UK Energy Sector: Summer of Change

October 2021

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1. Foreword

The summer of 2021 may well shape the UK energy sector (and the related sectors it impacts) for many years to come. Ofgem and BEIS released over forty consultations from June to September. Some of these come from the extra impetus given to the decarbonisation agenda, with a focus on publishing demonstrable policies and steps forward before the start of COP26 in Glasgow. However, none of these consultations predicted or took into account the issues that have dominated the front pages of newspapers since late summer, relating to supplier failures, gas price rises and fuel shortages on forecourts.

At the start of the year, there were around fifty domestic suppliers in the market. By the Spring, power traders were noting that the wholesale price seemed to be ticking up but none appear to have anticipated the near exponential rise in electricity wholesale prices. There was less capacity on the system due to both depressed wind and solar conditions and an outage on a key interconnector to France, but the main cause of the rises in power markets was the runaway increase in gas prices. The cold winter of 2020 led to reduced gas stores across Europe and competition for LNG meant that much of it was diverted to Asia. This, combined with legal and geopolitical uncertainty over the Nordstream 2 gas pipeline, led to forward power curves increasing threefold and gas spot prices increasing, at one point, by over twentyfold. The rise in gas prices was eventually curtailed after Russia's president stated that Gazprom may increase supplies to Europe. What Russia will demand in return remains to be seen. Related or not, Nordstream 2's previously unsuccessful attempt to bring a challenge against EU regulatory obligations received a timely favourable opinion from the ECJ Advocate General on appeal in October.

We might have considered these events as resulting from a transitory geopolitical or supply side issue that will eventually right itself, were it not for the continuing knock on effects it has had on the retail market. It is unfortunate for a sector that prides itself on carving the path to net zero that the events of the summer have brought into sharp relief how reliant the UK is on gas and oil for power and transport respectively. Gas remains the choice for dealing with peaks and continues to be pivotal in setting the marginal price of power. This is a European wide issue; gas may not generate the majority of the electricity consumed in Europe but it is involved in setting the marginal price most of the time.

More embarrassingly, the crisis has brought into focus the fundamental flaws in the UK's retail market. Commentators have, for many years, been critical of Ofgem's measures of success for the retail market, which seem to have focused on breaking the dominance of the so-called "Big Six" suppliers (which should perhaps now be renamed the "Big Five"). Ofgem appears to have appraised success based on the number of competitive suppliers in the market, the extent of switching and the cut price deals offered by new entrants to entice customers to switch.

However, the supply market was always a low margin business. To be competitive, many of these suppliers were thinly capitalised and had inadequate hedging arrangements in place to ride the shock of the increase in gas prices. Fourteen supply companies have collapsed to date this year, leaving confidence among consumers and traders in the challenger retailers at an all-time low. Further failures are expected over the coming weeks.

The shock to consumers of these failed retailers will not end with some of them being shifted automatically to a supplier of last resort and onto a standard variable tariff. In addition, the cost of these failures (likely to be in the £billions) will fall onto all energy consumers. Energy bills will rise, with commentators anticipating increases of £300-£400 in the coming year due to, amongst other reasons, costs being claimed by the suppliers of last resort through industry charges and mutualised for those levies that remain unpaid. As far as I am aware that would be the largest ever annual rise in energy bills in the UK. Further, energy intensive industries who are also exposed to the volatility in

the wholesale energy prices will feel the pinch this coming winter. The focus will then shift onto jobs and the wider economic impact.

It seems unhelpful to suggest that we need more consultations. Yet, the current issues facing the sector may benefit from a broader look again at the industry framework, and whether the market arrangements in place still deliver for us thirty years since privatisation, and over twenty years since retail market opening, and the creation of the current wholesale market framework. Whether there will be appetite for major reforms may depend on whether the "energy crisis" passes quickly, or if high prices and volatility are here for a while.

Displaying uncharacteristic nimbleness, the European Commission has already launched a 'toolbox' of short and medium term measures to address the impact of price increases and improve resilience, including a previously unthinkable review of the marginal pricing model. It remains to be seen whether the UK will follow through on its commitment to lead the world in innovation by also being bolder in revisiting some of these market fundamentals.

The philosophy behind privatisation, that market forces and investment signals within a transparent regulatory framework would deliver the best outcome for customers, has been almost completely eroded over the past fifteen years. The UK government and Ofgem have become accustomed to being the focal point for the industry, with the solution to almost every problem being more government intervention. If the energy crisis leads to sustained higher prices, these will likely require more government intervention to protect customers from (too sharp) rises in energy bills. Particularly as these rises will likely occur against a post-COP backdrop of policy commitments to significantly invest in new low carbon infrastructure, the funding of which would likely lead to even more price increases.

In the meantime, major corporates are likely to be revisiting their power procurement strategy, which may give a further boost to those companies with sufficient demand and credit to contract for their energy needs long term at lower prices. However, this may lead to fewer and smaller customers picking up more of the costs of high and volatile marginal prices.

The Covid-19 recovery was touted as an opportunity for a green reset of economic activity. A further question may be whether the UK economy will have the bandwidth to achieve all of these ambitions in the current energy climate. Will there be winners and losers? If so, which will government intervention or market forces favour?

This document summarises the main consultations and publications issued over the summer under the headings of networks, new and emerging technologies, and the wider industry structure and regulatory frameworks. The outcome of these consultation processes will play a key role in reshaping our sector for the coming years and in achieving the UK's wider societal and political ambitions. As noted, further and possibly deeper reviews of the sector are inevitable and so this will not be the end of the run of consultations. Anyone with an interest in the future of the sector will need to stay on top of the proposals coming thick and fast from BEIS and Ofgem.

The events of these past months have also changed the landscape in which we are reviewing the various proposals that have already been issued. These events mean that none of the consultations in the Summer of Change can be looked at as they would have been only a few months ago. They interact not only with the post-Covid recovery plans and the UK's ambitions from COP26, but also in some way or other with the ripple effects from the continuing "energy crisis".

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2. Executive Summaries

Networks

2.1 OTNR: Early Opportunities

2.1.1 Ofgem published its first consultation (the "**Consultation**") in a series as part of the Offshore Transmission Network Review (the "**OTNR**"). The OTNR aims to better co-ordinate the design and delivery of offshore energy network infrastructure in support of the UK government's ambitions to procure 40GW of offshore wind capacity by 2030 and reach net zero carbon emissions by 2050. The Consultation covers three key components of the OTNR: early opportunities; pathway to 2030; and multi-purpose interconnectors. The Consultation identified key barriers to implementation of the concepts, including the management of anticipatory investment. It also recognises that there may be a need to change policy to facilitate co-ordination and the amount of investment required to connect large projects in the future.

2.1.2 The Consultation closed on 8 September and is currently waiting decision.

2.1.3 Minded-to proposals and decisions in respect of the Consultation are expected later this year. Later in the year, the Department for Business, Energy and Industrial Strategy will publish a consultation on the enduring regime for projects connecting beyond 2030 (including MPIs) and further policy consultations will be issued in early 2022.

2.2 OTNR: Pathway to 2030

2.2.1 This article is the second in the OTNR series and focusses on the "*Pathway to 2030*" framework. The Pathway to 2030 workstream covers offshore projects that aim to be operational by 2030, but which are not currently "in-flight". Ofgem focusses on three areas: developing a generation map showing where projects are expected to be located and when they are expected to connect to the system; producing a design for network infrastructure; and considering options for the efficient delivery of the coordinated infrastructure required to connect offshore generation. The Consultation notes that this workstream might require fundamental changes to existing charging arrangements

2.2.2 The Consultation closed on 8 September and is currently waiting decision.

2.2.3 In respect of the Pathway to 2030 workstream, further policy consultation is expected in December 2021 – January 2022 with decisions and implementing consultations issued in May – June 2022. Changes to facilitate the Pathways to 2030 delivery model are expected to be in place by July – September 2022.

2.3 OTNR: Multi-Purpose Interconnectors

2.3.1 This article is the third of three articles looking at the OTNR and focuses on Multi-Purpose Interconnector Framework ("**MPI**"). The objective of the OTNR's MPI workstream is to explore amendments to the current regulatory and legal framework to facilitate MPIs. The Consultation aims to support and build on the conclusions of the Integrated Transmission Planning and Regulation ("**ITPR**") which reviewed how regulatory barriers for multi-purpose projects could be addressed. The Consultation sets out two main concepts for MPI development: the interconnector-led model; and the OFTO-led model.

2.3.2 The Consultation closed on 8 September and is currently waiting decision.

2.3.3 Ofgem intends to signal policy options later in the year and there will be further consultations on the implementation of changes to the framework including undertaking Impact Assessments as required. The ICPR is expected to be published in Autumn 2021. BEIS will

also be publishing a consultation on a future enduring regime for projects connecting beyond 2030 later in 2021.

2.4 CATO Legislation

2.4.1 On 3 August, the Department for Business, Energy & Industrial Strategy published a consultation (the "**Consultation**") on Competition in Onshore Electricity Networks. This follows the Government's confirmation in December 2020 that it would bring forward legislation to allow competitive tenders for the building, ownership and operation of the onshore electricity networks. Competitively Appointed Transmission Owners have been under consideration for a long time. The Consultation highlights three key policy considerations: flexibility on the body appointed to run tenders; flexibility on the stage for competition: including Early stage, late stage and very late stage competition; and flexibility on competitive solution. The consultation also sets out an indicative timeline for competitive tenders.

2.4.2 Responses to the Consultation are due by 26 October 2021.

2.4.3 Primary and secondary legislation will need be to implement any decisions made on competition. No date is given for the Government's response to the Consultation, but it is noted that this will be 'in due course'. It is noted that the Government will continue to work with Ofgem and other stakeholders as the details of competitive frameworks are developed.

2.5 Early Competition

2.5.1 Ofgem is a step closer to fruition in being able to compete onshore transmission projects within the wider market to companies other than the incumbent transmission owners ("**TOs**"), notably by incorporating "late competition" models within the RIIO-T2 price control licences using a Large Onshore Transmission Investments ("**LOTI**") Re-opener condition together with issuing associated LOTI Guidance and Submissions Requirements Document. This form of late competition has already begun to have a potential impact on projects in development, with the publication of the recent Eastern HVDC Initial Needs Case.

2.5.2 Now, Ofgem are taking this further in seeking to bring "early competition" models to the market. In 2019, the National Grid Electricity System Operator ("**ESO**") was tasked with developing a model for early competition, culminating in the submission by the ESO to Ofgem of its Early Competition Plan ("**ECP**") in late April 2021. Ofgem shortly after published an open letter making it apparent that soon early competition would also likely to have a role to play in the onshore transmission market.

2.5.3 Ofgem intended to consult on Early Competition in July 2021, with a view of making a decision by early 2022, whilst in the meantime agreeing with the ESO that there are various "**low regret**" activities the ESO can immediately start work on. With the extent and nature of the activities referred to in the ECP, quarter 1 of 2024 for the first tender launch is ambitious.

New and emerging technologies

2.6 AR4

2.6.1 On 7 May 2021, the Department for Business, Energy and Industrial Strategy ("**BEIS**") announced that the Fourth Allocation Round ("**AR4**") for the low carbon Contracts for Difference ("**CfD**") scheme will open in December 2021. BEIS has also published its consultation response on the CfD contract and Supply Chain Plan ("**SCP**") amendments for AR4, which confirms most of the amendments proposed by BEIS in its consultation of 24 November 2020. The aim of AR4 is to double the capacity of renewables from the 5.8GW achieved in the previous round to up to 12GW, and also expand the number of technologies supported.

2.6.2 The specific December date for AR4 opening has not yet been announced.

2.6.3 On 4 October 2021, BEIS opened a further consultation seeking views on further clarificatory and technical drafting of AR4. This will close on 31 October 2021.

2.7 Long Duration Energy Storage

2.7.1 On 20 July 2021, the Department for Business, Energy and Industrial Strategy ("**BEIS**") published 'Facilitating the Deployment of Large-Scale and Long-Duration Electricity Storage' (the "**Call for Evidence**"). The Call for Evidence considers the role that large-scale and long-duration energy storage ("**LLES**") may play in the transition to net zero in the UK and seeks feedback from stakeholders in relation to the pipeline of LLES projects, existing challenges to deployment, and what can be done to overcome these challenges. This is within the context of BEIS considering the need for greater deployment of LLES and the market challenges LLES faces which hinders deployment at scale. The Call for Evidence identifies several barriers that are hindering deployment of LLES at scale, namely: high upfront capital costs and long lead times; lack of track record; revenue uncertainty; and market signals. It also identifies three possible mechanisms for de-risking LLES and bringing forward investment: Regulated Asset Base; Cap and Floor mechanism; and Contract for Difference Regime.

2.7.2 This Call for Evidence closed on the 28 September 2021, and BEIS is currently analysing the feedback. Prior to closing, there were no further significant announcements.

2.8 Hydrogen

2.8.1 On 17 August 2021, the UK Government Department for Business, Energy and Industrial Strategy published its inaugural Hydrogen Strategy. The strategy reinforces prior commitments made by the government to deploy hydrogen to decarbonise parts of the electricity, heating, transport and industry sectors, and provides more definition as to how these commitments are intended to be achieved. It also sets forth the government's vision for a hydrogen roadmap over the 2020s, the availability of funding packages and, as indicated in the government's Ten Point Plan, launches a consultation on hydrogen business models. In this article, we provide an overview of some of the key points coming out of the Strategy and comment on how the Strategy aligns with the wider framework of hydrogen policy developments.

2.8.2 Given the long-term nature of this strategy, it is likely progress reports and further consultations will be published in due course.

2.9 Vehicle-to-X

2.9.1 On 20 July 2021, the Department for Business, Energy & Industrial Strategy published a consultation calling for evidence about the use of vehicle-to-X energy technologies in the future of the energy system in Great Britain (the "**Consultation**"). The term 'vehicle-to-X' or 'V2X' in relation to electric vehicle ("**EV**") charging technology refers to 'vehicle-to-everything' and is used to describe technology that allows the bidirectional flow of power from an EV back to a system. V2X technology goes further than smart charging in enabling the wider network to draw power from an EV battery in response to peaks in demand or other system requirements. The Consultation notes that V2X technology has remained in the technical trial stage with barriers to wider adoption and rollout. These include high equipment cost and barriers for technology suppliers to participate in highly regulated energy system. The Consultation outlines the identified barriers to uptake in more detail.

2.9.2 The Consultation is open for input from relevant stakeholders such as network companies, EV OEMs, energy suppliers, chargepoint operators and flexibility providers until 12 October 2021.

2.10 Energy Digitalisation Strategy

2.10.1 On 20 July 2021, the Department for Business, Energy and Industrial Strategy published its 2021 Strategy and Action Plan on digitalising the energy system for net zero (the "**Strategy**"). The Strategy is the first of its kind in the UK and sets forth the government's

plans to accelerate the transition towards a fully digitised energy system that enables the UK to meet its decarbonisation targets. The Strategy builds on the impetus for energy digitalisation identified in other governmental plans, such as the Energy White Paper. It sets out the government's plan to digitally modernise the energy system as it transitions away from high carbon to low carbon technologies and decentralises. The Strategy aims to ensure that, as low carbon generation is increasingly integrated onto the network, valuable and accessible system-wide data is used and optimised to drive efficiencies, while benefitting consumers and lowering system management costs.

2.10.2 Given the long-term nature of this strategy, it is likely progress reports and further consultations will be published in due course.

2.11 EV Smart Charging

2.11.1 In July 2019, the Department for Transport and the Office for Zero Emission Vehicles launched a consultation on proposals for new EV chargepoint smart technology regulations. On 14 July 2021, the Government published its final response to the electric vehicle smart charging consultation that was closed in May 2020. The Government has followed the proposals under the consultation and is approaching the roll-out of smart charging requirements over two phases. Phase 1 involves the Government using its powers under the Automated and Electric Vehicles Act 2018 ("**AEV Act**") to require that EV chargepoints sold or installed in the UK have 'smart charging' functionality included. Phase 2 would mandate requirements beyond the smart chargepoint devices themselves, and instead apply rules to chargepoint operators and electricity aggregators, as well as updating device-level requirements. As the requirements are expected to go beyond the device only powers of the AEV Act, Phase 2 would require new primary legislation.

2.11.2 The Government proposes to publish the regulations under the AEV Act in Autumn 2021. More detail around the phase 2 legislation is expected in 2022.

2.12 Road Transport Decarbonisation

2.12.1 On 14 July 2021, the UK Department for Transport published the following:

(a) The wide-reaching policy plan on decarbonising transport and the targets and ambitions required to meet the UK's net zero targets;

(b) A delivery plan designed to bring together all of the committed funding streams and measures for decarbonising cars and vans together with the Office for Zero Emission Vehicles;

(c) The outcome of the 2019 electric vehicle ("**EV**") smart charging consultation;

(d) a Green Paper on the proposed regulatory framework for the UK with regard to emissions standards for all newly sold road vehicles;

(e) a consultation on when to phase out the sale of new, non-zero emission heavy goods vehicles; and

(f) The Government response to its March 2021 consultation on changes to the RTFO to accelerate transport decarbonisation.

2.12.2 In this Law-Now, we examine what these publications entail for road transport, particularly the Zero EV sector. It is well recognised that there are a wide range of policy, regulatory and infrastructure challenges for the UK to overcome to meet its targets to fully phase-out new diesel and petrol vehicles by 2030 and meet its wider net zero commitments. The announcements covered in this Law-Now signal the start of a period of focus and momentum on these issues from Government to ensure such ambition can be turned into reality.

2.13 CMA EV Market Study

2.13.1 In May 2021, the Competition and Markets Authority ("**CMA**") published a second progress update in the electric vehicle ("**EV**") charging market study and notice of its decision not to make a Market Investigation Reference ("**MIR**"). The second progress update builds on the segments identified in the first market update and notes emerging issues in: en-route rapid/ultra-rapid charging, in particular on motorways; on-street slow/fast local charging i.e. on the kerbside or in local hubs; and how consumers interact with both off-street home charging and public charging. Ultimately, the CMA has decided not to make a MIR as it believes that the issues could be effectively and proportionately addressed through alternative outcomes. The CMA did not disclose its favoured remedies. However, it could: make recommendations to Government; publishing guidance and/or recommendations to businesses; take customer-focussed action – for example, organising information campaigns to empower consumers to make more informed purchases. The CMA has the option to revisit the case for a MIR if the features of the market change in the future.

2.13.2 The CMA published its market study report, setting out its full findings alongside a package of remedies, in July 2021 – ahead of the statutory deadline (being 1 December 2021). The detail, flexibility and extent of the CMA's remedies will be keenly awaited by the fast-paced and growing UK EV charging sector. In its first progress update, the CMA noted it was working closely with the Office for Zero Emission Vehicles so the sector will be hoping for a joined-up approach to any regulation and practical solutions to emerging issues.

2.13.3 In July, it also published a press release setting out the requirement for further action to be taken if the UK is to meet its net zero commitments. It notes that while some areas are developing quickly to meet targets, there is regional disparity. The CMA also set out principles that should be followed to encourage consumer uptake of EVs. On 23 July, the CMA also opened an investigation into suspected breach of competition law relating to long term exclusivity in supply of electric vehicle charge points near motorways.

Industry structure and regulatory frameworks

2.14 RO Supplier Payment Default

2.14.1 On 10 August 2021, Ofgem and the Department for Business, Energy and Industrial Strategy ("**BEIS**") published a joint consultation (the "**Consultation**") focusing on supplier payment default under the Renewables Obligation support scheme ("**RO**"). The Consultation seeks to address a trend in recent years which has seen an increasing number of electricity suppliers defaulting on their obligations under the RO by failing to settle their obligation by the deadlines. Supplier payment defaults ultimately result in the remaining suppliers in the market having to meet the unpaid obligations of competitors. The Consultation recognises recent legislative measures have not gone far enough and proposes several options to address supplier payment default under the RO, which may involve introducing new legislation or amending the supply licence.

2.14.2 The Consultation closes on 9 November 2021.

2.14.3 Any legislative approach would need to be carefully considered and further scrutiny will be published in due course. BEIS has also published a call for evidence, which closes on 6 December 2021 to increase its understanding of how third-party intermediaries operate in the energy retail market.

2.15 FCA Diversity and Inclusion Listing Rules

2.15.1 This publication examines the FCA consultation that proposes (1) to introduce a new obligation in the Listing Rules, and (2) an amendment to the corporate governance rules within the FCA's Disclosure Guidance and Transparency Rules. Both have the intention of enhancing market integrity by encouraging increased transparency and the provision of

enhanced data for companies and investors alike to assess a company's progress in ensuring a diverse board.

2.15.2 This consultation opened on 28 July 2021, and remains open, closing on 20 October 2021.

2.16 Retail: Third Party Intermediaries

2.16.1 On 16 August 2021, the Department for Business, Energy & Industrial Strategy ("**BEIS**") published a call for evidence (the "**Call for Evidence**") to increase its understanding of how third-party intermediaries ("**TPIs**") operate in the energy retail market and whether there are any business models BEIS should consider for the operation of TPIs going forward. While TPIs offer valuable services to the market, such as price comparison websites and brokers for business customers, there are concerns that if unchecked, the actions of some TPIs could lead to customer harm. The Call for Evidence focusses on both domestic and business customers and the types of harm caused citing a lack of information transparency; contracting and sales arrangements; customer service arrangements; and out of court dispute resolution. The Call for Evidence also briefly covers risks to the energy systems and the potential regulatory regime.

2.16.2 Responses are due to the Call for Evidence by 06 December 2021, at which point BEIS will consider next steps issuing further consultations as required, particularly with a view to features of any future TPI regulatory framework.

2.17 Carbon Content in Energy Products

2.17.1 On 16 August 2021, the UK government Department for Business, Energy & Industrial Strategy published a consultation (the "**Consultation**") to kick-start design of a new framework to ensure transparency of carbon content in energy products. The Consultation seeks input from a broad range of stakeholders – including suppliers, generators, regulators and consumers – and asks broad ranging questions primarily focussed on customer expectations. The Consultation is critical of so-called "greenwashing" – the practice of making a business' products or policies seem more environmentally friendly than they are. It notes that the Competition and Markets Authority (the "**CMA**") is developing principles to prevent misleading information.

2.17.2 In August, the government released a press-release saying it was planning to tighten rules to prevent greenwashing. The Consultation closes on 6 December 2021.

2.17.3 The CMA report is expected sometime in 2021. On 22 September, the CMA published a Green Claims Code with advice on preventing businesses making spurious environmental claims.

2.18 Greenwashing Guidance Launched

2.18.1 The Competition and Markets Authority (the "**CMA**"), UK's Consumer law regulator, published its final guidance for businesses on "green claims", together with a Green Claims Code to help businesses comply with the CMA's interpretation of the law. This is CMS' next step in the investigation into environmental claims, launched in November 2020, and following the draft guidance published for consultation earlier this year.

2.18.2 The CMA is encouraging businesses to consider and apply the guidance in advance of a compliance review, commencing in early 2022. Given the CMA's actions to-date, enforcement action can be anticipated even where the guidance stretches the boundaries of underlying consumer law. This, coupled with the current consultation on the CMA's wider enforcement powers, including the ability to fine businesses 10% of global turnover for consumer law infringement, means that consumer law risk should be high on any business's agenda.

2.18.3 The new guidance will likely be a key tool in the ASA's wider enforcement toolkit, with breaches of the guidance indicating a breach of the CAP Codes, and even, in the case of more serious or repeat breaches, leading to CMA or Trading Standards enforcement.

2.18.4 Over the next few months, businesses are therefore well-advised to review the guidance and their current practices, adapting them where appropriate, and to prepare for any compliance review and potential enforcement action down the line.

2.19 Energy Code Governance

2.19.1 On 20 July 2021, Ofgem and the Department for Business, Energy & Industrial Strategy published a joint Consultation (the "**2021 Consultation**") on the Design and Delivery of the Energy Code Reform seeking views on a range of proposed reforms to a broad spectrum of energy codes. The 2021 Consultation followed on from a joint 2019 consultation (the "**2019 Consultation**") on Reforming the Energy Industry Codes. The 2019 Consultation highlighted overarching challenges with the current code governance framework – that it is fragmented, reactive as opposed to forward-looking and overly complex. The 2021 Consultation echoes these criticisms and builds on proposals in the 2019 Consultation, putting forward two alternative reform models aimed at creating a more unified, coherent and dynamic approach. Model 1 involves a split strategic function performed by a separate 'strategic body', with separate code managers; Model 2 is an 'integrated rule making body' where the strategic function and code manager function is combined.

2.19.2 The closing date for responses to the 2021 Consultation was 28 September 2021. BEIS are currently analysing stakeholder feedback.

2.20 Future System Operator

2.20.1 On 20 July 2021, the Department for Business, Energy & Industry Strategy and Ofgem published a joint consultation (the "**Consultation**") in respect of its proposals for a Future System Operator (the "**FSO**"). The Consultation follows Ofgem's review of the GB energy system operation in January 2021. The electricity and gas system operators are currently both ultimately owned by National Grid plc., the Electricity System Operator ("**NGESO**"), which is a legally separate entity within National Grid's wider group, and the Gas System Operator is integrated within the National Grid Gas business. The Consultation proposes that all the current NGESO roles and functions are to be carried out by the FSO and in respect of gas system operation, the FSO should undertake strategic network planning, long-term forecasting, and market strategy functions only.

2.20.2 The Consultation closed on 28 September 2021 and feedback is currently being reviewed.

2.20.3 Further consultations will follow in respect of the more detailed aspects of the proposals set out in the Consultation such as the FSO's licensing and funding arrangements, mechanisms for incentivising desired outcomes and appropriate mechanisms for engaging sector participants in operation and oversight.

2.21 Smart Systems and Flexibility Plan 2021

2.21.1 In July 2021, the Department for Business, Energy & Industrial Strategy and Ofgem published the long-awaited updated Smart Systems and Flexibility Plan 2021. The takeaways from the plan are: that the government is seeking to take action to regulate and standardise smart energy appliances and products and private electric vehicle chargepoints; that a more sophisticated and clearer regulatory framework for storage and interconnectors will be required in order to integrate new technologies into the grid; that reform of flexibility markets is required in order to appropriately reward providers of flexibility for the value they provide to the system and improve price signals; and that harnessing the power of data across a digitalised energy system will be essential in optimising system assets.

2.21.2 To deliver flexibility at the pace and scale required for achieving net zero ambitions, the actions and directions set out by the government in the plan must advance with a greater sense of urgency and momentum.

2.21.3 We can expect to see further consultations emanating from the plan to enable its implementation.

2.22 Ofgem Enforcement Procedure

2.22.1 In June 2021, Ofgem published a consultation proposing a range of modifications to its Enforcement Guidelines and statement of policy with respect to financial penalties and consumer redress. These collectively outline the procedures a regulator must follow in taking enforcement action. Under the present guidelines there are three settlement windows (early, middle and late). Ofgem proposes to remove the 'middle' and 'late' settlement windows and retain only one settlement window at a 30% discount, In addition, Ofgem proposes that the Ofgem Director responsible for enforcement can be the decision maker for settlement cases. Enforcement Guidelines describe how Ofgem will use its sectoral enforcement powers, provide redress for consumers and address infringing behaviour The separate statement of policy sets out a number of factors that Ofgem must take into account when determining whether to impose financial penalties/consumer redress orders (and their quantum and/or remedial actions).

2.22.2 Key proposals in the Consultation include: removing the 'middle' and 'late' settlement windows and retaining solely the early window at a 30% discount; providing that the Ofgem enforcement Director can be the decision maker for settlement cases, in lieu of the more independent Settlement Committee; clarifying the framework for enforcement orders; limiting the calculation of the 'gain and detriment' element for financial penalties only where it is "reasonable and practical to quantify"; and moving to a principles-based approach when calculating the 'penal' element for financial penalties.

2.22.3 While Ofgem contends that these changes simplify and speed up the enforcement process, closer scrutiny of the proposals suggests that valuable safeguards and protections may have been lost in the process.

2.22.4 The consultation closed on 4 August 2021 and a decision is awaited. Since then, Ofgem has also issued a consultation seeking views on similar proposed changes to its REMIT Procedural Guidelines and REMIT Penalties Statement.

2.23 Ofgem consults on REMIT

2.23.1 Ofgem proposed a series of changes to its REMIT Procedural Guidelines ("**REMIT Guidelines**") and REMIT Penalties Statement published in a consultation (the "**Consultation**") on 17 August 2021; this seeks to bring the Guidelines in line with Ofgem's Enforcement Guidelines and Sectoral Penalty Statement, with the proposed modifications set out in a consultation published on 9 June 2021 (the "**June Consultation**").

2.23.2 The changes notably reflect the developments in Ofgem's wider approach to enforcement and revisions to make REMIT processes clearer and more efficient.

2.23.3 The deadline for this was 28 September 2021, thus industry participants wishing to respond to the Consultation should have already done so.

2.24 SCR: Access and Forward-looking Charges

2.24.1 In December 2018, Ofgem launched a Significant Code Review in relation to network access and forward-looking charges. Following its review, Ofgem published its minded-to decisions on 30 June 2021. The launch of the SCR Consultation follows Ofgem's consultation on 18 June 2021 on its proposed approach to reviewing the level of competition in the electricity distribution connections market. The findings of this will inform the next round of price controls ("**RIIO-ED2**") for DNOs which will begin in April 2023, under which Ofgem will set connection outputs and incentives on the service provided by DNOs. The SCR consultation acknowledges the interactions between the two and that the proposals could mean that DNOs incur new costs and could result in changes to network users' behaviour, which would need to be factored into the DNOs' RIIO-ED2 business plans.

2.24.2 The SCR was scheduled to consult on a minded-to decision in spring 2020, so the publication of the SCR Consultation in June 2021 is over a year late. The SCR Consultation, while delayed, has some significant proposals. However, there are many decisions still to be

taken by Ofgem and a lack of detail on implementation. This provides scope for stakeholders to present their thinking to Ofgem where it may be open to direction from industry. The SCR Consultation closed on 25 August 2021. Any implemented proposals would take effect from 1 April 2023 in line with RIIO-ED2.

2.24.3 Ofgem have since requested DNOS to submit their RIIO-ED2 business plans and have published guidance documents for this. A decision is still due on Ofgem's "Consultation on the proposal to review competition in the electricity distribution connections market".

2.25 UK ETS Challenge

2.25.1 *In R (Elliott-Smith) v Secretary of State for Business, Energy and Industrial Strategy and others [2021] EWHC 1633 (Admin)*, the High Court considered an application for judicial review challenging the decision to create the UK Emissions Trading Scheme (the "**UK ETS**"), which replaced the EU Emissions Trading Scheme ("**EU ETS**") following Brexit and was established (like the EU ETS) to encourage the reduction of emissions and greenhouse gases. Although the application was unsuccessful, this case adds to the growing pressure from environmental campaigners for the UK Government to focus on reducing emissions and meeting its net zero target by 2050, with a marked increase in court-based challenges by campaigners in recent years. The court concluded that, on the evidence, a reduction of greenhouse gas emissions could be achieved by the UK ETS and that BEIS had undertaken significant, detailed modelling work. The court held it was not appropriate to go behind this modelling, particularly where no rival modelling, or detailed criticisms of the modelling work, had been advanced.

2.25.2 For the waste sector, the effect of this decision is that municipal and hazardous waste incineration will continue to be excluded from the first phase of the UK ETS which takes place from 2021 – 2025. The second phase will run from 2026 – 2030 and a review may be undertaken prior to its commencement, with any necessary changes being made.

2.25.3 It remains to be seen whether governments in the UK and elsewhere, along with stakeholders from the private sector, will be seen to engage sufficiently with deeply held concerns of climate conscious individuals and groups and whether they introduce new legislation and schemes to head off further challenges of this nature.

2.26 Climate Change Committee Progress Report

2.26.1 The Climate Change Committee ("**CCC**") published its 2021 Progress Report to Parliament in June 2021 on the UK's progress in reducing emissions to deliver on its climate change commitments (the "**Report**"). The key takeaway from the Report is that, while significant commitments and statements of ambition to reach net zero have been expressed by the government over the last year, these have been undermined by delays to essential policy and legislation, and publication of much-needed plans and strategies. The CCC look at the April 2021 Sixth Carbon Budget which committed to reduce emissions by 78% by 2035 compared to 1990 levels. The Report looks ahead to the final Treasury Net Zero Review which was due for Spring 2021. It looks at the government's Heat and Building Strategy, which should provide detail of policy commitments for decarbonising UK buildings, originally promised by Summer 2020 and then rescheduled for Spring 2021. Also, the UK's nascent CCUS industry awaits the publication of the Hydrogen Strategy. In November 2020, the government ended the sale of new petrol and diesel cars in the UK by 2030. The Transport Decarbonisation Plan states that electric vehicle sales will need to be supported by the deployment of almost 280,000 public charge points across the country by 2030.

2.26.2 Looking ahead, it will be essential that lessons learned from the implementation of decarbonisation strategies across other industries and policy areas are taken into account in order to create an effective long-term roadmap to net zero. It is also to be seen how the £1.9 billion committed by the government for charging infrastructure and consumer incentives as part of the November 2020 Spending Review will be allocated and effectively applied.

2.26.3 In the run up to COP 26 we expect to see more information on the items raised in the report. However, the Treasury Net Zero Review is still to be published. The Heat and Buildings Strategy is also delayed due to government disagreements.

2.27 Capacity Market Improvements

2.27.1 The Department for Business, Energy and Industrial Strategy ("**BEIS**") has published its response to its consultation on the Capacity Market ("**CM**"). Of the ten proposals set out in the March 2021 consultation, eight will be implemented. In its response, BEIS confirms it will not proceed with its proposal to require Capacity Market Units ("**CMUs**") to register as Balancing Mechanism Units at this time. Nonetheless, the rejected proposals are to be considered again in the future. The proposals to be implemented are: changes to formulae and clarifications to Emissions Limits legislation; greater flexibility to CM Delivery Body in information it can consider in prequalification applications; preventing certain secondary trades from being rendered ineffective when the transferor's Capacity Agreement is terminated; reviewing the existing Covid-19 easements; extending the deadline for meeting the Extended Years Criteria; allowing refurbishing plant to have the same Long-Stop Date as new-build plant; disabling the net welfare algorithm for T-1 Auctions that are held only to meet the 50% set-aside commitment; and maintaining the minimum capacity threshold at 1MW.

2.27.2 BEIS reports that it will be engaging further with NGESO, Elexon and Ofgem to explore solutions to the issues raised by stakeholders in respect of this proposal and Balancing Mechanism participation more widely and will then develop policy proposals addressing these concerns. The regulations implementing the changes (namely the Electricity Capacity (Amendment) Regulations 2021 and Capacity Market (Amendment) Rules 2021) have been laid before Parliament and must be debated and approved by both Houses of Parliament before they can be made and come into force.

2.27.3 In July, the BEIS opened a consultation calling for evidence on early action to align with net zero. The consultation also outlines plans for a longer-term view of future option and for participation of overseas generation in the GB Capacity Market. The consultation will close on 18 October 2021.

2.28 Road to COP26

2.28.1 Approaching COP26, there is extensive discussion of the shift to net zero and how it will be achieved; a large part of this will be the transition from reliance on fossil fuels to a more environmentally sustainable energy portfolio. It is broadly understood that this transition should take place in a way which is fair to everyone – including those working in carbon intensive industries. This article sets out a timeline of some significant developments from an UK and EU energy and climate change sector perspective. We examine in more detail the North Sea Transition Deal ("**NSTD**") and how the oil and gas industry can reduce carbon emissions. We look at how the NSTD encourages collaboration between industry and government. We also look at how the industry is dealing with future exploration and development; and how it can responsibly decommission existing infrastructure. Finally, we explore how the industry is to be held accountable; how various stakeholders can cooperate; and the look at broader socio-economic considerations.

2.28.2 This Law-Now is part of our Road to COP26 series. We will be analysing and reporting on the implications of these events for the agenda at COP. We post updates on our climate change and sustainability pages.

2.28.3 Once the NSTD enters the implementation phrase, there will be bi-annual reports by those responsible for delivering the deal to BEIS. A supply chain champion is to be appointed by Summer 2021 and there will be a North Sea Transition Forum held in October 2021.

2.29 TNUoS

2.29.1 A call for evidence relating to Transmission Network Use of System ("**TNUoS**") charges levied on users of transmission networks in Great Britain (the "**Call for Evidence**") was

published by Ofgem on 1 October 2021, following the recent Access and Forward-Looking Charges Consultation. This Call for Evidence referred to the need for a broader review of transmission charging arrangements in the context of Ofgem's wider push for flexibility throughout the energy system, as well as Ofgem's Targeted Charging Review.

2.29.2 The Call for Evidence seeks stakeholder views to inform Ofgem's approach in relation to the extent to which a broader review of TNUoS would be beneficial, priority areas for reform of TNUoS, how a review of TNUoS might be taken forward, and timescales for any review and any subsequent modifications to current arrangements.

2.29.3 Following stakeholder feedback, if Ofgem deems that reform is required, a formal consultation will be issued on the subject. The Call for Evidence is open until 12 November 2021.

2.30 Support for Energy Intensive Industries

2.30.1 The Department for Business, Energy and Industrial Strategy ("**BEIS**") opened a consultation (the "**Consultation**") on 14 June 2021 to review the existing UK schemes to compensate energy intensive industries for indirect emission costs in electricity prices, specifically seeking views and evidence on the risk of carbon leakage due to the indirect emission cost from the UK Emissions Trading Scheme ("**UK ETS**") and the Carbon Price Support ("**CPS**"), which sectors are most at risk, and the design of the potential scheme if there continues to be a rationale for compensation.

2.30.2 BEIS is seeking a wide range of views on the risk of carbon leakage due to the indirect emission cost from the UK ETS and CPS mechanism as well as feedback on sector eligibility and scheme design.

3. Full articles

Networks

3.1 OTNR: Early Opportunities

Delivering 40gw of offshore wind: offshore transmission network review consultation – early opportunities for increased co-ordination

11 August 2021

Introduction

On 14 July 2021, Ofgem published a consultation (the "**Consultation**"), which will be the first in a series of consultations to be launched as part of the long awaited Offshore Transmission Network Review (the "**OTNR**"). Recognising that the current 'radial' or 'point to point' offshore connection would benefit from revision, the aim of the OTNR is to bring about greater co-ordination in the design and delivery of offshore energy network infrastructure (our previous commentary on the OTNR can be found here), in support of the UK government's wider ambitions to procure 40GW of offshore wind capacity by 2030, and reach net zero carbon emissions by 2050.

The Consultation covers three key components of the OTNR as follows:

1. Early opportunities –the objective of this area is to identify and facilitate opportunities for increased co-ordination in the near term, with a focus on "**in-flight**" projects;
2. Pathway to 2030 – the objective of this workstream is to implement regulatory changes to drive co-ordination of offshore projects that are progressing through the current ScotWind and Crown Estate Leasing Round 4 and will connect before 2030;
3. Multi-purpose interconnectors ("**MPIs**") – the objective here is to make tactical changes to facilitate early opportunity MPIs and develop an enduring MPI regime for 2030 onwards.

