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SP ENERGY
NETWORKS

SP Energy Networks
Supplementary Questions Response – July 2020

Stakeholder Engagement and Consumer Vulnerability Incentive 2019/20

1. Page 4 of your Part 2 submission states that SPEN has the most ambitious Active Network Management (ANM) scheme in the UK. Please provide responses to the following:
   a. Explain the basis for this assessment.
   b. Clarify whether learnings have been shared with wider industry stakeholders and how SPEN is working with stakeholders operationally on ANM.

2. Part 3 of your submission indicates that notable efforts have been made to address consumer vulnerability. Please clarify which vulnerable groups have benefitted from these activities and to what extent.

3. The COVID-19 pandemic has changed both the ways of working and how stakeholder engagement is conducted. Please provide responses to the following:
   a. How have stakeholders helped you put in place new ways of working for the COVID-19 pandemic?
   b. What new methods of stakeholder engagement have you found useful and why?
   c. What learnings from the pandemic are enabling you to deliver more for customers and stakeholders?

4. Many companies are using technologies such as Artificial Intelligence to improve stakeholder engagement.
   a. Please explain what steps have been taken to use technologies such as Artificial Intelligence, Big Data and others to improve stakeholder engagement, deliver benefits to stakeholders and improve services to vulnerable customers.
   b. What data sets have you made available to other stakeholders?
   c. What help, if any, are you giving these stakeholders with using the data sets?

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1A SP Energy Networks was the first DNO in the UK to implement an Active Network Management system (ANM) of the scale we currently manage at East Lothian, managing 160MW of renewable generation. Learnings from this project reinforced the need for a whole systems approach to maximise the use of our existing network for future generation demand connections. Building on this experience and knowledge, we have ambitiously taken our Dumfries and Galloway system to the next level. These are the reasons why SPEN has the most ambitious ANM scheme in the UK:

- Our Dumfries and Galloway Integrated Network Management project takes a whole system approach – it is the first of its kind in the UK. It uses real-time data from the Transmission network to the Distribution Active Network System to alleviate transmission network constraints using embedded generation.

- Unlike other ANM schemes focusing on regional areas, this scheme is scalable and will be rolled out across our entire network. The scheme currently manages export across 11 Grid Supply Points (GSP) which collectively feed into the transmission network.

- It is the only project to directly interface with NGESO (National Grid Electricity System Operator). Managing real-time power flow, it will address commercial functionality, ensuring no adverse effects on the GB market.

- Among its many benefits to our customers and communities, the Dumfries and Galloway scheme will enable the increasing uptake of low carbon technologies in an economic and timely manner, providing the foundation of the green recovery.

1B Our longstanding efforts in ANM have taught precious lessons that will benefit other networks in developing similar schemes and, in turn, all GB customers. We have shared these learnings in theory, through demonstration and live learnings as follows:

- Shared with SP Transmission and NGESO, lessons on technical integration of the solution and its impact on wider commercial agreements required to mitigate conflicts and provide clarity and visibility to customers and key stakeholders.

- Shaping much of the industry output through our engagement at the Energy Networks Association Open Networks Project and other innovation projects on ANM.

- Engaged NGESO and WPD to inform the current NIA project considering how connections managed through ANM systems can further enhance GB system balancing and promote a new range of balancing services and products.

- Stakeholder engagement with customers who are connected and will connect to the system is playing a massive part of the systems development. This is a two-way process - we are listening to our customers to maximise renewable generation.

- We went out to tender for a scalable technical solution to ensure we are truly ANM 'ready'. We have now formed a long-time partnership with Smarter Grid Solutions to develop and enhance the platform for the benefit or our stakeholders and customers.

2 All vulnerable groups have benefitted from tailored services designed to address the recurring needs of customers within specific groups and bespoke services delivered on a case-by-case basis to address the circumstances faced by individual customers.

All services are available to all customers.

Vulnerable groups who have benefitted from our services	
Low income, in poverty and fuel poverty	Families with young children
Disabled and those with limited mobility	Carers & Young Carers
Pensionable age customers	Customers with communication needs
Socially isolated customers	Customers temporarily vulnerable
Socially deprived communities	Unable to communicate in English
Customers with mental health issues	Customers with sight impairments
Those medically dependant on electricity	Autistic Children
Customers unable to manage independently	

SPEN has supported National Critical Infrastructure Providers such as the NHS, care homes and food supply operations to stay ahead of any increased capacity needs and urgent connections.

To best describe the extent to which all groups have benefitted from our services we have quantified our impact into four broad categories of support & shown examples below.

Category	Economic Benefit	Net Benefit of £1 Spent	Examples of Service
Help in a Power Cut	£3.4m	£3.06	Proactive welfare calls, tailored communication methods, food, hotels generators and translation
Wider Social Support	£1.7m	£22.94	Befriending, energy efficiency, best tariffs, carers & dementia support, income maximisation, debt help
Enabling a Low Carbon Future	£18.7m	£6.19	Funding green vehicles for vulnerable communities, battery storage for off gas grid rural fuel poor homes and support independent living
Covid-19 Support	£601k	£12	Wellbeing calls, essential supplies, fuel top ups, volunteering, prescription deliveries and stocking food banks, technology for medication reminders and family education

Further information of our industry leading approach to Social Return on Investment (SROI) can be found in Part 3 of our submission.

