

A close-up photograph of a person's hand reaching into a field of green plants. The hand is wearing a maroon-colored glove with a tan leather strap and a metal button. The person is wearing blue jeans and a red rubber boot. The ground is covered with green plants and small white flowers.

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Your update on energy news and regulation

October 2019

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Energy news and regulation affecting all businesses

Energy news and regulation affecting all businesses

Changes to the 2050 carbon reduction target

On 26th June 2019, the carbon reduction target for 2050 changed from an 80% reduction in emissions from 1990 levels, to a Net Zero target, also sometimes called 'carbon neutrality'. The Committee on Climate Change (CCC) recommended this because due to rapid cost reductions resulting from mass deployment of key technologies like offshore wind and batteries, the cost of achieving net zero is now similar to that of the previous, less stretching target. The cost is estimated at 1-2% of 2050 GDP. The amendment can be found [here](#).

To hit the Net Zero target:

- Low carbon electricity generation capacity must quadruple
- Buildings and heat must become more efficient and entirely low carbon
- There will need to be a faster take-up of electric vehicles (EVs)
- Development of a hydrogen economy to service heating, industrial processes, Heavy Goods Vehicles (HGVs), ships
- Development of Carbon Capture and Storage (CCS), improved landfill management, forestry management and agricultural emissions are also proposed

Several Parliamentary Select Committees have announced the creation of a Citizens' Assembly to advise on this new policy. This is designed to explore views, sharing potential costs involved. The announcement can be found [here](#). The Net Carbon Zero Report can be found [here](#).

Capacity Market decision

The Capacity Market (CM) is currently in a standstill period whilst the European Commission decides whether to re-approve the scheme for State Aid purposes. A decision is expected in October or November 2019.

If the scheme is re-approved, electricity suppliers will receive an invoice for the standstill period by the 10th working day of the following month. The invoice will be a single payment to recover all outstanding Capacity Mechanism funds that are due to Capacity Providers. 'Business as Usual' payments will also be required from suppliers on the first working day of the month, as before.

Any outstanding supplier charges will be 'mutualised' (spread out) between non-defaulting suppliers. An indicative timeline for the process is on the following link, (see page 16, Appendix 1)

<https://www.emrsettlement.co.uk/documents/2019/08/g22-capacity-market-settlement-restart.pdf/>. You can read more information about re-starting the Capacity Market [here](#).

More domestic supply businesses exit the market

The following electricity and gas suppliers have recently exited the market:

Date	Company subject to Supplier of Last Resort (SoLR)	SoLR	Costs claimed from industry
March 2019	Brilliant Energy	SSE	Yes, with SSE making a material contribution
August 2019	Cardiff Energy	SSE	TBC but expected
August 2019	Solarplicity	EDF	TBC but expected
September 2019	Eversmart Energy	Utilita	TBC but expected

Suppliers that are assigned the customers (by winning an 'auction' held by Ofgem) can claim any net costs that they incur in taking on additional customers. These costs are recovered from end users through their transportation charges for gas and electricity, with increases occurring in the following charging year. Under the licence, it can take a considerable time for any claims to be lodged and decided upon. Costs are estimated to be around £0.29 per household for the year 2019/2020.

When GB Energy Supply collapsed in November 2016, Cooperative Energy was the SoLR. The costs of that claim have been published by Cadent for its gas distribution networks and are shown in the table below.

[The link is [here](#)]

Network	East of England	London	North West	West Midlands	Cadent
Target 2018/19 SoLR revenue recovery	£1.197,160	£586,002	£764,275	£557,265	£3,104,703
Estimated actual 2018/19 SoLR recovery	£1,199,573	£587,145	£763,818	£557,982	£3,108,600
To be returned to/collected from Shippers in 2021/22	£2,412	£1,143	(£457)	£716	£3,897

Several more claims are expected to be decided upon in the next few months, as we approach the run-up to the transportation charging statements for the gas distribution networks being finalised, (period of April 2020-March 2021).

Impact of Brexit on Energy and Climate Legislation

BEIS has published an overview of the impact of Brexit on existing documents relating to energy and climate change policies. BEIS suggests that businesses concentrate on 3 areas that relate to the GB gas and electricity markets:

European Union Emissions Trading System (EU ETS) The rules governing the EU ETS would no longer apply to the UK, although some domestic elements (such as those underpinning the UK Carbon Emissions Tax) will still need to be complied with.