In this first of three articles, we focus on Ofgem's proposed changes to the Early Opportunities framework and comment on what this means for the stakeholders involved in these "**in-flight**" offshore wind projects as well as those to follow who may share the assets.

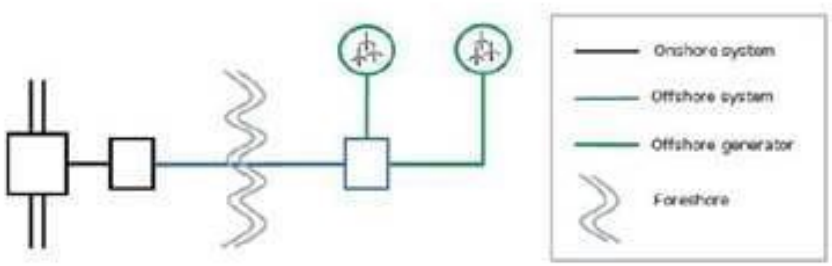
Proposed changes to the regulatory framework for early opportunities to increase offshore transmission network co-ordination

The Consultation notes that the aim of the Early Opportunities workstream is to facilitate greater co-ordination in the connection of offshore wind projects which are at an advanced stage of their development. For these projects, the Consultation wishes to identify ways to facilitate co-ordination for developers on an opt-in basis rather than enforcing co-ordination (which has been proposed for Pathway to 2030).

Following stakeholder feedback, Ofgem has identified six potential forms of co-ordination (referred to as "**concepts**" in the Consultation) for offshore wind projects that may be implemented by inflight projects. The Consultation explores how the Ofgem and the government could facilitate delivery of these concepts, either by leveraging flexibility within the existing regime or making changes to the

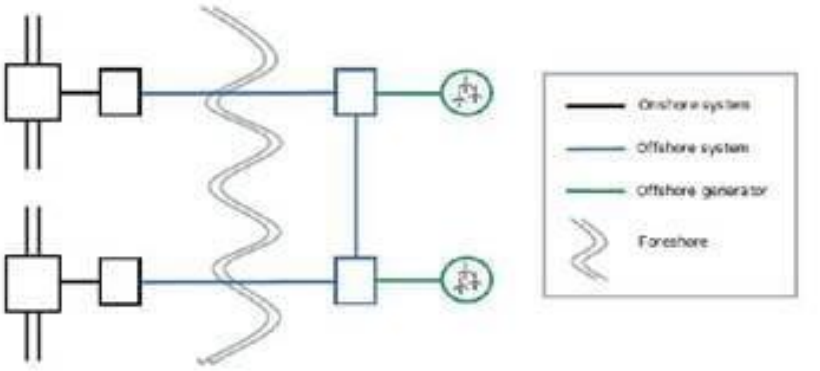
overall regulatory framework. The six concepts (together with illustrations from the Consultation) are as follows:

1. Shared offshore transmission system[1]



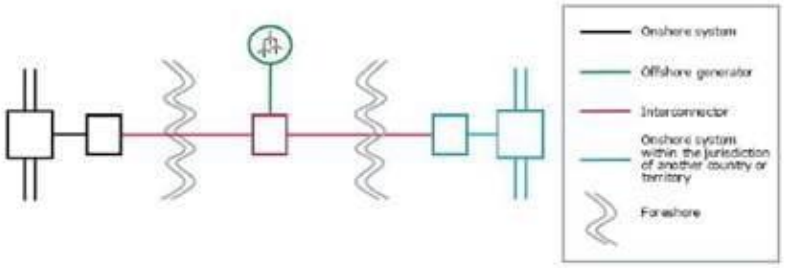
Multiple generators use a single offshore transmission system allowing for a reduction in landing points and fewer offshore substations compared to the usual radial links.

2. Quasi bootstrap2



Under this system, the two offshore generators are not connected to a single common onshore substation. Instead, a circuit is installed between respective offshore substations to link the wind farms. This method would not reduce infrastructure or landing points but instead reinforces the onshore system by way of quasi-bootstrap.

3. Multi-purpose interconnectors (MPIs) (interconnector-led model)3

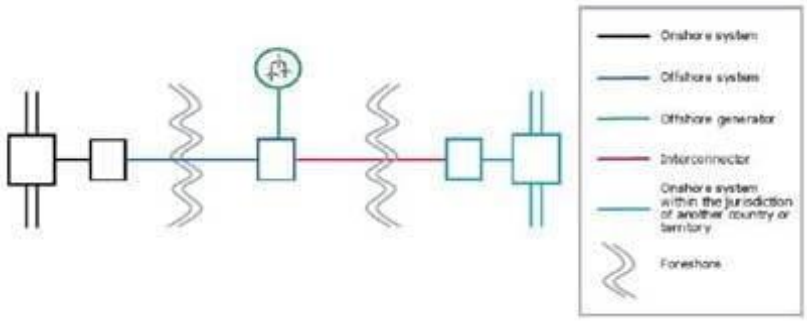


Offshore generators in the GB market are connected to the transmission infrastructure that is classified as an interconnector. The Consultation notes that this concept emphasises the

[1] Source: fig. 4, para. 2.13 of the Consultation.
[2] Source: fig. 5, para. 2.14 of the Consultation.
[3] Source: fig. 6, para. 2.16 of the Consultation.

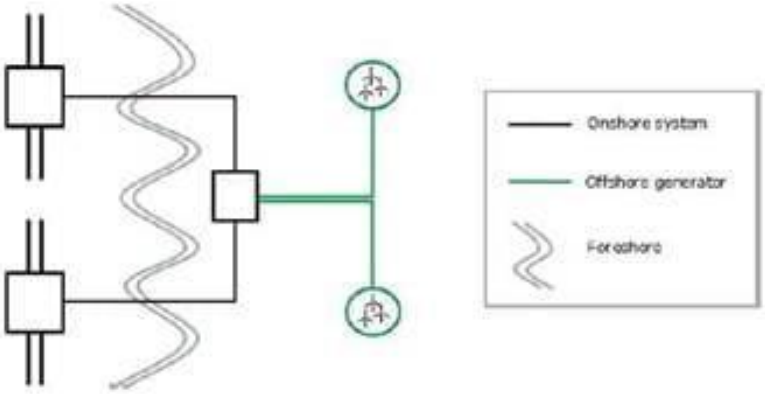
reduction in landfall points required to connect a certain amount of generation and interconnection to the wider electricity system.

4. MPIs (OFTO-led model)4



Under this concept, an offshore generator would be connected to transmission infrastructure comprised of distinct elements that are classified differently: (a) as an interconnector; and (b) an offshore transmission system. As above, this concept emphasises the reduction in landfall points required to connect a certain amount of generation and interconnection to the wider system.

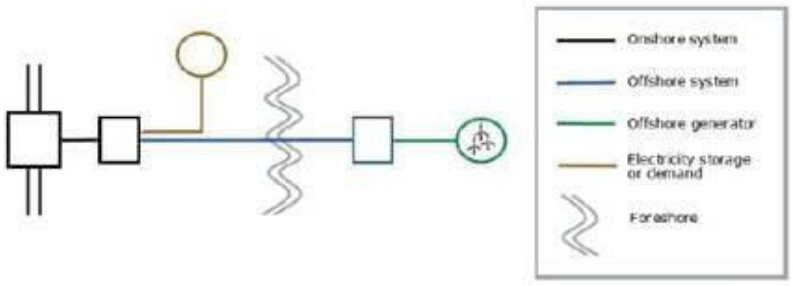
5. Connection to a Transmission-Owner owned bootstrap5



This concept involves an offshore generator being connected to a subsea electricity link (the onshore to onshore links being colloquially known as "**bootstraps**") between two points in the onshore transmission system, which is owned by a TO. The aim of this concept is to reduce the landing points and infrastructure required to connect generation to shore.

6. Connection of electricity storage or a demand user to an offshore transmission system6

[4] Source: fig. 7, para. 2.17 of the Consultation.
[5] Source: fig. 8, para. 2.18 of the Consultation.
[6] Source: fig. 9, para. 2.19 of the Consultation.



Under this concept, an electricity storage system or a demand customer such as an electrolyser is connected to the onshore or offshore elements of an offshore transmission system. This could allow for the electrification of oil and gas platforms, providing co-ordination also across energy vectors and not only for transmission infrastructure.

Barriers to implementation of the concepts

The Consultation acknowledges a number of barriers to implementing the six concepts set out above, the most significant being the management of anticipatory investment ("**AI**") risk. AI is an investment in transmission infrastructure that goes beyond the immediate needs of a specific offshore wind developer's project, reflecting the needs created by a likely future generation project or projects. A developer will seek certainty that such an AI will be recoverable and mitigate the inherent risk of 'stranded assets'.

Ofgem has grappled with AI risk throughout the development of offshore wind assets and is currently a consideration within the OFTO cost assessment process. Ofgem also considers AI in other regulatory regimes such as RIIO-ET2. The Consultation draws a distinction between 'AI' for a known future project (e.g. an offshore wind farm with a seabed lease) and 'highly AI' for unknown potential project or potential projects. Factors acerbating the lack of co-ordination due to AI risk are primarily due to:

(a) competitive pressures of the Contracts for Difference ("**CfD**") process which means that two projects may intend to co-ordinate and share assets, but one project may not secure a CfD and so unable to proceed and resulting in increased costs for the successful project; and

(b) Ofgem's cost assessment process and cost recovery in the OFTO and interconnector regimes and how this cost is then recovered through the transmission networking charging regime. Currently, all AI risk continues to remain with the project developer.

The Consultation recognises that there may be a need to change policy to facilitate co-ordination and the amount of investment required to connect large projects in the future.

Ofgem wants to strike a balance between being "**overly onerous**" and "**potentially exposing the consumer to risk it cannot control**"[7] in its decision as to whether highly AI should be supported. Hence, it is emphasising the need to assess whether there is a reasonable expectation that a developer will connect to the network infrastructure.

Consultation questions

For the concepts set out above and the projects covered within the Early Opportunities workstream, Ofgem is seeking views on the following options regarding AI risk:

1. AI risk could be borne entirely by the consumer (this may increase stranding risk and moves the risk from those able to manage it);

[7] Para. 2.37 of the Consultation.

2. AI risk could be allocated either to the developer making the AI, or to the developer likely to benefit from it – i.e. it is allocated to the organisation able to manage it (however little co-ordination will have occurred in this scenario); and

3. AI risk could be shared between the consumer and developer or developers.

Option 3 from above is the preferred risk allocation option as this aligns with Ofgem's policy criterion of allocating risk to those best placed to manage it while increasing the likelihood of co-ordination that benefits consumers. This means that when the OFTO tender process is concluded, rather than being paid by the new OFTO, the developer could receive funds from 3 sources: (1) the OFTO (as part of the transfer value process); (2) other developers joining that asset (via a user commitment or similar) and (3) the consumer (via use of system charges). However, it is worth noting that Ofgem's view is that the consumer's input should be kept at a minimum, and the process of cost recovery would then be subject to several guidance, code and licence modifications, including:

— Ofgem's OFTO Cost Assessment Guidance;

— Ofgem's Interconnector Cost Assessment Guidance;

— Industry Codes and Standards, e.g. the Security and Quality of Supply Standard, the Grid Code etc.;

— The TNUoS, and CUSC; and

— Licence conditions.

Comment

The current approach to designing and constructing offshore transmission networks was developed in the nascent stages of the offshore wind sector with "radial" or "point-to-point" connections, i.e. where each wind farm has its own dedicated offshore grid cable. Fast-forward 10 years and the sector has significantly matured and is set to expand significantly over the coming decade.

As we have previously commented, whether OTNR has caught-up to achieve the most efficient approach to deliver the increasingly ambitious offshore wind targets is now a question. However, it is clear that the current framework for connecting offshore wind farms to shore, which has played an important role in de-risking the delivery of offshore wind projects by allowing developers to manage their project's route to market and secure financing, is now out of date.

As the number of offshore wind and other renewable infrastructure grows around the UK coastline, stakeholders are expressing concerns as to whether the UK, quite simply, has enough space in its waters to accommodate all the infrastructure required to deliver on its 40GW by 2030 ambition on the basis of the current radial point-to-point connections. In particular, a key challenge the industry is now managing is the environmental and physical impacts of offshore transmission infrastructure being deployed to support the construction of new offshore wind farms. It has become essential that offshore transmission and interconnection is co-ordinated between offshore wind assets which are within the same region. This could impact the entire regulatory framework in this area, including the OFTO regulations, industry codes, licences and network charging arrangements. Those in the Early Opportunities timeframe will be most keen to ensure the AI risks are allocated in an appropriate way.

Looking ahead, it seems Ofgem and government will incrementally be moving away from the developer-led (the 'generator build') model of offshore network development to a system that is more centrally planned and co-ordinated in order to ensure a greater level of 'future-proofing' for the sector. How this will be seen in an industry which has developed exponentially under the current regime, will depend on the outcome of consultations such as this.

The Consultation rightly identifies AI as a key road-block for many inflight offshore wind projects to enable co-ordination in transmission network infrastructure with other projects. Ofgem has continually sought to address AI risk throughout the development of the offshore wind sector and it will remain to be seen whether the proposed changes will sufficiently incentivise developers to take on this risk. Inflight projects that are addressed in the 'Early Opportunities' workstream are under no

obligation to co-ordinate and will simply be encouraged by Ofgem and BEIS. However, grid connection strategy is usually addressed early on in the substantial development of an offshore wind project and therefore, this may be ‘too little, too late’ from the OTNR to put co-ordination concepts into regulatory practice.

Next steps

The deadline for responses to the Consultation is 8 September 2021. Ofgem intends to hold structured engagement with stakeholders throughout the course of the consultation window and beyond. Minded-to proposals and decisions in respect of the Consultation are expected later this year.

Looking ahead for the OTNR more widely, later in the year BEIS will publish a consultation on the enduring regime for projects connecting beyond 2030 (including MPIs) and further policy consultations will be issued in early 2022.

3.2 OTNR: Pathway to 2030

Delivering 40gw of offshore wind: offshore transmission network review consultation – proposals for the pathway to 2030

12 August 2021

Introduction

On 14 July 2021, Ofgem published the first consultation (the "**Consultation**") in a series that will be launched as part of the Offshore Transmission Network Review (the "**OTNR**"). The OTNR aims to bring about greater co-ordination in the design and delivery of offshore energy network infrastructure (our commentary on the launch of OTNR can be found here), in support of the UK government's wider ambitions to procure 40GW of offshore wind capacity by 2030, and reach net zero carbon emissions by 2050.

The Consultation covers three key components of the OTNR as follows:

1. Early opportunities – the objective of this area is to identify and facilitate opportunities for increased coordination in the near term, with a focus on "in-flight" offshore wind projects;
2. Pathway to 2030 – the objective of this workstream is to drive coordination of offshore projects that will connect before 2030, including projects that were successful in the ScotWind and Crown Estate Round 4 leasing rounds; and
3. Multi-purpose interconnectors ("**MPIs**") – the objective here is to make tactical changes to facilitate early opportunity MPIs and develop an enduring MPI regime for 2030 onwards.

This article is the second in a series of three articles looking at the above areas of consultation. We set out in further detail below Ofgem's proposed delivery models under its "**Pathway to 2030**" framework.

Proposed delivery models under the "Pathway to 2030" framework

The Pathway to 2030 workstream covers offshore projects that aim to be operational by 2030, but which are not currently "**in-flight**". Under this workstream, Ofgem are considering moving away substantially from the existing model for design and delivery of offshore transmission and have focused work in this regard on three areas:

1. Developing a generation map showing where offshore wind projects (in particular projects from Round 4 and ScotWind) are expected to be located and when they are expected to connect to the system;
2. Producing a design for network infrastructure which is based on the generation map and other relevant information – this design work may also include work detailing where changes might be required to industry codes; and
3. Considering options for the efficient delivery of the coordinated infrastructure required to connect offshore generation. This workstream comprise three elements:
   (a) a holistic network design ("**HND**"), proposed to be delivered by ESO
   (b) detailed designs ("**DNDs**") for the offshore network assets. The responsibility for the offshore DND will depend on the delivery model (set out below) that will be employed; and

(c) DNDs for the onshore assets, which will be delivered by the electricity network transmission owners ("**TOs**") under their existing price controls and the DND for offshore network assets.

The Consultation specifically seeks stakeholder views on the 'network design' and 'delivery of offshore' elements as well as the delivery of HND and offshore DND.

Where the HND indicates that a 'traditional' radial connection would be the most economic and efficient solution, the Consultation proposes continuing with the existing OFTO regime. However, where the HND indicates a non-radial connection, the Consultation sets out six potential models for delivery of offshore network infrastructure:

Option 1: TO to build and operate

The TO would undertake the offshore DND, develop, construct and operate all shared connection infrastructure in their licence area. Infrastructure and delivery can be co-ordinated easily as the same parties will be responsible for the whole chain of development potentially increasing the speed at which the connection infrastructure could be taken from design and delivery. However, this approach would be a significant move away from the existing independent OFTO regime and would require substantial further legislative reform, including consideration of how these assets are categorised and how they would be licensed for operation.

Option 2: TO to build and OFTO to operate

The TO undertakes the offshore DND, develops and constructs the shared connection infrastructure, but an OFTO would acquire the assets for the operation phase. At or near asset completion, a tender process would be run to transfer ownership of the assets built by the TO to the OFTO. As it stands, this would be a tender process. If this model is adopted, consideration will need to be given to the appropriate transfer value of any offshore transmission assets in a similar way to the assessment of the transfer value in the current generator-build OFTO model.

As Options 1 and 2 would involve amendments to the incumbent TOs' licences and funding arrangements, this would impact the timing of delivery of these models.

Option 3: TO to design and OFTO to build and operate

The ESO would undertake the HND, the TO would undertake the detailed design and consent work on the shared infrastructure with an OFTO being appointed to construct and operate the infrastructure. This model has many similarities with the 'Late OFTO Build' model under the current regime, however this model has not been pursued by offshore generators for any project to date.

Option 4: Early OFTO competition

The TO or ESO would carry out the offshore DND for any shared infrastructure before a competitive tender process to appoint an OFTO to consent, build and operate the transmission assets. The ESO would however need to develop competence in the detailed technical design of network assets.

Option 5: Very Early OFTO Competition

A competitive tender process for the appointment of an OFTO would be implemented after the HND has been completed, with the appointed OFTO responsible for undertaking the DND, consenting, financing, construction, and operation of infrastructure. This option brings maximum scope for competition including a greater role for innovation at the detailed design phase.

Options 4 and 5 are similar to the early CATO model. However, the existing regulatory framework does not allow for a tender process to be held this early in a project's development. Significant work would therefore be required to apply these options within the offshore transmission frameworks.

Option 6: Developer to design and build, OFTO to operate

This is equivalent to the generator-build OFTO option currently used in the GB offshore wind sector. For shared infrastructure, HND would be carried out by the ESO with the offshore generator undertaking DND, consenting and construction of shared infrastructure and a competitive tender process. This is the simplest option in terms of implementation, however there is a perception that this option provides less scope for early-stage innovation or to exert competitive pressure.

All of the above approaches will require changes to the regulatory regime (with option 6 being the closest to the current system) as well as accounting for the competence and incentives of the party designing and building the assets. The Consultation states that the time likely to be required to implement changes to regulatory frameworks will be a factor informing which delivery model is selected as the preferred model.

The responsibilities in each of the proposed delivery models are summarised visually as follows:

Delivery Model	Holistic Network Design	Detailed Network Design	Pre-Construction (eg Consenting)	Construction	Operation
1. TO Build and Operate	ESO	TO	TO	TO	TO
2. TO Build > OFTO Operate	ESO	TO	TO	TO	OFTO
3. TO Design > OFTO Build and Operate	ESO	TO	TO	OFTO	OFTO
4. Early OFTO Competition	ESO	ESO ***or*** TO	OFTO	OFTO	OFTO
5. Very Early OFTO Competition	ESO	OFTO	OFTO	OFTO	OFTO
6. Developer design and build, OFTO operate	ESO	Offshore generator	Offshore generator	Offshore generator	OFTO

Following feedback on the above models, Ofgem will issue its minded-to decision on the delivery model before the end of the year and will then run a further consultation on the detailed implementation of the preferred delivery model.

Charging arrangements and code changes

The Consultation notes that subject to the complexity of the network design outputs, this workstream might require fundamental changes to existing charging arrangements given that the Pathway to 2030 may result in offshore transmission infrastructure that is increasingly shared, resembling the onshore network. While this is likely to be an area of further consultation, Ofgem have set out some high level principles to be considered in this regard:

— Charging arrangements should be reviewed to enable the locational differences in charges for offshore users to better reflect the differences in costs that different offshore users confer on the system;

— Network users should face cost-reflective charges for network access; and

— Charging arrangements should ensure that charge avoidance isn't enabled or incentivised.

In addition, wider changes to the industry codes are also anticipated as part of this workstream in order to support the implementation of network design and delivery options. The Consultation notes that the identification of changes to codes for the Pathway to 2030 workstream will take place in parallel to the development of the HND.

Comment

The existing approach to the connection of offshore wind has had to evolve alongside the UK's current ambitions and targets for offshore wind. Some stakeholders have expressed concerns as to whether the UK, quite simply, has enough space to accommodate all the infrastructure required to deliver on its ambitions. In particular, a key challenge in respect of offshore transmission networks is managing the environmental and physical impacts of existing offshore radial point-to-point connections at their landfall, which are only anticipated to become further congested with the expected scale up in offshore transmission infrastructure being deployed to support the construction of new offshore wind farms.

On the other hand, while it is recognised that greater coordination and collaboration could have a range of benefits, the implementation of the Pathway to 2030 delivery models needs to be carefully managed to avoid it becoming a cause for concern for the industry. It is anticipated that NGESO will publish its HND by the end of January 2022 with implementation of the Pathway to 2030 reforms taking place during 2022. However, as the Consultation recognises, depending on the delivery model selected, substantial amendments to legislation and industry codes could be required. As a result, the process will need to think carefully about how it can proceed without creating delay or hiatus impacts on projects looking to connect in the mid to late 2020s. To keep the projects on track will require such projects to progress consenting and project design in parallel over the next 18 months or so.

Further, if a delivery model utilising a competitive tender is selected, we have seen with the current OFTO tender processes that the timing of such tenders can slip for reasons outside of the control of the offshore developer. Any timing risks in the project development cycle are problematic for developers, but even more so in the current environment as development programmes are compressed to mitigate the substantial costs of any delay.

We also note that the majority of the delivery model options under consideration would require the generator to be reliant on another party to deliver transmission assets in a timely and effective manner, creating new interfaces that would need to be considered from (among other things) a risk allocation perspective. Whilst mechanisms for mitigating this risk e.g. appropriate penalties for late delivery will be consulted upon, this structure has not yet been utilised in the UK offshore wind market, and we anticipate will be scrutinised closely as the first tranche of these projects look to achieve financial close.

Next steps

The deadline for responses to the Consultation is 8 September 2021. In addition to the previous industry consultation, Ofgem intends to hold structured engagement with stakeholders throughout the course of the consultation window and beyond.

In respect of the Pathway to 2030 workstream, further policy consultation is expected in December 2021 – January 2022 with decisions and implementing consultations issued in May/June 2022. Changes to facilitate the Pathways to 2030 delivery model are expected to be in place by July-September 2022.

3.3 OTNR: Multi-Purpose Interconnectors

Delivering 40gw of offshore wind: offshore transmission network review consultation – creating an enduring multi-purpose interconnector framework

16 August 2021

Introduction

On 14 July 2021, Ofgem published a consultation (the "**Consultation**"), the first in a series of consultations that will be launched as part of the Offshore Transmission Network Review (the "**OTNR**"), which aims to bring about greater co-ordination in the design and delivery of offshore energy network infrastructure (our commentary on the OTNR can be found here), in support of the UK government's wider ambitions to procure 40GW of offshore wind capacity by 2030, and reach net zero carbon emissions by 2050.

The Consultation covers three key components of the OTNR as follows:

1. Early opportunities – the objective of this area is to identify and facilitate opportunities for increased coordination in the near term, with a focus on "**in-flight**" projects;
2. Pathway to 2030 – the objective of this workstream is to drive coordination of offshore projects that are progressing through the current ScotWind and Crown Estate Leasing Round 4 and will connect before 2030;
3. Multi-purpose interconnectors ("**MPIs**") – the objective here is to make tactical changes to facilitate early opportunity MPIs and develop an enduring MPI regime for 2030 onwards.

This article is the last in a series of three articles looking at the above areas of consultation and therefore focuses on MPIs.

The MPI Workstream

The objective of the OTNR's MPI workstream is to explore amendments to the current regulatory and legal framework to facilitate MPIs. Ofgem is leading on incremental changes to the existing framework to allow for the use of MPIs. BEIS is leading on investigating the need for and benefit of legislative change, with a view to potentially creating an enduring MPI regime via changes and/or updates to the Electricity Act 1989. While the workstreams differ, Ofgem has flagged to stakeholders that these workstreams are interconnected and will inform each other.

The Consultation aims to support and build on the conclusions of the Integrated Transmission Planning and Regulation ("**ITPR**") project rather than replacing or duplicating them. The ITPR project was set up by Ofgem in 2012 and reviewed how regulatory barriers for multi-purpose projects ("**MPP**" – an MPI would count) could be addressed. The conclusions focussed on increasing flexibility while maintaining continuity in the regulatory treatment of an existing transmission asset if it evolves into an MPP. Ofgem has sought to reflect these conclusions in the Consultation as well as through the ongoing Interconnector Policy Review.

The Consultation does not set out firm proposals on policy developments, rather it is an invitation to hear from developers in relation to how the component assets of an MPI are expected to be used and their views on the feasibility and risk of the two main concepts for MPI development through the OTNR.

The MPI Models

The Consultation sets out the two main concepts for MPI development as follows:

1. The interconnector-led model, where the point-to-point interconnector cable includes direct connections with GB offshore wind farm(s) which use the interconnector as their connection to market; and
2. The OFTO-led model, where a radial connection to shore from a GB offshore wind farm is combined with a further direct connection between the GB offshore wind farm and the electricity network or offshore wind farm of neighbouring country or territory.

An illustrative diagram of the models taken from the consultation is set out below:

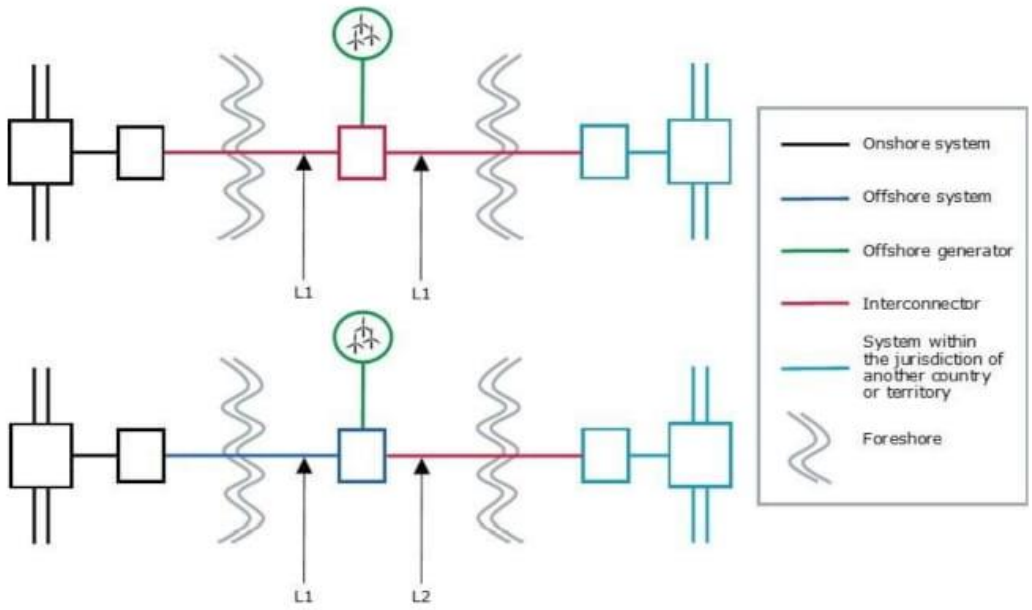


Figure 13 Interconnector (IC)-led MPI model (top) and OFTO-led MPI model (bottom)

Key areas on which view are sought

Ownership licensing and classification of MPIs

The Electricity Act currently has no provision for the licensing of a specific MPI activity and therefore, in order to be able to license an MPI within the current framework, Ofgem would need to consider how to classify the individual components of an MPI.

In terms of ownership, there is a statutory prohibition on the same person holding an interconnector licence and an OFTO or generation licence. “Ownership unbundling” requirements also apply to the holders of interconnector and OFTO licences. These restrictions mean that the same person could not own and operate all component parts of an MPI. Ofgem has requested views on the possible move away from this model and possible changes to primary legislation.

A key challenge with the classification of MPIs (and their components parts) is how to determine the primary use of the individual assets to grant the appropriate licence and how to define and licence the activity undertaken by the asset that conveys electricity from the offshore substation to the GB shore. Ofgem is therefore seeking views on how developers envisage the usage of the line to shore

varying across the two MPI models suggested and whether factors, including construction sequence, would influence which model is better for an MPI project.

Ofgem is also seeking views on whether there could be merit in certain exemptions e.g., an exemption for a limited period for one asset of an MPI while the other is under construction.

Suitability of the cap and floor for MPIs

The suitability for MPIs of Ofgem's "cap-and-floor" model for interconnectors is being considered as part of Ofgem's Interconnector Policy Review. Ofgem's decision and policy recommendations from the latter are expected in Autumn 2021, which aligns with when Ofgem expects to publish its next policy consultation on the OTNR. Further detail on this workstream and Ofgem's thinking will therefore be available later in the year.

Priority dispatch and curtailment and third party access requirements

Currently, new renewable generators cannot benefit from priority dispatch and can only be curtailed as a last resort. Therefore, the wind generation aspect of an MPI would not benefit from priority market access but could not be extensively or regularly curtailed. Ofgem is interested in stakeholder views on how these requirements will affect model choice for MPIs connecting the UK and EU member states (as well as any wider issues created).

Third-party access is also a key issue. How access is given to offshore wind and cross-zonal trade in different models may have implications for satisfying third-party access requirements and the possible need for exemptions. Ofgem wants to hear views on how these access requirements and the availability of exemptions will affect model choice.

Margin available for cross-zonal trade

Currently, for projects linked to EU Member States the volume of interconnection capacity made available to market participants must not be limited, with a minimum level of 70% of capacity available for cross-zonal trade to demonstrate this provision has been met. This provision has not been retained in the UK but there is a similar, less prescriptive, requirement under the Trade and Cooperation Agreement agreed by the UK and EU. Ofgem is looking for views on how these requirements will affect model choice and any wider issues created.

Cross border market arrangements

Ofgem recognises that the development of cross-border trading arrangements over interconnectors will have implications for MPIs. Pursuant to the Trade and Cooperation Agreement, EU and UK TSOs have been developing the concept of multi-region loose volume coupling ("**MRLVC**"). They have recognised that the development of MPIs will require trading arrangements supporting efficient energy pricing and capacity utilisation and that the design and overall performance of MRLVC will be critical to the development of MPIs. As the next stage TSOs will be developing technical procedures further which will be submitted to regulators and the Specialised Committee on Energy (established under the Trade and Cooperation Agreement) in November 2021. The Consultation seeks views on how the proposals would impact MPI models.

Comment and Next Steps

The Consultation is an initial exploratory consultation and links in with a number of other workstreams, including Ofgem's Interconnector Policy Review, the cross-border trading arrangements being developed between the UK and the EU, and the EU's own developing strategy in this area, with the European Commission having published its Offshore Renewable Energy Strategy in November 2020.

Ofgem intends to signal policy options later in the year and there will be further consultations on the implementation of changes to the framework including undertaking Impact Assessments as required. As has already been mentioned the ICPR is expected to be published in Autumn 2021.

BEIS will also be publishing a consultation on a future enduring regime for projects connecting beyond 2030, which will also consider MPIs, later in 2021 as well as exploring whether legislative change is necessary or beneficial.

3.4 CATO Legislation

Finally the introduction of CATO legislation?

11 August 2021

Background

On 3 August, BEIS published a consultation on Competition in Onshore Electricity Networks. This follows the Government's confirmation in December 2020 that it would bring forward legislation to allow competitive tenders for the building, ownership and operation of the onshore electricity networks.

Competitively Appointed Transmission Owners (CATOs) have been under consideration for a long time. Indeed, CATOs were first considered and consulted on as part of Ofgem's 2012 Integrated Transmission Planning and Regulation project and draft legislation was produced and taken to pre-legislative scrutiny in 2016, but a lack of parliamentary time meant it was not progressed.

This Law-Now summarises the current consultation, including the key proposed changes to the draft framework of 2016.

A Competitive framework for Onshore Electricity Networks

The consultation highlights three key policy changes that are considered necessary to reflect changes in the electricity system since 2016, including Net Zero; changes in technology available to manage constraints and to reinforce the existing network; and changes – and proposed changes – to system governance.

1. Flexibility on the body appointed to run tenders: The Secretary of State would be able to appoint a body they deem suitable to run competitive tenders under the legislative framework, which may be someone other than Ofgem. If the appointed body is not Ofgem it is expected to work closely with Ofgem and share information relevant to Ofgem's role. Proposed factors for the Secretary of State to consider include the following, with the first three stated to be "essential" and the remainder stated to be "desirable":

   (a) The independence, actual / perceived bias and conflicts of interest of the potential body;

   (b) Economies of scale offered e.g., through the centralisation of expertise and culture;

   (c) Technical proficiency i.e., that the body has sufficient depth of experience, although BEIS notes that the body could potentially bring in external expertise;

   (d) Experience in running tenders; and

   (e) Any other relevant considerations e.g., whether there are external factors in energy network regulation that impact on the body's ability to carry out the role; whether there are national security risks with the body; whether the Government needed to offer an indemnity to the body; if the body has a good record of embracing diversity and inclusion; and whether the body presents a reputational risk to Government.

   BEIS considers that Ofgem and/or NGESO are currently the only two suitable bodies and that network companies assessing competitions for solutions to constraints on their own networks would not provide comparable levels of confidence, as some bidders may not recognise them as sufficiently independent to be free from bias.

2. Flexibility on the stage for competition: BEIS wishes to create an enabling framework which is flexible enough to allow for early stage or late (or even very late) stage competition, with the choice determined by Ofgem in the light of the applicable constraint and circumstances:

   (a) Early-Stage Competition: This type of competition occurs where a network constraint is identified prior to the detailed design, surveying and consenting phases of asset development, so the design, construction and delivery of a project is tendered for. National Grid recently published their Early Competition Plan and Ofgem published a consultation on the proposals on 3 August 2021 (please see our earlier Law-Now on the Plan and consultation here: Early Competition: opportunities and challenges for all, but we cannot forget the Net Zero context (cms-lawnow.com)).

   (b) Late-Stage Competition: This type of competition occurs after the main design phase is complete and major planning consents are secured so it is the construction and delivery of a project that are tendered for.

   (c) Very Late-Stage Competition: This occurs where the asset is built and the tender is for ownership and operation of the asset (as has been the case with OFTO tenders to date). There is a suggestion that this may be used to cater for "**projects in flight**", i.e. those that are at an advanced stage of development at the time a new competitive regime is in place.

3. Flexibility on the competitive solution: As a result of technological changes and changes in the network due to increasing levels of renewable generation, BEIS wishes to ensure that any competitive regime to address network constraints should be open enough to allow different solutions to compete against each other in the market on a level-playing field.

Detailed Tender Regulations and Invitation to Tender documentation will set out the process for the tender and factors that will be considered in the bids.

Role of Network Planning and Net Zero Infrastructure

Process for competitive tenders for electricity assets

The indicative process and timeline for onshore competition allowing for the award of licences or contracts is demonstrated in the table below. It is worth noting however that each constraint is different and the preparation time and the commencement point during the network planning process will vary, with the type of competition also affecting this.

Stage of competition	Solution/Process	Estimated time
Pre-Tender	Identification of constraint	Up to a year or so of preparations
	Initial events inviting interest and providing information on the solution	
	Consideration of needs case and suitability of an indicative solution (to a constraint) for competition.	
	Tender documentation updated to cater for the specifics of the indicative solution subject to competition e.g. commercial models used and bid evaluation framework.	
Pre-qualification period	Consider if bidders have technical, financial and legal standing to become licensee or be awarded a contract.	2-4 months
Tender Process	Bids responding to Invitation to Tenders (ITTs) submitted to Appointed Body and assessed.	9-15 months
Preferred Bidder Stage and Licence / Contract Award	This stage is when the decision on preferred bidder is announced, open to challenge and final checks are undertaken, as well as licences/ contracts finalised	3-6 months
Solution delivery works	Winning bidder starts to build, own and operate the winning solution in line with requirements as set out in their licence and/or contract.	Flexible, depending on winning bid

Implementation of Onshore Competition in Practice

BEIS has set out indicative timings for the introduction of competition, as set out below:

Introduction of Bill	Royal Assent	Any necessary secondary legislation	Constraint identification and pre-tender preparations	Competition (including pre-qualification and tender process)	Preferred Bidder selected	Delivery commences
Stage commenced	T	T+2/3 months	T+6 months	T+18 months	T+2years 5months	T+ 2 years 8 months

Criteria for competition

BEIS states that the legislative framework will enable competition to address needs identified at distribution level as well as transmission.

BEIS is not consulting on the early competition criteria (as this instead features in Ofgem's consultation on early competition). For the late model competition, it is proposed that projects would be considered suitable for competition if the asset is new and separable from the existing network, and of high value.

High value is taken to mean 'at or above £100 million of expected capital expenditure' at the point of Ofgem's initial assessment of the appropriate delivery model, but the consultation is seeking views

on whether £100 million is still the appropriate level to set the threshold. For distribution projects, BEIS states that there may be a case for reducing the high value threshold in the future and note that Ofgem has set out that it has decided to carry out further work to consider potential mechanisms and principles for "**packaging**" lower value projects with a common need driver or common purpose, towards the £100 million threshold.

Distribution Roles

The roles that apply to competition are broadly considered to carry over well to their counterparts. Network planning roles will remain with the DNOs / DSOs, with Ofgem taking the role of Approver and Licence Counterparty, and the DNOs/DSOs will take on the role of contract payment counterparties.

There is a difference in approach however in the role of the Appointed Body in transmission and distribution. Stakeholders have expressed support for the Appointed Body to sit with the DNO/DSO, with the introducing of Ofgem or a Third Party being seen as a very significant disadvantage due to the perceived complexity and cost. BEIS however expresses some concerns that the current relationship between DNO and DSO roles and responsibilities could result in a conflict of interest or a perception of bias. BEIS proposes to monitor how future energy system governance and distribution system operation projects are developing ahead of the Secretary of State taking a decision on the identity of the Appointed Body.

