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By email only

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Subject: Ofgem's 2021 Workplan

Introduction

Shell supports the Paris Agreement, the UK Climate Change Act and the recent commitment by the UK Government to achieve net-zero greenhouse gas emissions in 2050. In April 2020 Shell set itself an ambition to become, by 2050 or sooner, a net-zero emissions energy business, in step with society. Meeting the net-zero target will require significantly accelerated actions by both industry, Government and consumers. The UK is a globally important market for Shell as we build the low carbon businesses of tomorrow.

We welcome the publication of Ofgem's 2021 Workplan and the continued focus on driving decarbonisation at least cost to consumers – which means ensuring efficient and competitive wholesale and retail markets, including the development of new low carbon energy supply chains, and efficient investment in, and operation of the energy networks needed to support these activities.

Shell calls on Ofgem to work with Government and other relevant regulatory bodies to ensure that there is sufficient clarity on the mandate and scope of regulators' activities, particularly in the development of new low carbon energy supply chains - including heat networks and hydrogen, to minimise any obvious overlaps or regulatory gaps.

Many of challenges and uncertainties identified in Ofgem's workplan will also be addressed as part of the Energy White Paper process that the Government launched late last year. We suggest that Ofgem closely aligns its workplan with the Government's process to develop new policy and regulatory frameworks necessary to achieve net zero.

Below we provide our feedback on each of the strategic work programmes set out by Ofgem to deliver its 2021 workplan.

Strategic Programme 1 – Low Carbon Infrastructure

Shell supports the actions identified by Ofgem to deliver its Strategic Programme on Low Carbon Infrastructure in 2021.

We support the proposed new action to facilitate cost effective strategic investment in networks to meet the growing demand for electric vehicles and heat pumps. We note that a key enabler for this will be the Strategic Programme on Full Chain Flexibility – as the level of investment required in network solutions will also be determined by the potential for intelligent utilisation of the existing network and non-wires solutions.

Shell is delivering electric vehicle charging at home (New Motion) and at Shell retail stations where we now have over 100 fast charging ReCharge points and an aim to grow this to over 5,000 by 2025. In 2021 we further expanded our offering to include on-street charging with the acquisition of Ubitricity. In addition to EV charging we are delivering hydrogen refuelling at an initial 6 UK sites, and offering customers who fill up at UK service stations the opportunity to drive carbon neutral using nature-based carbon credits, planting 1 million trees with Forestry and Land Scotland.

As a network of publicly accessible fast charging is developed, charging post providers are faced with the high costs of network upgrades, which can in some cases cost several times the value of the charger installed. In addition, network upgrades take time which may result in considerable delays. Finding solutions to address the challenge of upgrading the power network will help accelerate the development of a rapid charging network.

With regards to regular charging, for homes and businesses, smart charging technologies will help to ensure the smooth integration of electric vehicles into the power system and reduce the overall cost for consumers. It allows the charging of an EV to be intelligently controlled, with respect to the price of electricity, its carbon intensity or the availability of electricity system capacity. By using smart charging to shift EV charging loads from peak times, the overall network capacity required is reduced. This in turn reduces the investment required in new grid infrastructure, creating a lower cost system and ultimately reducing costs to consumers.

We also support the proposed new action to create a framework for coordinated expansion of offshore networks to enable increased generation and transmission. We suggest that the scope of the proposed deliverable explicitly includes addressing both onshore and offshore transmission network barriers to the successful and cost-efficient development and integration of large-scale offshore wind (including potential anticipatory investment and potential

opportunities associated with sector coupling) necessary to deliver the scale needed to make GB's offshore wind aspirations possible.

To deliver this integration at scale, Shell supports multiple, aggregated offshore transmission connections rather than singular connections. Multiple connections will facilitate wind developments, reduce timelines and enable delivery of GB renewable capacity at lower cost to consumers. This, along with adequate grid reinforcement, a focus on power system integration with emphasis on flexibility (e.g. storage, demand response and sector coupling), will enable delivery of the GB offshore wind ambitions. We look forward to working with Ofgem and Government to support this work.