UK electricity market Existing cross-border trading arrangements will be affected, and UK market participants will need to register under the Regulation on Energy Market Integrity and Transparency (REMIT) with an EU regulatory authority for the purposes of market monitoring to avoid disruption. New rules will need to be developed in relation to trading across interconnectors.

Electricity Guarantees of Origin, trading, importing and exporting, and standards Renewable Energy Guarantees of Origin (REGO) and Guarantees of Origin for Combined Heat and Power (CHP) issued in EU countries will continue to be recognised in the UK, but UK-issued REGOs and Guarantees of Origin for CHP will no longer be recognised in the EU.

BEIS expects the following to be unchanged:

- The Industrial Strategy, including the Grand Challenges and Sector Deals.
- The Climate Change Act (CCA), which will continue to apply across the whole of the UK.
- Electricity Supplier Guarantees of Origin issued in all EU countries will continue to be recognised in the UK.
- Microgeneration technology installer certificates issued by European Economic Area (EEA) states will also continue to be recognised in the UK.
- Civil nuclear trade and cooperation will continue with the EU and including (where necessary) under bilateral agreements.
- All requirements for Feed-in Tariff (FiT), Contracts for Difference (CFD) and the Renewables Obligation (RO).
- Regulations for the monitoring, reporting and verification of greenhouse gases.

You can read the document [here](#).

Meeting climate change requirements if there's no Brexit deal

BEIS has published proposals to levy a Carbon Tax of £16/tCO₂ on emissions if there is no Brexit deal. The tax would apply from 4 November 2019 to all UK stationary installations currently participating in the EU ETS. The aviation sector would not be subject to the Carbon Emissions Tax, but aircraft operators would still be obliged to comply with greenhouse gas Monitoring Reporting and Verification requirements throughout 2019. The increased carbon tax would apply until a replacement regime is brought in (possibly the UK procuring its own Kyoto Protocol Registry System), likely to be no earlier than 2021 unless a linking deal is quickly struck with the EU. More information can be found [here](#).

Smart Export Guarantees excess electricity

BEIS has issued its proposals for a Smart Export Guarantee (SEG) scheme to support small-scale low-carbon generators. This will replace the current FiT scheme. This will not set a price for the generation, but instead it will require large suppliers (more than 150,000 domestic customers) to offer tariffs to buy exported electricity from small-scale, low-carbon generators. The only restriction is that the export price must be at least zero. Tariffs offered would be available to all the technologies currently eligible for the FiT scheme up to 5MW in capacity. You can read the announcement [here](#).

National Grid Electricity Transmission publishes draft business plan 2021-2026

As part of the RIIO-2 price control setting, National Grid has published its draft business plan for the period 2021-2026. Overall, National Grid is budgeting expenditure of £7.4bn over the next five years as set out below, to continue decarbonisation and maintain security of supply. It should be noted that this business plan was developed before the 2050 Net Zero target was set by Government.

In the business plan, National Grid states these costs are 15% lower than they would have been without stretching innovation commitments. National Grid indicates that these costs could increase if more customers than expected request connections (which may occur if there is a large increase in distributed generation) or if cyber security requirements increase. National Grid does commit to keeping its share of the electricity bill unchanged or slightly reduced.

These proposals would represent an increase of 30% on top of National Grid's proposed operating budget for the period 2021-2026, which would result in an average cost of £23.50 per year per household. It should be noted that the total revenue that National Grid is proposing for this price control period would represent a rate of 5.5% per year on its existing assets. Ofgem is currently proposing a rate of 4.3%, so there is potential for the final proposals to change significantly. The full business plan can be found [here](#).

National Grid ESO RIIO-2 Business Plan

As part of the RIIO-2 price control setting, which runs from 2021 to 2026, National Grid ESO has been asked to produce a five-year strategy and a two-year business plan, setting out costs, activities, deliverables and performance metrics for delivering its strategy over the first two years of the RIIO-2 price control period.