Next Steps

Responses to the Consultation are due by 26 October 2021. Primary and secondary legislation will be needed to implement any decisions made on competition. No date is given for the Government's response to the consultation but it is noted that this will be 'in due course'. It is noted that the Government will continue to work with Ofgem and other stakeholders as the details of competitive frameworks are developed.

Comment

Some industry players have been critical of the timing of the Consultation, given the wider challenges that increased electrification and the drive to Net Zero present to electricity networks. However, five years on, it seems likely that the "**CATO**" legislation will finally be introduced to Parliament, albeit in a form that will not require the competitions to result in the appointment of traditional "**CATOs**" and that is unlikely to involve Ofgem replicating its OFTO role.

3.5 Early Competition

Early competition: opportunities and challenges for all, but we cannot forget the net zero context

18 June 2021

Ofgem's ambition of being able to compete onshore transmission projects within the wider market, to companies other than the incumbent transmission owners ("**TOs**"), has taken a step closer to fruition. It has done so by incorporating "late competition" models (competition focused on construction delivery and operation of an already designed and consented solution) within the RIIO-T2 price control licences using a Large Onshore Transmission Investments ("**LOTI**") Re-opener condition together with issuing associated LOTI Guidance and Submissions Requirements Document. This form of late competition has already begun to have a potential impact on projects in development, with the publication of the recent consultation on the Eastern HVDC Initial Needs Case.

Ofgem is now taking this to the next level by looking to bring "early competition" models (competition before a detailed solution design is produced and consented) to the market. In 2019 the National Grid Electricity System Operator ("**ESO**") was tasked with developing a model for early competition. This culminated in the submission by the ESO to Ofgem of its Early Competition Plan ("**ECP**") in late April 2021. Shortly thereafter, Ofgem published an open letter making clear that soon early competition would also likely to have a role to play in the onshore transmission market.

Key features of the Early Competition model

The Early Competition model has not been fully settled, with the ECP being part of its development. Ofgem is still to consult and make a decision on the final model. Based on the ECP, it is expected that for a project to be considered for Early Competition:

- it will be an onshore transmission project that is new and separable (consistent with Ofgem's existing Guidance on the Criteria for Competition published February 2019);
- it will have no minimum value threshold (unlike LOTI which must have a value above £100m capex); and
- there must be "**certainty of need**" (there being enough confidence the network need will not disappear and having been required in more than one of the ESO's Future Energy Scenario documents).

It is expected that Early Competition projects will be tendered after an indicative solution has been identified but before the initial design has been done and preliminary works have been undertaken.

Said to be inspired both by the Offshore Transmission Owner (OFTO) model and the Public Private Partnership (PPP) model, the preferred bidder will receive a fixed (indexed) tender revenue stream ("**TRS**") subject to an availability incentive, which will be payable from successful commissioning of the assets. Adjustments to the TRS would be limited in terms comparable to those used in the OFTO regime (e.g. Income Adjusting Events and certain pass-through costs). The term of a project could be up to 45 years, depending on need.

The ESO has also proposed a procurement model with invitation to tender stages and appointment of preferred bidder. Cost of equity, overheads and margins are to be fixed at tender award. The cost and size of debt (and gearing ratio) and underlying costs will remain adjustable via a pre-defined mechanism (e.g. Post-Preliminary Works Cost Assessment ("**PPWCA**")) with an overall cap on

upward adjustments. The preferred bidder will also be required to provide security by way of letter of credit or performance bond.

Solutions tendered could be either network solutions (i.e. those needing a transmission licence) or non-network solutions (no transmission licence needed, with a commercial contract being entered into).

Key Challenges of Early Competition

Uncertainty, risk impacts and costs

Other "late" competition models (e.g. PPPs and OFTOs) as well as Ofgem's own "late competition" model typically award their contracts to the preferred bidder following initial design and consents having been granted or post-completion. However, Early Competition introduces competition at a much more embryonic stage. This creates a far higher risk profile and potentially cost uncertainty for bidders. This risk and uncertainty will come at a cost in terms of development risk premium which may also be compounded by the need for security, depending on the value and duration for which it is required.

Further, as described above, in order to maintain competitive pressure it is proposed that certain costs will be fixed at tender award. Adjustments would then be allowable only for certain elements within the PPWCA (subject to a cap). Understanding the level of this cap as well as the nature, extent and accessibility of the PPWCA mechanism will be crucial for bidders since the scope and costs of projects could materially change during the preliminary works stage.

Any potential for increased costs will create a natural tension for Ofgem between its principal objective of protecting the interests of existing and future consumers (by keeping costs down) with its duties to promote efficiency and economy and to promote competition.

Regulatory impact

If the solution to be tendered is a network solution, the ECP states that the preferred bidder would be a competitively appointed transmission owner (CATO). The CATO model is not new, with draft CATO legislation having been tabled as far back as December 2016. However, that legislation was not enacted. If the Early Competition model is to be implemented in full as set out in the ECP, this will be contingent on CATO legislation being brought before the UK Parliament. The Energy White Paper in December 2020 refers to such legislation being introduced, but only "*when Parliamentary time allows*".

In addition, as created for the OFTO regime, tender regulations for early competition are likely to be required.

Granting a CATO licence will also have an impact on an incumbent TO's transmission licence (given its prescribed "Transmission Area"), meaning that licence modifications are likely also to be needed for incumbent TOs. There will also be impacts for the industry codes, compliance with the Electricity Act 1989 as well as uncertainty as to what the regulatory impact will be in terms of level-playing field and unbundling requirements.

Interface with the network

Unlike the clear ownership boundary demarcations for OFTOs, Early Competition would involve a third party building and operating an onshore transmission project within and forming part of the existing onshore transmission system. This will therefore create a more extensive technical and operational interface between the CATOs' and the incumbent TOs' assets. The ECP envisages this will be governed by an interface agreement, which the ECP notes will look to deal with access rights as well as technical, design and operational criteria. However, the necessary scope of this agreement is still unclear and will likely be the subject of extensive and detailed debate around how the interface(s) could be managed and risks allocated.

This interface risk is likely to also attract additional costs for both the CATO's and the incumbent TO. This will risk increasing the values bid by market participants and is a cost currently not catered for within incumbent TOs' price control allowances.

Incumbent TOs

For incumbent TOs, the ECP proposes that they should compete for Early Competition models in the same manner as market participants. This would mean that if an Early Competition project were to be awarded to an incumbent TO, it would not form part of the TO's usual regulated asset value, nor be subject to their price control allowances and/or cost of equity.

Potential conflicts of interest would also need to be addressed by the incumbent TOs, for example, ringfencing bid teams from those supporting connection feasibility assessments or providing initial solutions for Network Options Appraisal. Ringfencing teams might on the face of it be a simple solution, but may be difficult to implement in reality.

Timings

In the ECP, the ESO has mapped out a detailed implementation plan and timeline. This timeline however is contingent upon an estimated view of when legislation might be enacted (by quarter 3 of 2022 for primary legislation) and the necessary activities by Ofgem (including impact assessment, consultation and development of the necessary regulatory principles to govern both network and non-network solutions). Assuming this timeline is maintained, the ECP indicates the earliest tender launch taking place during quarter 1 of 2024.

Next Steps

Ofgem intended to formally consult on Early Competition in July 2021, with a view to making a decision by early 2022. In the meantime, the ESO and Ofgem have agreed that there are various "**low regret**" activities the ESO can start work on now, including:

- finalising the process for identifying possible projects for early competition;
- exploring the potential for expanding pathfinders as a pre-legislative form of early competition;
- scoping out potential industry code changes; and
- developing a detailed programme plan with Ofgem.

Ofgem also considers there to be further low regrets work that the ESO could do in order to consider the applicability of the early competition model to electricity distribution. This is notwithstanding the ESO's Thought Piece[5] (also published at the end of April 2021) concluding that there is not a role for the ESO in early competition in the distribution sector.

With the extent and nature of the activities referred to in the ECP, quarter 1 of 2024 for the first tender launch is ambitious. As part of the journey to reaching that stage, there will be many interesting policy and regulatory issues to be resolved. It will also create an opportunity for market participants to engage in the onshore electricity transmission system, and potentially the distribution system, in a way that has never before been possible. However, in developing the Early Competition model, and making it a reality, it will be important to keep in mind the ultimate target of seeking to reduce net zero emissions of all greenhouse gases by 2050 in the UK and by 2045 in Scotland and the energy-related infrastructure that will need to be in place in time to facilitate this.

New and emerging technologies

3.6 AR4

AR4 update: what you now need to know about the next CFD round

13 May 2021

On Friday 7 May 2021, the Department for Business, Energy and Industrial Strategy ("**BEIS**") announced that the Fourth Allocation Round ("**AR4**") for the low carbon Contracts for Difference ("**CfD**") scheme will open to applications in December this year. While the date of when the CfDs are likely to be awarded is not fixed, previous allocation processes have taken circa 4 to 5 months (i.e. we can expect award of the AR4 CfD to occur around April/May 2022). The years in which the successful projects must commission (the "**delivery years**") have not yet been confirmed either but would need to follow the last delivery year of the Third Allocation Round (i.e. 2025).

BEIS also published its consultation response (the "**Response**") on the CfD contract and Supply Chain Plan amendments for AR4. The Response confirms most of the amendments proposed by BEIS in its consultation published on 24 November 2020.

Read our commentary on the key decisions previously made in respect of AR4 here.

AR4 aims to double the capacity of renewables from 5.8GW achieved in the last round to up to 12GW and expand the number of technologies supported – in particular floating offshore wind is to be treated as its own separate technology class and "**established**" technologies which includes onshore wind and solar PV are to be allocated budget for the first time since AR1.

Supply Chain Plan

In November 2020, BEIS confirmed its plans to strengthen the Supply Chain Plan ("**SCP**") process for CfD projects of 300MW and above. The consultation confirmed this "**strengthening**" taking two primary forms:

1. in respect of the existing legislation – the introduction of a requirement for relevant projects to have their SCPs approved by government in order to apply for a CfD for future allocation rounds; and
2. for CfD contracts awarded from AR4 – the introduction of a new requirement within the CfD contract setting out that projects must obtain confirmation from government that they have implemented their SCP as part of satisfying the Operational Conditions Precedent ("**OCP**").

In respect of the former, confirmation on the full details of the new criteria (and government assessment thereof) that will apply is awaited in the form of BEIS' upcoming response to its consultation on a new Supply Chain Plan questionnaire ("**SCP Questionnaire Consultation**") and publication of drafts of the amendments to the relevant Regulations.

In respect of the latter proposal, naturally considerable attention is paid by industry to any proposed new measure that widens the potential for the "cliff edge" of CfD contract termination or which may delay the commencement of payment.

The Response has concluded that SCP implementation will indeed be introduced as an OCP, despite alternative suggestions being put forward by industry. At the same time, BEIS has softened the risks associated with the new SCP OCP to some extent through concluding that projects will be able to obtain the relevant confirmation of SCP satisfaction from government (now to be defined as a

"Supply Chain Implementation Statement") shortly after satisfaction of the project's Milestone Delivery Date ("**MDD**"). This is a considerable way in advance of the ultimate deadlines for OCP satisfaction generally, and therefore in principle leaves time to rectify the situation if the project initially fails to obtain a Supply Chain Implementation Statement.

In addition, BEIS notes that it will reflect on comments made in respect of the extension of existing CfD contract Force Majeure provisions to allow for issues that may arise in respect of supply chain arrangements and obtaining a Supply Chain Implementation Statement. BEIS will set out its position on this in its response to the SCP Questionnaire Consultation. In its upcoming response to the SCP Questionnaire Consultation, BEIS will confirm its approach to projects providing Updated Supply Chain Plans and to monitoring SCP compliance after the point of the Supply Chain Implementation Statement. This is now of heightened relevance given the earlier point in time for the Supply Chain Implementation Statement.

Milestone Delivery Date

Following strong stakeholder support, the government will extend the MDD from 12 to 18 months. The government believes 18 months will better align with project timelines, whilst still providing a suitable indicator of progress towards project delivery.

Floating Offshore Wind

	Floating Offshore Wind	Fixed Offshore Wind
Longstop Period	12 months after the end of the Target Commissioning Window.	24 months after the end of the Target Commissioning Window.
Required Installed Capacity	95% of estimated installed capacity (or estimated installed capacity less one turbine, if this is a lower percentage).	85% of estimated installed capacity.
Extra Requirements	Generators to be required to demonstrate their project satisfies the legal requirements for floating offshore wind CfD units at OCP stage (i.e. that all turbines are mounted on floating foundations and situated in water depths of 45 metres or more).	No equivalent OCP.

Several drafting changes to the CfD contract will be introduced in relation to floating offshore wind, making it potentially more challenging to deliver a floating offshore wind project supported by a CfD in comparison to fixed offshore wind, as highlighted in the table below:

Despite stakeholder resistance, the government will also not extend phasing to floating offshore wind projects for the time being. The government rationale for this decision focuses on the smaller project sizes and potentially lower construction risk of floating offshore wind in comparison to traditional fixed bottom offshore wind. However, the government has expressed its openness to review this decision in the future.

Negative Pricing

The government has confirmed its drafting changes to the CfD contract to implement the decision to extend the negative pricing rule to ensure that difference payments are not paid to CfD generators when the Intermittent Market Reference Price is negative for any length of time (in contrast to the

previous position which required a 6 hour period of negative pricing to trigger the cessation of difference payments).

The government has reiterated its view that the new negative pricing rule achieves the right balance between de-risking renewable electricity projects whilst incentivising behaviour (both in the form of not exporting to the grid during such periods and alternative uses for excess power during such periods, such as charging storage assets or production of green hydrogen) which supports the needs of the electricity system.

Coal-to-biomass Conversions

The Government has decided to exclude coal-to-biomass conversions from future CfD allocation rounds.

What's next?

In the coming months, the government intends to implement the decisions laid out in the Response.

As noted above, BEIS has not yet responded to its SCP Questionnaire Consultation. The Questionnaire will form the basis of the initial assessment before an allocation round and the ongoing monitoring, review and assessment following CfD signature. BEIS intends to publish the responses along with the final Supply Chain Plan guidance for AR4.

Finally, BEIS states it will soon be consulting on any proposed changes to the standard terms and conditions relating to Brexit to reflect the conclusion of the Transition Period.

3.7 Long Duration Energy Storage

Solving the final piece of the flexibility puzzle – BEIS calls for evidence on facilitating large scale and long-duration energy storage

23 August 2021

Introduction

On 20 July 2021, the Department for Business, Energy & Industrial Strategy ("**BEIS**") published a call for evidence on "*Facilitating the Deployment of Large-Scale and Long-Duration Electricity Storage*" (the "**Call for Evidence**"). The Call for Evidence considers the role that large-scale and long-duration energy storage ("**LLES**") may play in the UK's transition to net zero and seeks stakeholder feedback in relation to the pipeline of LLES projects, existing challenges to deployment and what can be done to overcome these barriers.

BEIS notes that information gathered through the Call for Evidence will be used (amongst other things) to establish the need for LLES on the future power system, determine whether there is a case for intervention and identify the appropriate and cost effective mechanisms for intervention and any associated risks.

In this article we provide an overview of the key areas considered in the Call for Evidence and BEIS' next steps.

The role of LLES in a net zero power system

The Call for Evidence acknowledges that electricity storage can help in integrating high volumes of non-dispatchable generation, provide a range of flexibility services required to manage a low carbon energy system and deliver security of supply. The Call for Evidence notes that the UK has:

— In operation: 3GW of pumped hydro storage (PHS) and 1GW of lithium-ion battery storage; and

— In development: 2GW of PHS and 8GW of battery storage.

Despite a sizeable pipeline of storage projects, BEIS' illustrative scenarios demonstrates that around 30GW of short duration storage and flexible demand may be needed by 2050 to support the government's net zero targets.

BEIS is therefore considering the need for greater deployment of LLES i.e. facilities that would be able to store and discharge energy for over 4 hours (and up to much longer periods), and deliver power of at least 100MW when required. Currently, a range of technologies are capable of providing LLES, such as gravitational storage, redox flow batteries, compressed or liquid air storage or PHS (the latter being the most mature LLES technology). However, BEIS notes that, following engagement with stakeholders across the industry, it has become apparent that LLES faces market challenges (particularly in respect of obtaining financing) which are hindering deployment at scale.

Existing barriers to LLES deployment

The Call for Evidence identified several barriers that are hindering deployment of LLES at scale as follows:

— High upfront capital costs and long lead times – LLES projects often have high upfront capital costs (particularly for less mature technologies) and for projects with lengthy engineering and construction timetables, this increases investment risk. It is estimated that as technologies mature this will in turn reduce costs, however, such maturity of the industry

will be dependent on external factors such as the speed of technological innovation across this area.

— Lack of track record – BEIS notes that clearly novel storage technologies face additional investment challenges when compared to more mature technologies due to the lack of track record for successful projects. With a lack of track record and deployment at scale, the increased risk reduces the pool of potential investors.

— Revenue uncertainty – Electricity storage projects generate a revenue stream by stacking revenues via participation in different energy markets. However, these revenues tend to be contracted on a short-term, short-notice basis and whilst the Capacity Market is an exception to this, such revenues tend to make a small part of the overall revenue stack due to the clearing prices and de-rating factors applicable to storage. The longer delivery timeline associated with LLES projects means such projects would be unlikely to secure a T-4 Capacity Market agreement before construction works commence, impacting investability. This can be a deterrent for investors who seek greater visibility of long-term cash flows.

— Market signals – The Call for Evidence notes that energy markets may not capture the full value of LLES projects as markets tend to value fast responding, short-duration storage. This has the effect of incentivising storage projects to cycle multiple times per day rather than hold stored energy over longer periods. In turn, this means there has been little to incentivise investment in LLES capacity and almost all new energy storage projects coming online are shorter duration.

Addressing the barriers to LLES deployment

The Call for Evidence considers the current routes to market available to LLES in GB and how these revenue streams contribute to the investability and bankability of storage assets. These include:

— Floor price optimisation agreements – Whilst the optimisation offerings from certain market players have improved bankability of battery storage projects, providers of revenue floor contracts are limited.

— New revenue streams – The Call for Evidence notes that a number of the markets that LLES projects participate in are currently undergoing reform which could provide opportunities to storage asset owners/operators. For example, ESO is trialling a new range of services, such as the Stability Pathfinder and Constraint Management Pathfinder projects, that energy storage assets are eligible to bid for. These services include multi-term revenue contracts, which may support financing for LLES.

— New investment capital – The Government's new national infrastructure bank will seek to invest in low-carbon projects, which could include LLES projects. Such financial support could in turn attract private investment to LLES projects.

— New innovation competition – BEIS launched its Longer Duration Energy Storage Demonstration competition as part of their Net Zero Innovation Portfolio. Designed to encourage the commercialisation of energy storage projects, the competition is split into two funding mechanisms. The first stream is a grant competition and the second is through the Small Business Research Initiative rules. The competition is due to close on 13 August 2021, more information can be found here..

Mechanisms for de-risking LLES

The Call for Evidence goes on to identify three possible mechanisms for de-risking LLES and bringing forward investment as set out below:

Regulated Asset Base ("RAB")

The RAB model is employed by Ofgem as part of the "RIIO" framework and is widely used in other sectors. For this model, Ofgem would approve expenditure and determine a reasonable return on

investment. The revenue entitlement is set at a level that is intended to ensure investability whilst protecting consumers – reducing the project's perceived risk and increasing investor confidence. As a result, the RAB model has attracted significant investment in energy networks. However, the model's effectiveness is limited. Incentive schemes may be set up under the RAB regime, but this would not match the level of market exposure gained through the Cap & Floor mechanism.

Cap & Floor Mechanism

The Cap & Floor mechanism was developed to support investment in electricity interconnectors. The mechanism provides a minimum revenue allowance (subject to a minimum availability threshold) which reduces projects' exposure to uncertain future capacity revenues. Where the revenue falls below the 'floor', it is topped up by consumers. Conversely, if revenues exceed the 'cap', consumers receive the excess. The cap and floor levels are calculated based on project costs including financing costs (at the floor) and a return to equity (at the cap).

The Call for Evidence notes that a variation of the current approach for LLES could be to set a floor for the relevant project, without a cap which may incentivise investors and developers to optimise the asset, or allow profits above an agreed cap to be shared between investors and consumers.

The Call for Evidence identified a Cap & Floor regime as being effective for LLES technologies because it:

— Retains merchant exposure – developers are incentivised to optimise the storage in order to generate the highest value;

— Retains developer-led approach – users can enjoy the upside of projects in exchange for having de-risked the downside; and

— Keeps consumer cost low – a subsidy will not necessarily be paid out, depending on the project's economics.

Contract for Difference (CfD) Regime

The Call for Evidence notes that greater price stabilisation and revenue certainty can be delivered through the CfD regime. Under the CfD regime, where the market price for electricity falls below the generator's awarded strike price, top up payments are made to the generator to close the difference. However, the Call for Evidence goes on to deem the CfD regime unsuitable for the purposes of de-risking LLES.

The Call for Evidence notes that BEIS' overall objective is to incentivise LLES to respond to varying price signals and provide flexibility when it is needed. A RAB and CfD model would be less likely to incentivise developers to operate storage assets in this way, for example, the core incentive under the CfD is to maximise output. As a result, BEIS considers that the economics of the Cap & Floor regime is a more favourable approach to meeting the demands of the LLES market.

Comment

Alongside the Call for Evidence, BEIS and Ofgem also published an updated Smart Systems and Flexibility Plan 2021 (our commentary on which can be found here), which sets out the government's roadmap to transforming the UK energy system into a smarter and more flexible one, capable of integrating high volumes of low-carbon energy and utilising technologies such as energy storage in order to effectively deliver on the UK's net zero by 2050 ambitions.

Whilst the Call for Evidence recognises the value LLES can deliver to the energy system, it is clear that this must be balanced against quantifying what types of assets will be most valuable to the future net zero energy system. Market intervention, while on the one hand can be invaluable, on the other carries its own risks and complexities. Whilst implementing a particular project revenue model (such as the Cap & Floor framework) might combat bankability and financing challenges facing LLES developers, without addressing the issues relating to market signals, this may not be enough to deliver LLES projects at the scale and pace required to support the transition to net zero.

Stakeholders in the LLES sector have been raising the challenges such projects face for years. It is positive that the Call for Evidence indicates a way forward at long last – but it should be noted that process to delivering on such proposals means that it will be some time yet before we see LLES projects being developed under such support mechanisms.

The deadline for responses to the Call for Evidence is on 28 September 2021.

3.8 Hydrogen

HY time for hydrogen – key takeaways from the UK'S hydrogen strategy

18 August 2021

On 17 August 2021, the UK Government Department for Business, Energy and Industrial Strategy ("**BEIS**") published its long-awaited and first ever Hydrogen Strategy for the UK (the "**Strategy**").[8] The Strategy reinforces prior commitments made by the government to deploy hydrogen as a means to decarbonise parts of the electricity, heating, transport and industry sectors, and provides more definition as to how these commitments are intended to be achieved. It also sets forth the government's vision for a hydrogen roadmap over the 2020s, the availability of funding packages, and, as indicated in the government's Ten Point Plan, launches a consultation on hydrogen business models.

In this article, we provide an overview of some of the key points coming out of the Strategy and comment on how the Strategy aligns with the wider framework of hydrogen policy developments.

1. The Hydrogen Strategy – an overview

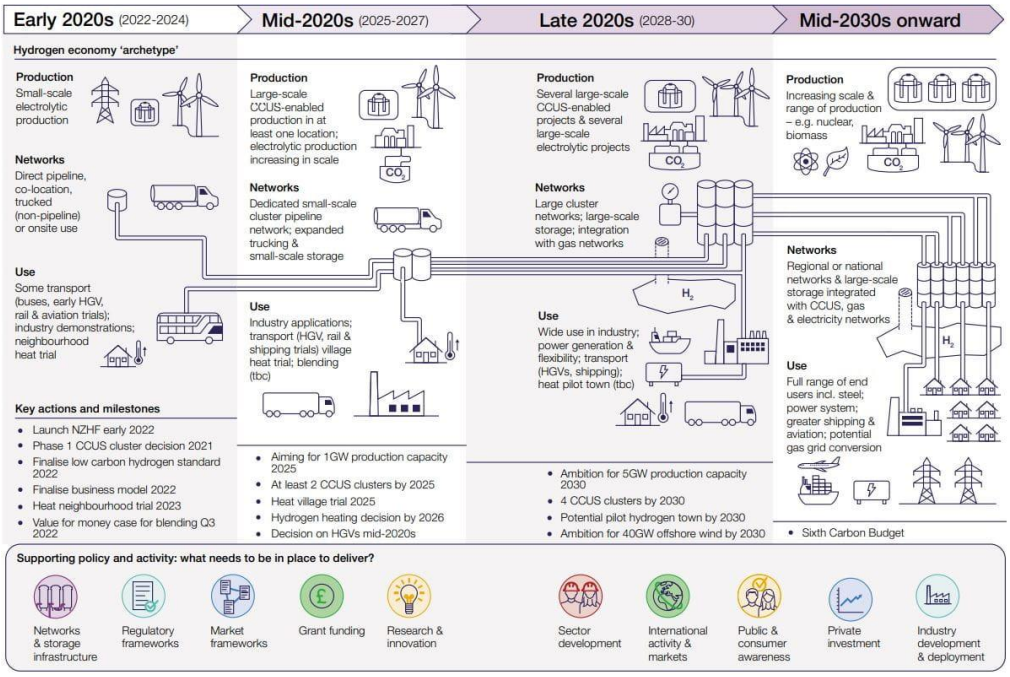
The overall ambition of the Strategy is not unexpected and confirms the government's position in the Ten Point Plan to accelerate the UK's path to net zero. In particular, the prior ambition for 5GW of low carbon hydrogen production capacity by 2030 (and 1GW by 2025) has not increased. That said, it does provide clarity on the following:

(a) *A roadmap for the 2020s*

The Strategy outlines a more detailed roadmap to developing a hydrogen economy in the UK over the next decade, taking a 'whole-system approach'. It is divided into key archetypes and milestones that the government expects to see in terms of production, networks and use of hydrogen in the early, mid and late 2020s to reach its 5GW goal, as well as an indication of the intended direction from the mid-2030s and beyond – see Figure 2.1 from the Strategy replicated below. However, supporting policies and activities, including the development of regulatory frameworks, will need to be in place to deliver the roadmap. An initial network regulatory and legal framework is not expected to be in place until 2025 at the earliest. Until then, networks are envisaged to be delivered through existing frameworks.

[8] The Scottish Hydrogen Policy Statement was published in December 2020 – see our analysis of it here.

Figure 2.1: Hydrogen economy 2020s Roadmap



(b) *Hydrogen business models and a low carbon hydrogen standard*

An important document accompanying the Strategy is the consultation ("**Consultation**") on the proposed business models to support hydrogen production (both blue and green hydrogen are currently envisaged to use the same model and it is intended to cater for a range of possible end users). As indicated in the Ten Point Plan, the Strategy confirms the government's ambition to finalise the hydrogen business model in 2022 so as to enable first contracts to be allocated from Q1 in 2023. Whilst many in the industry had anticipated that the preferred business model for hydrogen will be based on the offshore wind Contract for Difference ("**CfD**") scheme – and the contract will now be with a government counterparty – the Consultation sets out a number of options as well as giving an indication of the government's preferred approach (and reasons behind it).

Namely, the Consultation states that the hydrogen CfD will be a variable price support model whereby the reference price will comprise, at least initially, the highest of two proxies (methane gas price and sales price achieved by the producer). The government is also likely to follow the FIDeR approach to early contracts – eligible projects are invited to make applications in 2022 with selection to be made in 2023.

Which projects will be eligible is yet to be determined and is subject to a separate consultation. The Strategy anticipates that this standard will be developed over the course of the year and published in 2022 (presumably in time for the first hydrogen CfD allocation).

However, a number of key parameters to the business model are yet to come – they include details of the proposed contract term, what indexation will apply, how the sliding scale of support will work and details for regulating the distribution and storage of the hydrogen produced. Some of this is likely to be published in the indicative Heads of Terms expected to be published in Q1 2022.

(c) *Hydrogen blending (as part of combination with existing gas networks)*

The Strategy outlines that the government is working with the Health and Safety Executive to assess the potential for 20 per cent hydrogen blending into the gas network. There are a number of projects trialling hydrogen blending (up to 100%) and

supporting the development of 'hydrogen-ready' appliances. This includes projects like FutureGrid which aims to create a representative transmission network to trial hydrogen and will allow for real-time testing and analysis of the network in operation over the coming months. The final decision on whether the UK will permit blending of 20% hydrogen into the natural gas grid will depend on the safety case approval from the Health and Safety Executive (HSE) and economic assessments.

If permitted, this is one of a number of areas which will require changes to legislation – both a review of the market framework set out in the Gas Act 1986 and changes to the Gas Safety (Management) Regulations 1996 which currently limits hydrogen content in the gas networks to 0.1% by volume.

The government also intends to review gas quality standards, with a view to enabling the existing gas network to have access to a wider range of gases, including hydrogen, subject to successful blending trials. A Call for Evidence on the future of the gas system is to be launched later in 2021 which, amongst other things, will look at the implications for increased use of hydrogen in the existing gas system.

(d) *Hydrogen markets*

Longer term, the Strategy envisages the development of a domestic and international hydrogen market. A combination of market developments is expected to underpin the longer-term vision of hydrogen being economically viable without subsidies. These include: revising the design of the UK Emissions Trading Scheme and sustainably increasing the price of carbon to be consistent with net zero commitments; cost reductions and scale increases in hydrogen production technologies; the development of distribution and storage infrastructure to expand the hydrogen economy; the roll-out of sector-specific decarbonisation policies that drive demand for low carbon hydrogen and establishing a regulatory and market framework that supports hydrogen deployment at scale.

(e) *Monitoring and reporting*

The Strategy notes that tracking progress will be essential to ensuring that the key outcomes – long term value for money for taxpayers and consumers, growing the economy whilst cutting emissions, securing strategic advantages for the UK, minimising disruption and cost for consumers and households, keeping options open, adapting as the market develops and taking a holistic approach – are achieved. The Strategy provides a set of indicative metrics (see Table 5 from the Strategy replicated below) which may be used to measure progress against these outcomes, noting that flexibility will be needed in respect of monitoring given the nascent nature of low carbon hydrogen and the fact that the exact mix of technologies comprising the hydrogen economy and how it will compare with other new low carbon technologies is unknown. BEIS also note their intention to update the Strategy every five years.

Strategy Outcome	Potential indicators and metrics
Progress towards 2030 ambition	– Low carbon hydrogen capacity installed (GW) – Volume of hydrogen produced (TWh) – Breakdown by technology (such as electrolysis and methane reformation)
Decarbonisation of existing UK hydrogen economy	– Remaining volume of fossil fuel hydrogen produced (TWh)
Lower cost of hydrogen production	– Levelised cost (£/MWh)

Strategy Outcome	Potential indicators and metrics
End to end hydrogen system with diverse range of users	– Estimated volume of hydrogen used in the UK (TWh by sector)
Increased public awareness	– Percentage of people aware of/familiar with hydrogen
Promote UK economic growth and opportunities (including jobs)	– We are exploring using metrics such as: – Number of low carbon hydrogen jobs available in different regions of UK and/or percentage of people trained or retrained into 'green' jobs within the sector – R&D spend and patents – Gross Value Added (GVA)
Emissions reduction under Carbon Budgets 4 and 5	– CO2 emissions reduction from hydrogen
Evidence-based policy making	– Quantitative and qualitative data collected – Engagement with stakeholders and expert advice

2. The Hydrogen Strategy – hydrogen applications

The Strategy cannot be considered in isolation; crucially, to reach the government's targets, policy development and implementation must progress in transport, heating and industry applications of hydrogen.

(a) *Transport*

The Strategy outlines that hydrogen is likely to be fundamental to achieving net zero in transport by complementing electrification or providing an alternative solution for sectors not able to otherwise decarbonise, such as shipping. BEIS identifies transport as being one of the biggest future components of the UK hydrogen economy, and by 2030, envisages that hydrogen will be used across a range of transport modes including HGVs, buses and rail.

The Strategy also makes various financial commitments towards developing hydrogen use in transport, including £120 million towards 4,000 new zero emissions buses (either hydrogen or electric), £20 million for both electric and hydrogen long haul HGVs, and £3 million to support the development of a hydrogen transport hub in Tees Valley that will focus on research and demonstrations.

However, more clarity is needed on how the Strategy will align with the Department for Transport's ("**DfT**") plans, and in particular, how hydrogen suppliers can participate in the Renewable Transport Fuels Obligation ("**RTFO**"). The RTFO has been in place since 2008 and is a certificates-based mechanism used to incentivise the use of renewable fuels in transport and non-road mobile machinery ("**NRMM**"). It requires that suppliers of at least 450,000 litres of transport or NRMM fuel during any obligation period (a calendar year) must supply a certain percentage of eligible renewable fuels – currently 12.4% by 2032, but this is to increase to 14.6%.

Hydrogen can be eligible for support under the RTFO either as a biofuel, where produced using biomass, or, since 2018, as an renewable fuel of a non-biological origin ("**RFNBO**") where it is "green" hydrogen – i.e. produced using non-biological renewable power such as wind or solar. However, for reasons we have set out previously in a separate Law-Now article, in practice, the current RTFO requirements

include barriers which have, at least in part, hindered the ability of hydrogen projects to participate in the RTFO scheme.

On 25 March 2021 the DfT issued a consultation on its proposed changes to the RTFO. The proposed changes not only included increasing the RTFO target to 14.6% as above, but also measures aiming to provide some clarity for hydrogen suppliers. The government has now published its response to the consultation (the "**Response**") which confirms, amongst other measures, that:

(i) It will expand the RTFO to support renewable hydrogen and other RFNBOs used in maritime transport, trains with alternative propulsion systems (e.g. renewable hydrogen in fuel cell powered trains) and alternatively powered non-road vehicles such as loading and construction equipment powered by hydrogen fuel cells (at present, the definition of NRMM only includes machinery powered by an internal combustion engine). This change will support the Strategy, which identifies hydrogen as a possible solution for decarbonising maritime transport and UK rail not suitable for electrification;

(ii) It will proceed with its consultation proposal to strengthen existing restrictions which prevent renewable fuels from receiving support under the RTFO if they already receive other incentives, potentially including feed-in-tariffs or premium payments. The Response notes, however, that electricity which has benefitted from support such as under the BEIS Contract for Difference or Renewables Obligation scheme will remain exempt as it is not a renewable fuel or chemical precursor. If the electricity is being used to produce renewable hydrogen and has benefited from support, the hydrogen itself would still be eligible for certificates. DfT maintains that this change aims to limit market distortions and promote a fair renewable fuels market. However, this may hinder ambitions to deploy carbon capture and low carbon hydrogen projects at scale in the UK where they might benefit from other governmental support schemes; and

(iii) It recognises industry's need for flexibility in rewarding renewable RFNBOs (like renewable hydrogen) under the RTFO, in particular, having more freedom to locate production plants away from sources of renewable energy. However, due to the complexity of this area, the DfT will take additional time to consider industry responses on this matter, as well as on the eligibility of grid supplied renewable power for RFNBO production, additionality requirements, and on changes to the level of rewards for biohydrogen. A further response will be published "**later in summer**" which will hopefully shed light on these important, and rather extensive, considerations for hydrogen suppliers looking to participate in the RTFO.

While these changes offer some insight on the future applicability of the RTFO for hydrogen fuel suppliers, uncertainty remains, and in implementing the Strategy, BEIS must align with the DfT, as well as the Treasury, to ensure that hydrogen will be able to deliver the government's transport decarbonisation goals.

(b) *Heating*

The Strategy recognises that hydrogen is 'one of a few key options' for decarbonising heat in buildings, alongside electrification and heat networks. However, BEIS points out that further evidence is required in relation to safety and feasibility, and as a result expects low demand for hydrogen heating by 2030. To accelerate a positive case for hydrogen heating, and gather more evidence, the government is committing to support various hydrogen heat trials, including a neighbourhood trial by 2023 and a village scale trial by 2025. These trials are to inform its 2026 strategic decision on the future of hydrogen for heat. In terms of hydrogen appliances, the government is to consult later in 2021 on the case for enabling or requiring new natural gas boilers to be easily convertible to use hydrogen.

Progress with hydrogen heating is, however, being held back by the delayed publication of other plans, as well as, potentially, a lack of coherence with such other essential policies and legislation. The government's Heat and Buildings Strategy, also within the remit of BEIS, was originally promised by Summer 2020 but has not yet been published. It has been flagged as a priority by the latest 2021 Progress Report to Parliament by the Committee on Climate Change, which overall is critical of the government's lack of policy in this area.

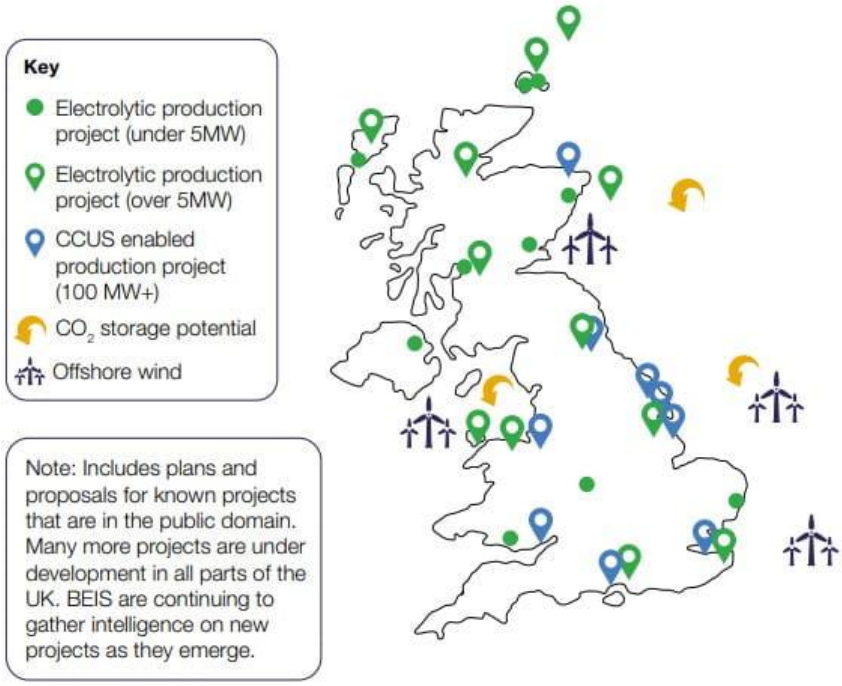
Without sight of, and alignment with, the Heat and Buildings Strategy, the role of hydrogen for heating as outlined in the Strategy is less clear. One particular area requiring clarification is how the government's plans to potentially end gas grid connections for new homes built after 2025, as set out in its 2020 Energy White Paper, will sit alongside plans in the Strategy to potentially use green hydrogen to heat homes. It remains to be seen whether the proposal to end new home gas grid connections will go ahead, but it calls into question whether hydrogen will only be used for any remaining boilers (blended with natural gas or otherwise), or as part of district heating systems, if at all. In any case, significant legislative changes will be required to be able to convey or blend hydrogen onto existing gas networks as there are strict limits on the amount of hydrogen that can be injected safely onto the system. In addition to the new trials outlined in the Strategy, the outcomes from projects such as Hy4Heat, which is assessing the potential use of hydrogen to heat UK homes and businesses (and in particular addressing safety issues and the development of domestic appliances), and HyDeploy, which is testing an injection of up to 20% hydrogen into the natural gas network, are also likely to provide insight as to the long-term future and policy of using hydrogen for heating.

