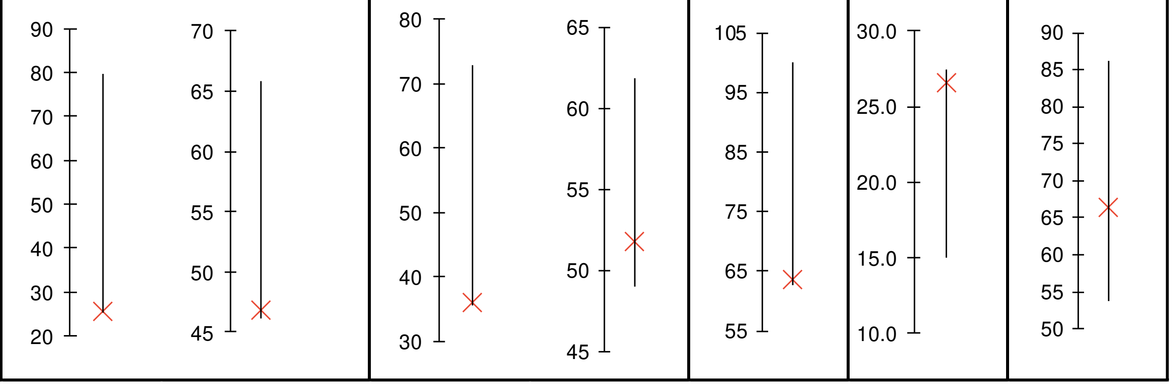
Key market indicators: 28/06/2019

		Gas (p/th)		Electricity (£/MWh)		Coal	Carbon	Brent crude
		Day-ahead	Year-ahead	Day-ahead	Year-ahead	($/t)	(€/t)	($/bl)
This month	28 Jun 19	25.60	46.92	36.10	51.80	63.75	26.57	66.53
Last month	28 May 19	29.90	49.54	40.50	53.13	67.00	25.41	70.53
Last year	28 Jun 18	55.25	51.81	53.65	50.61	88.30	15.33	77.85
Year-on-year % change		(54%)	(9%)	(33%)	2%	(28%)	73%	(15%)
Year high		79.75	65.85	73.00	61.91	100.15	27.43	86.12
Year low		25.15	46.18	35.60	49.00	62.75	15.01	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.

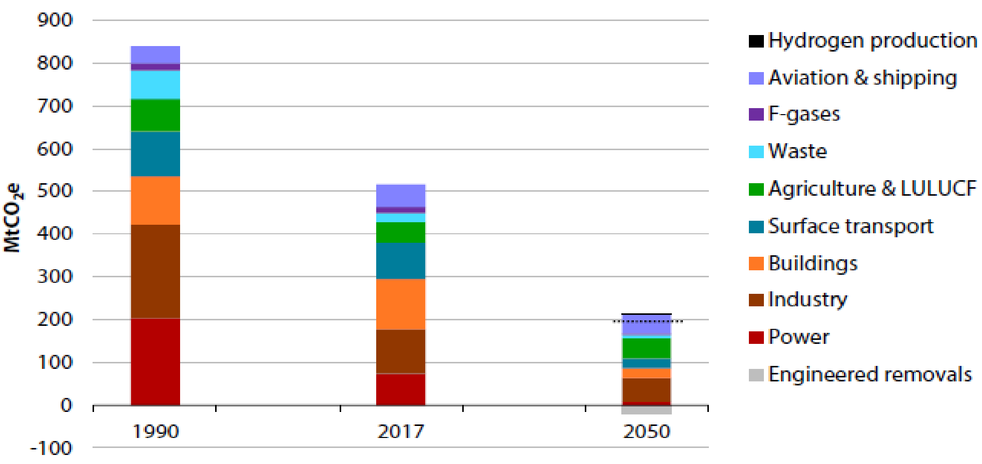
Disclaimer

Parliament passes net zero 2050 emissions target

Last week, both Houses of Parliament voted to pass the government's 2050 net zero legislation, making the UK the first country in the world to legislate for net zero.

The legislation amends the *Climate Change Act (2008)*, changing the carbon emissions reduction from 80% compared with 1990 levels to 100%.