The business plan sets out National Grid's view on expected expenditure to meet the 2050 Net Zero target. National Grid says that the evolving system management needs have been managed without material additional cost to consumers so far, but they anticipate that core costs of running the system will increase from £180 million to £270 million per year over the course of the price control. This covers the cost of investments in systems required to meet the evolving energy landscape and market platforms.

Activities proposed in this draft business plan are categorised under 'themes'.

Theme 1: Reliable, secure system operation to deliver electricity when consumers need it:

- Expand and transform the Control Centre architecture and systems
- Training and simulation
- System restoration

Theme 2: Transforming participation in smart and sustainable markets:

- Build the future balancing service and wholesale markets
- Transform access to the capacity market
- Develop code and charging arrangements that are fit for the future

Theme 3: Unlocking consumer value through competition:

- Embed the Network Development Roadmap enhancements
- Extend and enhance the Network Options Assessment (NOA) approach
- Undertake, with industry, a review of the System Quality and Security of Supply standard (SQSS)
- Support Ofgem to develop its thinking on competitively appointed transmission owners

Theme 4: Driving towards a sustainable whole energy future:

- Lead the debate on decarbonisation of the GB energy industry
- Work to streamline the connection process
- Define a pathway for zero-carbon, whole system operability
- Develop a whole system approach to accessing networks

The contribution that these themes will make to costs over the five years are shown in the chart below

<https://www.nationalgrideso.com/document/147026/download> (Figure 9 page 16).

You can read the full business plan [here](#).

Hydro Benefit Replacement Scheme and Common Tariff Obligation

BEIS has started its 3-yearly review into the two schemes designed to protect consumers in northern Scotland from disproportionately high network costs:

- The Hydro Benefit Replacement (subsidising disproportionately high distribution network charges through a GB-wide levy)
- The Common Tariff Obligation (which prevents suppliers from charging consumers a premium solely based on their location within a region).

Because Lerwick power station needs to be replaced (with an estimated cost of £21m), it is proposed that the costs are split across all GB consumers via the Hydro Benefit Replacement Scheme, rather than the Common Tariff Obligation, as would otherwise be the case. You can read the consultation [here](#).

BEIS & Ofgem consultation on flexible and responsive energy retail markets

BEIS and Ofgem have published a consultation setting out their plans for the future of the retail market. This consultation states that the work on smart metering, faster switching and the energy industry code programmes will not allow a wider range of new business models, products and services to come to market by 2050.

In Ofgem/BEIS' view, if the vision of a competitive, clean, climate friendly, secure, digitalised, fully decarbonised market is to be achieved (whilst at the same time safeguarding customers and security of supply) then fundamental reform to the structure of the market is required. Definite proposals at this stage include enabling

innovation through new licence regimes (such as authorisation) for new market participants to allow innovations and potentially extending licencing to new areas (such as brokers) with new enforcement powers for Ofgem. More information can be found [here](#).

Future Energy Scenarios 2019

National Grid has published its annual Future Energy Scenarios report, which sets out four key scenarios on how the GB energy system could develop between now and 2050, using the old Climate Change Act requirement of 80% reduction of 1990-CO₂ levels by 2050 as a target. The four scenarios are derived from combinations of differing levels of decarbonisation and electricity decentralisation.

Future Energy Scenarios

Key changes within the scenarios since last year are as follows:

Two Degrees

- Now the highest peak and annual electricity demand scenario
- Higher hydrogen demand for heat and commercial transport and hydrogen from electrolysis introduced
- Small modular nuclear reactors introduced
- Increased offshore wind capacity and decreased nuclear capacity, as well as lower thermal efficiency. This is common across all scenarios, although offshore wind dominates the future growth of renewables in this scenario

Steady Progression

- Higher hydrogen supply with roll-out of blended hydrogen into the gas network
- Increased offshore wind capacity and decreased nuclear capacity, as well as lower thermal efficiency

Consumer Evolution

- Now the lowest peak and annual electricity demand scenario
- No small modular nuclear reactors
- Increased offshore wind capacity and decreased nuclear capacity, as well as lower thermal efficiency

Community Renewables

- Larger role for district heat and hybrid heat pumps
- Earlier growth in electricity storage capacity
- Reduced solar capacity
- Increased offshore wind capacity and decreased nuclear capacity, as well as lower thermal efficiency

You can read these [here](#) (scroll to page 16).