(c) *Industry*

While advocating a twin track approach, the Strategy's approach to use of hydrogen in the industrial sector is aligned with use of hydrogen with carbon capture, utilisation and storage ("**CCUS**") projects. The Strategy proposes to publish a call for evidence to explore with industry what further interventions are needed to phase out carbon intensive hydrogen and transition to low carbon production methods and sources at pace. It also commits to working with cluster projects, where CCUS facilities (that may incorporate low carbon or "**blue**" hydrogen production) share infrastructure, to better understand the opportunities of these clusters. As both CCUS and hydrogen technologies are still in early stages, and costs are comparatively high when measured against other established forms of energy, discussion is ongoing as to how incentivisation might work. The government is currently researching and developing business models that will support investment in CCUS and hydrogen projects and develop the market, but these are still a work in progress, with no substantive hydrogen business model having been published at the time of writing. In particular, the revenue mechanism for these kinds of projects is still under discussion. However, as above, in tandem with the publication of the Strategy, the government has launched a Consultation on the preferred hydrogen business model which is to be built on a similar premise to the offshore wind Contract for Difference scheme. As in its Ten Point Plan, the government's target milestone is for the preferred hydrogen business model to be finalised by 2022.

Determining how a CfD mechanism will work for a gas that is (a) produced using different input fuels; (b) in need of investment to enter the market; and (c) is not yet fully commercialised (and therefore has no benchmark price) may be a challenge. The difference between blue and green hydrogen may also pose a challenge in terms of investment options; whilst there is potential to raise funding for investment by introducing a consumer levy, this may be confronted with industry backlash, particularly from green energy suppliers, as has recently been the case for investments into nuclear technology.

Figure 1.3: Proposed UK electrolytic and CCUS-enabled hydrogen production projects



Comment

The Strategy builds on the Ten Point Plan to have 5GW of low carbon hydrogen generation by 2030. The consultations about business models, what sorts of projects would be eligible to be called low carbon and how the £240m 'Net Zero Hydrogen Fund' should be allocated are all key planks in building a hydrogen regulatory framework within which such projects can be situated. In particular, it will be interesting to see how regulation of the hydrogen economy will fit with the existing regulatory framework of the energy sector, which is itself currently undergoing significant reform (see our commentary on energy code reform here).

Blue hydrogen producers will no doubt want to understand how the proposed hydrogen business model Consultation proposals fit with the CO2 infrastructure and potential funding via the CCUS cluster sequencing competition (see here for our commentary), with five eligible Phase-1 clusters having been announced in July 2021.

The government expects that 20-35% of the UK's energy consumption in 2050 can be met with hydrogen use and that it can be used in sectors ranging from heating to heavy industry, land, air and maritime transport. However, while the Strategy is much awaited and welcomed by many in the industry, it leaves plenty of work to be done both by government and their advisors. Legal analysis and the development of new laws and an industry framework is yet to come. The Strategy notes that primary as well as secondary legislation may be needed in a number of cases. This is in addition to navigating the HSE and environmental regulations, whether as part of consenting such projects or in trying to get them built.

While 5GW may not sound like a lot compared to some of the UK's neighbouring countries – for comparison, the EU is targeting 40GW by 2030 – and 2030 may sound a whole decade away, if the UK wants to build the hydrogen economy set out in the Strategy, there is plenty for all to do over the coming months. For example, there are a number of gaps to fill: the business models are acknowledged as not necessarily being suited for smaller hydrogen producers. Similarly, the

Strategy's twin track approach can be said to have a bigger track for blue hydrogen projects, while with information needed for green hydrogen projects is absent.

Still, with just weeks to go before the COP26 climate change summit, it is encouraging to see that with this publication, the UK joins the 30+ other countries which already have hydrogen-specific strategies; representing an important signal of the UK's commitment to achieving its net zero greenhouse gas ambitions.

1.9 Vehicle-to-X

Are vehicle-to-X energy technologies the future? BEIS calls for evidence

13 August 2021

On 20 July 2021, the Department for Business, Energy & Industrial Strategy ("**BEIS**") published a consultation calling for evidence about the use of vehicle-to-X energy technologies in the future of the energy system in Great Britain (the "**Consultation**").

The Consultation is an information gathering exercise by BEIS for it to develop a deeper understanding of the current technical landscape, understand the barriers to rolling out the technology and potential business models of the future. It asks broad questions and there are no regulatory or technical proposals.

Vehicle-to-X

The term 'vehicle-to-X' or 'V2X' in relation to electric vehicle ("**EV**") charging technology refers to 'vehicle-to-everything' and is used to describe technology that allows the bidirectional flow of power from an EV back to a system. Technology of bidirectional power flow between a vehicle to the grid has been established through prototypes, and now technology development has moved its focus to enabling the EV battery to export electricity back to other systems, be that a building such as a home (V2H) or a building (V2B) such as a business premises in response to signals from the electricity system. Developing a solution that can export back to the grid or behind the meter is referred to as V2X to capture the wide range of possible systems that the EV could export to (with 'X' representing 'everything').

An EV with a 12 kWh battery stores as much electrical power as the average family consumes in one day. Therefore, correctly rolling out and encouraging adoption of V2X technology by consumers and industry could have a significant impact on the energy system with a range of benefits.

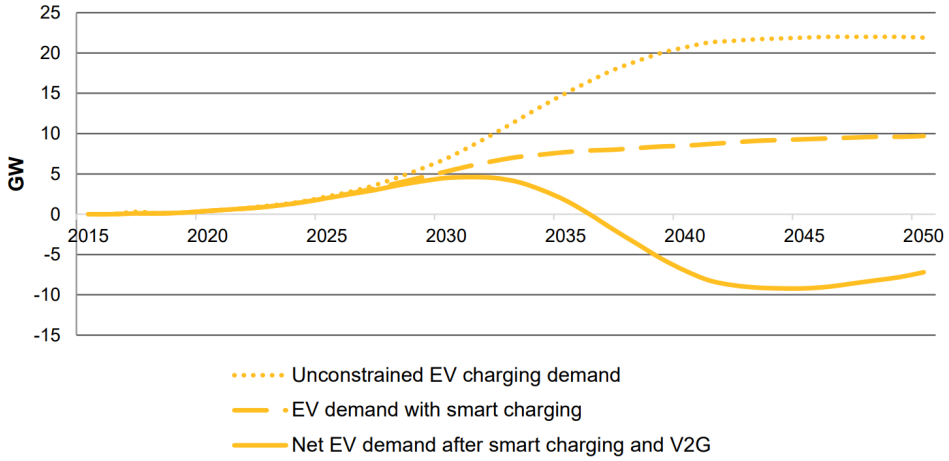
Hybrid V2X and smart charging technology can also be applied at a larger scale than on an individual consumer basis. Trial sites are in development that integrate large-scale battery technologies to provide a fast EV charging hub for several vehicles and amenities. Development of such charging hubs are predicted to play a crucial role for en route charging and private fleet charging. The demand on the electric grid by these sites can be lessened by utilising battery technology and the ability to provide fast charging with a large amount of power on demand will be beneficial to EV drivers.

The benefits of vehicle-to-X

V2X technology goes further than smart charging in enabling the wider network to draw power from an EV battery in response to peaks in demand or other system requirements, such as frequency.

The graph below from the Consultation shows modelling from National Grid's Future Energy Scenarios 2020 that represents the potential impact of unconstrained EV charging on the system as EV uptake increases and the impacts of smart charging and V2X technologies.

Figure 1: Electric Vehicle Charging Behaviour at ACS winter peak system demand (Consumer Transformation Model) - National Grid FES2020



Source: Figure 1 from the Consultation.

Selling power back to the grid, providing system services or using power behind the meter can provide potential savings or a source of revenue for a consumer. The Consultation cites research that V2X technology could offer up to £436 of revenue annually for a consumer that provides vehicle-to-grid services, have their EV plugged-in for 75% of the time and has a solar panel installed.

For the electricity system, V2X could provide an effective network balancing solution by offering distributed battery storage that would complement the grid scale storage that is currently being developed. Balancing and stabilising services are imperative for ensuring system stability and allowing the UK to embrace un-dispatchable, intermittent renewable energy sources.

The challenges of vehicle-to-X rollout

The Consultation notes that V2X technology has remained in the technical trial stage with barriers to wider adoption and rollout. These include high equipment cost and barriers for technology suppliers to participate in highly regulated energy system.

The Consultation outlines the identified barriers to uptake in more detail, which are summarised below:

1. V2X compatible EVs: currently the vast majority of EVs in the UK are not capable of V2X functionality. A wide range of EVs that are capable of the technology will be required to drive consumer uptake.
2. High costs: the need for a bidirectional charger with AC to DC conversion technology or having this converter built into the EV increases costs, although these are expected to fall in the future.
3. V2X protocols: there is not one standard V2X protocol (currently protocols include CHAdeMO and CCS) and they are not interoperable. Therefore, this limits consumers options and limits the technology for public chargepoints.
4. EV battery health: there is currently technical uncertainty on the impact that V2X activities will have on battery health and have a resulting negative impact on uncertainties on the EV OEM warranties which may dissuade consumers from adopting the technology.
5. EV plug-in rates: the Consultation cites research that the average domestic car is only in use for 4% of the time. However, the average EV is plugged in for 30% of the time. V2X technology can only be utilised when EVs are plugged-in at a bidirectional charger. Further

innovations, roll-out of EV chargers and changing of consumer behaviour will be required to increase plug-in rates to bring about the benefits of V2X technology.

6. EV availability: consumers' range-anxiety will be compounded if their EV battery is not sufficiently charged and available when required. Consumers will have to fully understand the proposition and understand the degree to which they can control when the EV is available for export. A user-friendly consumer interface will be key to this.

7. Electricity market access: V2X has its own strengths and specific requirements (such as the need for aggregators and its reliance on EV plug-in rates) when compared to other storage technologies (such as demand-side response). It should be examined whether markets such as the capacity market contain any barriers in their design for entry by V2X compared to other storage technologies.

8. Business models: due to low margins, there is currently not a sustainable business model for domestic V2X aggregators. Aggregators for commercial fleets may have an improved business case. A healthy business model is required for domestic consumers to provide V2X services.

Next steps

Industry will welcome proactive steps from BEIS to develop a deeper understanding of V2X technology and its pathway to commercialisation. At this stage, BEIS has not taken a stance on whether it sees a need for regulation in this space. The timing of exploring the technology is of note; if V2X is going to be included in EVs ahead of the 2030 internal combustion engine ban then standards and requirements will have to be implemented quickly.

The Consultation is open for input from relevant stakeholders such as network companies, EV OEMs, energy suppliers, chargepoint operators and flexibility providers until 12 October 2021.

3.10 Energy Digitalisation Strategy

The energy sector's digital transformation: UK government publishes first-of-a-kind energy digitalisation strategy

5 August 2021

On 20 July 2021, the Department for Business, Energy and Industrial Strategy ("**BEIS**") published its 2021 Strategy and Action Plan on digitalising the energy system for net zero (the "**Strategy**"). The Strategy, which was developed in partnership with Ofgem and Innovate UK (part of UK Research and Innovation) is the first of its kind in the UK, and sets forth the government's ambitions and actions to accelerate the transition towards a fully digitised and future-proof energy system that enables the UK to meet its decarbonisation targets.

In this article, we provide an overview of the key points to note from the Strategy and consider how the actions proposed by the Strategy may impact the regulatory landscape in the energy sector.

Background

Harnessing the power of data and digitalisation across the energy system is a matter that BEIS has been increasingly cognisant of over the past few years. As greater sources of variable, distributed energy come online, this will require a significant step-change in the energy system's ability to manage and react to increasingly complex energy flows. The Strategy notes that greater exchanges of data in order to facilitate an energy system that can effectively accelerate, automate, plan and anticipate processes will be vital in enabling the system to operate flexibly and to optimise assets across the network.

In 2018, BEIS and Ofgem published a progress update to its Smart Systems and Flexibility Plan, which set out the role of energy data in decarbonising the energy system and paved the way for the development of an Energy Data Taskforce (our commentary on the update can be found here). Against this backdrop, the Strategy builds on the impetus for energy digitalisation identified in other governmental plans, such as the Energy White Paper which committed to develop world-leading digital infrastructure across the energy system. In a similar vein, a core priority in Ofgem's 2021/22 forward work programme is unlocking the benefits of data and digitalisation. Alongside publication of the Strategy, BEIS and Ofgem also published an updated Smart Systems and Flexibility Plan, (which we discuss in a separate Law-Now)), which focuses on the role of smart and flexible solutions in delivering decarbonisation of the energy system.

The Strategy sets out the government's vision and action plan to digitally modernise the energy system as it transitions away from high carbon to low carbon technologies, and sees increased decentralisation. It aims to ensure that, as low carbon generation is increasingly integrated onto the network, valuable and accessible system-wide data is used and optimised to drive efficiencies, all while benefitting consumers and lowering system management costs.

The Strategy defines a "digitalised energy system" as one where:

- Presumption of data openness is the industry default;
- Data is adequate, standardised, and interoperable across the sector;
- The required infrastructure, processes, technologies and skills are appropriately deployed; and
- The relevant rules and regulations, costs and benefits, and roles and responsibilities are clear.

The ambition to digitalise is clear, but as BEIS notes throughout the Strategy, the scale (and speed) of change required presents a number of complex challenges to be overcome. Several actions have been identified to address these challenges, which we review in more detail below.

1. Government's ambitions for a digitalised energy system

By the mid-2020s, the Strategy aims to have achieved the following:

- Established standards and regulatory frameworks in place that ensure best practice is met for energy data collection, accessibility, privacy and security;
- Significantly stepped-up visibility of assets across the system and new digital services such that stakeholders can understand what data exists and how they can gain access to it; and
- Identified the next steps for digitalising the energy system including what new data governance, market frameworks and institutional designs need to be developed to ensure data privacy and cyber security while increasing market access and services.

Looking ahead to 2030 and beyond, the Strategy sets out the following ambitions:

- System operators will have visibility of all energy assets enabling more accurate, efficient and cheaper planning, forecasting and management of assets;
- Greater data access in the market will support new business models and entrants participating in the energy sector; and
- Innovators can use the digital energy system as a platform to revolutionise the system's interaction with wider national infrastructure and services.

2. How a digitalised energy system will be delivered

To deliver on the ambitions set out above, and to address some of the barriers that a transition to a fully digitised energy system may bring, the Strategy sets out nine actions that the government, Ofgem and industry will take in the next phase of policy implementation. The actions are categorised into three overarching themes: a) **leadership and coordination**, b) **incentivising change** and the c) **development of digital solutions**. We outline below some of the proposed actions that may have an impact on the regulatory landscape.

(a) *Leadership and Co-ordination*

BEIS and Ofgem aim to lead by example by reviewing their own datasets and digitalisation processes by the end of 2021 in line with newly developed Energy Data Best Practice guidance. Both entities also commit to aligning policy, regulation and innovation competitions with the goals of the Strategy. Ofgem's newly established Data and Digital Insights team will, amongst other tasks, work to ensure that Ofgem's regulatory requirements for the use of energy data and the development of digital services are robust.

In addition, a new Energy Digitalisation Taskforce, led by Energy Systems Catapult, has been established help identify further actions and propose new recommendations that will be required as the system digitalises. These recommendations are expected in winter 2021/22.

(b) *Incentivising Change*

The Strategy maintains that, to incentivise change, Ofgem will implement an "agile regulatory environment" regarding data, digitalisation and its market design. While agile and regulated environments are often at odds, this action proposes that stakeholders will be incentivised to adopt new behaviours such as adhering to agreed standards, for example through network price control frameworks, or by integrating obligations into relevant licences. In particular, Ofgem intends to ensure data and digitalisation expectations are included as part of the design of the RIIO-2 price

control regime for distribution networks, whereby network companies are required to comply with Energy Data Best Practice and Digitalisation Strategy and Action Plan guidance (which Ofgem recently consulted on).

The government is also developing a coordinated asset registration strategy for smaller scale assets such as behind-the-meter solar panels, electric vehicles charging, battery storage and heat pumps. This will assist system operators and network companies in having greater visibility of the energy assets on the system, which will in turn inform decisions on strategic investment that affect where network infrastructure is built, live network operations, and security of supply.

Moreover, the Strategy highlights that Ofgem will seek views on wider applications of data and digitalisation across its regulations, for example for other licenced entities such as generators or suppliers, and with industry codes. Further, Ofgem is due to conduct a holistic review in winter 2021/22 to understand new and existing data and digital monopolies, potentially adapting regulatory expectations on market actors.

(c) *Development of Digital Solutions*

The Strategy outlines ambitions to work with industry to fund and develop innovative system-wide digital solutions and architecture, as well as to stimulate the market to develop new business models. So far, a number of innovation competitions have taken place, such as Innovate UK's Modernising Energy Data Access competition to create a data access and governance framework for the sector. In addition, the Strategy commits to the improvement of visibility and searchability of energy datasets, firstly through an Energy Data Visibility Project, of which the first phase is to be ready by summer 2021, as well as through the development of a National Energy System Map by the Energy Networks Association.

Comment

Digitalisation of the energy system will be no easy feat and will require the integration of millions of new and existing energy assets, deployment of sufficiently secure and smart infrastructure and the collaboration of varied – and sometimes competing – organisations.

A key challenge to date with digitalisation of the energy sector has been the lack of availability of shared, and meaningful, data. While the energy system is rich with valuable data, much of these datasets remain locked in silos, which results in a general lack of understanding in terms of what datasets are available, who holds them and how they can be used. Naturally data is more valuable when combined with other datasets, however without the right incentives and frameworks, it will be challenging to motivate organisations to share data with other stakeholders.

As the Strategy notes, our current energy system rarely treats data as a public asset and even where stakeholders are aware of what data exists and where, the lack of cohesive or coordinated standards and infrastructure to facilitate easy data exchange can make obtaining such datasets challenging. This lack of cohesion, combined with burdensome processes, such as overprotective and bespoke data sharing agreements, and low adoption of open-source technologies prevent energy data from reaching its full potential. As such, it may be the case that if the industry does not move with the speed that the Strategy necessitates, the government may seek to use further policy and regulatory levers to better support digitalisation efforts.

3.11 EV Smart Charging

The future is smart: the government's response to the electric vehicle smart charging consultation

5 August 2021

In July 2019, the Department for Transport and OZEV launched a consultation on proposals for new EV chargepoint smart technology regulations. On 14 July 2021, the Government published its final response to the electric vehicle smart charging consultation that was closed in May 2020 (the "**Response**"). We covered the consultation in our Q1 2021 EV Round-up which can be accessed here. The Government has followed the proposals under the consultation with approaching the roll-out of smart charging requirements over two phases.

Phase 1 – under The Automated and Electric Vehicles Act 2018 ("**AEV Act**") the UK Government has powers, through secondary legislation, to require that EV chargepoints sold or installed in the UK have 'smart charging' functionality included. The Government proposes to publish the regulations in Autumn 2021.

Phase 2 – would mandate requirements beyond the smart chargepoint devices themselves, and instead apply rules to chargepoint operators and electricity aggregators, as well as updating device-level requirements. As the requirements are expected to go beyond the device only powers of the AEV Act, Phase 2 would require new primary legislation. The timing for Phase 2 is less clear as the Government wish to examine the impact of implementation of Phase 1 and harmonise it with the 2021 Smart Systems and Flexibility Plan (please see our separate Law-Now), and the upcoming Call for Evidence on regulating third party intermediaries in the retail energy market. This will push Phase 2 into beyond 2022.

Phase 1 Outcomes

The Government has outlined the following to be expected under the AEV Act regulations. The rules will apply to private (domestic and workplace) chargepoints 50 kW or below. The rules will apply to the sale of chargepoints, rather than installation, and will be enforced by the Office for Product Safety and Standards ("**OPSS**"). The following requirements will be contained in the regulations:

1. Manufacturers of chargepoints will have to provide a statement of compliance and technical file which should give detailed evidence of how the requirements in the regulations are met. This file will need to be made available to the OPSS upon request.
2. Whilst the Government considered whether to mandate compliance with the new BSI Standards for Energy Smart Appliances (PAS 1878), it has decided to not require direct compliance with the standard. Instead, the regulations will require technical standards that are compatible with the BSI Standard. Mandating for the BSI Standard may be considered as part of Phase 2.
3. A 'smart chargepoint' will be defined as an EV charger that has the ability to:
   - Send and receive information; and
   - Respond to this information by:
     - increasing or decreasing the rate of electricity flowing through the chargepoint; and;
     - changing the time at which electricity flows through the chargepoint.

4. As the BSI Standards for Energy Smart Appliances will not be mandated, the regulation will have to address cybersecurity separately. The Government will implement a European cyber-security standard EN 303 645 which outlines an outcome-based set of requirements for consumer Internet of Things devices and will apply to smart chargepoints.

5. At this stage, there will not be a requirement for chargepoints to be capable of retaining smart functionality in the event that the chargepoint operator were to be changed. Instead, the regulation will ensure that consumers are able to switch their energy supplier without the smart chargepoint losing smart functionality. Interoperability remains a fundamental policy principle for Government's approach to smart charging but will be dealt with in further detail in Phase 2.

6. In order to support grid stability, smart chargepoints must contain a function that randomly delays the start time of any load control action. This randomised delay function will help reduce the risk of potential grid stability issues where large numbers of chargepoints switch on or off at the same time. Chargepoints will need to have the capability of applying a remotely configurable randomised delay of up to 30 minutes, though by default they will only need to apply a delay of up to 10 minutes. In addition, the chargepoint must be configured in a way that allows the user to override this delay function.

7. Smart chargepoints must prompt users to input a charging schedule during first use. In addition, smart chargepoints must be pre-set to offer users a charging schedule that by default prevents EVs from charging at peak times. During first use, the user must be given the opportunity to edit or remove this setting. The user must also be able to remove or edit this default setting at a later date. Peak times will be defined in legislation as 8 a.m. to 11 a.m. and 4 p.m. to 10 p.m. on weekdays.

8. Smart chargepoints must also be capable of monitoring and metering energy consumption. The chargepoint must measure and calculate the electricity consumed and/or exported and the duration of the charging event while giving the consumer a way to view this information.

Phase 2 Outcomes

The Response outlines that the longer-term Phase 2 approach is less-defined than Phase 1, however, the Government remains committed to delivering the four objectives that underpin smart charging policy (consumer uptake, innovation, grid protection and consumer protection).

Phase 2 will build on and complement the first phase but will consider requirements beyond the chargepoints themselves. In particular, Phase 2 will consider all organisations performing a "load controlling" role, including electricity aggregators and chargepoint operators. Whilst the Response states that the smart metering solution remains the lead option for delivering smart charging in Phase 2, Government will explore alternative or complementary solutions.

As Phase 1 will not fully address interoperability, nor fully mitigate energy system risks like cyber security and grid stability these issues will have to be addressed comprehensively in Phase 2.

EV Chargepoint data

The Government considers that there are significant benefits to be derived from opening up and sharing energy data including increased access to public EV chargepoint data. A consultation has been published on this topic (see our previous Law-Now here) with a response due in the Autumn of 2021 and legislation expected to follow later in the year. The Government is continuing to investigate opening up private chargepoint data and whether this data should be shared with specified parties as mentioned in the Government's Energy Digitalisation Strategy published here.

Comment and next steps

The detail of Phase 1 will be welcomed by chargepoint manufacturers, although it remains to be seen how these requirements will be drafted in regulation. Many of the complex and controversial

issues such as interoperability have been ‘kicked further down the road’ into Phase 2. Industry may have been hoping for more detail and certainty at this stage, however this will now be expected in 2022.

It is proposed that most requirements Phase 1 regulations will be enforceable 6 months after the laying date, which is expected to be Spring 2022. However, as they may require more extensive hardware and software changes, the cyber security requirements will be enforced from 12 months after the laying date.

3.12 Road Transport Decarbonisation

UK transport decarbonisation strategy: impact for road transport

23 July 2021

On 14 July 2021, the UK Department for Transport published the following:

- the wide-reaching policy plan on decarbonising transport and the targets and ambitions required to meet the UK's net zero targets (the "**Decarbonisation Plan**");
- a delivery plan designed to bring together all of the committed funding streams and measures for decarbonising cars and vans together with the Office for Zero Emission Vehicles ("**2035 Delivery Plan**");
- the outcome of the 2019 EV smart charging consultation ("**Smart Charging Outcome**");
- a Green Paper on the proposed regulatory framework for the UK with regard to emissions standards for all newly sold road vehicles ("**Emission Standards Green Paper**");
- a consultation on when to phase out the sale of new, non-zero emission heavy goods vehicles ("**HGV Consultation**"); and
- the Government response to its March 2021 consultation on changes to the RTFO to accelerate transport decarbonisation.

In this Law-Now, we examine what these publications entail for road transport, particularly the Zero Electric Vehicle ("**ZEV**") sector. We will publish further Law-Nows on what the Decarbonisation Plan means for decarbonising the aviation, maritime and rail sectors.

The Decarbonisation Plan

The Decarbonisation Plan covers private and public transport, freight, rail, shipping and aviation, prioritising the shift to a decarbonised and green transport sector.

The Decarbonisation Plan contains a number of targets and commitments from the UK Government in achieving these priorities. With scant detail about implementation, it mainly provides an overview of the 'state-of-play' for the decarbonisation strategy.

We have noted the key takeaways and main commitments contained in the Decarbonisation Plan below:

Area	Key commitment / delivery
Incentivising uptake of zero emission cars and vans	The publication of the 2035 Delivery Plan. See further details below; A consultation on implementing the ending the sale of new petrol and diesel cars by 2030, including consulting on the final phase out date of non-zero emission cars and vans by 2035 (or earlier if a faster transition appears feasible); Continuing the support for zero emission vehicles through financial and non-financial incentives, including £582 million for plug-in grants and reducing ZEV purchase prices for consumers;

Area	Key commitment / delivery
	The delivery of an action plan to build new UK opportunities for zero emission light powered vehicles; and A consultation on a car manufacturer zero-emission vehicles mandate.
End of ICE HGV sales	Announcement of the consultation on ending the new sale of diesel heavy goods vehicles ("HGVs") by 2035 or 2040 (depending on size). See further details below.
Decarbonising Public Transport	A consultation on modernising the Bus Service Operators' Grant to include a green incentive of 22p per km for zero emission buses in 2021; A consultation on a phase-out date for the sale of new non-zero emission buses and coaches (an initial consultation on ending the sale of new diesel buses closed in April 2021 with a further consultation to be published later this year); and A commitment to supporting the delivery of 4,000 new zero emission buses.
Encouraging hydrogen fuelled transport	The plan will increase the Renewable Transport Fuel Obligation by 5 percent, which is estimated to achieve additional carbon savings of up to 20.8 MtCO2e between 2021 and 2032; Publishing an overarching Hydrogen Strategy summer 2021 and focusing on the increased production of hydrogen; and Investing £3 million in 2021 to establish the UK's first multi-modal hydrogen transport hub in Tees Valley.

2035 Delivery Plan

The 2035 Delivery Plan is iterative and the Government plans to publish regular updates, with a formal progress review by 2025. By its nature, there are not any new announcements in the 2035 Delivery Plan and it is broadly a summary of pre-existing measures. However, it highlights the key methods through which the Government will deliver zero emissions cars and vans by 2035, which includes:

- Increasing the uptake of zero emission vehicles by:
  - introducing a new road vehicle CO_2 emissions regulatory regime by 2024 (as outlined further below);
  - investing £582 million for the plug-in vehicle grants scheme until at least 2022/23; and
  - zero emission cars receiving favourable company car tax rates until at least March 2025.
- Accelerating the rollout of charging infrastructure, including:
  - supporting the private sector to deliver at least 6 high powered chargepoints at every motorway service area in England by 2023; and
  - Ofgem enabling investment by DNOs to upgrade electricity connections at motorway service areas across England's motorway service areas;
- Publishing an Electric Vehicle Infrastructure Strategy in 2021;

- Continuing the funding of grants for home, workplace and on-street chargepoints until at least 2024/25, including the launch of the Local Infrastructure Fund by Summer 2022;
- Regulating for chargepoint infrastructure provision in new homes in 2021;
- Introducing regulations in 2021 to ensure all private chargepoints have smart capability;
- Publishing a consultation in 2021 to ensure battery recycling legislation is fit for purpose;
- Publishing a Hydrogen Strategy to set out how the UK's hydrogen economy will develop;
- Publishing a second phase of the Smart Systems and Flexibility Plan (SSFP) in 2021 to set out the reforms needed to secure flexibility across the energy system, including electric vehicles;
- Providing late-stage R&D support for ZEV technologies through the £1 billion Advanced Propulsion Centre Competitions (building on 8 years of investment), with funding confirmed to at least 2023; and
- Introducing more Clean Air Zones by local authorities between 2021 and 2023.

Smart Charging Outcome

The Smart Charing Outcome confirms that secondary legislation will be introduced this autumn pursuant to the powers under the Automated and Electric Vehicle Act 2018 to ensure all new private electric vehicle (EV) charging points can meet required smart charging standards. The smart mandate will apply to all domestic and workplace chargepoints and will require that each chargepoint can:

- send and receive information; and
- respond to this information by increasing or decreasing the rate of electricity flowing through the chargepoint and changing the time at which electricity flows through the chargepoint.

However, it will not cover 50kW-plus rapid chargers and will only apply to the sale of the chargepoints and not the installation.

We will be publishing a more detailed Law-Now on the Government response to the smart charging consultation which will be available shortly.

Green Paper on a new road vehicle CO_2 emissions regulatory framework

The Green Paper sets out two regulatory proposals for new cars and vans:

1. ‘Tightening’ of existing efficiency-based regulations

   This proposal would replicate the current UK regime but with CO_2 targets ‘turned up’ to the extent that the targets would need to be set at 0g CO_2/km by 2035, ensuring that all new cars and vans are zero emission at the tailpipe by 2035.

   This approach would replicate the current regime as closely as possible with tougher targets providing a degree of continuity. As the bulk of the framework already exists in UK law, it would allow the Government to set out a pathway to 2030/35 at the earliest possible opportunity.

   Disadvantages include that without mandating the actual number of vehicles required, it may provide lower assurance to support private sector investment in the wider zero emission vehicle eco-system, including by chargepoint providers and new entrant zero emission vehicle manufacturers. Further, by rewarding incremental improvements in petrol and diesel engine vehicles, there is a risk that this approach comes at the expense of faster development and deployment of zero emissions vehicles.

2. Introduce a zero-emissions vehicle mandate

This proposal would introduce a zero-emissions vehicle ("**ZEV**") mandate/sales target for the percentage of ZEVs sold each year. Manufacturers could earn 'credits' for selling and registering qualifying vehicles, alongside the CO_2 regulations based on the current framework.

Under this option manufactures could also 'buy' their way to the target which would provide financial incentives to overachieve.

This would require the establishment of a new regime and a secondary trading market for both ZEV Credits and CO_2 credits.

Manufacturers may face increased administrative burdens by requirements to essentially meet two separate targets under the regime, and the additional credit process.

This second option of a ZEV mandate is currently the Government's preferred option as a way to fully legislate for the phase-out of new petrol and diesel cars and vans in 2030, and to legislate for all new cars and vans being zero emission at the tailpipe by 2035.

The consultation also seeks views on the wider regulatory framework including:

- the vehicle models that should be in scope;
  - cars and vans are within scope with fleet-wide targets applying in future years;
  - some smaller HGVs are currently within scope and will be influenced by the consultation on phasing out the sale of all new non-zero emission HGVs;
  - new buses and coaches are within scope, but targets have not yet been defined;
  - whether derogations and exemptions should apply for certain specialist vehicles and/or niche and small volume manufacturers;
- the level of fines that should be issued for non-compliance; and
- defining the 'significant zero emission capability' that all new hybrid cars and vans will be required to deliver from 2030 to 2035.
- Vehicle manufacturers will need to prepare for the updated regulatory regime. Currently, this appears to be the ZEV mandate option. The consultation on the proposals is open until 22 September 2021.

HGV Consultation

The HGV Consultation notes that road transport makes up 90% of transport-related carbon emissions in the UK with trucks and lorries accounting for 2% of vehicles on the road but 22% of road transport emissions. The number of HGVs on the roads is predicted to grow which will risk increasing emissions from the sector.

Existing measures to decarbonise HGVs include regulations that came into force in January 2021 requiring HGVs to reduce CO_2 emissions by 15% by 2025 and 30% by 2030 compared to the 2021 baseline (Regulation (EU) 2019/1242 which has been transposed into UK law after Brexit).

The key proposal in for the HGV Consultation is for:

- the sale of new non-zero emission HGVs (weighing 3.5 tonnes up to 26 tonnes) to be banned from 2035; and
- the larger trucks weighing more than 26 tonnes from 2040.

The consultation seeks views on whether the stakeholders agree with the approach to phase out dates for new non-zero emission HGVs into two weight categories and whether the categories are correct.

The consultation emphasises that the technology required for lighter zero emission HGVs is largely mature and that as the supply chain scales up, the technology could be a direct swap for diesel

vehicles in the lighter weight categories. However, batteries are unable to carry the heaviest loads over longer distances with battery weights reducing space in the lorries. A similar concern is noted with compressed hydrogen tanks. It is anticipated that the energy density by volume and weight of batteries will improve but not necessarily enough to satisfy the requirements of long-haul operators.

The consultation is open until 3 September 2021 for comment from relevant stakeholders.

RTFO

The Government response confirmed the Government's plans to increase the Renewable Transport Fuel Obligation by 5 percent. The response to the consultation also confirmed the expansion of hydrogen to new modes of transport including for RFNBOs to be used in the maritime sector, renewable fuels to be used in trains with alternative propulsion systems and alternatively powered non-road vehicles.

The Government intends to make legislative changes so that the new policies, including the increased targets, apply from the start of the next RTFO obligation period i.e. 1 January 2022.

Comment

There have been several frustrating delays in relation to the regulatory landscape for the burgeoning ZEV sector, for example, the Decarbonisation Plan was originally expected in 2020. Further, the Government's Hydrogen Strategy has also now been delayed with no indication of when it will be published, however, this will certainly not be until after the summer recess. Several responses and policy issues have also been deferred, for example in relation to charging point interoperability. What is clear is that the RTFO (Ripe for reform: proposed RTFO developments to facilitate hydrogen uptake (cms-lawnow.com)) is anticipated to be reformed to incentivise the use of hydrogen (and, hopefully, clarify how precisely suppliers and customers can make use of this regime).

It is well recognised that there are a wide range of policy, regulatory and infrastructure challenges for the UK to overcome to meet its targets to fully phase-out new diesel and petrol vehicles by 2030 and meet its wider net zero commitments. The announcements covered in this Law-Now are very welcome, but must signal the start of a period of focus and momentum on these issues from Government to ensure such ambition can be turned into reality.

3.13 CMA EV Market Study

CMA EV market study: no market investigation reference but future remedies package to be proposed

27 May 2021

On 26 May 2021, the Competition and Markets Authority (the "**CMA**") published a second progress update in the electric vehicle ("**EV**") charging market study and notice of its decision **not** to make a Market Investigation Reference.

Background

In December 2020, the CMA launched a market study into the EV charging sector in the UK and invited comments from stakeholders. The market study was a proactive step by the CMA to investigate an emerging market in its infancy and identify potential areas of concern regarding competition. Unlike most other CMA market studies, which examine well established markets with emerging concerns, this study was unique in investigating a nascent sector.

For a more in-depth exploration into the purpose and scope of the market study, see our previous Law-Now article here.

Status of market study

On 1 March 2021, the CMA published the responses to its Invitation to Comment ("**ITC**") and provided its first progress update. The update outlined the themes and issues that had emerged in the ITC responses and identified two key segments that it wanted to focus on in more detail:

- en-route rapid/ultra-rapid charging, in particular on motorways; and
- on-street slow/fast local charging i.e. on the kerbside or in local hubs.

Since this first update, the CMA has been continuing to collate information, undertake analysis and engage with stakeholders. Of note, it held a series of roundtable sessions in April 2021 where key issues were discussed and potential measures were explored.

The second progress update builds on the segments previously identified and notes emerging issues in the following settings:

- en-route rapid/ultra-rapid charging, in particular on motorways – where concerns about investment and competition exist, given the requirements for suitable, accessible charging locations ;
- on-street slow/fast local charging i.e. on the kerbside or in local hubs – where emerging issues about limited investment to date and the role of local authorities exist; and
- how consumers interact with both off-street home charging and public charging.

The CMA's exploration of these emerging issues and potential remedies to address them is set to continue for the next few months.

Market Investigation Reference ("MIR")

Within six months of launching a market study, the CMA has a statutory obligation to either (i) consult on whether to make a MIR; or (ii) publish notice of its decision not to make a MIR. A MIR is a

more in-depth investigation into a market, which can last up to 18 months (24 months in exceptional circumstances).

The CMA noted that the nature of some of the identified emerging issues in the UK EV market are such that it is likely the statutory test for making a MIR is satisfied. However, it decided not to make a MIR as it believes that the issues could be effectively and proportionately addressed through alternative outcomes. Separately, it did not receive any representations from stakeholders that a MIR was necessary.

Instead of a MIR, the CMA commits to "develop a package of remedies within the market study" that it considers will effectively address the issues identified. Whilst the CMA did not disclose the form this package of remedies may take, there are a broad range of remedies it could adopt, including:

- recommendations to Government if it considers that a change in law, government policy or the regulatory framework is required;
- publishing guidance and/or recommendations to businesses if it deems certain issues can be addressed by stakeholders changing their behaviour, this may address issues such as the information provided to consumers during the sales process, avenues for customer redress and poor terms and conditions; and
- customer-focussed action – for example, organising information campaigns to empower consumers to make more informed purchases.

The CMA has left the door open to revisit the case for a MIR should there be features of the UK EV charging market meriting further consideration in the future – but this would be a separate project.

