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Local Governance and Flexibility Strategy Team
Office of Gas and Electricity Markets
10, South Colonnade
Canary Wharf, London
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By Email only: resp@ofgem.gov.uk

Dear Fiona,

Regional Energy Strategic Plan policy framework consultation

The Data Communications Company Ltd (DCC) connects homes and businesses to a single, secure, smart metering network.

We welcome Ofgem's consultation on the above and recognise the critical importance of effective planning in achieving a decarbonised and secure power system by 2030 and ultimately, reaching net zero.

DCC is committed to supporting government policy and in responding to this consultation we seek to raise awareness of the utility of smart meter data and the broader potential of the system to contribute to accurate and co-ordinated, local, regional and national plans.

About DCC

DCC sits at the core of a multi-layered ecosystem, connected to and in many cases directly integrated with key segments of the energy sector (including distribution network operators, energy retailers of all sizes and a fast-growing category of other users). At scale, the smart metering system will support secure messaging across over 100 million devices in 33 million homes, as well as enabling consumers to switch seamlessly from one energy supplier to another.

There are now more than 33 million meters connected to our network and over two billion messages transactions take place over the smart metering system across Great Britain every month. Our network is already providing detailed and critical data needed to understand energy demand.

In addition, the data flows through smart meters generate 'system data' which if leveraged appropriately could prove additional insights on consumer behaviour, deliver public benefit and solve societal challenges, including accelerating the transition to net zero.

In line with national and sector specific policy, we have been working to explore how we can help industry to access robustly and securely, and at the lowest possible cost to support with a range of use cases, including energy system planning.

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In submitting this response, we endeavour to share experience and perspectives which we hope are both relevant and valuable. We seek to highlight learnings from the value of smart metering data and our experience in supporting government-led innovation projects.

Our response, in summary, focuses on:

- The breadth of smart meter data available, the role it can play in supporting energy system planning and the need for consideration of an efficient and co-ordinated route to access as demand continues to increase (from local authorities, distribution networks and built environment practitioners in particular).
- The potential for low carbon technology asset data to materialise from the Automatic Asset Registration programme which is developing a mechanism to establish a central asset register
- The importance of greater alignment (technical co-ordination) between local authorities and distribution networks in ensuring a standardised application of smart meter data to support planning approaches. Demand for smart meter data for this application is growing substantially.

We are of course on-hand to provide any further information or respond to any questions you may have from this response.

Yours Sincerely,

James Ringrow

Director of Strategy, DCC

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Response

Q1. What are your views on the principles (in paragraph 2.8) to guide NESO's approach to developing the RESP methodology? Please provide your reasoning.

We are in broad agreement with the principles set out to guide NESO's approach to developing the RESP methodology. The principles are understandably high-level at this stage. How they manifest as activity and outcomes should inform continual updates to the RESP methodology.

In assessing the principles from the perspective of the smart metering system, we see good alignment to these principles, and we would encourage Ofgem and NESO to leverage this capability as far as possible in establishing the full methodology. Assessing the principles in turn:

Be place-based – we agree with the criticality of taking a place-based approach that acknowledges diversity and variation not just from region to region but within region. Decarbonisation ambitions and the ability of specific localities to achieve those ambitions is likely to vary substantiality. A placed-based approach should be built on the consolidation of local knowledge and granular data – with smart meter (in its broadest sense) data acting as a vital feed. We discuss available categories in our response to question 7.

Be whole system – we agree on the need for a whole system approach and would encourage thinking beyond the energy sector to understand interplay with telecoms which is increasingly critical to underpinning data exchange across the sector and enabling flexibility services. Smart meter data has a key role to play in supporting cross-vector planning and operation and in enabling a flexibility system through multiple means (from time of use tariffs to load-control).

Be vision-led and pro-active – We agree that agility and flexibility to change is essential. Deviation from intended scenarios can be expected through development and deployment of new technologies and unforeseen consumer behaviour.

Q2. Do you agree that the RESP should include a long-term regional vision, alongside a series of short-term and long-term directive net zero pathways? Please provide your reasoning.