Energy supply

Each of the scenarios meets the security of supply standards set by the Secretary of State; the Loss of Load Expectation (LOLE) for electricity and the 1 in 20 cold winter day demand with one major loss of gas supply. For electricity, capacities assumed in each scenario are illustrated:

Figure 3.2. page 26 <http://fes.nationalgrid.com/media/1409/fes-2019.pdf>

Overall, all scenarios result in higher generation and require greater flexibility than today. Decentralised generation increases, with a possibility of up to 58% of it decentralised by 2050 in the Community Renewables scenario. This consists of nearly 30GW of distributed wind and 80GW of solar by 2050. Indigenous gas is expected to shift away from North Sea production to shale and biogas. Imported gas is expected to range between 41% and 87% of gas supply.

Figure 4.3 page 49 <http://fes.nationalgrid.com/media/1409/fes-2019.pdf>

Demand

In all scenarios, gas and electricity demand initially continues its decline due to ongoing efficiency improvements. Peak demand shows more variation between scenarios, and through time, than overall demand, as shown in the following chart.

Figure 4.2 page 48 <http://fes.nationalgrid.com/media/1409/fes-2019.pdf>

These scenarios are looked at across the whole system, and gas peak demand is roughly inverse to electricity peak demand as the next chart shows. Where this is the case it is due primarily to a change in heating technology (toward electricity) with the impact on peak dependent on the level of storage and appliance and building efficiency.

Figure 4.3 page 93 <http://fes.nationalgrid.com/media/1409/fes-2019.pdf>

The scenario impact on residential gas and electricity demand are shown in this chart. Each of the scenarios assumes moderate increases in demand, though the charts *exclude* the impact of electric vehicle charging. Note that all the scenarios assume that the smart meter roll out is not completed until 2024.

Net Zero sensitivity

National Grid did not have time to assess achievement of the new Net Zero targets in these scenarios. It does, however, provide some high-level information on what would need to change for these scenarios to achieve the new target:

- More electrification of heat, transport in the I&C sector
- Increased hydrogen production and use in heating
- Increased Carbon Capture Usage and Storage (CCUS)
- Substantial improvements in thermal efficiency of homes, with any residual heating demand met by hydrogen and electricity
- Large roll out of heat pumps (encouraged by higher efficiency), no natural gas boilers used by 2050
- The service sector completely decarbonised
- Industry near electrified and heavy use of hydrogen, alongside CCUS and bio-energy with Carbon Capture and Storage (BECCS)
- Heavy goods vehicles use hydrogen or electricity instead of the shift to natural gas
- Increases in public transport and vehicle sharing

You can read the full report [here](#).

Energy news and regulation affecting SME businesses

Energy news and regulation affecting SME businesses

Strategic review of the microbusiness retail market

Ofgem announced a review into the microbusiness retail market, because of the following deficiencies it believes exist:

- The complexity of the market prevents microbusinesses from engaging effectively, resulting in them paying more for their energy. This situation is worsened by their size and corresponding lack of buying power.
- Barriers to accessing, using and sharing consumption data are making it difficult for some microbusinesses to benefit from smart data and other technological innovations. Ofgem considers this to be hindering their ability to make informed switching decisions, use energy more efficiently and budget effectively.
- Despite the Competition and Markets Authority's (CMA) attempts to improve price transparency, pricing is still not fully transparent, and it is difficult to compare prices.
- The supplier/TPI contracting process is, or is perceived to be, overly complex, costly and unclear, leading to some consumers ending up on expensive contracts with disadvantageous terms. Microbusinesses often rely on brokers to switch and lack of broker regulation is allowing room for poor practices.
- The absence of rules concerning debt management in this segment of the market is resulting in some microbusinesses who are struggling with debt being treated unfairly and not benefiting from customer-focused debt management policies and processes.
- Microbusinesses should be able to exit contracts without facing unnecessary fees, obstacles or complications.

Ofgem will announce a package of measures to address these deficiencies in the autumn. The review announcement can be found [here](#).

Energy efficiency scheme proposed for SMEs

BEIS has proposed an energy efficiency scheme that is aimed at promoting the installation of energy efficiency improvements in buildings. This scheme is not intended for improvements to manufacturing processes, but general energy use for business activities.