Next steps

The CMA anticipates publishing its market study report, setting out its full findings alongside a package of remedies, in summer 2021 – significantly ahead of the statutory deadline (being 1 December 2021).

The detail, flexibility and extent of the CMA's remedies will be keenly awaited by the fast-paced and growing UK EV charging sector. In its first progress update, the CMA noted it was working closely with the Office for Zero Emission Vehicles so the sector will be hoping for a joined-up approach to any regulation and practical solutions to emerging issues.

Industry structure and regulatory frameworks

3.14 RO Supplier Payment Default

Consultation launched on supplier payment default under the renewables obligation scheme

26 August 2021

Introduction

On 10 August 2021, Ofgem and BEIS published a joint consultation (the "**Consultation**") focusing on supplier payment default under the Renewables Obligation ("**RO**") support scheme. The Consultation seeks to address a trend in recent years which has seen an increasing number of electricity suppliers defaulting on their obligations under the RO by failing to settle their obligation by the required 1 September or late payment period (31 October) deadline, and subsequently exiting the retail market.

Supplier payment default is of particular concern to both electricity suppliers and generators due to RO mutualisation. The mutualisation mechanism seeks to recover RO payment shortfalls left by suppliers unable to meet their obligation from other suppliers where these shortfalls meet certain thresholds. Mutualisation payments are then recycled back to suppliers who met their RO with RO Certificates ("**ROCs**"). Supplier payment defaults ultimately result in the remaining suppliers in the market having to meet the unpaid obligations of competitors. While the government has already legislated to increase the level of the mutualisation threshold in England and Wales to reduce the likelihood of mutualisation being triggered, this ultimately did not address the underlying causes of payment default.

The Consultation proposes several options to address supplier payment default under the RO, which may involve introducing new legislation or amending the supply licence. We consider these in further detail in this article.

Proposed measures to address supplier payment default under the RO:

Option 1: Introducing legislation requiring suppliers to settle their RO annual obligation more frequently

The Consultation proposes increasing the frequency of RO settlement via amendments to the Renewables Obligation Order 2015. Under the proposals, the current single annual settlement payment by suppliers would be replaced with four quarterly settlement payments. The level of the obligation would continue to be set on an annual basis and would still apply to electricity supplied to customers during each 12-month obligation period.

The rationale for this proposal is that more frequent settlement would lower the maximum sum that suppliers could default on, and this would also act as an early warning indicator, allowing Ofgem to take earlier regulatory intervention where suppliers are non-compliant with their obligations under the RO.

Three sub-options for legislative change are proposed in the Consultation as follows:

1. A new legislative requirement for quarterly RO settlement either with ROCs and/or buy-out payments;

2. As with option 1, legislating for quarterly RO settlement with ROCs or buy-out payments as well as compression of settlement timelines and the abolishment of the late payment period; or

3. Implementation of option 2 and RO settlement through letters of credit. Under this third sub-option, suppliers would be required to substitute any letters of credit presented in fulfilment of a quarterly obligation with ROCs and/or buy-out payments on or before the final settlement deadline.

Option 2: Introducing a new licence requirement to periodically protect sums at risk of mutualisation under the RO

Under this option, electricity suppliers would be subject to a new licence requirement to periodically protect sums at risk of mutualisation. This would allow Ofgem to claim against the protection put in place to settle a supplier's obligation (or a portion of it) in the event the supplier was either unable to settle it when it was due or unable to meet new licence requirements. The rationale is that this reform would lower the potential quantum of default which in turn benefits suppliers and generators.

As part of this option, suppliers would choose which measures to implement to protect sums at risk of mutualisation under the RO. The protective measures would relate to the amount of obligation the supplier has accrued or likely to accrue within a "protection period". If a supplier exits the market or fails to put additional protections in place when required to, any protection measures in place would contribute towards settling that supplier's obligation.

The Consultation proposes that the requirement for suppliers to protect sums at risk of mutualisation under the RO could be either forward-looking or backward-looking as follows:

Forward-looking basis

Forward-looking requirements would mean suppliers put in place protections before their obligation had accrued. This would allow a supplier's accrued obligation to be settled in full (or close to full) if it exits the market or fails to put protections in place at the start of the next protection period. Under a forward-looking approach, suppliers would need to estimate their electricity supply volume for the upcoming protection period, to protect their obligation before it accrues. This approach allows suppliers to forecast their likely RO liability and ensure an adequate level of protection is in place.

Backward-looking basis

Alternatively, on a backward-looking basis, suppliers would be required to put protections in place once their obligation has already been accrued. If a supplier exits the market or fails to put protections in place at the start of the next protection period, any existing protections put in place by that supplier would be used to settle its accrued obligation. Due to the retrospective nature of backward-looking protection, a certain amount of a supplier's obligation would remain at risk of being unrecovered in the event of default. However, the extent of this risk would depend on the length of the protection period and level of protection required.

Protection measures

In addition, to further lower the potential level of payment default, the Consultation sets out various protection measures which suppliers could put in place, depending on the sums being protected and individual supplier circumstances as follows:

— Parent company guarantees: the Consultation notes that while cost effective, this option would only be available to a small subset (and typically the largest) of suppliers.

— Third party guarantees: it is recognised that this could result in high costs for suppliers in terms of obtaining guarantees, and costs will vary greatly across supplier size and business models.

— Funds in escrow: similarly, it is recognised that there are high administrative costs associated with escrow accounts and suppliers would likely have to raise alternative sources of working capital.

— Other measures: the Consultation also opens the door for suppliers to propose alternative means for protecting sums at risk. An example of an alternative protection mechanism could be allowing ROCs to be posted as collateral or allowing early settlement with ROCs or buy-out payments, to lower the amount that needs to be protected.

Option 3: Continue with existing policy

The Consultation sets out the merits of allowing recently introduced legislative and licence changes to take effect. Namely, these include legislative updates to mutualisation arrangements and licence changes to increase supplier standards of financial resilience (see our commentary here).

BEIS and Ofgem point out that the risks that some of the options presented pose to the ROC market means there remains a case for maintaining the status quo and continuing with existing policy.

Comment and next steps

Publication of the Consultation will be welcome news across the industry, as supplier payment default has long been a concern of RO scheme participants. As the Consultation recognises, while recent legislative measures have sought to manage the risk of mutualisation and reinforce financial resilience of suppliers via changes to the supply licence, this has not gone far enough.

While the proposals put forward by BEIS and Ofgem have the potential to address the immediate issue at hand, there remains the risk of unintended consequences and the proposals are certainly not without their challenges. Generally, any approach that will impact upon suppliers' working capital (e.g. via more frequent settlement or protecting their obligation), will increase their operating costs. This in turn will put added pressure on supplier's cash flow.

Currently, there are no supply licence conditions that relate to this topic. The options put forward in the Consultation will require detailed consideration when it comes to implementation to ensure consistency. The electricity supply licence regime is different as between Great Britain and Northern Ireland, adding a complication to a licence-based approach. The RO is governed by three separate orders in England and Wales, Northern Ireland and Scotland, so any legislative approach would need to be carefully considered.

In addition, the ROC market is now well established, and any changes will have an impact on that. In terms of implementation of option 1, the availability of ROCs may also present additional challenges as suppliers will need to take ownership of ROCs much earlier than they do currently, potentially reducing the period available to take ownership from 17 months after the beginning of an obligation year down to 6 months. This may require the renegotiation of PPAs to accelerate the delivery in ROCs. Further, the requirement to have more ROCs in the market quicker (for option 1) will mean that scrutiny on generators' data submission and ROC account management by suppliers may increase. In terms of option 2, suppliers would need to carefully weigh up the pros and cons of implementing either the forward-looking or backward-looking approach. For example, while a forward-looking approach would be more costly to implement (as access to capital will be delayed), the risk of payment default would be reduced. Regardless, both approaches would add costs to the

suppliers' operations in an already thinly capitalised market. As the Consultation notes, there remains challenges around implementing option 2, such as how this approach may interact with insolvency law.

It will be interesting to see how stakeholders respond to option 3, and whether the industry considers that the issue of supplier payment default necessitates action beyond the only recently implemented measures by Ofgem. It may well be that, given the costs and implementation challenges associated with options 1 and 2, stakeholders are minded to allow recent changes to take effect.

Alongside the Consultation, BEIS has also published a call for evidence to increase its understanding of how third-party intermediaries operate in the energy retail market (which we consider in a separate article) – further indicating its appetite to reform areas of the retail market.

Ofgem is seeking views on the main options available for addressing supplier payment default under the RO. Responses should be provided by 9 November 2021.

3.15 FCA Diversity and Inclusion Listing Rules

FCA consultation on new diversity and inclusion listing rules

8 September 2021

Over the summer, the FCA announced a consultation on its proposal to introduce a new continuing obligation in the Listing Rules that would require UK and overseas companies with a UK premium or standard listing (subject to certain exemptions) to make annual disclosures relating to whether they meet specific board and executive management diversity targets relating to gender and ethnicity on a "*comply or explain*" basis.

The FCA is also proposing to amend the corporate governance rules within the FCA's Disclosure Guidance and Transparency Rules (DTRs) to indicate that existing reporting requirements on board diversity policies should apply to the remuneration, audit and nominations committees and is seeking views on whether this should consider wider diversity characteristics such as sexual orientation, disability and socio-economic backgrounds.

The purpose of the changes is to enhance market integrity by encouraging increased transparency and providing better data for companies and investors to assess companies' progress in obtaining a diverse board.

The consultation on the proposal will close on 20 October 2021, and subject to consultation feedback and FCA board approval, the FCA would seek to make the relevant rules by late 2021 for reporting periods beginning on or after 1 January 2022. If the proposals go ahead companies would be encouraged to consider making disclosures on a voluntary basis in annual financial reports published before the requirements would take effect.

The FCA is continuing to focus on improving board diversity for the UK's largest companies. Although the results of the latest survey from the Parker Review indicated that there has been some improvement in representation of ethnic minorities on the UK's top boards, there is still some way to go in order to achieve the "***one by 2021***" target. Following on from the FCA's recent joint Discussion Paper with the PRA: "Diversity and inclusion in the financial sector – working together to drive change" the FCA has now announced a number of proposals to boost board diversity.

On 28 July 2021, the FCA announced a new consultation on its proposal to introduce a continuing obligation in the Listing Rules requiring in scope UK and overseas companies to make annual disclosures as to whether they meet specific board and executive management gender and ethnicity targets set by the FCA. This will be on a "*comply or explain*" basis. This consultation, therefore, builds on existing initiatives to improve board diversity for the largest UK companies instigated as a result of the Hampton Alexander Review and the Parker Review.

In addition, the FCA also announced that it is proposing to amend the corporate governance rules within the FCA's Disclosure Guidance and Transparency Rules (**DTRs**) to indicate that existing reporting requirements on board diversity policies should apply to the remuneration, audit and nominations committees and is seeking views on whether this should consider wider diversity characteristics such as sexual orientation, disability and socio-economic backgrounds. This is in order to enhance market integrity, by encouraging increased transparency, but also to provide better data for companies and investors to assess their progress in D&I initiatives.

In this Law-Now we set out a practical view of the likely impact of these proposals on in-scope companies and relevant stakeholders.

What are the proposed new requirements?

New Listing Rule

The new proposed Listing Rule would require in-scope companies with a UK premium or standard listing to make public annual disclosures in their annual finance reports for periods beginning on or after 1 January 2022 setting out:

- a "*comply or explain*" statement on whether they have met proposed targets for gender and ethnic minority representation on their board as follows:
  - at least 40% of the board are women (including individuals self-identifying as women);
  - at least one of the senior board positions (Chair, CEO, SID or CFO) is held by a woman (including individuals self-identifying as a woman); and
  - at least one member of the board is from a non-White ethnic minority background (as categorised by the Office of National Statistics); and
- a numerical disclosure on the gender and ethnic diversity of their board, senior board positions (Chair, CEO, SID and CFO) and executive management team in a standardised table format as set out in Annex 2 to the consultation report.

Greater transparency

The FCA also suggests that in-scope companies may also include for context:

- a summary of any key policies, procedures and processes, and any wider context, that it considers contributes to improving the diversity of its board and executive management;
- any mitigating factors or circumstances which make achieving diversity on its board more challenging; and
- any risks it foresees in being able to meet or continue to meet board diversity targets in the next accounting period or any plans to improve the diversity of its board.

It is expected that the first financial reports to include the required statement would be published in spring 2023.

Enhanced disclosure requirements

In addition to the new Listing Rule, the FCA is proposing to amend DTR 7.2.8AR which requires certain companies' corporate governance statements to contain a description of any diversity policy applied to its administrative, management and supervisory bodies in respect of certain aspects such as age, gender or educational and professional backgrounds. To the extent an issuer does not apply a diversity policy they are required to explain why in the corporate governance statement.

The proposed amendment to the DTR provides that an issuer's disclosure should also include the diversity policy applied to its remuneration, audit and nominations board committees, and reporting in respect of additional diversity aspects such as ethnicity, sexual orientation, disability and socio-economic background. The amendment to the DTR is not proposed to change the scope of the rule, such that issuers that qualify as small or medium companies under the DTRs would continue to be exempt from any reporting requirement.

Who will be "in-scope" for the new Listing Rule?

The new Listing Rule is proposed to be applicable to premium and standard listed companies with UK-listed equity shares[9]. This includes all FTSE 350 companies and the FCA estimates 1,106 companies in total will be in scope.

The new Listing Rule is expected to apply equally to in-scope UK and overseas issuers to ensure a level regulatory playing field for issuers listed on the UK regulated markets and to enable investors to access the information they may require in order to make their investment decisions in line with the increasing popularity of environmental, social and corporate governance (**ESG**) investment mandates. The Listing Rule may need to be applied more flexibly to overseas issuers who may be in differing stages of progress in respect of D&I targets or who may be located in countries where ethnic minorities may form a smaller part of the composition of the overall population generally. As the targets are set on a '*comply or explain*' basis, the proposals indicate that such issuers may just need to disclose and explain the relevant country specific context in which such targets may or may not have been met.

Smaller companies would also be in-scope for the new Listing Rule. While reaching board diversity targets may be more challenging for companies that may have fewer directors on their boards, such companies have been kept in-scope as the FCA believes the cost of the additional annual '*comply or explain*' disclosure are unlikely to be high and such companies may just need to explain that they require additional time to recruit a more diverse board (see further below under 'Costs').

How will "*comply or explain*" drive change in listed companies?

The FCA considers that '*comply or explain*' targets and data disclosure will prompt issuers to consider, and investors to scrutinise, more closely and therefore hold to account companies on how they encourage more diversity of gender and ethnicity on their boards and senior management committees, thereby improving opportunities for these groups. The ability to '*explain*' why targets have not been met provides flexibility if, for example, smaller boards need more time to recruit or if there has been an unexplained departure affecting compliance with the target. In previous guidance, the Financial Reporting Committee has indicated that giving full, clear and meaningful explanations (including, for example, details of any relevant actions taken by the company, and any mitigating factors preventing compliance with the rules) is best practice when '*explaining'* non-compliance[10].

Explaining non-compliance will promote debate and transparency and puts a marker in the sand allowing investors to monitor progress and hold issuers to account. It is also hoped that the potential reputational impact of explaining rather than complying will be such that it will incentivise organisations to comply in the medium to longer term.

What impact might these proposals have on the wider corporate world?

The FCA's proposals will not be applicable to private companies, FCA regulated investment or other financial services firms[11] or AIM listed companies, as AIM is not a regulated market for the purpose of the Listing Rules. The number of main market listed companies roughly comprises approximately 0.07% of the total number of VAT and/or PAYE businesses currently operating in the UK. Therefore, unless a private company is contemplating a main market listing in the future, it is questionable as to how much impact these proposals will have on making meaningful change to the UK business landscape[12].

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[9] This includes closed ended investment funds, sovereign controlled companies and companies with UK listed global depositary receipts that represent equity shares, but excludes open ended investment companies, shell companies (such as SPACs) and issuers of standard listed debt and debt like securities and other non-equity securities. Closed ended investment funds would be permitted to adjust their disclosures on senior board positions and numerical data disclosures where these are not applicable as long as they set out the reasons why such disclosures are not applicable to them

[10] See, for example, FRC guidance from February 2021 Improving-the-Quality-of-Comply-or-Explain-Reporting.pdf (frc.org.uk)

[11] Save for those that have shares admitted to the FCA's Official List

[12] ONS statistics as at March 2020 indicate the number of businesses operating in the UK which operate VAT and/or PAYE was 2.75 million (UK business: activity, size and location – Office for National Statistics (ons.gov.uk)). Statista indicates as of July 2021, there were 2010 companies trading on the London Stock Exchange (Number of companies on London Stock Exchange 2021 | Statista).

That said, AIM companies are typically encouraged to consider adopting main market requirements to the extent possible as corporate governance best practice. It is also possible that professional services firms or other suppliers of in-scope issuers (e.g. law firms, auditors or sponsors) may also be indirectly impacted by the new Listing Rule to the extent issuers' express their diversity policy to extend to their advisors or other entities with which they have regular dealings. Also, purely from an internal organisational perspective, where an issuer will have one diversity policy to be implemented at group level, it is likely that any private subsidiaries of the listed company could also eventually benefit from the changes to be implemented at the top-co level for the issuer to attain the relevant diversity targets.

How does this fit in with the wider push towards ESG investing?

The proposals are aimed at enhancing market integrity to support transparent price formation by providing shareholders and investors with readily available key information that could inform valuations of issuers' securities and other investment decisions which are increasingly focused on ESG factors. These new proposals follow on from the FCA's implementation of a new climate change disclosure rule for premium listed companies (see our previous Law-Now here). The consultation is already seeking views on whether in the future the FCA should consider an expansion to the existing proposals by requiring data on representation by sexual orientation at senior levels or extending reporting to capture a further level below executive-level management.

ESG is a wide umbrella and therefore it is likely that other similar initiatives that fall within ESG factors will also align with the FCA's operational objectives of protecting and enhancing the integrity of the UK financial system and the consumer protection objective and will therefore continue to be proposed and/or enhanced in the future.

Will requiring reporting on just the categories of gender and ethnicity be enough to affect change?

As indicated above, the FCA recognises that focusing on women (and those self-identifying as women) and ethnicity may lead to concerns that other important minority groups with protected characteristics under the Equality Act 2010 (such as age, disability and sexual orientation) as well as other characteristics such as socio-economic background are being overlooked. However, it has chosen to initially focus on gender and ethnicity because there are existing data initiatives (such as gender pay gap and voluntary ethnicity pay gap reporting) which allow the FCA to develop its proposals and set meaningful targets. The suggestion therefore is that companies are not so developed in their capture of data relating to sexual orientation and disability. Without adequate data capture, setting targets could be meaningless. The FCA nevertheless encourages companies within their internal polices and recruitment processes and in their external corporate reporting to focus on a wider diversity agenda and to consider how to promote representation across all minority and groups with protected characteristics. This is reflected in the changes to the DTR.

What are the practical issues that remain to be considered as part of the consultation?

Data gathering, Data Protection and employment issues

One of the first practical steps will be for issuers to gather data on gender and ethnicity. Most organisations only require provision of this data on a voluntary basis and for some organisations there is low take up. Whilst obtaining data on gender is simpler, experience has shown this is not necessarily the case for ethnicity data. However, given these proposals only affect board and the most senior level of executive management, data capture for this group should be much more achievable.

In terms of processing the data, the collection and processing of personal data in respect of race, ethnicity or sexual orientation, is classified as "*special category data*" under the UK GDPR and whilst not forbidden, companies would need to determine that they have a lawful basis under which to

collect and process such information if they are to comply with the new proposed rules within the framework of their obligations under UK data protection legislation. Any final iteration of the proposed Listing Rule and amendment to the DTRs would be subject to consultation with the Information Commissioner's Office (**ICO**) in respect of any data protection issues or concerns raised by stakeholders during the consultation.

Costs

The FCA considers the new reporting requirements to be proportionate and any associated costs as likely to be modest since the ability to "*explain*" provides flexibility to boards and disclosure of detailed numerical data will not be required. Any associated costs (such as recruiting new board members) are considered to be more likely to be internal "one off" costs. As meeting the requirements may be challenging for some companies, such as those with smaller boards, the consultation seeks views on any potential cost implications.

A standardised approach is expected to minimise costs for issuers who already voluntarily provide this data, reduce costs (including familiarisation and legal review costs) for investors when considering whether the relevant issuers' securities fall within their investment mandates, and ultimately lead to improved pricing and more informed investment decisions.

What should we expect to happen as a result of these proposals?

The key outcome sought is to increase and improve D&I, as well as market integrity, for the benefit of issuers, investors and wider consumers. The FCA also expects the measures, in time, to strengthen incentives for companies to work towards attaining and sustaining greater D&I across their organisations to enable better representation of stakeholder interests, contributing to healthier corporate cultures which should result in better quality corporate governance and long-term performance of issuers. The FCA also expect the data produced by these initiatives to feed into policy analysis and research and to help drive future related policy proposals.

All of these outcomes seem laudable. Critics will no doubt cite that this initiative undermines a company's ability to recruit the 'best' candidate for its board and will lead to the increase in the size of boards and tokenism. However, given the regime allows for non-compliance where there is a dearth of suitably qualified candidates, this perceived downside is ultimately within the control of the corporates, as are the steps they take to improve the diversity of suitably qualified candidates.

Conclusion

The introduction of targets is a material change and most companies (other than parts of the FTSE100) will find it difficult to meet them, especially in the first few years. So at the outset non-compliance seems inevitable. According to latest published figures the percentage of women on boards in FTSE 350 companies sits at 34.3%. The ability to increase gender representation in the short term will also depend on when appointment terms come to an end and board vacancies become available. It took 5 years for the percentage of women on boards to move by 12.4%. Nobody is expecting change to happen overnight. Most companies will be willing to include a narrative to explain why the target was not met and their plans to get closer to the targets with realistic timescales (which is what happened when board diversity was first tabled a few years ago). Over time compliance will become more common. The key outcomes identified by the FCA should flow from this compliance.

The consultation will close on 20 October 2021, and subject to consultation feedback and FCA board approval, the FCA would seek to make the relevant rules by late 2021 for reporting periods beginning on or after 1 January 2022. Companies would be encouraged to consider making disclosures on a voluntary basis in annual financial reports published before the requirements would take effect and should certainly be planning now their strategy to meet the targets and their explanation of why they have been unable to do so.

3.16 Retail: Third Party Intermediaries

Regulating third-party intermediaries in the retail energy market: BEIS' call for evidence

27 August 2021

Introduction

On 16 August 2021, the Department for Business, Energy & Industrial Strategy ("**BEIS**") published a call for evidence (the "**Call for Evidence**") to increase its understanding of how third-party intermediaries ("**TPIs**") operate in the energy retail market and whether there are any business models BEIS should consider for the operation of TPIs going forward.

TPIs sit between customers and regulated entities in the energy market (usually suppliers but also other entities such as system operators). While TPIs offer valuable services to the market, such as price comparison websites ("**PCWs**") and brokers for business customers, there are concerns that if unchecked, the actions of some TPIs could lead to customer harm, particularly as TPIs operate outside the scope of the current retail energy market regulatory framework.

The Call for Evidence focusses on both domestic and business customers and the types of harm caused citing a lack of information transparency; contracting and sales arrangements; customer service arrangements; and out of court dispute resolution. The Call for Evidence also briefly covers risks to the energy systems and the potential regulatory regime.

In this article we consider the areas of potential harm for consumers arising from the operation of TPIs, the existing regulatory framework as well as the areas for potential regulatory reform.

Background

TPIs include various business models within the retail energy market providing customers with products and services linked to energy supply such as advice on energy procurement and switching. More than 1,000 TPIs currently operate in the market with around 49% of domestic customers using a PCW and 67% of small businesses using a broker. TPIs within scope of the Call for Evidence include:

- PCWs and auto-switching;
- bill-splitters;
- brokers; and
- load controllers i.e., companies controlling or impacting energy usage using communication networks.

Areas identified as presenting potential customer harm and emerging system risks

Lack of information transparency

BEIS has identified several market participants which lack transparency in certain areas, key examples being:

1. PCWs / auto-switching

   BEIS has focussed on PCWs and auto-switching as it is the most common method of customer engagement. Areas where PCWs and auto-switching may lack transparency include:

   — not fully disclosing all available suppliers;

   — how comparison results are ranked; and

   — whether commission payments from suppliers influence how tariffs are displayed e.g., in terms of ranking or prominence.

   Ofgem does already operate an accreditation scheme for PCWs, "Ofgem's Confidence Code", however it is both voluntary and does not cover auto-switching services.

2. Bill splitters

   Bill splitters often offer unlimited energy plans where the cost is not determined by ongoing energy usage. It can be unclear to what extent customers are informed of their consumption usage making it harder for customers to compare their tariffs and switch as needed.

3. Collective Switching

   These schemes group large numbers of customers and invite suppliers to auction to obtain the most competitive offer. This can result in similar customer harm as PCWs, including hidden commission arrangements.

4. Brokers

   A minority of brokers are causing harm due to a lack of transparency around commission costs. Microbusinesses can lack a clear understanding of the commercial agreements that exist between brokers and suppliers and how this may influence a recommendation.

Contracting and sales arrangements

Specified harms in relation to the contracting and sales arrangements that BEIS is seeking views on include:

1. Auto-switching services

   A lack of transparency in the contractual arrangements and initial signing up / registration process, including whether consent is required to switch tariff or supplier.

   Auto-switching may not inform the customer of the criteria used to evaluate and select a new supplier, what customer preferences will be taken into account, or what may change for the customer as a result of the switch.

2. Bill-splitting services

   Predominantly targeted at houses in multiple occupation, like student houses, these sites may not highlight that the customer remains jointly and severally liable and may be required to pay for other tenants.

   Bill-splitters may also charge higher cancellation fees or require a longer notice period for cancellation than the supplier's standard terms.

3. Load controllers

Customers may not be given enough information to understand / compare offerings and some customers may be mis-sold or misled on potential revenues available from flexibility services.

Customers may not receive enough information about how their data is collected and managed, and their choices regarding data protection.

4. Brokers

A minority of brokers engage in poor sales practices, including misrepresentation, mis-selling and non-disclosure of commissions. There are also suggestions of brokers falsifying documents like change of tenancy applications and Letters of Authority.

Customer service arrangements and wider customer protections

TPIs are an interface between consumers and the energy market and are increasingly the primary point of contract for customers. Quite commonly, consumers may expect to only interact with the TPI, and not realise the role of the supplier and the protections offered by the supplier in their supply arrangements.

For example, unlike for energy suppliers, there is no Supplier of Last Resort regime for a TPI failure which may result in negative outcomes for customers. Customers of the bill-splitting services may have little to no awareness of where the energy supply is sourced from or that they have a contractual relationship with the licensed supplier.

The Call for Evidence notes that identification of vulnerable customers is key – customers depending on electricity for medical support will need to be looked after by a load controller and may also require extra support to understand their product / service. It is unclear whether customers of bill-splitters are afforded the same protections as under the SLCs. Some splitters act as the licensed supplier's agent – the bill-splitter must provide customers with the same protections. In contrast, some act as agent to the customer – it enters into a contract with the supplier on the customer's behalf which may affect the supplier's ability to discharge their obligations to the customer, who may be unaware that the bill-splitter does not provide the same protections.

Research also suggests that some brokers offer an inadequate level of customer service support with customers experiencing difficulty contacting their broker. This can incur additional costs for the business customer who needs time to resolve the problem and can create a negative experience.

Out-of-court dispute resolution

Licensed suppliers must have an effective complaints-handling procedure with this procedure prominently displayed on their website. Suppliers must also be members of a qualifying redress scheme, signpost customers if complaints cannot be resolved and provide access to Ombudsman Services. This does not apply to TPIs. TPIs can sign up to the Confidence Code, which requires accredited PCWs to have an effective complaints-handling procedure but does not mandate an ADR scheme. However, the Confidence Code is voluntary and does not apply to auto-switching or auto-recommendation services, leaving customers with limited options for redress. Similarly, for business customers, brokers are not required to have a complaints-handling procedure leading Ofgem to propose an SLC requiring suppliers to only work with brokers signed up to an ADR scheme.

Energy systems risks

As part of the energy transition, flexible energy services will become an important part of the system. Load controllers can remotely impact the electrical usage of multiple devices and aggregate flexibility. TPIs taking on this role include a range of organisations like aggregators, chargepoint operators and digital energy management system providers. Other new business models may be developed.

BEIS supports the development – as customer bases grow, organisations will be able to access an increased amount of connected devices and will be able to manipulate greater quantities of electrical load. The Call for Evidence notes that TPIs should have appropriate cyber security protections against cyber-attacks and products and services controlling large amounts of electrical load should minimise new risks and enable the operator and networks to mitigate these risks through enabling flexibility services.

Potential TPI regulatory arrangements

Features of any future TPI regulatory framework

The majority of schemes that currently regulate TPIs' behaviour are voluntary with no obligation on TPIs to sign up. Market-wide coverage is unachievable, and protection cannot be guaranteed. A new regulatory framework has been suggested which should be:

- flexible;
- proportional to the harm or risk of harm;
- not a barrier to or distorting competition;
- seeking to achieve a coherent approach to regulation of TPIs;
- reflective of the variety of TPIs operating in the market; and
- enforceable and able to deter TPIs from contravening regulatory requirements.

An outcomes-based approach may be preferred to a prescriptive rules-based approach with co-ordination required to draw-up the framework as, for example, the CMA has recommended that PCWs fall under Ofcom's regulatory remit. Regulatory coherence would likely include the government's Smart Data work. BEIS will consult on any regulatory approach.

Comment and next steps

While this is an initial call for evidence, what is clear is that there is greater appetite to regulate the involvement of TPIs in the energy market given the increasing role TPIs are playing in the customer experience.

Consumer trust in the market is key to meeting net zero as it will facilitate the take up of new and innovative approaches and help to achieve the customer outcomes and behaviour change required.

More immediately, responses are due to the Call for Evidence by 06 December 2021 at which point BEIS will consider next steps issuing further consultations as required, particularly with a view to features of any future TPI regulatory framework.

3.17 Carbon Content in Energy Products

Designing a framework for transparency of carbon content in energy products

25 August 2021

On 16 August 2021, the UK government Department for Business, Energy & Industrial Strategy ("**BEIS**") published a consultation to kick-start design of a new framework to ensure transparency of carbon content in energy products (the "**Consultation**"). The consultation seeks input from a broad range of stakeholders – including suppliers, generators, regulators and consumers – and asks broad ranging questions primarily focussed on customer expectations and greenwashing.

In this article, we provide an overview of some of the key points and questions arising from the Consultation.

The rise of green tariffs

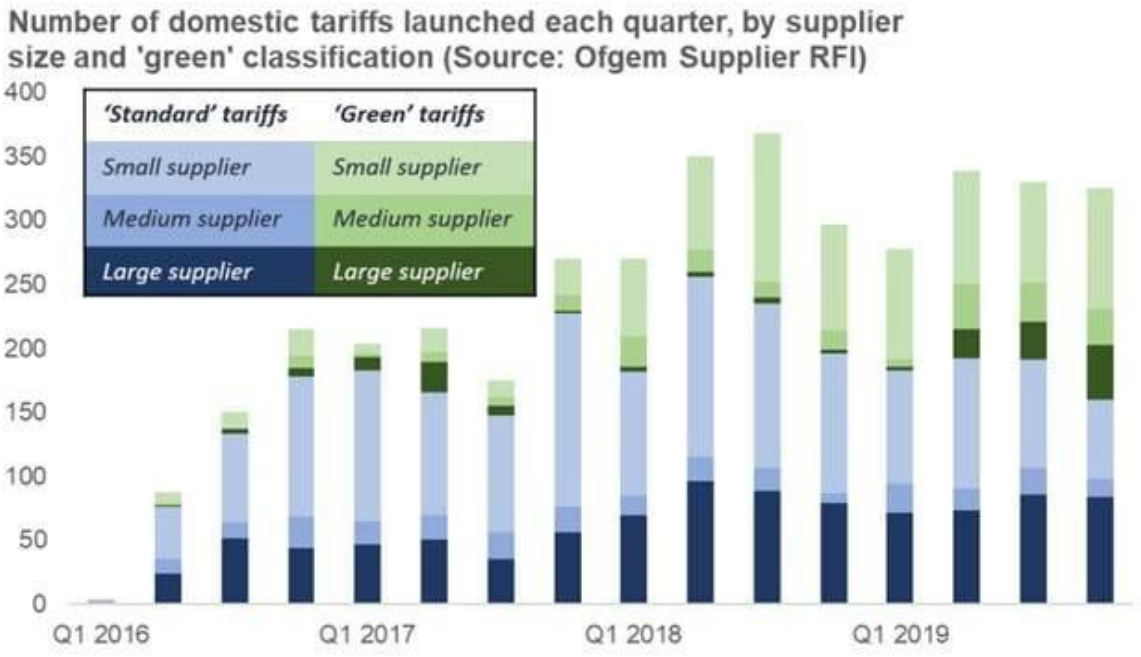
As noted in the Consultation, the production of "green" electricity has seen a significant increase over the last two decades, and increased by 500% since 2010 alone. Today, renewables account for over 40% of all electricity generated in the UK.

Government intervention has been integral in the rapid deployment of green technologies, with a series of subsidy regimes, funded by every consumer via their energy bill[13], supporting investment in renewable generation infrastructure in the UK.

Alongside the "green revolution" in electricity generation, the number and type of green tariffs offered by electricity suppliers has also dramatically increased (see Figure 1 from the Consultation included below).

Having historically been a more expensive option, the pricing of green tariffs is now almost on a par with their standard counterparts.

[13] Energy bills are formed of 6 main components – wholesale energy costs, network costs, supplier costs and margins, infrastructure investment policy funding, social policy costs and value added tax.



Renewable Energy Guarantees of Origin

A green energy tariff operates by the supplier guaranteeing that some or all of the electricity purchased by the consumer is "matched" to renewable generation[14]. Integral to this are Renewable Energy Guarantees of Origin or "**REGO**" certificates. REGO certificates are issued by Ofgem to generators of renewable energy, with one REGO certificate being issued for every megawatt hour of eligible electricity produced. An electricity supplier needs to "match" REGO certificates to the electricity it sells in order to claim that such electricity is "green".

Suppliers can purchase electricity for onward supply to consumers in a number of ways:

1. Owned generation – the energy supplier owns a renewable generation facility which produces electricity that the supplier then sells directly to its consumers. The supplier will claim REGO certificates issued to the generation station to evidence renewable supply to green tariff customers.
2. Power Purchase Agreement – the supplier enters into an agreement with a renewable energy generator, pursuant to which the supplier purchases renewable electricity generated by that facility. Subject to the commercial terms of the PPA, the supplier will also take the REGO certificates which it will use to evidence renewable supply to green tariff customers.
3. Wholesale Market Trading – the supplier will purchase electricity from the wholesale market, and separately purchase REGO certificates (which can be sold on by renewable generators on the secondary market) to evidence renewable supply to green tariff customers.

Expectation vs reality

While noting the popularity of green tariffs amongst customers – 62% of which it states claim to be more likely to purchase a sustainable service – the Consultation is critical of a lack of transparency, ranging from failure to meet customer expectations to so-called "greenwashing" – the practice of making a business' products or policies seem more environmentally friendly than they are.

[14] In order to claim that electricity is "100% renewable" or "green", suppliers must adhere to the requirements of standard licence condition 21D, which requires them to match the volume of energy supplied to their green tariff customers with energy generated from renewable sources.

The Consultation notes that consumers may not be able to properly engage with green tariffs or understand the make-ups of the different options available, in some cases preventing them from buying what they expect to receive. The Consultation draws the distinction between those willing to "pay a premium for sustainable energy" and those who want to "do their bit" for the environment, but are primarily driven by price.

One example of the current lack of transparency is around the REGO system. While REGO certificates are attributed to the electricity supplied under a green tariff, these may derive from the output of, for example, a windfarm generated at any time over the preceding year[15]. The Consultation states that the REGO scheme "may continue to foster confusion and distrust from consumers who are aware that renewable generation is not always available when their electricity consumption occurs", while noting that customer confidence is "vital".

Time granularity

The lack of time granularity (reflecting the time energy was generated or consumed) under the REGO scheme may also pose challenges to a truly "flexible" system capable of giving consumers sufficiently clear information to enable electricity use at times when there is a lot of renewable energy on the system, and even the sale of surplus electricity (e.g. from a fully charged electric vehicle) back to the grid for a profit. BEIS note that a joint publication with Ofgem setting out their vision for this area will be "published shortly".

Additionality and Transparency

Where a supplier makes a claim that an environmental benefit is as a result of a customer choosing to purchase a particular green tariff, and not solely brought about by government subsidies or similar, they are obliged to substantiate this claim. Where a supplier cannot substantiate the claim, they must publish a clear statement to the effect that purchasing the tariff will not produce the claimed environmental benefit. This is regulated by condition 21D.4 of the Electricity Supply Licence.

Nevertheless, the Consultation states that greenwashing and poor information is still an issue. It notes that the Competition and Markets Authority is developing principles to prevent misleading information, including in the energy industry. The guidance, which will focus on (i) how environmental claims are made, (ii) whether they are supported by evidence, (iii) whether they influence consumer behaviour, and (iv) whether consumers are misled by an absence of information about environmental impact, is expected "later this year".

Other low-carbon solutions

The Consultation notes that while renewable energy accounts for over 40% of the UK's electricity mix, electricity itself still only accounts for about 17% of final energy use, with fossil fuels accounting for just over 79% of UK energy supply in 2019.

The Consultation therefore notes that in addition to renewable electricity, the future energy system will need to account for other low-carbon technologies such as nuclear, carbon capture, usage and storage ("**CCUS**") (including bioenergy with CCUS), combined heat and power, hydrogen and green gas (see here for our update on CCUS clusters and here for our key takeaways from the government's hydrogen strategy).

Comments

The Consultation proposes further changes to an energy system which is already under significant review following BEIS and Ofgem's joint energy code governance reform consultation (see our commentary here) and consultation on addressing supplier payment default under the Renewables Obligation (our commentary on BEIS' Renewables Obligation supplier default consultation is the

[15] This is due to the retrospective granting of REGO certificates. The REGO system was implemented 20 years ago and was not designed to create strong links between production and consumption within the existing system for tracking renewable energy.

subject of a separate law now). The Consultation aligns with government's approach of increasing accessibility and transparency for energy system users and consumers. It notes that the underpinning framework was implemented almost 20 years ago, and that as the system has moved on so must the framework governing it.

However, as the Consultation notes, many consumers aren't interested in receiving detailed information about their electricity tariffs. Given the Consultation's focus has customer interests at its heart, it will be important for any new system to combine sufficient detail and transparency with usability. Ensuring that the investment is worth the cost, for suppliers and the rest of the sector, will be crucial.

