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Dear FWP team,

Forward Work Programme Consultation 2019-2021

SP Energy Networks (SPEN) welcomes the opportunity to comment on Ofgem's Forward Work Programme. This is a time of considerable change for the energy industry as the UK transitions to a low carbon economy. Given our role as a network operator, of both transmission and distribution networks, we are taking this opportunity to share with Ofgem, our thoughts, on proposals within the Forward Work Programme as well as the many important themes, absent from the document, which we consider will shape the future of our energy system.

From a policy and regulatory perspective, there are many significant changes being introduced, including an independent System Operator, an overhaul of the charging framework, proposed new competition models, further consolidation of the whole system approach, code revision and the increasing decentralisation of the existing energy system. With the Forward Work Programme focusing on short term issues, over the period 2019-2021, we consider that the Work Programme has missed an opportunity to set out a much needed, wider overview of Government and Ofgem's intended system architecture, which will determine the makeup of the energy market in the longer term. Without a clear vision, the Work Programme appears reactionary, at a time when Ofgem should be contributing to setting out a clear blueprint for our future energy system; balancing the needs of current and future customers and seeking to determine what an optimally balanced system is, which is affordable and secure for all customers.

For example, Ofgem does not consider the challenges our energy system faces in the medium term, given that in less than a decade the Scottish system will potentially lose all three of its remaining thermal plants, which have remained critical to keeping the lights on this winter. Predictions from the Electricity System Operator (ESO) also forecast that the Scottish system will need to support connection of one-third of the renewable generation that will allow GB to achieve its decarbonisation targets. This raises many questions about the existing market and charging mechanisms, let alone the technical considerations required to ensure the system remains fully operable, secure, operable and affordable.

In the Work Programme, we note that Ofgem also limits the scope of their consideration by excluding areas of the energy system which need to see profound transformation i.e. petroleum based energy consumption and changes required to enable the electrification of transport and heat. This will lead to a potential risk that "Whole Energy System" benefits to customers and society as a whole, are realized more slowly, particularly when consumers' energy consumption is a large contributor to emissions and climate change.

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Supporting decarbonisation

With 10 GW of renewables, accounting for 17% of demand in Scotland, SPEN has been at the forefront of decarbonising our energy system, having connected ~3 GW of onshore wind onto our transmission network and ~2 GW to our distribution network. In addition we have increased Scotland's export capacity to 6.6 GW (more than doubled), and import to over 4 GW. Throughout the last decade, our networks businesses have been at the forefront of developing flexible connection solutions to deliver critical and complex infrastructure, in a timeous fashion. We will continue to be a leader in supporting decarbonisation, in the years ahead.

Whilst continuing to connect increasing amounts of decentralised renewable generation, our networks will soon face the additional stresses resulting from society's increasing electricity demand as a result of the electrification of transport and heat. With electricity networks enabling consumers to fuel their cars and heat their homes and businesses, this makes consumers potentially more vulnerable, given their increasing reliance on their electricity supply. Network resilience and security of supply must therefore undoubtedly be at the heart of facilitating the network infrastructure for a low carbon future.

Network Operators are ideally placed to deliver the necessary infrastructure to support decarbonisation as our functions and duties are governed by our licence and by relevant legislation. We are subject to full economic regulation, unlike the competitive sectors of the energy market and our changes are monitored and regulated under the price control framework. An effectively Regulated and Licenced Network Operator brings the best of public ownership principles in terms of the service we provide to customers in our society, together with access to private sector investment to underwrite the necessary investment.

System Flexibility

We are embracing the challenges of transitioning to a low carbon economy and fully recognize that to satisfy our customers this will require to be addressed by a range of initiatives, which will include changes to network access and charging policies, areas highlighted within the Work Programme. In addition, new markets will need to be developed in order to facilitate the services of flexibility providers who will deliver alternatives to traditional reinforcement, in order to accommodate the increasing demands on electricity networks.

It is also highly likely that new smart power electronics systems embedded at the interface between networks and customers technologies, as well as within the grid, may offer the most efficient and cost effective way of controlling access for demand and supply actions across networks. It therefore remains critical that Network businesses and their competitive partners and suppliers are able to access innovation funding and schemes which to date have been a major success. A relevant example is the ENA's Open Networks project which will transform the way energy networks operate, underpinning the delivery of the smart grid.

We developed our DSO Vision in 2016 as we recognised the key role that DNOs will play in facilitating our customers' adoption of low carbon technologies, and the significant impact that innovative/flexible solutions can have on enabling this pace of change. To support an increasingly flexible and decentralised energy system, Distribution Network Operators (DNOs) should be allowed to transition to Distribution System Operators (DSOs) quickly to ensure that coordinated, regional plans can be developed in time to address and respond to the challenges, utilising the most appropriate solutions.