BEIS has identified the following barriers to SME businesses embracing energy efficiency:

- Lack the time and resources to explore energy efficiency
- Lack of information about energy use in their businesses

- Lack of internal resources to develop and implement; and rarely do they view energy efficiency as a priority
- Access to financing for energy efficiency measures is constrained by insufficient capacity to develop bankable projects with financial institutions.

To counteract these barriers, BEIS proposes three options for increasing take up of energy efficiency improvements:

Auctions

BEIS could set up a periodic energy efficiency auction based on competitive tenders for projects or programmes to be rolled out to business premises. Any auction design would ensure that auctions brought forward energy efficiency at the lowest possible cost, while still ensuring diversity.

Business ECO

The Government could set up a business equivalent to the current Energy Company Obligation (ECO), where large domestic suppliers are required to arrange and fund energy efficiency installations in domestic premises.

Expanding access to finance options

Though BEIS recognises that a financing option on its own will not address the information and resource barriers, it wants to understand how it can encourage banks and Energy Service Companies to engage in the SME market. The call for evidence is [here](#).

Consultation on the enrolment of Secure SMETS1 meters in the Data Communications Company (DCC)

BEIS has published a consultation on whether to enrol 'first generation' SMETS1 meters into the Data Communications Company (DCC). The DCC is the GB-wide data and communications services provider. The Government's intention to make sure consumers with these meters can benefit from smart functionality as intended, by using them through the DCC.

BEIS did an analysis comparing the proposal versus the do-nothing scenario, whereby customers with SMETS1 meters would either lose smart functionality or require a new meter when they switch suppliers. The Cost-Benefit Analysis results in a net benefit of £103m to gas and electricity customers, which will avoid the premature replacements of SMETS1 meters. In terms of security, BEIS is confident that the appropriate level of security can be achieved with the SMETS1 meter integration with the DCC. The full consultation can be found [here](#).

Energy news and regulation affecting I&C businesses

Energy news and regulation affecting I&C businesses

Electricity Demand Reduction (EDR) Pilot - Final Evaluation Report

BEIS has submitted its final evaluation report on the Electricity Demand Reduction (EDR) pilot. The report assesses whether there is potential for energy efficiency projects to compete with generation in the Capacity Market. The report identified several hurdles to demand side response activities being included in the Capacity Market. Participants and non-participants found partaking in the pilot administratively burdensome, risky, and the remuneration was often considered insufficient when faced with complexity, metering issues and penalties. The weighted average prices in the EDR were over £200/kW (the minimum considered acceptable to participate by many). This is over ten times higher than the average Capacity Market clearing price. The pilot was considered a success in the sense that it did bring forward projects, including a few new demand control projects, though out of the 25 projects that took part in the pilot, eight would have proceeded in the same way without the EDR pilot. The final report can be found [here](#).

BSUoS under review

Ofgem has asked National Grid to review Balancing System Use of System (BSUoS). National Grid concluded that BSUoS provides no useful signal for parties to respond to, but instead creates a risk premium that both generators and suppliers must manage. It proposes that Ofgem changes BSUoS so it is paid by suppliers in line with other residual charges, in a more stable manner. NB. These costs will be passed through to customers in the same way as other system charges. The report is [here](#).

Energy Savings Opportunity Scheme (ESOS) phase 2 deadline is December 5 2019

BEIS and the Environment Agency have provided guidance on compliance with the Energy Saving Opportunity Scheme (ESOS), a mandatory energy assessment scheme for organisations in the UK. ESOS requires organisations in the UK that meet the qualification criteria to:

- Review energy usage every four years to identify initiatives that reduce energy consumption; and
- Register with The Environment Agency (the scheme administrator)

ESOS runs every four years, and the deadline for the second phase is 5 December 2019. If a business meets any of the below criteria, it must comply with ESOS:

- Over 250 employees (or an overseas company with over 250 UK employees)
- A turnover of over £44.1m (€50m) or an annual balance sheet of over £37.9m (€43m)
- Part of a larger organisation, which meets the above criteria

The deadline for the second compliance period (ESOS phase 2) is 5 December 2019. The guidance can be found [here](#).

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