3.18 Greenwashing Guidance Launched

"Eco-friendly" claims – final UK guidance launched: compliance by the new year

21 September 2021

This week the UK's Consumer law regulator, the Competition and Markets Authority (the "**CMA**"), published its final guidance for businesses on "green claims", together with a Green Claims Code to help businesses comply with the CMA's interpretation of the law. This is the next step in the CMA's investigation into environmental claims, launched in November 2020, and following the draft guidance published for consultation earlier this year. Here is our take on the guidance and what businesses should be looking out for.

The guidance

As with the draft guidance, the final version contains six principles which broadly reflect the current position in the UK and across Europe. While there is little in the principles that is wholly new, the final guidance (as with the draft guidance) increases the emphasis on the requirement to take into account the full lifecycle of the product or service to which any claim relates. The guidance principally applies to B2C claims, but is claimed to have relevance to B2B arrangements, at least in so far as misleading advertising and comparative advertising is concerned, particularly where small businesses are involved. The guidance also indicates that online marketplaces may be held responsible in relation to misleading environmental claims, including where they do not take adequate steps to ensure that products being sold on their platform comply with the law.

Environmental claims must:

1. Be truthful and accurate: claims must not mislead consumers by giving an inaccurate impression, even if the claims are factually correct. Claims must only give an impression that the product, service, process, brand or business is as green as it really is.
2. Be clear and unambiguous: the wording used should be straightforward and transparent, not liable to confuse consumers or give the impression that something is better for the environment than it is.
3. Not omit or hide important information: consumers must be provided with the information they need to make informed choices – omitting or hiding information can inappropriately influence consumer decisions.
4. Only make fair and meaningful comparisons: linked to the requirement for claims to be truthful and accurate, comparisons should be based on clear, up to date and objective information.
5. Consider the full life cycle of the product or service: all aspects of a product or service's lifecycle may be relevant to the accuracy of a claim including, for example, the manufacture and disposal of the product.
6. Be substantiated: claims must be capable of being supported by scientific or other evidence.

By way of application, the guidance provides a number of examples, including a consumer facing advertisement with the headline: "*Go 100% green with us – you'll save money and the planet with the UK's cheapest and greenest energy supplier*". This engages principles (a), (b), (c), (e) and (f) and will need to be substantiated. Whilst not impossible, it will be very challenging to substantiate the claims to be (i) the UK's cheapest energy supplier amongst all suppliers of comparable tariffs; and

(ii) the UK's greenest energy supplier, making the most positive environmental impact of all UK suppliers (taking account of the whole life cycle of its operation). In the CMA's view, this environmental claim falls foul of a number of the principles, and would therefore breach consumer law.

Along with the guidance, the CMA has launched an updated version of the Green Claims Code, seemingly aimed at SMEs who may not have the support of a wider legal team or external advisers to assist.

Next steps and further consideration

The CMA is encouraging businesses to consider and apply the guidance in advance of a compliance review, commencing in early 2022. Initially, the sectors of focus are likely to be (i) textiles and fashion, (ii) travel and transport, and (iii) FMCG, but this could quickly change. Whilst the CMA has not yet publicly stated its view on whether consumer law may have been broken, it does not start these sorts of investigations without enforcement action in mind. Following the compliance review, the CMA has stated that it may decide to take action should infringement be identified. Where there is evidence of breaches of consumer law, the CMA has indicated it will take action even before the formal review begins.

Given the CMA's actions to-date, enforcement action can be anticipated even where the guidance stretches the boundaries of underlying consumer law. This, coupled with the current consultation on the CMA's wider enforcement powers, including the ability to fine businesses 10% of global turnover for consumer law infringement, means that consumer law risk should be high on any business's agenda.

The ASA will also play a key role in monitoring green claims, with the principles set out in the guidance intended to be consistent with the CAP and BCAP codes. The new guidance will likely be a key tool in the ASA's wider enforcement toolkit, with breaches of the guidance indicating a breach of the CAP Codes, and even, in the case of more serious or repeat breaches, leading to CMA or Trading Standards enforcement.

The issue of transparency and accountability is also being tackled at a sectoral level. In the energy sector BEIS has launched a Call for Evidence in relation to the Framework for Transparency of Carbon Content in Energy Products. The Call for Evidence is seeking to help Government understand the challenges that the energy sector has in providing transparency on green electricity tariffs and wider environmental carbon accounting schemes given the rapid growth in availability of such tariffs. To find out more on the background to the Call for Evidence read our Law-Now here.

What should businesses be doing now?

Over the next few months, businesses are therefore well-advised to review the guidance and their current practices, adapting them where appropriate, and to prepare for any compliance review and potential enforcement action down the line. Whilst the ASA, Trading Standards and the CMA will co-operate in terms of enforcement and escalation, there is a clear trajectory of increased intervention by the CMA across sectors. Businesses need to be prepared for this, and to push back where appropriate.

3.19 Energy Code Governance

Ofgem and BEIS join forces to set out long-awaited reforms to energy code governance in latest consultation

11 August 2021

On 20 July 2021, Ofgem and the Department for Business, Energy & Industrial Strategy ("**BEIS**") published a joint Consultation on the Design and Delivery of the Energy Code Reform (the "**2021 Consultation**") seeking views on a range of proposed reforms to a broad spectrum of energy codes[16].The 2021 Consultation followed on from a joint 2019 Consultation on Reforming the Energy Industry Codes (the "**2019 Consultation**"). The 2019 Consultation highlighted overarching challenges with the current code governance framework – that it is fragmented, reactive as opposed to forward-looking and overly complex. The 2021 Consultation echoes these criticisms and builds on proposals in the 2019 Consultation, putting forward two alternative reform models aimed at creating a more unified, coherent and dynamic approach. This article provides a high-level summary of those proposals.

Current challenges and areas for reform

Challenges identified with the current framework include:

1. Modifications are slow to implement, with lengthy modification processes. As an example, the 2019 Consultation cited that it takes on average 200 to 250 calendar days to make changes to the BSC, DCUSA and UNC.
2. Code changes tend to be reactive to existing problems, as opposed to forward-looking in preparing the energy system to meet future challenges. This is due in part to the lack of co-ordination between the large number of code panels and bodies with varying governance and ownership arrangements.
3. The industry-led nature of code governance creates potential for conflict of interest and lack of incentive to make changes in the interest of customers.
4. The codes are extremely lengthy and overly complex. This acts as a barrier both to participation in the industry and to code reform. Understanding the codes takes significant resources, which can disincentivise engagement from new entrants to the market, particularly smaller players.

Echoing the suggestions made in the 2019 Consultation, Ofgem and BEIS set out four areas for reform in the 2021 Consultation:

1. Providing strategic direction – to ensure that the regulatory system is forward-looking, with codes informed by the government's overall vision for the energy system.
2. Empowered and accountable code management – incorporating mechanisms to ensure that appropriate code changes are implemented to deliver the strategic direction, and that these changes are progressed in a clear and logical manner.
3. Independent decision-making – rebalancing decision-making away from industry control.

[16] These include the Connection and Use of System Code, Grid Code, System Operator – Transmission Owner Code, Balancing and Settlement Code, Master Registration Agreement, Distribution Connection and Use of System Agreement, Distribution Code, Smart Energy Code, Uniform Network Code, Supply Point Administration Agreement, Independent Gas Transporter Uniform Network Code and Retail Energy Code.

4. Code simplification and consolidation – simplifying codes to ensure that they are suitably adaptive to a changing industry and more accessible to code parties.

Overview of proposals

The 2021 Consultation builds on the 2019 Consultation and sets out two alternative reformed governance models, summarised below.

Model 1 – (Ofgem and BEIS' preferred option) a split strategic function performed by a separate 'strategic body', with separate code managers:

Ofgem as strategic body

In this role, Ofgem would develop and annually publish a strategic direction for all codes, to be implemented by the code managers. Ofgem would hold code managers to account via their licences. Specifically, a code manager licence and tender process would be developed to manage potential conflicts of interests. As the strategic body, Ofgem would grant licences and monitor and (where appropriate) enforce the licence conditions of the code managers. Ofgem would determine whether or not material code changes should be approved. Examples of Ofgem's other code reform activities may include considering how to streamline the code change processes across codes and how codes could be digitalised.

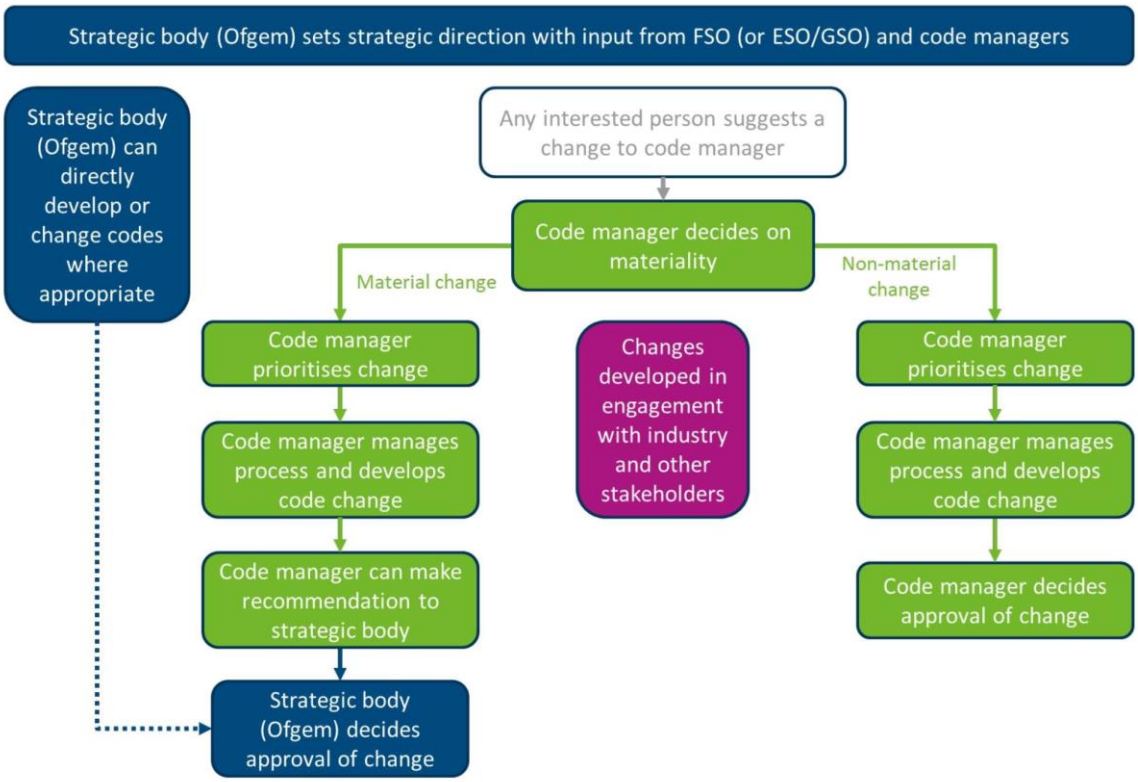
Code managers

Code managers would be appointed via a competitive tender process and those with conflicts of interest would not be eligible. BEIS and Ofgem propose that primary legislation would set out the framework for tendering, including powers to make secondary legislation which would provide for the tendering process and selection criteria. Code managers would replace existing code administrators and take over the majority of roles currently performed by industry-led panels. Code managers would be responsible for developing annual delivery plans based on the strategic body's overall plan.

They would also decide upon non-material code changes and make recommendations in respect of material code changes.

Process

Under Model 1, Ofgem as the strategic body would be able to directly develop or change codes. In addition, any interested person could suggest a change to the code manager. The code manager would then decide on the materiality of the change. For non-material changes, the code manager would manage the process, develop the code change and decide on the approval of the change. For material changes, the code manager would still manage the process and develop the code change but would make a recommendation to the strategic body instead of a decision. Ofgem (as the strategic body) would subsequently decide on the approval of the material change. See diagram below for a visual overview of the process under Model 1.



Model 2 – an 'integrated rule making body' ("IRMB"), where the strategic function and code manager function is combined.

IRMB

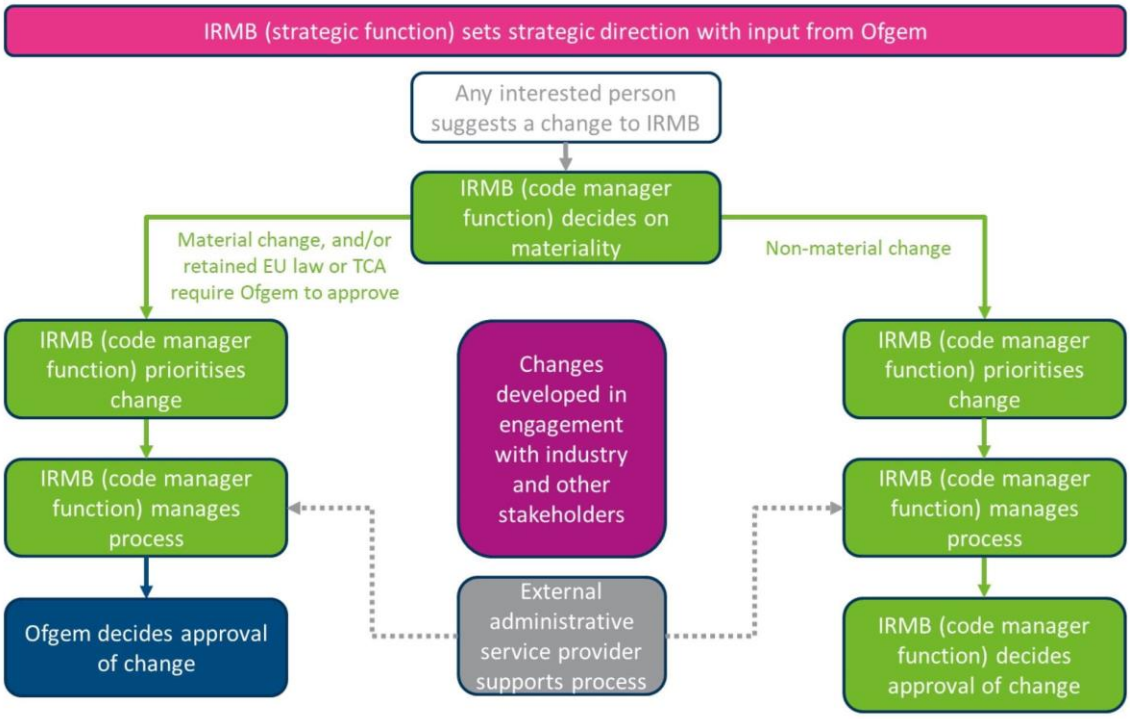
The Consultation states that if a Future System Operator ("**FSO**") was appointed pursuant to the Energy Future System Operator consultation[17] (launched on the same day as the 2021 Consultation – see our commentary here), this body would be suitable to undertake the combined role of IRMB. One reason stated is that the FSO's strong focus on whole system thinking and broader co-ordination roles would fit well with the IRMB's function of providing long-term thinking and direction across the energy sector.

Under Model 2, the strategic function and code manager function would be combined, meaning that there would be no separate code managers. The IRMB would therefore hold most of the responsibilities outlined under Model 1, above. Ofgem would retain some oversight and decision-making in line with its duties as regulator.

Process

Under Model 2, any interested person could suggest a change to the IRMB. The IRMB would then decide on the materiality of the change. For non-material changes, the IRMB would manage the code change process with the support of an external administrative service provider and would decide on the approval of the change. For material changes, including in relation to retained EU law or the EU-UK Trade and Cooperation Agreement, approval from Ofgem would be required. See diagram below for a visual overview of the process under Model 2.

[17] A consultation on the establishment of an expert, impartial FSO with responsibilities across both the electricity and gas systems to drive progress towards net zero while maintaining energy security and minimising costs for consumers.



Appeals

The 2021 Consultation considers that regulatory accountability and the appropriate route of appeal for decisions (ultimately for both models) could fall in to one of two ways:

Judicial Review only; or

Combination of Judicial Review and CMA Appeal.

Judicial Review only

This route would mean all strategic body decisions on code changes would be subject only to judicial review, including where the decision of the strategic body aligns with the recommendations of the code manager. BEIS and Ofgem note that this would be simple to effect and be relatively future proof as it would avoid gaps emerging between legislation and the substance of the codes themselves as they are developed or consolidated. The 2021 Consultation acknowledges concerns that this option could weaken existing licensee protections because it provides a generally less intrusive standard of review and does not necessarily involve economic and other technical expertise. However, Ofgem and BEIS point out that judicial review applies to many code changes already and has been utilised in other areas, for example the retail price cap.

Combination of Judicial Review and CMA Appeal

Alternatively, a combination of judicial review and CMA appeals may be used. This would require CMA appeal timings to be aligned with the licence modification appeals process. The 2021 Consultation states that creating a route of appeal to the CMA for decisions made by the strategic body on code changes would need to be delivered through primary legislation. BEIS and Ofgem anticipate that judicial review rather than CMA appeal would be available for licence and code changes required to implement their proposals and the outcomes of any code consolidation.

Analysis of the proposals

Model 1 is stated to be BEIS and Ofgem's preferred option, as they say it would result in a less complex governance landscape, build on the existing expertise of Ofgem and be quicker and easier to implement. Delivery of Model 1 could begin in 2024 and Model 2 in 2026, however both dates would be dependent on the availability of parliamentary time for the introduction of required primary legislation.

However, criticisms of Model 1 are likely to touch on the added layer of bureaucracy that results from separating a strategic body from the code managers, as well as the potential for the strategic body to be out of touch with the codes. The alternative Model 2 also presents challenges, as it gives wide power to one body which requires a more significant skills transfer and could lead to a lack of transparency. In both cases, the move away from industry involvement in the framework is significant.

It goes without saying that an overhaul of the codes and their governance is required to establish and support a system that is fit for purpose long term. In the Energy White Paper published in December 2020 (see our commentary here), BEIS committed to ensuring that the institutional arrangements governing the energy system were overhauled to achieve this. While the proposals in the 2021 Consultation are a positive next step, it remains to be seen which solution will strike the best balance of levelling the playing field for industry involvement and making the framework nimble enough to deal with the challenges of a transforming energy system.

Next steps

The Consultation is one of a flurry of publications issued by government during the month of July. The closing date for responses to the 2021 Consultation is 28 September 2021.

3.20 **Future System Operator**

Proposals for a new "future system operator" – key takeaways

6 August 2021

Introduction

On 20 July 2021, the Department for Business, Energy & Industry Strategy ("**BEIS**") and Ofgem published a joint consultation (the "**Consultation**") in respect of its proposals for a Future System Operator (the "**FSO**"). The Consultation follows Ofgem's review of the GB energy system operation in January 2021 (the "**Review**"), which considered the energy system changes associated with delivering net zero. Amongst a number of key findings, Ofgem considered that there is a strong case for creating a system operator which is independent of the transmission asset owners and combines certain responsibilities for electricity and gas net zero system roles.

The electricity and gas system operators are currently both ultimately owned by National Grid plc. The Electricity System Operator ("**NGESO**") is a legally separate entity within National Grid's wider group and the Gas System Operator ("**GSO**") is integrated within the National Grid Gas business. The Consultation proposes that all the current NGESO roles and functions are to be carried out by the FSO and in respect of gas system operation, the FSO should undertake strategic network planning, long-term forecasting, and market strategy functions only.

This article provides a summary of the Consultation's stated case for change to an FSO and the proposed roles and organisational models suggested for the FSO; and comments on what the FSO may look like.

The case for change

The Consultation notes that the transition to net zero will increase operational complexity of the energy system and require a step-change in whole system coordination, planning and strategy. While NGESO and GSO have unparalleled insight into system operation, established engineering expertise and an understanding of the challenges and opportunities associated with different technologies and system approaches, the Consultation suggests that perceived conflicts of interest between NGESO and GSO with the wider National Grid business have made it challenging to drive a genuinely integrated approach to system operation. The Consultation considers that this in turn raises the following considerations:

1. whether NGESO and GSO may choose not to engage in a topic, because they do not consider it would be appropriate for them to opine on an area where they may be conflicted;
2. whether Government, Ofgem or industry may replicate work undertaken by the system operators to verify that the information or advice they received was correct rather than potentially based on conflicts of interest; or
3. whether industry participants may change their behaviour towards the system operators due to a belief that the system operators will make decisions based on their own commercial interests rather than in a free and transparent manner.

Proposed roles and functions of the FSO

Electricity system operation

It is proposed that the FSO undertakes all the existing roles and functions of NGESO due to perceived synergies between balancing the electricity system and analysing its future needs.

Gas system operation

The Consultation notes that the considerations with gas system operation are different in that there are greater challenges with moving real time system operation away from the gas transmission owner (e.g., relating to gas safety management and lost synergies around managing network constraints). Therefore, the Consultation proposes two options for how gas system operation can be integrated within the FSO as follows:

1. the FSO is responsible for gas strategic network planning, long-term forecasting and market strategy functions only (this is the preferred option); or
2. the FSO is responsible for all GSO roles, including real time system operation functions.

New and enhanced FSO roles

The Consultation also anticipates that several new and enhanced roles and functions of system operation will be required to drive decarbonisation at least cost, such as network planning and development, competition to fulfil specific system needs, co-ordination (both across energy sectors and regional decarbonisation) and developing engineering and data standards. In summary, the proposed new and enhanced FSO roles are as follows:

- Advisory role – supporting decision-making organisations on key policy and regulatory decisions across the energy system;
- Dispute resolution – taking a role in determining disputes between industry parties;
- System planning and network development – the proposals here are wide-ranging and include carrying out holistic and coordinated network planning and critically evaluating investment proposals as part of price controls. The Consultation expects these network planning functions to be largely advisory;
- Driving competition in energy networks – running tenders, advising on tendering criteria, and making recommendation to Ofgem on where network competition for specific projects would be in consumers' interests;
- Energy market design – playing a greater role in market design, for example taking responsibility for certain Capacity Market functions that currently sit within BEIS or Ofgem;
- Coordination with distribution networks – this largely involves working with DNOs and GDNs to enable whole system optimisation and better network processes;
- Heat and transport decarbonisation – playing a greater role in advising and coordinating elements of heat and transport decarbonisation such as supporting with local energy mapping;
- Data and digitalisation – taking on greater data responsibilities such as horizon scanning, monitoring data developments and coordinating and maintaining data standards across the energy sector;
- Future system operability, engineering standards and energy code development – the roles here are wide-ranging and cover monitoring and recommending changes to codes and engineering standards and having oversight of the whole of energy code development as an Integrated Rule Making Body; and
- Supporting hydrogen and CCUS – taking on additional functions to support the growth and diversification of hydrogen networks and the development of CCUS.

Possibility of electricity-cas control room coordination and information sharing

While not currently under consideration, with the development of hydrogen capabilities there may be scenarios where there are greater benefits in having a combined gas / hydrogen and electricity FSO control room operating the whole energy system on a daily basis. This would however be dependent on whether any hydrogen uptake is at a national level, the prevailing type of hydrogen produced and who the system operator would be. There would therefore be further consideration on the costs and benefits when there is greater clarity on this issue. This is expected to be in the late 2020s.

BEIS and Ofgem are currently considering whether information sharing between the current control rooms can be improved as well as assessing the consequences of such changes. The Review of the Impact of a Gas Supply Shortage on the Electricity Network (RIGSSE) project is also considering this issue and the RIGSSE could therefore have implications for the FSO's information sharing arrangements when it starts to operate.

Proposed organisational models for the FSO and implementation

The Consultation considers two different organisation models for the FSO:

1. a standalone privately owned model, independent of energy sector interests; and
2. a highly independent corporate body model classified within the public sector, but with operational independence from government.

The models differ primarily on the basis of incentives. The first model would establish an FSO on a for-profit basis and would use market mechanisms to fund debts. The second model would be "not for profit" so its overarching objectives would structurally drive and incentivise its behaviours. For both models, the Consultation proposes the high-level functions and duties of the FSO will be set out in legislation and the FSO will be a licensed entity. Moreover, the Consultation states that Ofgem and BEIS would consider the design of one or more licences to regulate existing and additional FSO roles and functions.

BEIS and Ofgem continue to engage with stakeholders in respect of implementation of the FSO. However, the Consultation notes that the preferred approach to implementation is a phased implementation of the FSO, with the FSO taking on all the existing capabilities and functions of NGESO as a first step, followed by phased introduction of any further functions of the FSO. The consultation notes that this is expected to likely involve a sale process of NGESO and potentially of part of National Grid Gas.

Comment

Moving forward it seems likely that BEIS and Ofgem will draw inspiration from other independent system operator models around the world. Notable examples that Ofgem and BEIS are likely to draw upon include PJM (regarded as one of the best ISO models) and the Australian Energy Market Operator (AEMO).

Under PJM's model, it is responsible for making the decisions in relation to the roles and responsibilities of the members and generators bidding in the daily energy markets, outlining the standards for the stable supply and demand of energy, and directing how the transmission system and future energy needs are planned and managed. PJM's planning process focuses on load forecasting including analysing and co-ordinating planned upgrades, with long-range planning studies and future demand analysed by relevant studies. The cost of upgrades to the transmission system are allocated to the transmission owners following the rules in PJM's governing documents. The transmission owners are further obligated to build the transmission projects required to maintain reliability standards that have been approved by the PJM Board.

AEMO acts as system operator and its role is to maintain system security and reliability using a projected assessment of system adequacy to assess both the short-term (6 day period) and the long term (24 month period) adequacy of supply. AEMO also undertakes forecasting and planning of the system as well as working with the Energy Security Board to design and implement the regulatory

framework. Currently AEMO is reforming in line with an independent review into the future security of the National Electricity Market. This review highlights the key learnings for AEMO from the US blueprint and specifically cites PJM as an example.

Therefore, with AEMO drawing on PJM and its reputation as one of the pre-eminent ISOs, it seems likely that the FSO will be heavily influenced by the US ISO model and PJM in particular.

Next steps

The Consultation closes on 28 September 2021. Further consultations will follow in respect of the more detailed aspects of the proposals set out in the Consultation such as the FSO's licensing and funding arrangements, mechanisms for incentivising desired outcomes and appropriate mechanisms for engaging sector participants in operation and oversight.

3.21 **Smart Systems and Flexibility Plan 2021**

Smart systems and Flexibility Plan 2021 – key takeaways

6 August 2021

On 20 July 2021, the Department for Business, Energy & Industrial Strategy ("**BEIS**") and Ofgem published the long-awaited updated Smart Systems and Flexibility Plan 2021 (the "**Plan**"), following release of the initial Smart Systems and Flexibility Plan in July 2017. We reported on BEIS' original call for evidence on a smart, flexible energy system in 2016 here and the 2018 update to the July 2017 Plan here).

Alongside the Plan, BEIS and Ofgem have also published the UK's first Energy Digitalisation Strategy, which is the subject of a separate Law-Now article.

Key takeaways from the Plan are:

- Facilitating flexibility from consumers will be key in meeting net zero targets, with government seeking to take action to regulate and standardise smart energy appliances and products and private electric vehicle ("**EV**") chargepoints;
- A more sophisticated and clearer regulatory framework for storage and interconnectors will be required in order to remove barriers on these technologies' ability to provide flexibility to the grid;
- Reform of flexibility markets is required in order to appropriately reward providers of flexibility for the value they provide to the system and improve price signals; and
- Harnessing the power of data across a digitalised energy system will be essential in ensuring assets across the system will be effectively optimised, and that innovative low carbon solutions and services can be offered to consumers.

Further detail on the key policy areas and actions contained in the Plan are set out below.

Background

The Plan is the government's roadmap to transforming the UK energy system into a smarter and more flexible one, capable of integrating high volumes of low-carbon energy and utilising technologies such as energy storage and electric vehicles, in order to effectively deliver on the UK's net zero by 2050 ambitions.

The 2017 and 2018 versions of the Plan set out a total of 38 actions for government, Ofgem and industry to take in order to deliver a smarter and more flexible energy system. The Plan notes that to date, 29 of the 38 actions have been implemented and the remaining 9 actions are on track to be delivered by the end of 2022 (the Plan also includes updated versions of these actions).

The Plan covers the following four core policy areas:

1. Facilitating flexibility from consumers;
2. Removing barriers to flexibility on the grid: electricity storage and interconnection;
3. Reforming markets to reward flexibility; and
4. Digitalising the system.

Across these policy areas, the Plan sets out what government aims to have achieved by the mid-2020s, what will be needed by 2030 and beyond and how these actions will be delivered.

1. Facilitating flexibility from consumers

The Plan notes that as electricity demand increases due to the electrification of transport, heat and industry, consumer flexibility will:

(a) play an important role in helping to reduce the amount of generation and network capacity required to address such demand; and

(b) be one of the most cost-effective ways of reducing carbon emissions, as consumer flexibility will be cheaper than building additional generation.

By the mid-2020s, the Plan aims for consumers of all sizes to be able to provide flexibility to the energy system, supported by the necessary infrastructure and regulatory framework. It is envisaged that by this time, the market for flexibility from large consumers will have matured and consumers will have a greater choice of innovative products (such as smart tariffs) and interoperable smart appliances to help drive flexible consumer behaviour.

Looking ahead to 2030 and beyond, the Plan intends for consumers to be providing significant flexibility to the system (potentially around 13GW in combination with intraday storage), with consumer flexibility and "energy smart" products being normalised and the benefits of consumer flexibility "*well established in the public consciousness*". The Plan also aims for deeper integration between EVs and the electricity system by this time via vehicle-to-grid technologies. On 20 July 2021, BEIS launched a call for evidence seeking views on the role of vehicle-to-x technologies in a net zero energy system and the barriers preventing their widespread use.

How will this be delivered

In order to facilitate flexibility from consumers, BEIS and Ofgem have made a number of key commitments to:

- Take action to regulate smart energy appliances, implementing requirements that are underpinned by the principles of interoperability, data privacy, grid stability and cyber security;
- Mandate minimum device-level requirements for private EV chargepoints, including smart functionality (legislation will be laid in 2021 to this effect, as confirmed by the government's response to the Smart Charging consultation, published 14 July 2021);
- Deliver a regulatory strategy by the end of 2021 that supports EV rollout;
- Incorporate flexibility and smart technologies into energy efficiency and heat policies, including regulations, assessment methodologies, subsidy schemes and market mechanisms;
- Encourage greater availability of smart tariffs for smaller consumers utilising half-hourly settlement (with Ofgem recently setting out its expectation for industry to implement market-wide half-hourly settlement by October 2025);
- Collaborate with industry to develop guidance to tools to advise consumers on smart tariffs and approaches to deliver home energy management services that cyber secure and interoperable across devices;
- Commission further work to set a robust approach to monitoring and mitigating cyber security risks across a smart and flexible energy system; and
- Consult in 2022 on an appropriate regulatory approach for flexibility service providers and other organisations controlling load.

2. Removing barriers to flexibility on the grid: electricity storage and interconnection

The Plan notes that currently the majority of flexibility comes from fossil fuel generation, and in order to meet decarbonisation targets, over the next decade greater flexibility will need to come from electricity storage and interconnectors.

To date, BEIS and Ofgem have taken a number of steps to open up the market for storage and interconnectors. For example, the government passed legislation to make it easier for larger storage projects to acquire planning permission and the EU-UK Trade and Cooperation Agreement sets out the need for UK and EU Transmission System Operators to cooperate to develop technical procedures for new, efficient cross-border trading arrangements to maximise capacity delivered from interconnectors.

By the mid-2020s, the UK government aims to have created a "*best-in-class*" regulatory framework for electricity storage in order to facilitate greater investor and developer confidence and increase deployment of storage technologies. In addition, the Plan reiterates the government's ambition to realise at least 18GW of interconnector capacity by 2030, noting that this will deliver efficient and flexible access to cross-border markets across all timescales.

Looking ahead to 2030 and beyond, the Plan intends for storage to be providing significant flexibility to the system, replacing flexibility from traditional fossil fuel generation. The 18GW of interconnection target should be met by this time and the frameworks for interconnector operability will utilise the full potential of flexibility that interconnectors can provide to the energy system.

How this will be delivered

The Plan sets out the following key actions in relation to removing barriers for greater participation of storage and interconnectors on the system:

- When parliamentary time allows, define electricity storage as a distinct subset of generation in primary legislation and update and publish a new version of the Planning Practice Guidance;
- Ofgem will consider how network charges should be applied where storage creates benefits for the system as well as options for removing final consumption levies on electricity imported by domestic storage and vehicle-to-grid technologies for the purpose of re-exporting back to the grid;
- Launching of the £68m Longer Duration Energy Storage Demonstration (LODES) competition to accelerate the commercialisation of first-of-a-kind longer duration energy storage, with the intention of building at least 6 demonstrator projects by March 2025;
- BEIS and Ofgem will take action to de-risk investment for large scale and long duration storage. For example, alongside the Plan, BEIS also published a call for evidence on facilitating the deployment of large scale and long duration electricity storage;
- Ofgem is currently undertaking an Interconnector Policy Review to establish whether there is a need for further GB interconnection capacity beyond the projects which currently have regulatory approval;
- The ESO will identify and remove barriers to entry for interconnectors in balancing services by the end of 2023;
- The government and Ofgem will work with industry to remove regulatory barriers to the co-location of storage with other forms of generation; and
- BEIS will work with the Low Carbon Contracts Company to produce guidance to clarify co-location requirements under the Contracts for Difference (CfD) scheme in

order to facilitate the addition of storage to CfD projects. If necessary, BEIS will consult on changes to CfD contract requirements.

The Plan also notes that BEIS and Ofgem are generally exploring the need and case for more fundamental market intervention to support deployment of the storage and interconnection and address existing financing challenges.

3. Reforming markets to reward flexibility

The Plan notes that ensuring the UK system has an effective suite of market signals is crucial to bringing new flexible technologies onto the system. Such signals are also important in supporting the business cases of such technologies and incentivising flexible operation. Recent years have seen significant growth in the value and importance of other supplementary markets and signals such as the balancing mechanism, ancillary services and local markets for flexibility that complement the national wholesale market for electricity.

The Plan envisages that by the mid-2020s, flexible technologies of all types and sizes will have improved access to flexibility markets and will be able to stack revenues across multiple sources of value where this enables whole system optimisation. This will be supported by implementation of a) new network access and charging arrangements and b) reforms to existing markets by the ESO that will incentivise more efficient and flexible network use. In addition, the Plan intends that by this time there will be stronger investment signals for flexibility, which could include changes to the CfD scheme to balance system needs with large-scale deployment of low-carbon generation. In the government's call for evidence on enabling a high renewable, net zero electricity system, a common theme put forward by respondents in relation to potential changes to the CfD included a focus on the system integration of renewable energy, such as through developing or providing support to flexibility.

By 2030, the government aims for all flexible supply and demand energy resources to contribute their full potential to the energy system, with dynamic close-to-real-time markets playing an important role in ensuring the most efficient assets are dispatched. In addition, stronger long-term investment signals will indicate when and where flexibility will be needed and will compliment operational signals and procurement mechanisms.

How this will be delivered

The Plan sets out the following key actions which will drive forward flexibility markets and improve price signals:

- The ESO will deliver on its ambition for net zero operability by 2025, which will include a new suite of ancillary services and implementation of a single day ahead market for response and reserve by 2023. The ESO will also deliver and build on its pathfinder projects and present a clear and credible plan to deliver reforms beyond 2023 to achieve its objectives of zero carbon operability and market solutions across all services by 2025;
- DNOs will need to deliver and adopt a standardised approach for procuring flexibility services and managing connections across the GB distribution networks;
- Greater collaboration between DNOs and the ESO will be required in aligning distribution and transmission flexibility and servicing conflicts;
- The government and Ofgem will ensure that institutional arrangements governing the energy system are fit for purpose to deliver coordinated and effective flexibility markets (with Ofgem and government recently publishing joint consultations on system operation and energy code governance);
- BEIS will continue to engage with industry on how best to balance investment signals for low-carbon generation with wider system needs in the CfD scheme in the run up to the next allocation round (AR5);

- BEIS' imminent call for evidence on the Capacity Market will gather stakeholder views on the longer-term future of the Capacity Market in the context of net zero;
- Network and system operators will develop consistent methodologies for carbon reporting and monitoring of their actions and markets, with carbon monitoring and reporting expected to be in place by 2023;
- Further to the Energy White Paper, legislation will be introduced to enable competitive tendering in the construction, ownership and operation of the onshore electricity network; and
- The government will work with the UK ETS Authority to review the 20MW UK ETS exemption in 2022, which can distort market signals and block investment in low carbon flexible technologies (e.g. inrecent auctions a high percentage of Capacity Market agreements were awarded to carbon emitting gas generators smaller than 20MW).

A key message in chapter 3 of the Plan is the expectation for network operators to work together proactively (e.g through the ENA and other relevant governance arrangements) to deliver a step change in coordination across flexibility markets, demonstrating a clear, long-term view of how flexibility services will complement each other at both the distribution and transmission level.

4. Digitalising the system

The Plan recognises that harnessing the power of data across a digitalised energy system will be essential in ensuring assets across the system will be effectively optimised, and that innovative low carbon solutions and services can be offered to consumers.

By the mid-2020s it is intended that the UK will have standards and regulatory frameworks in place that ensure energy data collection and applications meet best practice and that data assets will be treated as open and accessible while privacy and security are protected. At this stage, the next steps for digitalising the energy system will be identified, including what new data governance, market frameworks and institutional designs are required to ensure data privacy and cyber security are maintained while increasing market access.

By 2030 and beyond, it is expected that system operators will have visibility of all energy assets on the system. The availability of greater data access across the market will support new business models and new entrants participating in the sector.

The Plan does not set out a list of actions in this area and refers to the Energy Digitalisation Strategy, which sets out the barriers to digitalisation of the energy sector, outlines a strategic approach to addressing these barriers and identifies a series of actions for the government, Ofgem and industry to take to deliver a digital net zero energy system.

BEIS and Ofgem's approach to monitoring

Alongside the Plan, BEIS and Ofgem also published Appendix II to the Plan, which sets out its initial approach to monitoring the outcomes of the Plan. Generally, BEIS and Ofgem have proposed a "market monitoring" approach, with a list of key indicators set out in Appendix II which it will refer to as part of its monitoring framework.

The government will work with stakeholders to develop the monitoring framework by identifying new indicators and data sources. BEIS and Ofgem will gather stakeholder feedback and share an updated version of the monitoring indicators and decide the longer-term process for the monitoring framework, including which organisation should have responsibility for the strategy and how it should be shared with stakeholders.

Comment and next steps

Despite the various barriers that remain, flexible technologies and systems are being increasingly developed and deployed in the UK as the energy transition advances. The publication of the Plan will be widely welcomed by industry as offering further clarity and insight into how certain remaining barriers are envisaged to be removed, and where the future lies with regards to a flexible electricity system. That said, many of the issues brought forth in the Plan are not new. For example, BEIS proposes to define storage in primary legislation when parliamentary time allows. However, this intention to legally define storage was identified back in 2017 in the first Smart Systems and Flexibility Plan, and we are yet to see Parliamentary time allowed.