CCC prediction of 2050 GHG emissions



Source: CCC

During the Lords debate, Parliamentary Under-Secretary of State and Government Spokesperson, Department for Business, Energy and Industrial Strategy (BEIS) Lord Henley referred to the Committee on Climate Change's (CCC's) landmark report and stated that it was possible to end the UK's contribution to global warming with a net zero target, and that due to falling costs, the rise in target is "the same cost envelope which Parliament accepted for an 80% target back in 2008." The Treasury will therefore publish a review on this. Additionally, a forthcoming whitepaper "will outline the government's vision for the energy system in 2050 and a series of actions which will enable the system to evolve during the next decade to achieve our 2050 aims."

Opposition Defra and BEIS spokesperson Lord Grantchester responded to state that while Labour fully support the target, lack of clarity remains around how the target will be achieved, alongside a lack of scrutiny of the policy. Issues also remain around the exclusion of greenhouse gases from international aviation or international shipping. He added that net zero will only be possible "if the UK also meets the challenge of decarbonising transport and heat" and called for widespread collaboration across government and all sectors of the economy.

However, Lord Henley added that while he remained unable to comment on the "how", which the upcoming Energy White Paper will set out, a full impact assessment for future carbon budgets will be undertaken. He noted that present GDP estimates were used to "give sense of scale and that a Treasury review would be done. He concluded that whilst the government are doing a lot, more needs to be done to achieve net zero.

This is a significant milestone in climate policy, but it remains to be seen just how this government and future governments will achieve this.

Hansard - Commons debate Hansard – Lords debate

New business energy generation scheme launches

The government announced on 9 June that the planned Smart Export Guarantee (SEG) to replace the Feed-in Tariff export tariff would launch the next day.

The government said that the SEG will ensure that small-scale electricity generators, such as businesses installing solar, wind or other forms of renewable generation with a capacity up to 5MW will be paid for each unit of electricity they sell to the grid. The scheme will also place a legal obligation on energy suppliers with over 150,000 customers to introduce export tariffs by 1 January 2020.

Chief Executive of the Renewable Energy Association Chief Executive (REA) Dr Nina Skorupska said in the 10 June press release: "Whilst we are fully supportive of encouraging innovation in tariff design we still believe that the policy should introduce a fair minimum price for generators. Minimum contract lengths should be required to give future generators certainty. These proposals do not ensure this."

Government

Networks publish flexibility plan

The Energy Networks Association (ENA) published *Our Six Steps to Delivering Flexibility Services* on 20 June. Flexibility benefits businesses through providing access to cheaper electricity through changing their consumption behaviour to help balance the grid, as well as earning revenue by supplying the grid with onsite-generated electricity.

A low carbon, flexible energy system will see electricity move in multiple directions and embrace the full range of emerging smart technologies. The introduction of a flexible energy system will provide consumers with increased control and choice over how they use their electricity and will deliver new competitive opportunities for them to participate in the energy market.

In the plan, the ENA explained that GB's six Distribution Network Operators (DNOs), GTC (Independent DNO), Transmission Owners and National Grid ESO have committed to opening up requirements for building significant new electricity network infrastructure to include smart flexibility services markets as part of day-to-day operations, covering relevant projects where local electricity operators dace congestion in grid infrastructure, resulting from increased electricity demand and/or distributed energy projects being connected to the grid.

The plan will also see all parties compare relevant reinforcement and market flexibility solutions for all new projects and work alongside Ofgem and other stakeholders to develop the forthcoming RIIO-2 price control framework and ensure that all financial incentives are fully aligned with the greater use of flexibility services.

Through this process, all parties have therefore agreed to six principles of: championing a level playing field; ensuring visibility and accessibility; conducting procurement in an open and transparent manner; providing clarity on the dispatch of services; providing regular, consistent and transparent reporting; and working together towards whole energy system outcomes. The ENA said that the plan would help the UK achieve net zero by 2050.

The six steps outline a consistent and transparent approach to the way competitive tenders are run and will see all parties agree contracts and use flexibility services to manage the grid. It will also showcase how the ENA will procure and use flexibility services to maximise benefits to households, businesses and communities and act as the foundation for enabling, supporting and growing flexibility markets. It will also help reduce the cost of traditional network reinforcement and support decarbonisation progress towards net zero and ensure the creation of new revenue streams for all customers. Working extensively and inclusively with stakeholders, sharing flexibility developments and listening to wide reaching feedback at every step, ENA will seek further feedback through its Open Networks flexibility consultation.