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With unparalleled knowledge of our local networks, and our customers, who is better placed than DNOs to most effectively manage an increasingly flexible energy system. With this in mind, we are already delivering in this area. Centrally Active Network Management schemes, similar to the industry leading scheme which we developed in Dunbar and are rolling out to a far greater extent in Dumfries and Galloway and the Four Crosses area of North Wales, will be required to ensure connections are provided as quickly and efficiently as possible to customers. These will also provide other network benefits to all customers either through lower investment or constraint costs and greater access to available capacity for low carbon technology.

Regulatory change and new market based initiatives, to support a more flexible energy system, will not in themselves be enough to address the many challenges we face in the energy system transition. Whilst increased flexibility will undoubtedly be a future opportunity for the energy system, full decentralisation of the system may not be the panacea, and should certainly not be delivered at any cost to consumers.

The procurement of flexibility services must be compared against both conventional and smart solutions, to seek the most economical solution for our customers. This assessment must also factor in the risk of non-delivery of services and the level of over procurement required to adequately mitigate said risk. Ofgem, therefore, has a fundamental role in ensuring that as we transition to a more flexible energy system, consumers are protected throughout.

Traditional reinforcement will still have a key role to play, and may be the most efficient solution to some of the challenges decarbonisation brings to electricity networks. By way of example, if EV smart chargers respond to price signals and switch on simultaneously, which then results in a spike in demand which is met by fast response, this could be more expensive for consumers than other traditional solutions. Our own analysis shows that distribution network reinforcements to enable unconstrained connection of domestic 7kW EV chargers would cost consumers around £25/annum in Distribution Use of System Charges (DUoS), whilst enabling an average family to save over £1,100/annum in fuel costs. It is important that Ofgem takes into account wider scenarios as part of its cost benefit analysis work to determine the best outcomes for consumers.

We note in the recently published “Network Options Assessment 2018/19” report, that the ESO accepts that investing in traditional reinforcement, at the right time, can lead to hundreds of millions of pounds in constraint cost savings to consumers. Looking across three different investment strategies, the ESO predicted savings of £220m-£460m in constraint costs¹. Ofgem must therefore give detailed consideration to constraint cost savings as part of its cost benefit analysis work.

Competition

Competition features heavily in Ofgem’s Forward Work Programme with new competition models outlined for both the current and forthcoming price control. SPEN has, and continues to be supportive of competition, embedding competition across the day to day business of our organisation. By way of example, we currently tender a significant proportion of the construction and maintenance of our onshore Transmission and Distribution networks on the open market. We have also consistently highlighted that as a small transmission business, we would stand to gain from competition. We favour competition in Transmission where it is

¹ Network Options Assessment 2018/2019, p27

https://www.nationalgrideso.com/sites/eso/files/documents/Network%20Options%20Assessment%202018_19%20report.pdf

properly legislated for, under the “early model” allowing maximum opportunity for innovation of design and planning of schemes through to efficient physical delivery.

With competition being a key focus for Ofgem, it is important that Ofgem develops a clear competition framework. There must be unequivocal and demonstrable benefits to consumers and wider society, and Ofgem has an important role to play in ensuring this is in fact the case. It should not be competition, for competition’s sake. We consider there are two recent examples where we would question whether market driven competition is actually delivering for consumers.

Since January 2018, we have seen nine energy suppliers fold with customers experiencing the stress and anxiety of being moved to a new provider, not of their choosing. In this instance, competition has not delivered benefits nor safeguarded consumers, or wider society as a whole. The same can be said of the Smart Meter rollout programme with costs and delays spiraling, not to mention growing consumer resentment and distrust in smart technology which has the potential to drive energy efficiencies, saving consumers money. Given the monopolist nature of our business and our daily engagement with customers, we remain of our long held view that incumbent network operators were best placed to deliver this infrastructure programme in a timely manner, with least disruption and cost to consumers.

Further, a valid question was raised to Ofgem at the recent public events held in London, Glasgow and Manchester, which we attended. The question was in relation to what Ofgem has learned in terms of its objective to introduce market/competitive delivery models across the energy market. By way of example, we point to the market-driven model adopted to deliver the GB Smart metering programme. We note that in its recent report “Rolling out smart meters”², the NAO found that:

- the programme is late, the costs are escalating, and
- in 2017 the cost of installing smart meters was 50% higher than the assumed.
- 7.1 million extra SMETS1 meters have been rolled out to speed up the programme despite the fact that:
 - a large proportion of SMETS1 meters currently lose smart functionality after a switch in electricity supplier and
 - there is real doubt about whether SMETS1 will ever provide the same functionality as SMETS2.
- The full functionality of the system is also dependent on the development of technology that is not yet developed.

Within the Work Programme, we would recommend that Ofgem includes a goal to review the Smart Metering Programme and the lessons that can be learnt to enhance Ofgem’s forward competition and delivery strategy, to deliver coordinated infrastructure investment programmes, to the maximum benefit of consumers.