To deliver flexibility at the pace and scale required for achieving net zero ambitions, the actions and directions set out by the government in the Plan must advance with a greater sense of urgency and momentum. With an overarching direction now in place for the years to come, we can expect to see further consultations emanating from the Plan to enable its implementation.

3.22 Ofgem Enforcement Procedure

Ofgem consults on proposed changes to enforcement procedure

2 August 2021

On 9 June 2021, Ofgem published a consultation (the "**Consultation**") proposing a range of modifications to its Enforcement Guidelines (the "**Guidelines**") and statement of policy with respect to financial penalties and consumer redress (the "**Sectoral Penalty Statement**").

Having a duty to regulate the conduct of persons operating in the energy sector, Ofgem's Guidelines and Sectoral Penalty Statement collectively outline the procedures and considerations that the regulator must take into account when deciding whether and how to use some of its statutory enforcement powers. Following a review of its approach to enforcement and market developments, the Consultation sets out Ofgem's proposed changes to make allowance for the evolving nature of the energy market and enforcement landscape.

In this article, we summarise some the main proposals, and what these might mean for regulated energy companies.

Background

Ofgem (acting on behalf of the Gas and Electricity Markets Authority, "**GEMA**") is entrusted with statutory enforcement powers that enable it to respond to conduct that is unlawful, anti-competitive or detrimental to consumer interests. These formal regulatory enforcement powers include:

- imposing financial penalties and issuing orders to require compliance, compensate consumers or remedy a harm where certain licence conditions and certain legislative requirements have been breached, including requirements specified in the Gas Act 1986, the Electricity Act 1989 and the Electricity Capacity Regulations 2014 (the "**Sectoral**" powers);
- issuing infringement decisions, accepting commitments and imposing directions and penalties for breaches of the prohibition on anti-competitive agreements and abuses of a dominant position in the Competition Act 1998;
- applying to the court for an order to stop breaches of certain consumer legislation, including under the Enterprise Act 2002, the Consumer Rights Act 2015 and the Business Protection from Misleading Marketing Regulations 2008; and
- imposing financial penalties, making restitution orders, or issuing statements of non-compliance where there has been a breach of certain legislative requirements set out in the Electricity and Gas (Market Integrity and Transparency) (Enforcement etc.) Regulations 2013 (the "**REMIT civil enforcement**").

In addition, Ofgem may use less formal "Alternative Action", such as accepting non-statutory undertakings or conduct audits, to remedy a matter of non-compliance.

Ofgem has issued various policy documents which seek to explain how it will approach enforcement in practice. Specifically, the Enforcement Guidelines provide a detailed framework describing how Ofgem will use its enforcement tools, provide redress for consumers and address infringing behaviour. The Guidelines also aim to enable Ofgem to deliver on its enforcement objectives, which include providing credible deterrence, enabling competition and innovation, and ensuring that the consequences for non-compliant businesses are visible and meaningful. A variety of factors must be taken into account by Ofgem when considering whether to impose a financial penalty or consumer redress order, and to what extent – these factors are outlined in the Sectoral Penalty Statement.

Ofgem's Guidelines were last revised in October 2017, and the Sectoral Penalty Statement in November 2014. Since then, the energy sector has advanced significantly, and will continue to evolve as the transition to net zero progresses. In addition, the proposals take account of new licence requirements brought in under the Supplier Licensing Review.

It is worth noting that Ofgem also has separate powers to investigate and prosecute certain criminal offences under legislation including the Gas Act 1986, the Electricity Act 1989 and the Electricity and Gas (Market Integrity and Transparency) (Criminal Sanctions) Regulations 2015. Ofgem's approach to criminal enforcement and REMIT civil enforcement is subject to separate guidelines and policy statements, which are outside the scope of the current Consultation. It is, however, mentioned in the Consultation that Ofgem intends publish a separate consultation in respect of proposed changes to its Statement of Policy on Financial Penalties and Restitution under REMIT and the REMIT Procedural Guidelines in July 2021.

Updates to the Settlement Process

Some of the main proposals outlined by Ofgem in the Consultation relate to the settlement process for Sectoral cases, being cases where enforcement action is taken against regulated persons for breaches of relevant licence conditions or requirements under the Gas Act 1986 or the Electricity Act 1989 (in other words, not as part of Ofgem's competition or consumer law remit). The Guidelines set out a process for reaching settlement, whereby the investigated business must voluntarily admit to the breach, resulting in a formal finding of breach, and agree not to challenge or appeal Ofgem's finding or resultant penalty or order.

Under the present guidelines there are three settlement windows (early, middle and late), whereby a sliding scale of percentage discounts is offered to the non-compliant person if settlement is reached within a specified time period. Whilst this incentive mechanism is designed to save resources and secure customer redress at an earlier stage, in practice, Ofgem maintains that settlement is a lengthy and resource-intensive process. Accordingly, it proposes to remove the 'middle' and 'late' settlement windows and retain only one settlement window at a 30% discount, equivalent to the prior 'early' window, unless there are exceptional circumstances. This window will open when the settlement offer, draft penalty notice and/or redress order and press notice have been provided to the regulated person, and close after a 'reasonable period', likely to be 28 days. By reducing settlement discount to a single (early) window, Ofgem hopes to continue to incentivise businesses that are willing to settle, but also make findings of breach closer to their time of occurrence and achieve redress for consumers as early as possible. Simplification of the settlement windows is also said to be of benefit where businesses are not willing to settle; the expectation is that it will result in quicker resolution as the case will instead move forward to the contested process without prolonged settlement periods running in parallel.

In addition, Ofgem proposes to change the decision-making entity for settlements. Currently, a Settlement Committee makes settlement decisions. Settlement Committees are made up of one Ofgem Director and two members of the Enforcement Decision Panel (itself made up of dedicated specialists employed only for enforcement duties and who are independent from Ofgem's investigation teams). Ofgem is seeking views on its proposal to allow the Ofgem Director responsible for enforcement (or another Ofgem Director nominated on their behalf) to be the decision maker for settlement cases, with the Settlement Committee being retained as an alternative option where the Enforcement Decision Panel's expertise may bring benefit. The Ofgem Director would be able to issue a settlement mandate, approve or issue a settlement penalty notice and approve final settlement decisions. Ofgem maintains that this change is aimed at addressing the concern that Alternative Action, with no formal finding of breach, is less of a deterrent, yet it is increasingly used as a quicker way to secure customer redress and resolve concerns.

Provisional and Final Orders

Pursuant to the Gas and Electricity Acts, Ofgem (on behalf of GEMA) may:

1. make a provisional order where it appears that a regulated person is contravening or likely to contravene a relevant condition or requirement and the order is required before a final order can be made; or
2. make a final order or confirm a provisional order, if it is satisfied that a regulated person is contravening or is likely to contravene a relevant condition or requirement and where that order is required to bring the breach(es) to an end.

Certain procedural requirements must be followed to make these orders. Citing the increased use of provisional and final orders to address non-compliance, Ofgem is proposing to update the Guidelines to provide greater clarity on: (i) the order framework and (ii) the process for imposing penalties/redress orders following the making of a final order or confirming a provisional order.

Section 7 of the updated Guidelines, annexed to the Consultation, is now dedicated to enforcement orders, and delineates when and how the authority may make (or revoke) a provisional or final order. Among other things, it now clarifies that if the regulated person fails to comply with the final order within 3 months, a final 30-day notice may be issued explaining that their licence may be revoked after expiry of the notice if non-compliance persists. The revised Guidelines also now include a dedicated sub-section explaining Ofgem's approach to issuing financial penalties and/or redress orders following the making of a final or provisional order.

The Sectoral Penalty Statement

In essence, Ofgem states in the Consultation that it is seeking to simplify and clarify the Sectoral Penalty Statement. This statement, required pursuant to the Electricity and Gas Acts, sets out a number of factors that the authority must take into account when determining (i) whether or not to impose a financial penalty and/or consumer redress order as a result of a contravention; (ii) the amount of any financial penalty; and (iii) the requirements of any consumer redress order.

Following the Supplier Licensing Review in January 2021, several new licence requirements were introduced for suppliers. This has resulted in certain conduct becoming a form of breach in itself, rather than a factor that might be considered when imposing and calculating financial penalties and consumer redress orders. Further, certain behaviours will no longer be considered as mitigating factors as they are now required by the new licence conditions. The Consultation presents the new supply licence requirement to self-report breaches as an example of this, which was previously a mitigating factor. To take account of the outcomes of the Supplier Licensing Review, the Consultation proposes to include a statement (currently at paragraph 4.2 of the revised Sectoral Penalty Statement, annexed to the Consultation) which highlights that conditions and requirements are regularly updated, and the authority does not have to take a particular kind of conduct into account when deciding whether to impose a penalty or order where such conduct may amount to a contravention itself.

Lastly, Ofgem proposes to simplify elements of the process used to calculate financial penalties and consumer redress orders. Currently, two elements must be considered:

1. the gain made by the contravening entity and the detriment suffered by consumers as a result of the breach (known as the "gain and detriment element"); and
2. the seriousness of the breach, including aggravating or mitigating factors (known as the "penal element").

To address the complexity of calculating gain and detriment, and the significant resources required to do so, Ofgem is suggesting that these components will only be calculated where proportionate, reasonable and practical to quantify. Where this is not the case, unquantified gain or detriment is to be considered qualitatively as part of the seriousness assessment noted above.

For the penal element, Ofgem is proposing to simplify and condense the number of aggravating and mitigating factors used to determine this by moving to a more high level principles-based approach. The principles that are replacing the aggravating/mitigating factors include (but are not limited to):

1. the seriousness of the contravention;
2. the impact of licensees' behaviours, including whether the contravention damages the interests of consumers or other market participants; and
3. how necessary the penalty is to deter future contraventions.

Comment

The theme underpinning Ofgem's proposals is the stated desire to increase flexibility, free up resources, and speed up enforcement. While regulated persons would of course welcome a more streamlined, efficient and simplified approach to enforcement cases, this has to be balanced against the substance of the proposed changes.

On closer inspection, the majority of the proposals appear to reduce the burden on Ofgem, while changing very little (if anything) that achieves the same for regulated persons. Moreover, it seems that the desire to increase simplicity and speed has effectively removed valuable safeguards. More specifically:

1. the presence of Enforcement Decision Panel ("**EDP**") members in Settlement Committees provides valuable assurance that settlement offers and decisions are fair and balanced. Removing the role of independent EDP members is unlikely to be seen as a change that improves the settlement process;
2. similarly, while Ofgem notes that the "middle" and "late" settlement windows have not yet been used, it is difficult to understand why this is a valid justification for removing them entirely. This is particularly true in circumstances where (as Ofgem acknowledges) settlement and contest currently move in parallel. In our experience many breaches are involuntary, and businesses often need time to gather information and understand whether to settle or contest enforcement decisions. Depriving them of the opportunity to settle at a later stage may have the opposite effect of increasing the length and complexity of the process through protracted contest;
3. the proposal that Ofgem will, in most cases, no longer calculate the "detriment and gain element" of penalties/redress orders is capable of causing some concern. While lengthy and complex, the detailed quantitative calculation supporting the quantum for penalties allows both regulated persons and consumers to ensure that these accurately reflect the gain and detriment; and
4. finally, moving to a more principles-based approach when calculating the "penal element" for penalty/redress orders appears positive in principle, allowing greater flexibility in unforeseen circumstances. It remains true, however, that Ofgem will interpret and apply those principles, while prescribed factors can sometimes provide a more objective basis for assessing the seriousness of a contravention.

This is not to say that there are not positive elements in the proposals. In this respect we note Ofgem's intention that the changes will reduce the scope for Alternative Action, which is sometimes perceived as a more discretionary and nebulous process with fewer embedded protections and safeguards. The improved clarity surrounding timeframes and consequences where there is non-compliance with enforcement orders, as well as the process for imposing financial penalties in those circumstances, is similarly an improvement.

It cannot be discounted, however, that the proposed changes presage an increased momentum for enforcement action. The proposals come against the backdrop of Ofgem increasingly using its enforcement powers and market players would be well advised to ensure that regulatory compliance functions are sufficiently resourced and alive to new licence and statutory requirements. It is also possible that a more assertive enforcement posture on Ofgem's part will be "priced in" by market

players, to account for the additional resources committed to dealing with investigations, which can therefore increase regulatory costs that are ultimately borne by consumers.

Regulated persons wishing to respond to the consultation should do so soon as the deadline for responses is 4 August 2021.

3.23 Ofgem consults on REMIT

Ofgem consults on proposed changes to remit procedural guidelines and remit penalties statement

27 September 2021

On 17 August 2021, Ofgem published a consultation (the "**Consultation**") proposing a series of changes to its REMIT Procedural Guidelines (the "**REMIT Guidelines**") and REMIT Penalties Statement. The Consultation seeks to bring the REMIT Guidelines in line with Ofgem's Enforcement Guidelines and Sectoral Penalty Statement, the proposed modifications of which were set out in a consultation published on 9 June 2021 (the "**June Consultation**") (Law-Now accessible here).

The changes reflect developments in Ofgem's wider approach to enforcement and revisions to make REMIT processes clearer and more efficient.

Background

REMIT is Regulation (EU) No 1227/2011 on wholesale energy market integrity and transparency ("**REMIT**"). It is a mechanism for reporting and preventing wholesale energy market abuse, in force since 28 December 2011. Under the Electricity and Gas (Market Integrity and Transparency) (Enforcement etc.) Regulations 2013 (the "**Regulations**"), the Gas and Electricity Markets Authority ("**GEMA**") can investigate a suspected breach of REMIT and take enforcement action where it finds that a breach has occurred. Ofgem, acting under GEMA, holds enforcement powers allowing it to reprimand providers for breach of REMIT.

The REMIT Guidelines detail how Ofgem use their powers to enforce REMIT. The REMIT Penalties Statement explains its statement of policy on the imposition of REMIT penalties and how such penalties are quantified, as required under the Regulations.

The REMIT Guidelines and REMIT Penalties Statement were last updated in 2016 and 2015 respectively. Since such dates, the energy market has seen profound change and developments which have necessitated their revision.

Guidelines

Settlement Window

Under the Regulations, GEMA may pursue an investigation against a market participant if it suspects such participant has failed to adhere to their obligations under REMIT. If the investigation is deemed suitable for settlement, market participants currently have three windows in which they can settle the case: early (30% discount), middle (20% discount) and late (10% discount). During settlement, the participant must admit that the breach or breaches have occurred. They are expected to agree to GEMA's finding and not to challenge any finding of breach.

Ofgem proffers that the purpose of the discount windows is to encourage settlement, save resources and time, and identify and penalise breaches of REMIT as early as possible. However, it has argued that the number of settlement windows currently available has negated these benefits, as participants spend significantly more time and resources attempting to reach settlement rather than continuing a case to contest.

The Consultation proposes to remove the middle and late payment windows, leaving a single discount window of 30%. Such single window will open when the settlement mandate and press notice are given to the person, and shall close on expiry of a reasonable period (which is usually 28

days). Ofgem argues that the reduction to one window will incentivise participants to enter settlement more promptly and provides stronger deterrence to the market. It suggests that if someone is not willing to utilise the early window, their case will move to contest and be solved more quickly than if such case would have proceeded to a middle or late settlement window.

Decision Making in Settlement Cases

Settlement decisions are currently made by a Settlement Committee ("**Committee**"), comprising up to two Enforcement Decision Panel ("**EDP**") members, and one Ofgem Director. The Committee is currently the only decision-making body for REMIT settlement cases.

As the energy sector has transformed in recent years, Ofgem has been required to take sectoral enforcement action across a broader range of businesses. Such action has more commonly been addressed through the use of Alternative Action, as a generally quicker means of redress. Whilst the use of Alternative Action for REMIT breaches has been successful in the past, Ofgem is concerned about the time taken for settlements to be reached, and whether Alternative Action is the right course for all types of REMIT cases.

To address this, the Consultation proposes a new means of conducting settlement cases whereby the Ofgem Director responsible for enforcement can be the sole decision maker, or delegate another Director to act on their behalf.

Ofgem proposes that a Director will be able to do the following for REMIT cases:

- issue a settlement mandate;
- approve and issue the settlement penalty notice; and
- approve final settlement decisions.

The Consultation proposes that a Committee will still be available where Ofgem considers the special expertise of the EDP may benefit the case.

Procedural Clarity

Ofgem acknowledges that the REMIT Guidelines, as currently drafted, could benefit from some clarity. Market participant feedback has highlighted that the explanation of different government procedures and how they interact with, for example, the Summary Statement of Issues Letter and Full Issues Letter could be improved.

The following proposals within the Consultation seek to achieve this clarity:

- Ofgem will include an explanation in Chapter One detailing each of the decision-making bodies within its structure, including the EDP and Committee.
- Chapter Four will be revised to clarify Ofgem's criteria for opening an investigation. It will also elaborate on the Alternative Action process. Such criteria will be aligned with the Enforcement Guidelines criteria, explained in the June Consultation.
- There will be a more detailed explanation of when Ofgem would normally publish a Summary Statement of Issues Letter ("**SSIL**"), and what purpose this letter serves in Chapter Five. Such explanation will state that following the information gathering process a SSIL will be sent, providing Ofgem continues to consider that a breach of REMIT has occurred.
- Chapter Seven will include a revised explanation of how the settlement process works, including the proposed changes set out above regarding the reduced settlement window and change to decision making. The chapter will also elaborate on how Ofgem determines the suitability of a case for settlement, and propose the option to seek confirmation from a person under investigation that they would like to pursue settlement. Accordingly, this would replace Chapter Ten of the current REMIT Guidelines.

— Chapter Eight would be revised to include an explanation of when Ofgem would publish a Full Issues Letter, what purpose such letter serves, and how it ties in with the Contest procedure. The Contest procedure itself shall stay the same.

REMIT Penalties Statement

Ofgem's proposals with regards to their REMIT Penalties Statement focus around improving its clarity and readability. The Penalties Statement explains Ofgem's statement of policy on the imposition of REMIT penalties and how such penalties are quantified. The current Statement was published in 2015 and has yet to be updated.

In this Consultation, Ofgem proposes to align their REMIT Penalties Statement with the changes proposed to the Sectoral Penalties Statement in the June Consultation.

Seriousness of REMIT Breaches

The Consultation proposes to remove several of the factors GEMA consider when determining the seriousness of a breach. The factors will be consolidated, with those that currently overlap and those less relevant to REMIT cases being removed. This approach will apply to both sections under "Step Two" of proposed Chapters Five and Six.

The proposed consolidation aims to make the REMIT Penalties Statement more streamlined, and improve its readability. Ofgem does state, however, that the deleted factors should not be ignored as factors listed are deemed to be indicative, and not exhaustive of those which Ofgem will consider when determining a breach.

Calculation of Gain and Detriment

Ofgem is conscious to ensure there can still be a finding of breach even if a specific gain or detriment cannot be calculated. As such, it has proposed to calculate only detriment and gain where it is "proportionate, reasonable, and practicable to quantify it". This would apply, for example, where a breach has been attempted but not completed, or where the ramifications of a breach are broader than the monetary gain or detriment.

Furthermore, Ofgem proposes to use "Step One" in Chapters Five and Six of the REMIT Penalties Statement only with respect to financial gain, as opposed to gain and detriment. If a market participant has suffered a detriment that has resulted in a person's gain, such detriment will be compensated by a restitution order if proportionate, reasonable and practicable. Ofgem submits that "Step One" should deprive a person of all financial benefit gained from a breach and compensate affected parties, and any wider market detriment would then be taken into account in the assessment of seriousness. Such approach would give Ofgem flexibility to ensure any gain received by a person, as well as any compensation, is significantly greater than the detriment caused, as stated in Chapter Two of the REMIT Penalties Statement.

Other changes

Further changes to the REMIT Penalties Statement are being made, some of which seek to align the statement to the Sectoral Penalties Statement. They include:

— an explanation that, where a person may be in breach of other conditions in addition to REMIT, Ofgem reserves the right to pursue such person under the wider Enforcement Guidelines as opposed to under REMIT.

— A clarification that Ofgem "may impose a financial penalty even where the gain to the person, or the detriment caused to other market participants, cannot be reasonably calculated or estimated, or where it can be calculated and it is shown to be zero". This is in line with the proposed changes explained above in relation to the calculation of gain and detriment.

— an inflationary adjustment (rounded to the nearest thousand) to the figures quoted as the starting point for assessment to serious financial hardship in relation to individuals.

Comment

As with the updates proposed by the June Consultation, Ofgem's proposals show a desire to increase flexibility, free up resources, and speed up enforcement. While a more efficient and streamlined process would be welcomed, this should be balanced against the substance of the proposals.

The Consultation generally looks to reduce the burden on Ofgem. There is a danger that in an effort to increase simplicity and speed, valuable safeguards have been removed. For example, removing the role of independent EDP members is unlikely to be seen as a change that improves the settlement process.

Furthermore, the removal of the middle and late settlement windows seems unnecessary. Ofgem itself acknowledged in the June Consultation that settlement and contest currently move in parallel, so it is difficult to understand how the removal of these latter windows will increase efficiency in practice. Depriving participants of the opportunity to settle at a later stage may have the opposite effect of increasing the length and complexity of the process through protracted contest.

Ofgem's proposals to, in most cases, no longer calculate the "detriment and gain element" of penalties may cause concern. While this calculation is indeed more challenging where Ofgem seeks to enforce attempted breaches of REMIT, this does not apply where actual breaches have occurred. While we acknowledge that the current process could be seen as complex, the detailed calculation supporting the quantum for penalties allows both market participants and consumers to ensure that these accurately reflect the gain and detriment. If Ofgem's main concern relates to enforcing attempted breaches of REMIT, it may be more proportionate to limit the calculation carve-out solely to that type of breach.

Despite these concerns, we note Ofgem's intention that the changes will reduce the scope for Alternative Action, which is sometimes perceived as a more discretionary and arbitrary process with fewer protections and safeguards. That said, it is worth highlighting that the revised sectoral Enforcement Guidelines consulted upon in June provide greater detail regarding Alternative Action than is currently set out in the draft REMIT Procedural Guidelines. Market participants would no doubt welcome similar clarity on this enforcement route in the context of REMIT breaches.

We also welcome Ofgem's confirmation that it will continue to interpret REMIT with regard to ACER's non-binding 'Guidance on the application of REMIT' until further notice (and that any proposed departure will be clearly publicised).

As with the June Consultation, the proposals come against the backdrop of Ofgem increasingly utilising its enforcement powers, and market participants would be well advised to ensure that regulatory compliance functions are sufficiently resourced and alive to new licence and statutory requirements.

Industry participants wishing to respond to the Consultation should do so soon as the deadline for responses is 28 September 2021.

3.24 SCR: Access and Forward-looking Charges

More change for network charging – access and forward-looking charging significant code review and proposal to review market competition

28 July 2021

On 18 December 2018, Ofgem launched a Significant Code Review ("**SCR**") in relation to network access and forward-looking charges (see our previous Law-Now covering the SCR here). Following its review, Ofgem published its minded-to decisions (the "**SCR Consultation**") on 30 June 2021. The SCR Consultation sets out Ofgem's proposals on access rights, connection charging and transmission charges.

Ofgem's proposals

Ofgem has offered three main proposals as a result of the SCR:

1. Distribution Connection Charging Arrangements;
2. Definition and Choice of Network Access Rights; and
3. Transmission Charges for Small Distributed Generators.

We look at each proposal in more detail below:

1. Distribution Connection Charging Arrangements

In the SCR Consultation, Ofgem proposes to:

- completely remove the contribution to reinforcement within the connection charge for demand connections; and
- reduce the contribution to reinforcement within the connection charge for generation connections.

Instead, it is proposed that these costs would be recouped via distribution network use of system ("**DUoS**") charges. Ofgem states that a different approach for generation and demand connections is justified, as removing the charge for generator users would mean that they would not face any signal about the costs they put on the distribution system.

This proposal stems from Ofgem's analysis that identified:

- current arrangements may create barriers to investment or push users to accept non-firm connections. This is particularly relevant for those customers with less flexibility over connection location;
- stakeholders, including electric vehicle ("**EV**") charging customers, can face prohibitively high reinforcement costs. Ofgem recognises that EV charging locations have little flexibility and that it does not collect data from DNOs on the loss of opportunity from those connections which do not proceed following initial discussions; and
- DNOs responding to each application individually may result in "piecemeal network investment", rather than looking at more "holistic network-wide requirements". Currently, DNOs can only recover their costs through connection requests, which may stop them from looking to invest ahead of requirements.

Ofgem is not minded-to take forward the SCR proposals in relation to deferral payments and the introduction of security obligations.

2. Definition and Choice of Network Access Rights

Ofgem notes that users currently face loosely defined access rights that require users to take on significant risk of curtailment. Ofgem hopes that the proposals will "help ensure users are able to get quicker or cheaper access to the network in line with their needs, by making better use of existing network capacity." The proposals only apply to distribution access.

In the SCR Consultation, Ofgem proposes to introduce new non-firm distribution access options that allow users to:

— choose the percentage of time that they are willing to have their connection be non-firm and at risk of curtailment. A higher percentage will likely result in a quicker or cheaper access to the network; and

— choose time-profiled access such that a user would either have no access or non-firm access during peak periods. A user would be able to select the percentage of their access rights that are time-profiled. A higher percentage of the connection being time-profiled will likely result in a quicker or cheaper access to the network. However, this option would not be available to small users.

Ofgem sets out a number of considerations on how to reflect the value of the proposed alternative access rights either via connection or DUoS charges. It notes that any changes in the connection charge are unlikely to reflect the financial value for opting for a non-firm or time-profiled access right. Instead, the speed of connection may provide the primary driver. Ofgem considers that time-profiled connections could be reflected in DUoS charges with costs of access during different periods to be calculated in a relatively simple and accurate way. However, as above, this is subject to a separate DUoS reform.

Ofgem is not minded-to take forward the SCR proposals in relation shared access.

3. Transmission Charges for Small Distributed Generators

In the SCR Consultation, Ofgem proposes to charge TNUoS generation charges for all users over 1MW irrespective of whether they are directly connected to the transmission system. Ofgem notes that the current approach of different transmission generation charges "create[s] a boundary distortion that can lead to inefficient decisions about where generation should locate." In particular, the different treatment between those generators above 100MW who are treated as large distribution-connected generators and those below 100MW who are treated as small distribution-connected generation, where Ofgem wishes to create a "level playing field".

The proposal stems from Ofgem's position that all generation makes a similar contribution to the system flow, and growth in small distributed generation is starting to have a sufficient effect on the transmission system which the TSO needs visibility of. By dropping the TNUoS threshold to 1MW, this will harmonise the threshold with transmission network planning studies (that used to ensure that flows of distribution connected generation are accounted for), the threshold for users to take part in the Balancing Mechanism, and DNO capacity registers.

Ofgem predicts that this proposal will increase transmission charges for offshore wind generators, particularly in Scotland. However, in southern English regions, TNUoS charges may decrease for large renewables (particularly solar).

Ofgem is considering and requests stakeholder engagement on several implementation options:

- no transitional arrangements – after a final decision is made, Ofgem would implement the required changes immediately. This may not provide time for affected generators to effectively adapt to the changes;
- implement change with delay – after a final decision is made, Ofgem would implement the required changes with a clear implementation date which would provide certainty to the market. This may result in the changes not aligning with future developments of transmission charging;
- confirm intention to address distortion but delay implementation until greater clarity about strategic direction delay implementation – due to uncertainty about the longer-term direction for the role of transmission charging Ofgem would wait to align with further developments. This would retain boundary distortion and inefficient decision making for an undetermined period of time; and
- limited period of grandfathering – exempting a group of generators for a period of time from the implementation of the measures (e.g. 15 years from commissioning to reflect CfD duration). Ofgem is still to determine which group of generators would benefit from any grandfathering provision.

Ofgem's consultation on the proposal to review competition in the electricity distribution connections market

The launch of the SCR Consultation follows Ofgem's consultation on 18 June 2021 on its proposed approach to reviewing the level of competition in the electricity distribution connections market (the "**Connection Competition Consultation**"). The findings will inform the next round of price controls ("**RIIO-ED2**") for DNOs which will begin in April 2023, under which Ofgem will set connection outputs and incentives on the service provided by DNOs. The SCR Consultation acknowledges the interactions between the two and that the proposals could mean that DNOs incur new costs and could result in changes to network users' behaviour, which would need to be factored into the DNOs' RIIO-ED2 business plans.

Under the Connection Competition Consultation, Ofgem wishes to carry out a review on levels of competition in certain segments of the distribution connection market where evidence of effective competition has not previously been seen. The market segments that are in scope are set out below:

Relevant Market Segments	
Metered Demand Connections	Low Voltage (LV) Work – LV connection activities involving only LV work, other than in respect of the Excluded Market Segments.
	High Voltage (HV) Work: LV or HV connection activities involving HV work (including where that work is required in respect of connection activities within an Excluded Market Segment).
	HV and Extra High Voltage (EHV) Work: LV or HV connection activities involving EHV work.
	EHV work and above: extra high voltage and 132kV connection activities.
Metered Distributed Generation (DG)	LV work: low voltage connection activities involving only low voltage work.

	HV and EHV work: any connection activities involving work at HV or above.
Unmetered Connections	Local Authority (LA) work: new connection activities in respect of LA premises.
	Private finance initiatives (PFI) Work: new connection activities under PFIs.
	Other work: all other non-LA and non-PFI unmetered connections work.

(Table 1, 'Relevant Market Segments', Connection Competition Consultation)

The results of the competition review would impact the Ofgem-mandated regulated margin that DNOs must charge and the use of other price control incentives.

Ofgem proposes to base its review on what it considers to be the key indicators of effective competition and has set out a data template to collect this information. The Connection Competition Consultation is narrow in scope in requesting feedback on Ofgem's proposed methodology, scope and approach to the competition review and data collection.

Commentary and next steps

The SCR was scheduled to consult on a minded-to decision in spring 2020, so the publication of the SCR Consultation in June 2021 is over a year late. The SCR Consultation, while delayed, has some significant proposals. However, there are many decisions still to be taken by Ofgem and a lack of detail on implementation. This provides scope for stakeholders to present their thinking to Ofgem where it may be open to direction from industry. The SCR Consultation is open to receive stakeholder views until 25 August 2021. Any implemented proposals would take effect from 1 April 2023 in line with RIIO-ED2.

The Connection Competition Consultation will be an important starting-gun for DNOs of the run-up to the RIIO-ED2 proposals. The scope and methodology of the competition review could influence Ofgem's findings and proposals in the future so will be of keen interest to these industry players. The Connection Competition Consultation is open until 13 August 2021.

3.25 **UK ETS Challenge**

Challenge to UK emissions trading scheme dismissed

20 July 2021

In *R (Elliott-Smith) v Secretary of State for Business, Energy and Industrial Strategy and others [2021] EWHC 1633 (Admin)*, the High Court considered an application for judicial review challenging the decision to create the UK Emissions Trading Scheme (the "**UK ETS**"), which replaced the EU Emissions Trading Scheme ("**EU ETS**") following Brexit and was established (like the EU ETS) to encourage the reduction of emissions and greenhouse gases.

Although the application was unsuccessful, this case adds to the growing pressure from environmental campaigners for the UK Government to focus on reducing emissions and meeting its net zero target by 2050, with a marked increase in court based challenges by campaigners in recent years.

Background

Georgia Elliott-Smith, a waste industry expert and environmental consultant (the "**Claimant**"), brought a judicial review against the Secretary of State for Business, Energy and Industrial Strategy ("**BEIS**") and other government ministers of the devolved administrations over its joint decision to create the UK ETS.

The Claimant argued that the cap on the volume of emissions permitted under the UK ETS is too high and that, in setting up the UK ETS, the government did not consider the short and medium-term aspects of the UK's obligations under the Paris Agreement, which the Claimant said requires substantial and immediate emission reductions, not just net zero by 2050. Furthermore, the Claimant argued that the Climate Change Act 2008 authorises establishment of the UK ETS for the purpose of limiting greenhouse gas emissions, not to set up an emissions cap to facilitate a smoother withdrawal from the EU.

The Claimant also drew particular attention to BEIS and the devolved administrations' decision to omit municipal waste incinerators from the new UK ETS. The decision followed a consultation which concluded that the complex environmental requirements placed on municipal incinerators and their role in diverting waste from landfill made it difficult to include them in the UK ETS. However, the Claimant argued that the emissions from municipal waste incinerators are significant and in omitting such a major polluter, the government had failed to meet its commitments under the Paris Agreement.

UK ETS

The UK ETS replaced the UK's participation in the EU ETS on 1 January 2021. The four governments of the UK established the UK ETS with a stated purpose of increasing the climate ambition of the UK's carbon pricing policy, whilst protecting the competitiveness of UK businesses.

Both the UK ETS and the EU ETS work on a 'cap and trade' principle, where a cap is set on the total amount of certain greenhouse gases that can be emitted by sectors covered by the scheme over a certain period of time. The cap is then divided into allowances, and those required to participate in the scheme are then either given free allowances or they have to purchase them to cover the emissions which their activities are generating. The aim of this principle is to limit the total amount of greenhouse gases that can be emitted and, as emissions decrease over time, to contribute to how the UK meets its net zero target by 2050 and other carbon reduction commitments.

Issues

The Claimant challenged the UK ETS on two grounds:

1. The decision to set the UK ETS cap did not take into account the requirements in Articles 2 and 4.1 of the Paris Agreement to act *urgently* to limit greenhouse gas emissions in the short-term. The Claimant contended that, had the decision in setting the cap been properly made taking account of those provisions, municipal waste incinerators would have been brought within the scope of the UK ETS.
2. The power in section 44 of the Climate Change Act 2008 to establish trading schemes had been exercised for an improper purpose because the effect of the UK ETS, as designed, was not to encourage greenhouse gas emissions reductions and that emissions reductions would not be achieved, because the cap on the emissions was set above the projected level of 'business as usual' emissions.

The relevant provisions

The Paris Agreement is an international treaty, which whilst not directly implemented into English law, applies because the Climate Change Act 2008 implements key international obligations that arise under it. The focus in this case was on Articles 2 and 4.1:

Article 2 of the Paris Agreement:

"*This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:*

a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce risks and impacts of climate change."

Article 4 of the Paris Agreement:

"*(1) In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking to greenhouse gas emissions as soon as possible, recognising that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.*"

The Claimant also focused on the specific terms of the Climate Change Act 2008 section 44, which provides:

"*(1) The relevant national authority may make provision by regulations for trading schemes relating to greenhouse gas emissions.*

(2) A "trading scheme" is a scheme that operates by –

(a) limiting or encouraging the limitation of activities that consist of the emission of greenhouse gas or that cause or contribute, directly or indirectly, to such emissions, or

(b) encouraging activities that consist of, or that cause or contribute, directly or indirectly, to reductions in greenhouse gas emissions or the removal of greenhouse gas from the atmosphere."

Judgment

Mr Justice Dove handed down the judgment dismissing the challenge. Although the claim was brought against the UK's devolved governments as well as BEIS, it was disposed of without considering jurisdiction defences raised by the devolved government representatives, which parties agreed needed to be addressed only if the court considered that, in principle, the Claimant was entitled to the relief sought.

The court held that the formulation of the UK ETS was lawful because:

1. Articles 2 and 4 of the Paris Agreement had been taken into account, and the approach taken to the Paris Agreement was one which was tenable and appropriate and did not deny the urgency of the need to address climate change; and
2. On proper interpretation of section 44 of the Climate Change Act 2008, the UK ETS had been developed and designed within that statutory power.

Articles 2 and 4 of the Paris Agreement

Having heard argument, the court concluded that it was in fact common ground between the parties that the Paris Agreement was a material consideration in formulating the UK ETS and had been taken into account, The real question in dispute was the *urgency* which the Claimant contended was required by Article 4.1. BEIS submitted that the aim in Article 4.1 of the Paris Agreement of reaching global peaking of greenhouse gas emissions as soon as possible was part of the journey towards meeting the longer-term goals of the Paris Agreement and was not a separate and distinct element of the Paris Agreement.

Following the case of *R (Corner House) v Director of the Serious Fraud Office* [2009] 1 AC 756, the court recognised that, as the Paris Agreement is an unincorporated international treaty, it was not the role of the court to resolve definitively questions of the construction of the Paris Agreement. BEIS' interpretation of the Paris Agreement was tenable and entirely appropriate – it did not deny the urgency of the need to address climate change and involved the recognition that taking measures in the short to medium term is an essential part of achieving the longer-term objective.

The court concluded that there was convincing evidence that an appropriate understanding of the requirements of the Paris Agreement had been taken into account in the decision making on the UK ETS.

Article 44 of the Climate Change Act 2008

On the meaning of section 44(2) of the Climate Change Act 2008, the court also agreed with BEIS.

It was held that section 44 provides flexibility and a trading scheme does not necessarily have to achieve a reduction in the activities consisting of greenhouse gas emissions or causing or contributing such emissions (as the Claimant contended) – it is sufficient if the design limits or encourages the limitation of such activities.

The court concluded that, on the evidence, a reduction of greenhouse gas emissions would be achieved by the UK ETS and BEIS had undertaken significant, detailed modelling work. As such, the court held it was not appropriate to go behind this modelling, particularly where no rival modelling, or detailed criticisms of the modelling work, had been advanced.

The court was satisfied that the government had designed the UK ETS to fulfil the statutory purpose of section 44(2), that the UK ETS achieved that aim and fell within the scope of the statutory power.

Comment

For the waste sector, the effect of this decision is that municipal and hazardous waste incineration will continue to be excluded from the first phase of the UK ETS which takes place from 2021-2025. The second phase will run from 2026 – 2030 and a review may be undertaken prior to its commencement, with any necessary changes being made.

This judicial review application follows a growing number of challenges being brought by environmental campaigners to put pressure on the UK (and other governments) to meet its net zero target by 2050. Many companies have already responded to that pressure and introduced "climate-friendly" measures to reduce their carbon footprint. What's more the European Commission's so called 'Fit for 55' proposals to reform the EU's climate, energy, land use, transport and taxation policies so as to reduce net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels, go some way to bolstering the urgency case in EU legislation. Achieving these emission reductions in the next decade is key for European policy makers and will no doubt influence developments in UK legislation. It remains to be seen whether governments in the UK and

elsewhere, along with stakeholders from the private sector, will be seen to engage sufficiently with these deeply held concerns in introducing new legislation and schemes to head off further challenges of this nature.

3.26 Climate Change Committee Progress Report

Climate change committee progress report – gaps in policy and ambition are putting the UK off-track to meet targets

28 June 2021

Introduction

On 24 June 2021, the Climate Change Committee ("**CCC**") published its 2021 Progress Report to Parliament on the UK's progress in reducing emissions to deliver on its climate change commitments (the "**Report**"). The key takeaway from the Report is that while significant commitments and statements of ambition to reach net zero have been expressed by the government over the last year, these have been undermined by delays to essential policy and legislation, and publication of much-needed plans and strategies. With COP26 around the corner, stronger leadership, clarity on tax changes and public spending as well as active engagement with stakeholders and the public will be needed in order to make these ambitions a reality and deliver on decarbonisation commitments.