"As the proliferation of low-carbon technologies increases and energy use continues to grow, we want both households and businesses to have opportunities to participate in these markets," commented Northern Powergrid. "As new, low-carbon technologies become more advanced and common-place, they are changing the way that electricity network companies, households, businesses and communities interact with the network," affirmed Scottish and Southern Electricity Networks. "This new methodology seeks to value the various options that are available to alleviate specific network constraints. With this, flexibility service providers in the market can be reassured of a transparent, consistent and level playing field."

ENA

Commons votes for energy saving materials VAT increase

The Commons voted to approve the Value Added Tax (Reduced Rate) Energy-Saving Materials Order 2019 by 247 to 209 on 25 June. This amends the scope of the reduced rate of 5% VAT for energy-saving materials such as on-site business solar panels.

The Renewable Energy Agency (REA) criticised the decision by the government to lay the legislation in the first place, arguing that it will act as a barrier to households looking to reduce their carbon footprint. In a statement on 24 June, the REA said that the decision to increase tax on domestic energy saving materials from 5% to 20% was in contrast to coal being sold as a fuel for domestic use continuing to receive a reduced VAT rate of 5%. Chief Executive Dr Nina Skorupska said: "With 84% of the public supporting renewable energy and a further 80% concerned about climate change, the government should be doing all it can to install these technologies rather than enacting barriers."

Hansard REA

Citizens Advice ranks business energy suppliers

Citizens Advice have issued its latest non-domestic energy supplier performance league table, which compares how energy companies rank on handling complaints from best to worse, from January to March 2019.

The results showed that SSE, E. ON, Contract National Gas Ltd and EDF remain in the top four, where Ecotricity features for the first time, gaining fifth spot. SSE data include Atlanti, Scottish Hydro Electric, Southern Electric, SWALEC and Unicorn.

Haven Power and Dual Energy also signal improvements by reaching sixth and seventh spot, following previous positions of ninth and 13th respectively. The remaining energy companies have witnessed a fall in supplier performance, with British Gas slipping the most places, moving four places to ninth position. British Energy Solutions remains the worst, falling from 14th place to 16th.

Citizens Advice took over this role on 1 April 2014 when Consumer Futures became part of Citizens Advice and Citizens Advice Scotland. Following a consultation with suppliers regarding a similar process for the non-domestic market and subsequent testing, the first comparison was published in January 2017.

The performance model represents weighted complaints made to Citizens Advice Consumer Service, The Extra Help Unit and Ombudsman Services: Energy. Weightings were also allocated to reflect the seriousness of the complaint and the time and effort spent by the consumer to get their problem resolved.

Energy Supplier Performance: January – March 2019

Oct - Dec 2018 rank	Supplier	Jan - Mar 2019 ratio	Oct - Dec 2018 ratio
1	SSE	17.7	24.2
2	E.ON	26.4	19.6
3	Contract Natural Gas Ltd	27.0	28.4
4	EDF	38.0	37.9
5	Ecotricity	53.5	-
6	Dual Energy	78.1	119.3
7	Haven Power	86.1	96.8
8	Opus Energy	90.7	96.3
9	British Gas	90.8	87.4
10	Utility Warehouse	94.5	111.8
11	Utilia	144.5	115.4
12	Scottish Power	145.1	106.5
13	Total Gas and Power	194.1	124.7
14	nPower	365.3	198.0
15	Gazprom	365.9	285.4
16	Business Energy Solutions	625.9	550.0

Source: Citizens Advice

Citizens Advice's rankings shine an important spotlight on energy suppliers which are not providing a good quality of customer service to business customers.

Citizens Advice

GB to source more zero carbon power than fossil fuels in 2019

National Grid has confirmed that GB is on track to source more electricity from zero carbon sources than fossil fuels in 2019. Announced on 20 June by National Grid, in the first five months of the year, zero carbon sources provided 47.9% of Britain's electricity demand, compared to 46.7% from fossil fuels.