We also note the Oil and Gas Authority's (OGA) new strategy and focus on the reduction of production emissions. Cost effective electrification of some oil and gas platforms is an essential component of any material decarbonisation of hard to abate offshore emissions. This will enable the oil and gas sector to contribute to the UK energy transition while continuing to make a strong contribution to energy security, preserving assets that can be used in CCUS from decommissioning, and anchoring in the UK supply chain capability while hydrogen and CCUS industries scale up.

An integrated, but also timely roll out of offshore networks, taking into account the need for closer links between oil and gas, offshore electricity networks, and offshore renewables, can enable a far more cost-effective deployment of offshore electrification than multiple radial connections. We recommend that Ofgem take the OGA's findings from its Energy Integration Project into account as part of its assessment of options for the offshore network.

We support Ofgem's proposed action to provide advice to the Government on regulatory models for investment in CCUS and Nuclear. However, we suggest that the scope of the action is widened and that Ofgem take a system-wide, rather than technology-specific approach to providing advice to the Government on the design of low carbon support schemes. The risk of taking a technology-specific approach is that this will result in the development of piecemeal market arrangements, which puts at risk being able to deliver value for money for GB consumers.

To list a few examples, the necessary low carbon infrastructure includes a range of different energy vectors, including blue and green hydrogen, biogas and biomethane, biofuels and different sources of low or zero carbon electricity generation – and Ofgem has an important role in providing advice to government on the regulatory models needed to support investment in all these energy vectors.

In relation to the RIIO-2 price controls, Shell recognises the crucial role that Ofgem and National Grid play in meeting the whole-system decarbonisation challenge. We believe that a **system-wide net zero price control re-opener** should ensure there is sufficient flexibility to

manage the uncertain pathway towards net zero by ensuring that Ofgem, in consultation with market participants, is able to adapt the regulatory and market framework to keep pace with government policy developments and new innovations. The re-openers will also ensure that National Grid's allowed revenue can be appropriately adjusted to reflect unanticipated changes in utilisation of both the power and gas networks. We welcome further work by National Grid to manage the resulting step changes this could have on revenues between Regulatory Years, whilst also considering price stability and predictability, which we agree, is worthy of merit in reviewing to avoid further tariff instability and uncertainty.

Finally, we support Ofgem's proposed action to build an evidence base to inform future heat and hydrogen policies, including potential funding for hydrogen and smart heating trials. There are a number of potential technologies to decarbonise heating – with the CCC identifying electric heating and hydrogen as priorities. However, each technology has potential barriers and making progress on low carbon heat will therefore depend on Government and Ofgem developing a comprehensive plan.

Given the potential benefits, optionality to use the gas grid should be kept open as long as possible. Substantial investment has been made over many decades across most of the UK gas transmission and distribution systems, and in industrial and commercial gas burning equipment and domestic appliances. Continued use of this asset base, in combination with a programme of decarbonisation of the overall natural gas sector, could therefore provide an economically efficient contribution to reducing carbon emissions. In this context we note that a reduction in asset depreciation timelines risks undermining potential re-purposing of the gas grid by shifting a greater proportion of costs to network users within the next price control period.

It is also important in the meantime to expedite conclusions on progressive increases in concentration of hydrogen within the existing National Gas Transmission System with a view to facilitating future investment decisions in CCUS and Hydrogen projects and the development of a hydrogen market of material scale in line with the CCC 6th Carbon Budget report.

Strategic Programme 2 – Full Chain Flexibility

Shell supports Ofgem's proposed Strategic Programme on Full Chain Flexibility. There is an extensive body of evidence for the power sector demonstrating that flexibility – and specifically electricity storage, demand side response and cross-border interconnection – will be a key enabler to decarbonising the power sector at least cost to consumers.

