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Dear Fiona and team

Consultation Response: Future of local energy institutions and governance

We welcome the opportunity to respond to the questions raised in the Ofgem consultation on “Future of local energy institutions and governance”.

Ricardo Energy & Environment is a British company with 60 years of delivery of energy, climate and environment-related consulting services.¹ We are internationally renowned with world-leading energy, climate change and environmental expertise. Over the last 15 years, we have worked in over 100 countries and 1,800 projects across Africa, Asia, Europe and the Americas. Many of our projects relate to aspects of the UK’s energy industry, working with clients across a broad spectrum from Distribution Network Operators (DNOs), NGOs, Airports, renewable energy independent power producers (IPPs), local government and individual businesses. Our projects range from sustainable renewable energy (e.g. wind, solar and storage) to innovation projects, to aspects of pricing and regulation.

We have also undertaken many international projects which address issues such as flexibility, the structure, operation and governance of regional power pools, and technical system impact of integrating renewable energy resources. Many other countries are keen to draw on the UK’s market structure and governance to restructure their energy industries. The dynamic changes within the UK’s energy industry to facilitate moving to net zero will impact on every aspect of our business, and we are keen to contribute our wide-ranging experience to industry developments.

¹ The [Ricardo](#) Group is a global organisation and combines over 100 years of engineering, technology and innovation heritage. It employs over 3,000 staff in 21 offices across the world, working on local and international projects including strategy development, cost reduction, safety management, regulatory compliance and environmental impact assessments. Our global team of consultants, engineers and scientists are passionate about the business’ vision and mission, and through our business practices we prioritise sustainability through safe and efficient operations, using resources and energy wisely, and travelling safely and sustainably.

Our response to consultation questions

We have not prepared a response to each of the consultation questions, but rather a subset where we consider that we can add most value. Our responses utilise the abbreviations and definitions as set out in the consultation document.

Q1. Do you agree with our proposal to introduce Regional System Planners as described, who would be accountable for regional energy system planning activities? If not, why not?

While we broadly agree with the proposals to introduce Regional System Planners (RSPs), we see significant potential for these to become barriers in themselves, particularly in the interim stage/s while they are being established. Once the direction of travel is agreed, there will be significant work in ensuring that all parties are working together seamlessly, both in establishing the RSPs but also in the ongoing operation. It is important not to end up with siloed RSPs but rather a GB coordinated whole system approach to energy planning.

Effective and efficient communication between the different entities will be a critical success factor. The governance arrangements, including establishing the correct balance of decision-making responsibilities and between the RSPs (planning) and the DNO/DSOs (planning and implementing) functions, will determine the success or failure of this approach. A common understanding of the issues will lead to effective identification of solutions which can be applied across multiple regions.

Q4. Do you agree that the FSO has the characteristics to deliver the RSPs role? If not, what alternative entities would be suitable?

Yes, as noted above we consider it essential for the sake of efficiency that the FSO delivers the RSPs role. The Whole System approach will provide for coordination between the different network stakeholders to ensure an efficient and effective energy system. There is a strong case for identifying commonalities and finding common solutions which are applicable across the whole system.

Q5. Do you agree with our proposal for a single, neutral expert entity to take on a central market facilitation role? If not, why not?

We agree that a single, neutral expert entity to take on a central market facilitation role would, in theory at least, address the current scenario that indicates that distribution flexibility market arrangements are not fit for purpose. Work to align flexibility markets has had limited success to date, is not moving fast enough and creates significant barriers to entry. It is extremely frustrating for potential market participants to have the relevant technology and viable renewable energy projects 'ready to go' but then find substantial barriers to becoming part of a smart and flexible energy system.

You have noted some of the challenges with the work to align flexibility markets being co-ordinated through the Open Networks Project by the Energy Networks Association (ENA) on behalf of its members. The ENA does not have the powers to hold DNOs to account for any slow or inconsistent implementation, and thus relies on the good will of its members to progress this work. The ENA has a strong role as facilitators of information sharing between DNOs and this could be leveraged in establishing the expert entity.

It would appear that establishing a single expert entity to take on the central market facilitation role and its governance would be extremely challenging, at least in the initial phases. Addressing key challenges would require ensuring that the entity has the requisite expertise to undertake the various roles assigned to it, and this expertise should be procured as a matter of urgency. We consider that this expertise is available within the consulting industry, and we would encourage the use of industry experts wherever possible to expedite this process. We do not consider that it will be in the interest of the industry to further delay this progress, as many projects are poised to proceed as soon as there is clarity on the market operation.

As noted in your proposals, there are significant challenges in working around different (and at times contradictory) policies and we believe that doing so, and urgently, is critical to achieving any success. It is not yet clear how this might be achieved. Unsuccessfully doing so risks simply introducing further confusion and additional barriers for customers to navigate. In particular, providers of DER on the DNO's network face constraints in terms of information asymmetry, and any additional complexities will not be useful. There are many benefits to be obtained by a single, clearly defined process.

Q10. Do you agree that DNOs should retain responsibility for real time operations? If not, why not?

We support the proposal that DNOs should retain responsibility for real time operations. We agree with the reasons outlined, and in particular the proportionality of taking this approach. Introducing another (unnecessary) layer into the structures carries a very strong risk of creating operational problems, inefficiencies, unnecessary costs, and adding to the regulatory burden.

Q14. What additional costs might arise from our governance proposals? We welcome views both on the activities that may arise and cause additional costs to be incurred, as well as the best way to estimate the size of the costs associated with those activities.

Q15. What additional costs may arise from sharing functions with several interacting organisations? We welcome views on set up cost, lost synergies, and implementation barriers

Costs arising from these governance proposals will include costs associated with:

- Establishment and day-to-day operational and administration costs for the FSO and RSPs and expert entity for central market facilitation
- Digital structures – potential for sharing costs of data sharing / links to DCC
- Industry working groups to align policies
- Application and/or licence fees – if any – paid by customers?

1. Increased Network Complexity and Active Network Management

Network operators have already progressed on some of these issues but there could be additional costs to fully align these tools.

- Systems to enable network operators to have visibility of Distributed Energy Resource activity in operational timescales and using active network management
- Further development of robust forecasting tools for DG output (PV and wind) and for assessing network demand/loading
- Ensuring that smart grid technologies are fully implemented.

2. High Data Volumes to be processed in real time

- Costs associated with data storage, processing and operational interfaces – also linking to the Data Communication Company (DCC) and associated costs
- Establishing a secure communications system with room to expand
- Implementation of suitable network security measures (firewalls, private networks etc.)
- Comprehensive user data protection measures.

3. Interaction with stakeholders

- Ongoing governance and interaction with the large number of stakeholders could require additional industry structures such as established working groups
- Potentially costs of external consultants to assist local energy authorities and community energy schemes to engage with and understand the different interfaces with the market

- Consider whether any of these costs would recovered through fees

4. Market Management

- Regulatory oversight of central market facilitation
- Regular evaluation of performance and outcomes
- A documented and rapid mechanism for changes to be implemented when required

It may be possible to gain insight into some of the potential costs by reviewing the costs associated with establishing and governance of the DCC, and the ongoing costs incurred by the ENA.

We look forward to engaging further on the issues as the consultation and development process proceeds.

Yours sincerely,



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