National Grid said that by 2030, 90% of electricity imported to Britain through under-sea energy "superhighways" will come from zero carbon sources. Through the development of six interconnectors in Britain, 91% of imports will be zero carbon by 2050, in comparison with 65% in 2020, leading to a significant decrease in emissions

In May, Britain clocked up its first coal free fortnight and generated record levels of solar power for two consecutive days, powering more than a quarter of the country's daily electricity consumption, National Grid has stated.

National Grid is set to invest up to £1.3bn each year to support the transition towards a clean power system and upgrade the UK's transmission network. The company is also investing over £2bn in new interconnector projects.

National Grid

Labour sets out "comprehensive programme" to drive green revolution

Shadow Chancellor of the Exchequer John McDonnell outlined Labour's programme to marshal public and private resources and target the finance sector, in order to meet its climate change responsibilities ahead of a possible autumn election. Reported by *The Guardian* on 24 June, the party's Shadow ministerial teams are set to produce an action plan and work alongside Extinction Rebellion, the Committee on Climate Change and the National Infrastructure Commission to achieve net zero carbon emissions by 2050. McDonnell also announced plans to spend an additional £250bn over 10 years through the National Transformation Fund, funded predominately by government bonds.

McDonnell issued the party's long-term strategy to mobilise private sector resources for green investment and prevent financial institutions from "actively contributing to planetary heating or exposing the economy to financial instability." A review group will overview the financial system as it currently relates to the climate emergency and cover commercial banks, investment banks, pension funds, hedge funds, private equity, asset managers, derivatives and securities traders and exchangers, and any other aspect of the finance sector of relevance. The review group will deliver its final report by October 2019.

No link

BNEF wind and solar almost 50% of global generation by 2050

Bloomberg New Energy Finance's (BNEF) *New Energy Outlook 2019* report, published on 18 June, predicted that solar and wind will provide 48% of global electricity generation by 2050. Solar sees the most growth, rising from 2% of the world electricity generation today to 22%. The report forecast that 330kW in every 1MW of solar PV will be deployed behind-the-meter by households and business – accounting for 5% of world electricity by 2050. Renewables would comprise 62% of the world's power generation mix, with fossil fuels falling to 9% by 2050.

It was also predicted that Europe would decarbonise furthest and fastest with "coal-heavy" China and the "gas-heavy" US lagging behind. Cheap renewables, flexible demand and batteries will shift the European power system away from fossil fuels and nuclear to one built around variable renewables and emissions-free energy. High carbon prices will drive coal-to-gas fuel switching in the UK and push coal plants out of the electricity mix three years ahead of the official phase out. By 2050, the UK will have a 183GW of wind and solar, as well as 13GW of batteries, where renewables provide 87% of generation.

BNEF

Net zero carbon taskforce launched to help businesses play role

Business in the Community (BITC) has launched the Net Zero Carbon Taskforce which will "inspire and mobilise businesses to reverse the impacts of the climate crisis." It also aims to identify the simplest, most effective actions businesses can take to help reduce the climate breakdown.

Gedrun Cartwright, Environment Director at Business in the Community said: "While Business in the Community endorses this target, 2050 may be too late. UK cities are committing to earlier targets, such as Glasgow's target to achieve net zero carbon by 2045, Manchester by 2038, Edinburgh and Bristol by 2030 and Nottingham by 2028."

BITC

UNISON urges big six nationalisation to help reach 2050 net zero target

A new report by trade union UNISON has called on a future government to bring into public ownership the parts of British Gas (Centrica), SSE, E. ON, EDF Energy, npower (Innogy) and Scottish Power (Iberdrola) that sell consumers energy.

Power to the People stated that nationalising the retail arms of the big six energy firms would boost the UK's bid to become carbon neutral by 2050, lead to the creation of a 'green army' of workers which will drive businesses and the public to become increasingly energy efficient, and "ensure the UK meets its climate change targets and moves to a low-carbon economy." The report added that this vision could be achieved for between £6bn and £9bn and the workforce created from the big six firms could: help ensure security of energy supply keep energy costs affordable for consumers and businesses; and win over the public to achieve the net zero target by 2050.

UNISON