3A During COVID-19 we faced unprecedented challenges in operating a safe and reliable network and serving our customers, especially those in vulnerable circumstances. Stakeholder engagement was vital in shaping new ways of working to overcome these challenges. **Industry collaboration:** Collaborated with DNOs, Governments and Ofgem to develop contingency plans and manage resource to support critical operations.
ESO: Forecasted customer demand during COVID-19, helping accelerate their Optional Downward Flexibility Management (ODFM) service for generators to be paid to lower or increase their generation. This product was always planned but became operational ahead of time and will be a new way of working in terms of balancing our network from now on.
NHS: Engaged with critical sites such as hospitals to determine expected change in demand and network resilience. **Trade Unions:** Daily meetings with Trade Union representatives, focused on adjusted procedures and protection of employees in difficult working environments. **Rural Communities:** Worked with National Farmers Union and landowners to increase awareness of critical works and importance of accessing land, supported by vehicle signage. Engaged Livestock markets to share 'Look Out Look Up' safety messaging. **Community Councils:** attended online meetings with residents and council reps on local works as a valuable alternative to engaging via numerous calls and visits. **Vulnerability Partners:** Opened application process for partners to apply for funding to deliver essential services to vulnerable communities.

3B Throughout this pandemic, we seen a rise in interest and increased reach among traditionally hard to reach stakeholders. We engaged a broad range of stakeholders across 18 online webinars covering connections, DSO, land & planning, safety and ED2, as well as extensive one-to-one engagement. The new format proved a more efficient use of time, helping address stakeholder fatigue. It also prompted us to combine events which would have taken place separately across our licences, this was welcomed by stakeholders, who got greater insight of wider activity and interaction with peers from different areas.

3C During the pandemic, we pro-actively engaged with customers as never before, especially whilst working in and around properties. This extra level of engagement resulted in better service and more positive solutions being delivered to our customers. This is reflected in our leading customer service scores which are trending upwards. It also uncovered new ways of working with partners e.g. supporting RNIB customers by making 'wellbeing' calls and referring them to our additional services. We will continue to share and communicate with a range of vulnerable customer groups. Our vocational trainees have volunteered with community partners. Improvement of their customer interaction skills from the experience has been invaluable, this activity will be built into training plans moving forward. Lessons learned on the value of online engagement has evolved our approach to stakeholder engagement. We will continue to record and share webinars, hold more sessions with more targeted engagement, enabling more in-depth feedback shaping better outcomes for customers and stakeholders.

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4A   SPEN is on an ambitious journey to digitalisation. We are championing many Big Data Analytics and AI projects, learning from global success stories and investing in our best ideas.

Our **Chatter Tool** gathers customer/stakeholder information from social media and news platforms. The first of its kind in the application to stakeholder engagement, it analyses thousands of data points every day through bespoke language processing algorithms to identify customer views on topics from EVs to fuel poverty. Since Jan 2020 it has analysed over 175k mentions. This innovative tool is enhancing not only the way we engage but also the impact we deliver. For example, the tool shows us a particularly intense discussion on Mental Health issues in Wirral. We are taking steps to strengthen our network of local partners to support these customers.

Our **Demand and Generation Forecasting Tool**, is a one-of-a-kind innovation that analyses around 1 million data points every day through machine learning to forecast when our assets are nearing their maximum rating. This allows us to identify potential constraints and forecast where and how much flexibility is required to mitigate against these constraints. Using machine learning we can compare forecasts against actual network performance to continuously refine the modelling. This forecasting tool was instrumental in us assisting NGESO to develop their Optional Downward Flexibility Management (ODFM) service, critical in maintaining the balance between supply and demand. We have shared this platform with Ofgem, BEIS, NGT, all DNO's and have offered to share the lessons learned. Commencing Phase 2 to develop longer term forecasting.

iDentify is a smartphone app, which can be used by both SPEN and non-SPEN staff to crowdsource data on our assets and customer devices e.g. cableheads. It will save site visits and allow quicker and cost-efficient connections and asset replacement decisions.

4B   To support transition to net zero we're sharing many datasets and studies e.g. distributed generation heat maps, transport capacity maps with Liverpool City Region Combined Authority (LCR CA) and Welsh Government. Shared data sets from our EV Up project (i.e. demographics in areas with off-street parking to identify areas for high adoption of EVs) with LCR CA, Scottish Government and Transport Scotland. We publish our Vulnerability Mapping Tool on our website and give access to partners and utilities to ensure services are targeted properly. Leading in development of a Digital Systems Map, merging data sets of all UK network assets for stakeholders. (See Page 4 of our Part 2 submission).

4C   We carried out training via webinars to assist analysis of data sets with stakeholders such as Welsh Government and dedicated project stakeholders. We're developing a 'data sharing portal' to help access data including heat maps and long-term development statements. Stakeholders will be able make data requests including format and information levels required. We provide demos and training of our vulnerability mapping tool. This empowers our partners to better serve our vulnerable customers. This has resulted in our vulnerability partners being able to build business cases and secure funding.