In this article we focus on some of the key policy gaps flagged in the Report, as well as providing recommendations on what these long-awaited policies should include and how broader progress in these policy areas could be delivered.

Background

In line with recommendations from the CCC, in April 2021 the UK adopted its Sixth Carbon Budget which enshrined in law the world's most ambitious climate change target – to reduce emissions by 78% by 2035 compared to 1990 levels.

This followed several high-profile policy publications such as the Energy White Paper, National Infrastructure Strategy, and the Industrial Decarbonisation Strategy. In addition to these, a swathe of further promised policies remain outstanding, such as the publication of a Net Zero Strategy, the Treasury's Net Zero Review, a Heat and Buildings Strategy and a Transport Decarbonisation Plan – which have now been delayed by a year or more.

The Report notes that as a result of such delays, there is a significant policy gap in the UK and more crucially, the pipeline of credible policies for delivery only cover around 20% of the required reduction in emissions to meet the commitments in the Sixth Carbon Budget. For this reason, a key theme across the Report is that effective policies must be developed at greater pace in order to deliver the rapid scale-up in low carbon investment and choices across the economy.

1. Net Zero Strategy and the Treasury's Net Zero Review

The Net Zero Strategy will undoubtedly be a significant step in the UK's path to net zero and will underpin efforts to decarbonise across all parts of the economy. The Report stresses that the Net Zero Strategy must set out a coherent vision for the transition to a low carbon economy and clarify the government's ambitions, particularly as the Net Zero Strategy will largely form the basis of essential public engagement and buy-in to the UK's climate change commitments. Moreover, it is recognised that the Net Zero Strategy must be underpinned by i) longer-term approaches to funding and ii) lower-risk approaches to financing, of the transition via the Treasury's Net Zero Review.

The Treasury published its interim Net Zero Review in December 2020, which concluded that delivering on net zero commitments will be essential for long-term prosperity and that well-designed policy can reduce costs and risk for investors as well as supporting innovation and the deployment of new technologies. It is anticipated that the final Treasury Net Zero Review (which was slated for "Spring 2021") will aim to reduce policy uncertainty to

encourage innovation, address risks to competitiveness and consider how the Treasury can incorporate climate considerations into spending reviews. As was demonstrated by the last carbon capture and storage competition – "Demo 2" – from which government funding was withdrawn in 2015, a failure by government to provide strong monetary commitments to back up their decarbonisation policies can dampen progress and ultimately, in some cases, prove fatal.

Looking ahead, the Report states that it will be vital for the Treasury's Net Zero Review to effectively set out who pays and who gains from the transition to net zero, with the Report calling for the following to be included in the Treasury's Net Zero Review:

- A plan for funding decarbonisation and reviewing the costs for business and households, particularly in terms of how such costs should be determined and allocated;
- Near-term as well as long-term decarbonisation funding needs and policy implications, setting out principles to inform the scale and nature of long-term government funding; and
- Reformation of price signals, including the potential to raise offsetting revenues by greater use of carbon taxes and rebalancing policy costs between gas and electricity to ensure the uptake of low-carbon electricity solutions is not hindered.

2. Heat and Buildings Strategy

The Energy White Paper saw the government commit to a series of strategies aimed at decarbonising buildings; including improving energy performance certificates of existing building stock, consulting on whether to end gas grid connections to new homes built after 2025 and ramping up the installation of heat pumps to 600,000 per year by 2028.

The government's Heat and Building Strategy, originally promised by Summer 2020 and then rescheduled for Spring 2021, has not yet been published and is flagged as a priority by the Report, which is critical of the government's lack of policy in this area. In addition, certain policies which have been made, such as those around the heat pump roll-out, are criticised for not being ambitious enough – with the Report noting that the government's heat pump ambitions fall a third short of those recommended by the CCC in order to meet the Sixth Carbon Budget targets.

Once published, the Heat and Building Strategy should provide detail of policy commitments for decarbonising buildings as well as how these will be funded. One area requiring clarification is how the government's plans to possibly end gas grid connections for new housing stock will sit alongside the plans to use green hydrogen to heat homes. In addition to the Heat and Building Strategy, the dedicated Hydrogen Strategy (expected in Q1 2021 and currently delayed) should provide some clarity on this and on plans to achieve 5GW of low carbon hydrogen production by 2030. At present, the Ten Point Plan's ambition of a Hydrogen Village by 2025 seem a long way off.

3. Carbon Capture, Usage and Storage ("CCUS")

Also eagerly awaiting publication of the Hydrogen Strategy is the UK's nascent CCUS industry. With the deadline for submission of CCUS cluster plans just around the corner in July 2021, clusters intending to incorporate hydrogen production into their submissions may be hampered by the strategy's delay.

The Report notes that the government's current ambitions of capturing 10Mt of carbon dioxide by 2030 are only about half of what will be required to realise the Sixth Carbon Budget's ambitions. To date, commercialisation of CCUS in the UK has been hindered by a lack of committed government funding and an inability to agree business models that work for government, project companies and their debt providers. BEIS provided a further update on their CCUS business model thinking in May 2021, but there is much still to be agreed. The enshrining of business models which are palatable for all stakeholders into legislation

will be needed in time to realise the government's ambition of bringing the first CCUS cluster online by 2027.

4. Transport Decarbonisation Plan

In November 2020, the government took the "*historic step towards net zero*" by ending the sale of new petrol and diesel cars in the UK by 2030, putting the UK on course to be the fastest G7 country to decarbonise cars and vans. As such, ramping up the uptake in electric and hydrogen fuel cell vehicles will be essential in delivering on these targets.

While the government's target was welcomed by many across the industry, concerns were raised that the UK lacks a sufficiently comprehensive policy package to enable the delivery of the 2030 transition to low-carbon transport. More specifically, it is emphasised in the Report that the ramp-up in electric vehicle ("**EV**") sales in the run up to 2030 (and beyond) will need to be supported by the deployment of almost 280,000 public charge points across the country by 2030. However, there are currently only around 20,800 public chargepoints across the UK, and many of these are disproportionality located in urban areas.

The Transport Decarbonisation Plan is expected to build on the 2030 commitment even further by setting out the UK's plans to decarbonise its entire transport system (covering everything from active travel, to electric vehicles, public transport, aviation and shipping). In respect of EVs, the Report notes that the Transport Decarbonisation Plan should include a full strategy for the widespread deployment of charging infrastructure across the UK. This will encourage the level of investment (both public and private) required and ensure that the public charging network is sufficient and appropriate across the country. It is also recommended that the decarbonisation of transport should be supported by a "Zero-Emission Vehicle Mandate", requiring manufacturers to produce a rising percentage of zero-emission vehicles each year, alongside more ambitious CO2 emissions regulations.

In addition to these policy gaps, key questions still remain in respect of funding the transition to EVs in particular, such as how: i) consumers will be incentivised to switch to EVs, with available vehicle grants recently being reduced, ii) sufficient investment in UK EV supply chains will be delivered, particularly in light of Brexit and iii) how the £1.9 billion committed by the government for charging infrastructure and consumer incentives as part of the November 2020 Spending Review, will be allocated and effectively applied.

Comment

The UK has made notable progress on its climate change commitments, with emissions now almost 50% below 1990 levels and its policy leadership across a number of areas (such as implementation of the Climate Change Act) has helped bring COP26 to the UK. However, significant strides still need to be taken in order to reach net zero. The message of the Report is clear – the government must match its bold statements with effective policies and implementation, and more importantly, to act with the urgency that science demands. With COP26 drawing closer, the spotlight will be on the UK government to lead the global effort to decarbonise by way of example and deliver a consistent and comprehensive policy framework to deliver on net zero ambitions across the economy.

While we have seen the challenges of real-world implementation of policy, such as the recent failure of the Green Homes Grant, the UK does have some compelling success stories. The growth of the UK's world-leading offshore wind industry is a testament to the effectiveness of well-designed and well-executed support schemes and policies. For example, long-term government support via the contracts for difference scheme has to date awarded support to 13GW of offshore wind capacity and accelerated innovation and investment in the sector. Looking ahead, it will be essential that lessons learned from the implementation of decarbonisation strategies across other industries and policy areas are taken into account in order to create an effective long-term roadmap to net zero.

3.27 **Capacity Market Improvements**

Technical improvements to the capacity market confirmed by BEIS

25 June 2021

Following its consultation launched in March 2021 on technical improvements to the Capacity Market ("**CM**") (the "**Consultation**"), the Department for Business, Energy and Industrial Strategy ("**BEIS**") has published its response, confirming which of its proposals will now be implemented (the "**Response**").

BEIS will proceed to implement most of the proposals set out in the Consultation (with some refinements), but, most notably, will not proceed with its proposal to require Capacity Market Units ("**CMUs**") to register as Balancing Mechanism Units ("**BMUs**") at this time.

Background

Alongside the T-1 and T-4 Auctions held earlier this year, on 5 March 2021, the Consultation was launched with the purpose of seeking views relating to ten areas of incremental and technical improvements to the CM following engagement with stakeholders last year (*our commentary on the proposals set out in the Consultation as well as the T-1 and T-4 auction results can be found here*).

The ten proposals were as follows:

1. requiring all CMUs to be registered as BMUs;
2. implementing changes to certain formulae and clarifications to the legislation relating to Emissions Limits in the CM;
3. giving the CM Delivery Body greater flexibility to consider information which corrects administrative or clerical errors in prequalification applications;
4. preventing certain secondary trades from being rendered ineffective when the transferor's Capacity Agreement is terminated;
5. reviewing the existing Covid-19 easements (*for an overview of the initial easements introduced, see our previous article here*);
6. extending the deadline for meeting the Extended Years Criteria so that it aligns with the requirement to provide Evidence of Total Project Spend, and make the sanction for breaching both (a reduction in agreement length) subject to the Secretary of State's discretion;
7. allowing refurbishing plant to have the same Long-Stop Date as new-build plant;
8. disabling the net welfare algorithm for T-1 Auctions that are held only to meet the 50% set-aside commitment;
9. maintaining the minimum capacity threshold at 1MW; and
10. other minor corrections to relevant legislation.

Of all the proposals put forward by BEIS, the most eye-catching was the requirement for all CMUs to be registered as BMUs. BEIS' rationale for putting forward this proposal was that by requiring CMUs to register as BMUs, this would improve NGESO's visibility and utilisation of these assets and therefore improve its ability to manage system security.

Improvements to be (and not to be) implemented

The Response confirms that proposals 2 – 9 set out above will be implemented. In respect of proposal 5 more specifically, BEIS will be extending the Covid-19 easements relating to i) the extended long-stop date, ii) the extended deadlines for Metering and DSR Tests for DSR CMUs, and iii) Independent Technical Expert certificates in relation to progress reports. The easement relating to appeals will not be changed and continues to be in place for CMUs that were awarded a capacity agreement prior to 1 April 2020. The Response notes that these easements will allow management of any delays to an operator's fulfilment of CM milestones caused by Covid-19. It should also be noted that BEIS have not extended the easements on Satisfactory Performance Days, DSR baseline data or the Metering Test deadline, as these are expected to be of limited impact.

Proposal 1, namely the requirement for all future CMUs to register as BMUs, will not be implemented at this time.

Comment

It is not entirely unsurprising that BEIS has backpedalled (at least for now) on its proposal to require all future CMUs to register as BMUs. The majority of stakeholder responses to the Consultation cited concerns with this proposal due to current market barriers, such as the costs involved with becoming a BMU and complying with the requirements of the BSC.

However, BEIS notes in the Response that it considers this to be a "*worthy change for the future*" that would have benefits for the wider system and market including:

- Calculation of Loss of Load Probability and De-Rated Margin;
- Transmission charging;
- Forecasting of electricity margins; and
- Making wholesale power prices more reflective of market and system conditions.

Looking forward, BEIS reports that it will be engaging further with NGESO, Elexon and Ofgem to explore solutions to the issues raised by stakeholders in respect of this proposal and Balancing Mechanism participation more widely, and will then develop policy proposals addressing these concerns.

It therefore seems that this proposal is not completely off the table and will certainly be a development to watch.

Next steps

The regulations implementing the changes (namely the Electricity Capacity (Amendment) Regulations 2021 and Capacity Market (Amendment) Rules 2021) have been laid before Parliament and must be debated and approved by both Houses of Parliament before they can be made and come into force.

3.28 Road to COP26

Road to COP26: reimagining energy: just transition

15 June 2021

As we approach COP26, there is extensive discussion of the shift to net zero and how it will be achieved; a large part of this will be the transition from reliance on fossil fuels to a more environmentally sustainable energy portfolio. It is broadly understood that this transition should take place in a way which is fair to everyone – including those working in carbon intensive industries. "Climate action, fairness and opportunity must go together." These are the opening words of the Just Transition Commission's report published on 23 March 2021 and neatly capture the spirit of what is required for "just transition".

At an international level, a key aim of the Paris Agreement (a legally binding international treaty on climate change which binds almost all countries in the world to limit global warming to well below 2 degrees celsius) is to take into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with climate change priorities. Looking forward to COP26, the COP26 Energy Transition Council has recognised that a rapid and just transition to clean power is vital to meet the goals of the Paris Agreement, as well as offering huge opportunities for jobs and growth, cleaner air and improved public health and boosting access to energy, energy efficiency and energy security.

The Covid-19 pandemic has dominated daily life for over a year with many people living with some form of "lockdown" for large periods of this time. Whilst the social and economic impacts of this remain to be fully understood, it is clear that both the UK and Scottish Governments are keen to embrace the opportunity to set the UK on a cleaner path going forward – this can be demonstrated by the volume of activity in the energy transition space over the last six months and this is surely set to continue in the lead up to COP 26 and beyond. A timeline of some of the most significant developments from an UK energy and climate change sector perspective are set out below.

Elsewhere, on 21 April 2021, the European Parliament and Council of the EU reached agreement on the European Climate Law including a commitment to reduce net greenhouse gas emissions by 55% by 2030 (compared to 1990 levels), and to become the first climate neutral continent by 2050. Later this year the EU Commission is expected to publish its "Fit for 55" energy and climate package which will set out a suite of EU legislative changes in support of the climate change commitments. At this stage the commitments are high level and the detail of how this is expected to be achieved remains to be developed.

North Sea Transition Deal

The oil and gas industry increasingly recognises that, in order to survive long term, it must reimagine how it will fit into the energy mix going forward. In the UK, a framework for this transformation has been set out in the North Sea Transition Deal.

The North Sea Transition Deal ("**NSTD**"), published on 24 March 2021, proposes actions to be taken by the oil and gas industry and the UK government to reduce carbon emissions. There is also a joint commitment to invest up to £14-16 billion by 2030. The UK is the first G7 country to agree to form a unique partnership of this kind, offering an opportunity for the UK to lead the way in the energy transition from oil and gas activities in particular. The NSTD will support acceleration of energy transition in the UK but aims to do so whilst protecting jobs and the economy.

The key actions and outcomes of the NSTD relate to five areas of development:

1. Supply decarbonisation: the NSTD focuses on cutting industry emissions with an ambitious sector target to reduce emissions 10% by 2025, 25% by 2027, and 50% by 2030 all from 2018 levels;
2. Carbon Capture Utilisation and Storage ("**CCUS**"): in order to develop CCUS technology, industry has committed to leveraging existing infrastructure to provide transport and storage facilities;
3. Hydrogen: the government will create a Net Zero Hydrogen Fund to boost production capacity and encourage private investment;
4. Supply Chain transformation: to support the diversification of the UK supply chain, industry has committed to ensure that, by 2030, 50% of decommissioning and new energy technologies projects being developed are provided by local companies. Underpinning this is the appointment of an Industry Supply Chain Champion to coordinate growth and job opportunities with other sectors; and
5. People and Skills: a key aim of the NSTD is to decarbonise the economy whilst utilising existing skills to protect jobs and offer opportunities for job creation. This includes a commitment to support up to 40,000 new jobs and retaining the transferable skills of industry workers allowing them to work across the energy sector.

These five pillars of the NSTD set out what is to be achieved by industry and Government and, in some cases, by when. We will now consider some key aspects of how this might be achieved going forward.

Collaboration between Industry and Government

The quid pro quo basis on which the NSTD is set out will be a key feature of its success going forward. Government requires security of energy supply and also recognises that industry is important in providing the vital skills required to help it achieve its international climate change commitments. To effectively provide these things, industry requires certainty from Government as well as financial support to ensure emerging sectors such as CCUS are commercially viable. How well this can be achieved in the UK and the delicate balance of that relationship will be keenly observed by other global economies with active oil and gas industries and other carbon intensive industries such as coal.

The joint funding commitments set out in the NSTD also presume continued collaboration between industry and Government. This will also ensure that the oil and gas industry significantly contributes to the transition and will be a major factor in ensuring transition happens as efficiently and economically as possible.

Exploration and development

Although published only two months ago, the NSTD is already facing pressures and challenges:

- An application for a judicial review of the OGA's strategy has been made on the basis that (a) it is unlawful because it seeks to redefine the meaning of maximising economic recovery to exclude consideration of the tax breaks given to the industry and (b) it is "irrational" as it requires producers to cut carbon emissions – but allows production to increase and could lead to increased levels of fossil fuel extraction that are "in conflict with the UK's legal duty to achieve net zero emissions by 2050".
- On 26 May, a landmark decision in the Dutch courts ruled that Shell must cuts its emissions by 45% by 2030 compared to 2019 levels. Although the decision is only binding in the Netherlands (and remains subject to appeal), the effects will extend further afield given Shell's international operations.
- The International Energy Agency (IEA) has recommended that, in order to reach net zero emissions by 2050, no further oil and gas projects should be funded. On 1 June, more than 50 campaign groups and NGOs sent an open letter to Prime Minister Boris Johnson demanding an immediate moratorium on new UKCS oil and gas licences, based on the IEA recommendation.

Although a potentially alarming recommendation for those engaged in fossil fuel activities, the likelihood of it being implemented must be considered in context. Cutting off funding and arbitrarily halting licensing activity will only help to achieve net zero if a less carbon intensive alternative is available. From a UK perspective, it is largely recognised that oil and gas will form part of the energy mix going forward. To the extent there is remaining demand in the UK, it will almost certainly be the case that it will generate less carbon to utilise domestic production than to import from overseas. In addition, the NSTD framework in the UK will provide stakeholders with greater certainty that the oil and gas being used has been produced with due consideration to any environmental impact associated there with.

To benefit and be part of a just transition, oil and gas companies are expected to be part of the change. It may seem a somewhat self-serving argument, but without a concerted effort from oil and gas companies to decarbonise fossil fuel production there will be a significant conflict between energy demand in the UK and the UK's net zero ambitions. Andy Samuel, Chief Executive of the OGA has indicated that the UKCS, combining continued fossil fuel production with CCS, offshore renewables and hydrogen production, can provide 60% of UK's contribution to decarbonisation. A balanced discussion and analysis of the issues will be required to ensure the industry feels empowered to make change in a way that is meaningful for all stakeholders.

Responsible decommissioning

As the pace of transition increases, it can also be expected that the pace of decommissioning will increase. This will lead to competing demands for personnel and other resources which will therefore need to be factored into project planning and re-emphasises the need for all relevant industries to remain joined up along with their respective regulators – discussed further below.

Those carrying out decommissioning activities will also need to consider how they themselves can support the path to net zero. Many of the considerations currently factored into decommissioning already have a potential net zero impact – for example campaign or cluster decommissioning may not only achieve a cost saving from a financial perspective but may also be less carbon intensive. Although this illustrates some ways in which cost savings and net zero aims may be aligned, there will be other aspects where these considerations diverge – for example, to leave certain pipelines and associated facilities available for future use for CCUS may increase the overall cost of the project. It will be a careful balancing act on a case by case basis to ensure that decommissioning is carried out in both an economically efficient and low carbon manner. The supply chain's ability to demonstrate low carbon decommissioning solutions will place it in a

favourable position in the UK and internationally; this is just one example of how the energy transition framework in the UK can help to create a ripple effect outside its own borders.

Accountability

The increased activity in accelerating the oil and gas industry's move to net zero in the UK is also about accountability to a large number of stakeholders – to the regulator, to other oil and gas companies, to shareholders/investors, to the workforce and to the general population. Generally in the UK, consumers are now increasingly interested in the environmental impact of the energy they consume – it is no longer solely about reliability or cost of the energy source, for example with retail energy suppliers offering (sometimes at a premium) guaranteed 'green' energy supply. The workforce is also interested in the environmental impact of the industry they work within and will be integral in holding businesses to account. Recruitment will also increasingly require employers to demonstrate they are taking these responsibilities seriously.

Investors and shareholders are equally concerned about the environmental impact of their own investments. On 26 May 2021, both Chevron and ExxonMobil were subject to shareholder moves seeking to take greater action to reduce emissions and implement more effective transition plans. Investor and shareholder accountability can therefore be expected to shape day to day operations in addition to acquisition and divestment processes in order to avoid disgruntled shareholder action.

Another way in which this accountability can be demonstrated will be through the asset stewardship regime of the OGA – performance will be demonstrated via various benchmarking reports, particularly in relation to greenhouse gas emissions. The milestones in the NSTD also ensure that there are measurable targets against which oil and gas industry's performance is being measured.

Collaboration amongst industries

It is widely recognised that the shift to net zero presents a significant opportunity for a number of businesses. To achieve net zero as efficiently as possible, this will involve bringing together historically disparate industries to work together to meet the targets set out in the NSTD. Existing energy transition projects are already adopting this practice.

The revised OGA strategy published in February 2021, already provides that relevant persons within the oil and gas industry (i.e. licensees, owners/operators of offshore infrastructure, and those planning and undertaking commissioning of such infrastructure) undertaking relevant activities (i.e. development, construction, use and decommissioning of offshore infrastructure) must collaborate and co-operate with (1) other relevant persons, (2) persons seeking to acquire an interest or invest in offshore licences or infrastructure in a region and (3) persons providing goods or services relating to relevant activities in order to support the delivery of such activities on time and on budget. There is also an obligation on relevant persons to co-operate with the OGA. Notwithstanding that these obligations are not binding on all those potentially interested, given the opportunities involved it may be expected that practice to be adopted voluntarily in support of the move to net zero.

Electrification offshore is a useful illustration of where the collaboration of industries is needed – this is a key feature of the NSTD from a UK perspective and is also expected to heavily feature in the EU Commission's "Fit for 55" package. Electrification will require electricity to be provided offshore via cables from land or from offshore wind sources, bringing the existing oil and gas, power and renewables industries together. All have their own regulators to satisfy, and all may be accustomed to particular contracting structures or norms. There may also be new opportunities here, for example in relation to new licensing rounds for offshore wind. Collaboration will therefore be required on a number of levels to ensure alignment between the relevant industries in achieving the NSTD goals, particularly in the crowded environment of the UKCS where there may be competing demands for the same areas of seabed.

Similarly, the new and emerging CCUS and hydrogen industries will be working alongside oil and gas companies. Here there is no enshrined practice and there will be an opportunity for projects to ensure they are adopting the most efficient models. This will also require significant interaction with

Government where perhaps new legislation will be required – for example in relation to the re-use of oil and gas infrastructure.

On 1 June it was announced that plans for a hydrogen exchange trading platform in the Netherlands ("**HyXchange**") are progressing with plans to organise a pilot scheme and spot market simulation. HyXchange intends to replicate the structure of existing natural gas hubs such as the UK's NBP and the TTF in the Netherlands with the use of a physical storage facility and trade in grid balancing and storage contracts. These developments will be observed keenly and will provide opportunities for further collaboration between innovative developments, existing industries and regulators.

The NSTD also focuses on supply chain transformation, "with the aim of establishing supply chain consortia which can lead the development of competitive low carbon solutions and deploy them at scale in the UK and internationally, making the most of the technology, innovation and expertise that has built the UK supply chain's international reputation within the oil and gas sector". Government grants will be available for consortia to bid to grow the sector, including via the £1billion Net Zero Innovation Portfolio, which aims to accelerate commercialisation of innovative low carbon technologies, systems and processes. Priority areas for the Net Zero Innovation Portfolio include floating offshore wind, hydrogen and advanced CCUS. Collaboration between oil and gas companies and the "new" supply chain will therefore be required to ensure opportunities are maximised on both sides and a willing market exists for the solutions which are developed.

Socio-economic considerations

Of equal importance to the net zero targets set out in the NSTD is its aim that energy transition in the UK should be carried out in a way which is fair and just to those currently working in and supporting the oil and gas industry. There is a recognition that the harsh consequences suffered historically by those working in the shipbuilding, steel and coal industries in the UK should be avoided in relation to the current energy transition path.

This aspect of the NSTD will be crucial from a global perspective and will provide an example for other jurisdictions and other carbon intensive communities to observe. As part of the European Green Deal, Poland is set to become the biggest recipient of the Just Transition Fund (proposed to be in the region of EUR 3.5billion) to support the shift away from coal. Similarly across Latin America, the APAC and the Middle East, support will be required if energy transition is to be achieved in a way which does not devastate local communities who rely on fossil fuel production either for work or in order to satisfy energy demand. Whilst the particular social and economic situation in the relevant territory will form a significant part of any energy transition policy, if the UK achieves energy transition in a way that is just, hopefully the experience of UK industry and its workforce may help to inform policy elsewhere.

In the UK itself, OGUK estimates that the number of people in direct and indirect employment within the oil and gas industry will decline by approximately 40,000 by 2030, with the most significant exposure geographically relating to particular regions in the UK – such as communities in Aberdeen, Shetland, Teesside and East Anglia. However, the NSTD notes that at least 68% of the UK's oil and gas workers have skills that could transition to the low carbon sector. The Ten Point Plan introduced the Green Jobs Taskforce which is intended to support "building back better" from the covid-19 pandemic (see our previous Law-Now on this here). The Taskforce focuses on four main areas (1) supporting green recovery and ensuring the UK has the immediate skills needed; (2) developing a long term plan charting the skills needed to help deliver net zero by 2030; (3) ensuring green jobs are good jobs and open to all; and (4) supporting workers in high carbon sectors to transition and retrain. The most efficient way to ensure the "new industries" are reliable and well equipped will be to facilitate the transition of workers with the requisite skills and experience to support the low carbon sectors. This is being facilitated by the Energy Skills Alliance via the Future Energy Skills Demand workstream (due to be completed in 2021) which will map the energy sector's current capabilities and future requirements.

Our Road to COP26 Reimagined series looks ahead and anticipates the issues and opportunities that climate change presents across a number of sectors and areas that impact our clients.

At CMS, we put our clients' world at the heart of what we do. For this reason, we have a team of lawyers from across the firm from a range of different expertise areas who are actively engaging with the issues and opportunities that climate change presents. Our aim is to help our clients to navigate this rapidly evolving legal and commercial landscape whilst also providing the interested with more information about this growing area via this Insight section.

Our world reimagined, to put sustainability at the heart of everything we do.

This Law-Now is part of our Road to COP26 series. We will be analysing and reporting on the implications of these events for the agenda at COP – look out for further updates on our legal insight on our climate change and sustainability pages.

3.29 **TNUoS**

Ofgem issues call for evidence on TNUOS reform

11 October 2021

Introduction

On 1 October 2021 Ofgem published a call for evidence in relation to Transmission Network Use of System ("**TNUoS**") charges levied on users of transmission networks in Great Britain (the "**Call for Evidence**").

The Call for Evidence follows the recent Access and Forward-Looking Charges Consultation, which referred to the need for a broader review of transmission charging arrangements in the context of Ofgem's wider push for flexibility throughout the energy system, as well as Ofgem's Targeted Charging Review (see our commentary on the Access and Forward-Looking Charges Consultation here and on the Targeted Charging Review here).

Focus of the Call for Evidence

The Call for Evidence seeks stakeholder views in order to inform Ofgem's approach in relation to the following:

- The extent to which a broader review of TNUoS would be beneficial;
- Priority areas for reform of TNUoS;
- How a review of TNUoS might be taken forward, for example through a significant code review ("**SCR**"), open governance, or another hybrid approach; and
- The timescales for any review and any subsequent modifications to current arrangements.

Ofgem's current thinking in relation to the TNUoS model

Ofgem has set out its current view on the TNUoS model as follows:

- In the context of increased flexibility, "non-wires" solutions to network issues and greater deployment of renewable generation, the purpose and design of TNUoS charges may need to change substantially from its current form;
- TNUoS charges should take into account Ofgem's work in full chain flexibility as well as net-zero, such that TNUoS charges support changes in consumer behaviour that will ultimately lead to reduced network investment costs in the long term;
- Parties should face charges which reflect the effect that their commercial decisions have on the network;
- Reducing complexity in TNUoS charges could improve competition; and
- Network charges may have a significant impact on how net-zero is delivered. The TNUoS regime should be non-discriminatory and continue to recognise the relative value, benefits and disbenefits of the different technologies that are connected to the transmission network.

The Call for Evidence seeks to encourage views from stakeholders on all aspects of the current TNUoS charging model, but has set out the following as indicative areas of interest:

- Available capacity of network assets;
- Additional demand backgrounds could be incorporated into the model used to calculate TNUoS charges;
- Alternatives to the peak/year-round generation background and also to the shared/not shared elements of the tariff;
- Whether multipliers could be used within the locational charging methodology in order to ensure they remain cost-reflective;
- Changes to the “reference node”;
- Charges relating to large-scale and long-duration energy storage;
- Arrangements for distributed generators;
- Offshore connections; and
- The strength and accuracy of technical data inputs.

Commentary and next steps

As noted in the Call for Evidence, the charging methodology underpinning TNUoS is widely perceived by the industry as unduly complicated with charges often being unpredictable and varying significantly by connection point location. As a result, the current TNUoS charging regime can be both difficult to manage and represent a barrier to investment needed for GB to achieve net-zero. The Call for Evidence has therefore been well received by the industry as an opportunity to identify potential solutions to challenges with the current model.

Following stakeholder feedback, if Ofgem deems that reform is required, a formal consultation will be issued on the subject. The Call for Evidence is open until 12 November 2021.

3.30 **Support for Energy Intensive Industries**

Time to fix the (carbon) leak?: consultation opens on support for energy intensive industries

21 June 2021

On 14 June 2021, the Department for Business, Energy and Industrial Strategy ("**BEIS**") opened a consultation (the "**Consultation**") to review the existing UK schemes to compensate energy intensive industries for indirect emission costs in electricity prices.

Specifically, the Consultation seeks views and evidence on:

1. the risk of carbon leakage due to the indirect emission cost from the UK Emissions Trading Scheme ("**UK ETS**") and the Carbon Price Support ("**CPS**");
2. which sectors are most at risk; and
3. the design of the potential scheme if there continues to be a rationale for compensation.

Where does this fit in the policy framework?

In March this year, BEIS published the Industrial Decarbonisation Strategy (see our commentary here), which emphasised the extensive, systematic change required across all sectors, including industry. According to BEIS modelling, in order to meet net zero, industrial emissions will need to fall by at least 90% by 2050 – which is equivalent to taking all the cars off the roads today. Furthermore, in order to decarbonise industry and meet carbon budgets under the Paris Agreement, emissions will need to fall by around two thirds by 2035.

The UK ETS was also launched earlier this year (see our commentary here), which intended to provide some continuity with how the EU Emissions Trading System ("**EU ETS**") works in regulating the greenhouse gas emissions of the UK's most energy intensive industries, whilst keeping the UK in check with its net zero ambitions. BEIS has announced that it will also be consulting on setting a net zero consistent cap trajectory later in 2021.

BEIS acknowledges that compensation schemes must also fit within the UK's decarbonisation framework. In addition, compensation schemes can also contribute to the delivery of BEIS' Build Back Better Plan (see our commentary here). As part of this, the Government is committed to minimising energy costs for businesses, to ensure a strong and competitive economy whilst recognising the need to manage the impact of climate change policies on industrial electricity prices. However, any such support (especially for the indirect emission cost due to the UK ETS and CPS) would need to fit within the scope of the new UK subsidy control regime, which the government consulted on earlier in the year (see our commentary here).

Carbon Leakage risks for the UK

Concerns about carbon leakage, or the displacement of the production activities and the associated greenhouse gas emissions to jurisdictions with less stringent decarbonisation policies are not new. The additional costs to the energy intensive industries have been recognised by governments around the world who are conscious of not displacing the emissions to a different jurisdiction. In the UK, these indirect emission costs result from the obligation on power stations to purchase ETS emission allowances and pay a tax on the carbon content of the fossil fuels used to generate electricity. This increases costs for power stations, which is reflected in the wholesale electricity market. This in turn leads to increased retail electricity prices for energy intensive industries.

What's more, the Consultation acknowledges the risk streams on carbon leakage (as is illustrated in Figure 1) and how higher production costs put certain energy intensive industries at risk of a competitive disadvantage internationally, thereby creating a risk of carbon leakage. This is also contrary to the aims of the Industrial Decarbonisation Strategy which seeks to promote decarbonisation of key industrial sectors in the UK and create jobs to stimulate local economies.

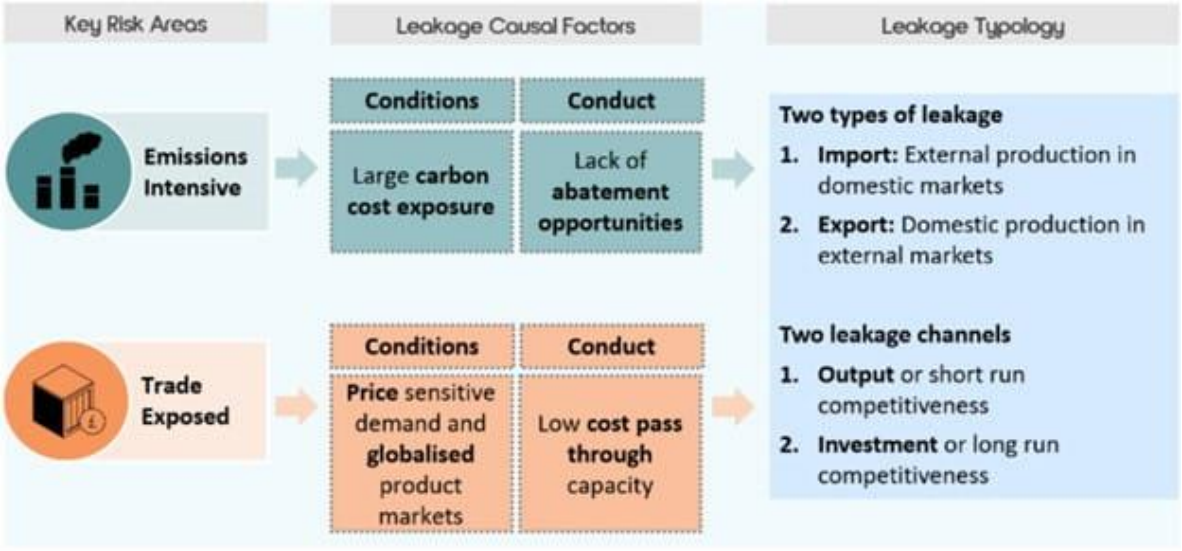


Figure 1: Illustration of carbon leakage risk streams

The Consultation acknowledges that UK industrial electricity costs are higher compared to those of other countries. Since 2013 and 2014, BEIS has run the Energy Intensive Industries ("**EII**") exemption scheme for the indirect emission costs due to the EU ETS and CPS for certain energy intensive industries. The aim of these schemes is to reduce the risk of carbon leakage by providing incentives for energy intensive industries to carry out low-emission production and investment activities in the UK. Through this Consultation, the Government seeks to review these programmes of support and to engage with a wide range of audiences including energy intensive industries, other electricity consumers, trade bodies, consumer associations, the devolved administrations and other interested parties. As such, this Consultation fits within the wider re-evaluation by the UK Government of its policies for the industrial sector.

Impact of the Cost Containment Mechanism under UK ETS

Separately from the Consultation, BEIS is conducting a review of the UK ETS scheme and the allocation of free allowances under this scheme, including to energy intensive industries[18]. The UK ETS, which replaced the UK's participation in the EU ETS from 1 January 2021, aims to better incentivise greenhouse gas emissions reduction but also has mechanisms which are designed to counter periods of excessively high prices.

The first UK ETS auction which was held on 19 May 2021 cleared at £43.99 for UK allowances ("**UKA**"). Thereafter, on 10 June 2021, BEIS published further guidance on the UK ETS. This latest UK ETS guidance includes a description of a Cost Containment Mechanism ("**CCM**") which anticipates the UK ETS Authority (the UK government and the devolved administrations) intervening in the UK ETS auctions to manage high price spikes[19].

[18] The UK ETS applies to energy intensive industries, the power generation sector, aviation, and covers activities involving combustion of fuels in installations with a total rated thermal input exceeding 20MW (except in installations for the incineration of hazardous or municipal waste).
[19] In summary, the unsold allowances from the first UK ETS auction which opened on 19 May 2021 are redistributed across the following four auctions up to 125% of those auctions' original number of allowances. Over this limit, allowances transfer into the market stability mechanism account. The UK ETS has a transitional Auction Reserve Price ("ARP") of £22, which establishes a minimum price at which allowances can be sold at auctions. The ARP value was set in the Auctioning Regulations published on 11 February 2021.

In order for the CCM to be triggered in August 2021 (earliest possible point), the UKA prices will need to remain on average above £44.74 within each individual month through the monitoring period i.e. in May, June and July 2021. Given that the average UKA prices in May 2021 were £49.09, which is above the August trigger price of £44.74, if the prices remain on average above £44.74 in June 2021 and in July 2021, the CCM will be triggered in August 2021.

In such a case, the UK ETS Authority may take a number of actions, including:

- redistributing allowances between the current year's auctions;
- bringing forward auctioned allowances from future years to the current year;
- drawing allowances from the market stability mechanism account; and
- auctioning up to 25% of the remaining allowances in the New Entrants Reserve.

Where it fails to do so, the final decision can be taken by HM Treasury.

Comment and next steps

As outlined above, BEIS is seeking a wide range of views on the risk of carbon leakage due to the indirect emission cost from the UK ETS and CPS mechanism as well as feedback on sector eligibility and scheme design. Although the Consultation notes that there is little quantitative evidence to suggest carbon leakage is currently taking place from the UK, the rise in carbon prices recently may mean that that information is out of date and the risk of carbon leakage is greater. What's more given the ability of UK government to review scope of sector eligibility in light of the new UK based methodologies and subsidy controls, the list in Annex A of the Consultation may be of particular interest to those stakeholders who had not been eligible to participate in the schemes to date.

The Consultation closes on 9 August 2021 and responses can be sent via the online survey or by email.

The CCM trigger prices should be monitored (available here). The next update will be published on 12 July 2021.