We are broadly supportive of the RESP combining both long term regional vision alongside a series of short-term and long-term pathways. We would encourage flexibility on time horizons from region to region to accommodate and align with key local milestones, for example in context with strategic priority and budget-setting across devolved authorities.

Q3. Do you agree there should be an annual data refresh with a full RESP update every three years? Please provide your reason

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We would encourage the RESP methodology to leverage the availability of dynamic data more fully to maximise confidence and certainty in the accuracy of the planning process.

More regular analysis, with thresholds set (for example in relation to LCT adoption rates, supply and demand profiles) for deviation from specific pathways could be used to establish the need for a full RESP.

In context with smart metering data, a key question to resolve relates to the temporal frequency of access and use. Reliance on modelled predictions of demand - Estimated Annual Consumption - for example are likely to be at a lower level of accuracy.

A study by UCL comparing Energy Performance Certificate (EPC) against metered primary energy use intensity found that EPC's overpredict energy use by as much as 48%[1].

There are clear advantages in supplementing planning approaches with actual metered data and many local and regional authorities are already exploring the potential. This requires consideration of data legislation, the data retrieval and access approach to maximise efficiency and avoid duplicate retrieval, and, to ensure conflicting models do not undermine pathways.

Whilst energy consumption and generation data from smart meters is more commonly considered, the breadth of smart meter data categories is far broader (as we describe in our response to question 4).

Finally, a further consideration is the use of synthetic smart meter data profiles – an emerging area of development that is materialising from the Centre for Net Zero[2] and as part of the Smart Data Challenge led by the Department for Business & Trade. Synthetic data may increase accuracy over current estimated models whilst reducing some of the access and data legislation issues associated with actual metered data.

We would welcome further discussion with Ofgem and NESO on these topics.

Q4. Do you agree the RESP should inform the identification of system need in the three areas proposed? Please provide your reasoning, referring to each area in turn.

We agree that the RESP should inform the identification of system need in the three areas proposed. The 'provision of consistent assumption' is a key area in which smart meter data can support.

Smart meter data in its broadest sense can support assumptions across all regions (e.g. in context with profiles for low carbon technology use, consumer behaviour profiles and profiles for growth in flexibility.)

[1] The over-prediction of energy use by EPCs in Great Britain: A comparison of EPC-modelled and metered primary energy use intensity - ScienceDirect

[2] Paper: Synthetic Smart Meter Generator for the Smart Grid (centrefornetzero.org)

Smart meter data is broad ranging in nature, over 130 different types of messages and alerts are sent to and from connected devices in the home. Combined, these data flows cumulate to over 2.2bn transactions every month creating a unique GB-wide asset, which, used appropriately can provide a multitude of insights.

This includes visibility of consumption (and export) but also nuanced insights into consumer behaviours, activities, engagement and appetite for low carbon technology adoption which can help underpin understanding of future demand. For example, insights can be derived from smart meter adoption rates, frequency of supplier switching, financial considerations (pre-pay vs credit), changes of tenancy, prevalence of existing generation technology, participation in flexibility events (such as the Demand Flexibility Service), outages, voltage issues and more.

Of notable importance is alignment on the interpretation of these data categories and insights by and between organisations, minimising the potential for disconnect through a standardised approach that underpins every stage of the planning process at Local Area, Network, Regional and National levels.

We would also highlight DCC's in the DESNZ-led Automatic Asset Registration (AAR)[3] which is developing a solution for low carbon technology registration at the point of install, with data held in a central asset registry. Through this project we are exploring how access to asset registration and usage data can be combined to support several use cases, with planning a primary one.

Strategic investments

In context with the objective of the RESP supporting accelerated investment to enable decarbonisation at pace, we believe that greater use of metered data to enable actual rather than deemed performance and payback of installed technology is a key enabler to greater investment through greater confidence in returns.

In context with network planning, accurate strategic investment as well as the ability to rely on flexibility services instead of infrastructure re-enforcement will all be key in delivering a future energy system at lowest cost to the end consumer.

We have engaged with and received support from the UK Infrastructure Bank on this principle and appetite exists to explore the potential further.