We continue to develop Shell's low carbon and flexible offering in the UK power value chain, building on existing investments in technology driven and innovative service providers,

including: Limejump¹, the first aggregator to successfully bid a virtual power plant (made up of distributed generation, storage and demand side response assets) into the balancing market and Sonnen², a global leader in smart, distributed energy storage systems with a track record of customer-focused innovation. In addition, our EV charging solutions for home and businesses will continue to draw on smart technologies and become a flexible asset to the system; and our B-Snug hybrid heat pump business could reduce the need for expensive peak generation and local network reinforcements.

We welcome Ofgem's focus on enabling flexibility as a key element to delivering net zero at the lowest cost to GB consumers. We have seen significant progress under the Smart Systems and Flexibility Plan, particularly with respect to batteries, and support the Ofgem and BEIS engagement with industry to review and update the plan. We request that BEIS and Ofgem undertake a consultation on the actions proposed in the updated plan before it is finalised and recommend further benchmarking against international best practice as flexibility markets continue to evolve.

Shell supports opening up markets for balancing and constraint management to non-traditional actors. However, in doing so, it is important that Ofgem and NG ESO ensure that there is a level playing field in terms of participation requirements and testing criteria that different technologies face. In our view, the actions to (i) support adoption of EVs and their smart integration into the network; (ii) review and unlock the barriers to domestic flexibility (primarily EVs and heat pumps) - are effectively the same action, aimed at unlocking and ensuring cost-effective use of flexibility at distribution level.

We welcome the progress to date to support DNOs in procuring flexibility as an alternative to network reinforcement and the ongoing work to consider this in the next distribution price control (RIIO-ED2). We believe it would expedite the roll-out of flexibility if the co-ordination and harmonisation across DNOs could be agreed ahead of RIIO-ED2. We recognise there has been significant work to standardise DNO flexibility but believe more is needed from Ofgem on how balancing and congestion management will be managed across the networks and who has ultimate responsibility between the DNOs and NG ESO. We also consider that deploying flexibility will be dependent on the ability to access data and the appropriate systems and processes and support the recommendations of the Energy Data Task Force.

In relation to network charging reform, we agree that there is a case for change and support the process initiated by Ofgem. Our primary concern is that the wide-ranging scope of the reforms creates significant uncertainty over the level of network charging for both the end

¹ <https://limejump.com/limejump-acquired-by-shell/>

² <https://www.shell.com/media/news-and-media-releases/2019/smart-energy-storage-systems.html>

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customer and producers in the next few years. As network charges make up a large part of the costs faced by GB generators and consumers, unanticipated changes in these costs represents significant regulatory risk that is challenging to navigate. We therefore encourage Ofgem and the Government to explore possible mitigations to minimise the impact of uncertainty on efficient investment decisions and business planning. A specific recommendation is that Ofgem set out a clear roadmap of anticipated charging reforms and provides an appropriate notice period ahead of implementing any significant change.

For the planned action to identify the highest potential value sources of future flexibility, and how to unlock them, as mentioned above an extensive evidence base already exists for the value of flexibility in the power system – therefore, we consider that it would be beneficial to focus this action on areas that are currently less well understood. We suggest that Ofgem would benefit on focusing the action on two areas that are in our view under-researched:

1. Take a full energy system view – to investigate the highest potential value of future flexibility from an energy system-wide perspective;
2. Ofgem’s view on necessary levels of flexibility required to support a net zero system and the regulatory and market framework necessary to deliver that;
3. Necessary balancing and ancillary capability and services at both transmission and distribution necessary with a high-RES system and how these are expected to evolve

In the absence of taking a full energy system view of future flexibility needs, technologies and capabilities – Ofgem cannot be confident that it is protecting the interests of GB consumers.

Strategic Programme 3 – Future of Retail

Through Shell Energy Retail Limited, Shell provides c.900,000 GB home energy customers with 100% certified renewable electricity, and future access to smart services including Sonnen home batteries, B-Snug hybrid heat pumps and smart EV charging solutions offered by Ubitricity and New Motion. With the recent acquisition of Shell Energy UK (formally Hudson), we have also extended our footprint to supply gas, electricity, environmental products and smart services directly to industrial and commercial customers.