² NAO (2018) “Rolling out smart meters” <https://www.nao.org.uk/wp-content/uploads/2018/11/Rolling-out-smart-meters-Summary.pdf>

Devolution of regulation

SPEN is a unique network operator. Across our distribution network, we serve a wide range of customers across England, Wales and Scotland. In turn, this means we have close relations with the Scottish and Welsh Governments, local authorities, communities and key stakeholders across GB. We welcomed the Scottish Government opening the “Future of Energy” event in Glasgow, earlier this month. With its own Energy Strategy and ambitious climate change targets, the regulator must be equipped to accommodate regional divergences, supporting the devolved administrations and local authorities, in delivering regional and local objectives.

The Scottish Government’s proposals for Low Carbon Emission Zones and its target to phase out the need for petrol and diesel cars by 2032, is a good example of regional divergence and ambition. For SPEN to support the Scottish Government’s objectives by planning and delivering the necessary infrastructure when it is needed, we require Ofgem’s support to allow us to undertake the necessary investment requirements, ahead of demand. However, this is not possible under the current framework. This is just one example of many which leads us to believe that the framework adopted by Ofgem does not support regional differences or circumstances.

You will also be aware that the Scottish Government has a target of 2 GW of community and locally-owned energy by 2030. Yet Ofgem’s Targeted Charging Review will significantly undermine the commercial viability of community and locally-owned projects. Our understanding is that these provisions will halt the development of community owned projects and impact on the Scottish Government’s ability to meet this target. This is another example where the priorities of devolved Governments are not recognised within Ofgem’s framework. Whilst we welcome the fact that Ofgem now has two fifths of its staff working from its Glasgow office, such regional support must also be reflected across Ofgem’s regulatory framework and priorities.

Across our Manweb distribution area, covering the North West of England and North Wales, we are working with all Local Enterprise Partnerships and local authorities on our “Better Future Quicker” initiative. As part of this initiative, we are actively involved in a number of working groups across Wales, Liverpool and Cheshire helping to ensure that integrated energy planning can help local stakeholders prepare and plan for the growth of EVs and the decarbonisation of heat. We are also working closely with key policy makers through the NIC funded project Charge, integrating transport planning with electricity network planning to encourage EV chargers are located in the right locations.

The “Better, Future, Quicker” initiative is also supporting the Welsh Government in delivering its sustainable development principle as set out in the Well-being of Future Generations (Wales) Act. This includes ambitions for the rollout of EV charging and delivery of a number of community energy projects. In addition, we are working with the Metro Mayor of the Liverpool City Region, Steve Rotheram, Liverpool City Council and the associated local authorities to support them in realising their EV ambitions, by working with them to take forward a number of proposals including EV charge points in carparks and induction charging for both buses and taxis. Given the appetite for change across our Manweb area, and the investment of a wide range of stakeholders working together to deliver their ambitions, again Ofgem’s regulatory framework should be capable to of delivering such objectives, for the benefit of their regional economies and communities.

System security and resilience

System security and resilience is another area, strongly reflective of regional circumstances, where regional solutions must be acknowledged and accommodated. In recent years, the last two remaining coal power

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stations, Cockenzie and Longannet, connected to our transmission network have closed, removing a total of 3.5 GW of conventional generation from the network. With the closure of Scotland's two nuclear plants removing an additional 2.3 GW of schedulable generation from Scotland in the coming years, and the long-term future of the ageing Peterhead power station uncertain, it is beyond doubt that Scotland's network is becoming increasingly vulnerable given the lack of schedulable generation in our network area. To date, this has primarily had a significantly adverse impact on the resilience, Black Start/system restoration capability and operability of the transmission network, not only in Scotland, but extending into the north of England.

For some time now, alongside the Scottish Government, SPEN has been urging the UK Government and Ofgem to review the effectiveness of current market mechanisms across the energy system, with a view to delivering new build schedulable generation in the right locations, which are required in the near future. With regards to central and southern Scotland, we consider that our transmission network needs to connect a minimum of 2 GW of new schedulable source(s) of power, that can be sustained for up to 7 days, to ensure network resilience and restoration capabilities to customers in Scotland and the north of England are retained at an acceptable level.

Supporting Vulnerability

The "Future of Energy" event in Glasgow, rightly, focused heavily on vulnerability. With approximately one million of our three million customers on the Priority Services Register, supporting vulnerability is a priority for SPEN. As we move towards a low carbon future we recognise that vulnerable customers are likely to need increased help throughout this transition, so as not to be disadvantaged. We are therefore consulting our stakeholders on our three stage approach to identifying the key interactions for customers in the future. We will also be working through the practical steps and remedies with Expert Vulnerability stakeholders to put in place a plan ensuring we play a valuable role in facilitating the benefits of the new markets for our customers.

We also have an extensive list of services being offered to customers both energy and non-energy related to assist them in their daily lives. Based on the feedback customers and consumer bodies have told us they need. This ranges from a befriending service for customers who are socially isolated through to income maximisation for customers who are struggling financially or in fuel poverty.

We consider that this Work Programme provides Ofgem (and Government) with an opportunity to outline to stakeholders and consumers alike, the blueprint for our future energy system and how Ofgem's regulatory framework will deliver this, taking into account the pressing challenges outlined in this letter. We would be happy to discuss the views expressed in this letter in further detail.

Yours sincerely



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