Q5. Do you agree technical coordination should support the resolution of inconsistencies between the RESPs and network company plans? Please provide your reasoning.

We agree that greater technical co-ordination is needed to help resolve inconsistencies between network plans and local authorities and drive a constant hierarchy of data inputs an planning outputs. Differing and varied methodologies is likely to result in inequity for consumers in the transition to net zero.

Through engagement with regional authorities and practitioners we have heard that decarbonisation planning suffers from inaccurate data (e.g. use of outdated Energy Performance Certificates) and inability to share outputs dynamically between stakeholders.

[3] Smart DCC Ltd. Registered Office: 65 Gresham Street London, EC2V 7NQ GOV.UK (www.gov.uk)

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The resulting outcome is static plans and misalignment. This is detrimental in several ways – consumers are not offered the right technology packages; locality roadmaps are misaligned with DNO asset deployment and network oversizing / under sizing increases cost in-efficiency and or delays.

A recent example in West London[4] demonstrated how capacity constraints at the transmission level, impacting localised capacity has the potential to significantly compromise local growth objectives, requiring active intervention from local and regional authorities.

Further and notable demand for dynamic smart meter data is arising from local authorities (and built environment practitioners that are supporting them) as they seek to increase accuracy, retain reliability of their Local Area Energy Plans, and establish better alignment with networks. This alignment should extend through the Regional Energy Strategic Planning process.

Q6. What are your views on the three building blocks which come together to form the RESP in line with our vision? Are there any key components missing?

Whilst the building blocks are logical, they are heavily focused on formation of plans and less on the implications and the engagement needed to ensure effective utilisation. We recognise that Ofgem is cognisant of the importance of engagement (as described in section 3.53) but would encourage that this aspect of the planning process is intertwined with the RESP.

This might take the form of a third building block which constitutes the engagement and utilisation plan for the RESP, measured through the activities undertaken by NESO to drive awareness and support with the practical application by those organisations expected to use it.

Q7. Do you agree with the framework of standard data inputs for the RESP? Please provide your reasoning.

The framework of standard data inputs will be vital to achieving alignment top down / bottom approaches and the data sources that underpin those. Key observations on the framework include:

Need for flexibility and adaptable to new data sources. The framework should consider not just the mechanism through which the credibility of existing data inputs can but assessed, but also principles on which future data sources can curated to meet required standards. Ofgem's planned expansion of the Energy Data Best Practice Guidance may be a vehicle through which this can be explored.

Inputs versus insights. A key focus of the framework is on establishing a methodology on which credibility of data inputs is assessed. Whilst the provenance and credibility of the inputs is undeniably important, of equal importance is the outputs or insights that are derived and applied from those inputs. Integration across data sources will be critical to achieve this and methodology to establish confidence levels in the outputs should be developed. For example, understanding the flexibility potential of a particular locality will require asset data, consumption profiles but will also be impacted by consumer behaviour.

[4] West London Electricity Capacity Constraints

Smart meter data as an input. In context with the current list of bottom-up data inputs, we would emphasise the need for consideration of smart meter data which is currently absent from the list. As discussed, the breadth and accuracy of smart meter data categories is significant and can be used to inform and test multiple scenarios in net zero planning.

Whilst use of smart meter data may materialise through other listed data sources (e.g. LAEPs), we would again encourage further consideration of the access route, both to avoid duplicated data retrieval but also to ensure consistency in the application of the interpretation of insights derived from it.

Asset registration data – we note reference to inclusion of heat pump ownership data and re-emphasise the potential for low carbon technology asset data to materialise through the AAR programme.

Q8 8. Do you have any suggestions for criteria to assess the credibility of the inputs to the RESP?

As discussed in our response to Question 7 we would encourage development of assessment criteria to determine the credibility of both data inputs, and the outputs / insights derived through data integration.

We also note the planned development of a National Energy and Environmental Data Standard which is being led by the Northwest Net Zero Hub (in partnership with all of regional net zero hubs). This initiative may provide valuable learnings and methodologies to help determine and asset data criteria.