We support Ofgem’s ongoing actions to monitor and enforce compliance with the recently introduced principles to drive up supplier’s financial, and operational standards and to develop further measures to mitigate the risks of cost mutualisation when suppliers exit the market through failure. We urge Ofgem to continue pro-actively taking additional and proportionate action to mitigate the risk of mutualisation associated with supplier failure. Only Ofgem has the market-wide data to assess the risk: suppliers only have their own data.

We also support Ofgem's proposed review of microbusiness regulation to identify and address specific challenges faced by these customers. Related to that, Ofgem should include an additional action to review the regulatory arrangements for Third Party Intermediaries (TPIs), and whether these should be subject to regulatory requirements to the extent that they create a risk of customer detriment, or where TPIs activities are comparable or equivalent to an existing regulated activity and steps should be taken to establish a level playing field.

For example, whilst we understand that it is necessary to bring TPIs into the Retail Energy Code (REC) framework to protect consumers, unlike suppliers and other parties who cover the costs for the REC, TPIs are not required to bear any of the associated costs. We note that there is a commitment in the Energy White Paper for BEIS and Ofgem to take forward work on TPI regulation – and we consider this should form an important part of Ofgem's work plan.

We would also urge Ofgem to publish its internal review of the retail market and any findings around key drivers for change, alongside Ofgem's final form action plan in March 2021. This will aid stakeholders in their own planning and market assessments, as well as form a baseline for assessing prioritisation.

Finally, we propose that Ofgem should include an "ongoing action" to continue monitoring the impact of COVID-19 on consumers and the energy market – including bad debt levels. We consider that this is a sufficiently important topic, requiring appropriate resourcing, and should be recognised as an action in its own rights.

Strategic Programme 4 – Data and Digitalisation

We look forward to seeing details of Ofgem's ambitions and delivery plans set out in the Digitalisation Strategy and Action Plan, and request that Ofgem publish its anticipated timetable for consulting on and finalising the action plan in March 2021.

We agree with Ofgem's approach to open data in general terms, as well as with the conclusions of the Energy Data Task Force. However, as strongly advised there, and in several subsequent reports around trials and data challenges, we urge that any such Strategy include a review of who holds what data and under what requirements/consideration/legal constraints, and who can, is and should be able to commercialise the holding and use of that data, and any recommendations for addressing issues arising as a result.

We agree that Ofgem will need to work with Government, industry, other regulators, consumer bodies, standards bodies and other stakeholders fully to secure an open data environment. However, we query whether it is for Ofgem to determine who owns all relevant types of data, including customers data: this may more likely reside in general law and regulation, or may be for the upcoming smart data policy development workstream.

We have some concerns around who is best placed to determine the data standards that are needed and those data standards. This could cover everything from customer account data protocols and access rules to network and asset data, which have different commercial and privacy issues and potential impacts. Taking a broad approach to energy data, Ofgem should also be aware of the costs to all impacted stakeholders of changes in data standards.

Strategic Programme 5 – Energy Systems Governance

Shell supports Ofgem's proposed strategic review of system operation at both transmission and distribution level. Ofgem should provide further clarity on the expected evolution of system operators and their future roles in the electricity system.

We suggest that the proposed new action to review of system operation arrangement at distribution level should be combined with the existing action to complete the System Operator review. For Ofgem to be able to take whole-systems coordination perspective, we see a benefit in Ofgem reviewing system operation at distribution and transmission level holistically, as opposed to treating them separately.

While we recognise the importance of this workstream, we are concerned that changes to the regulatory and governance frameworks associated with electricity and gas system operation may act as a distraction from delivery of the systems, processes and products necessary to enable the energy transition. We would therefore encourage Ofgem to seek to maintain a strong focus on delivery.

Finally, we believe that unbundling rules should be strengthened where DNOs start to take up system operation responsibilities to enable competitive and transparent market for flexibility services to emerge. I would be happy to discuss any element of our response to your 2021 work programme in more detail.

Yours sincerely,

Olaf Islei
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