Finally, in determining the criteria for the assessment of data credibility it would be helpful if this activity is undertaken in an open and transparent manner that can both drive improvements in data quality and enable additional uses of data sources for public benefit. For example, considering how the collated data sources might align with plans for a National Data Laboratory being develop by the Department of Science, Innovation and Technology.

Q9. Do you agree with the framework for local actor support? Please provide your reasoning.

Whilst we are the supportive of the proposed framework for local actor support, a key consideration is how activities deployed are complementary rather than duplicative to existing activity. A multitude of activities are already in-flight and a substantial mapping activity on a region-by-region basis would help to target support and resources where most need.

Q10. Do you agree with the purpose of the Strategic Board? Please provide your reasoning.

We agree with the purpose of the Strategic Board as outlined in the consultation. The Board's role in providing oversight and governance for the development and implementation of the Regional Energy Strategic Plan (RESP) is essential. It ensures that diverse stakeholders, including democratic actors, network companies, and cross-sector representatives, can contribute to the strategic planning process. DCC is fully supportive of collaboration and cross-

sector integration, ethos which is vital for driving forward complex energy initiatives and projects.

Further, the Strategic Board will play a crucial role in aligning investment in regional infrastructure with broader national goals, improving both delivery and accountability.

Q11. Do you agree that the Strategic Board should include representation from relevant democratic actors, network companies and wider cross-sector actors in each region?

Yes, the inclusion of democratic actors, network companies, and cross-sector groups creates a holistic governance structure. This structure ensures that the RESP reflects the specific needs of each region while remaining aligned with national energy targets.

Each of these groups brings unique perspectives that are critical to the success of the RESP. Network companies must be involved to ensure technical and operational feasibility, whilst democratic actors ensure that the strategic planning aligns with local and regional governance priorities. Including cross-sector actors ensures that the broader impacts of energy transitions such as on housing, transport, and industry are considered.

This is vital in driving integrated planning across sectors, which DCC views as a necessary component of achieving a successful and low-carbon energy future.

It is also important to consider existing bodies like Net Zero Hubs in the decision-making process. These hubs already play a role in coordinating regional efforts towards net zero and their involvement on the Strategic Board would provide valuable insights, align initiatives, and avoid duplicative efforts. Representing entities like Net Zero Hubs will help build on existing partnerships and networks, which are critical for effective and efficient delivery of energy initiatives.

Q12. How should actors (democratic, network, cross-sector) be best represented on the board? Please provide your reasoning, referring to each in turn

DCC believes that democratic, network, and cross-sector actors should each have a structured and balanced representation on the Strategic Board, ensuring that all perspectives are considered. We propose the following structure:

Democratic actors: Local authorities and regional governance bodies should have significant representation, as they are directly responsible for implementing energy policies and ensuring that they meet the needs of local communities. The representation of democratic actors should include both upper and lower tier local authorities and should use effective engagement methods to capture a broad spectrum of local insights. In regions with devolved arrangements, the representation of these governments should reflect their role in regional energy governance.

Network actors: Network companies must have strong representation to contribute technical expertise on capacity planning, grid stability, and the integration of new technologies such as electric vehicles and distributed energy resources. Their input is critical in shaping a resilient energy system. They should also provide key data and forecasts that inform strategic investment decisions.

Cross-sector actors: This group should be represented by a range of industries, including utilities, transport, business, consumer advocacy, and environmental organisations. These actors are crucial in ensuring that energy transitions support wider decarbonisation goals and economic development across multiple sectors. Further, as energy planning intersects with transport and housing, actors from these sectors should have direct involvement to ensure comprehensive and integrated planning.

DCC recommends that the board structure be flexible enough to allow for the formation of sub-committees or working groups, which would allow for deeper engagement with specific sector or technical challenges. This would ensure that all voices are heard, while keeping the board itself manageable in size and focused on strategic oversight.

Q13 – 15: Boundaries

DCC is not well placed to comment on proposals for regional boundaries. We note that smart meter data is available across Great Britain standardised in format and configurable to any regional geography.