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Chris Brown
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Our Ref: EN01-005645

26 February 2018

Dear Chris,

Re: RES Ltd Response to OFGEM Consultation on recovering the cost of flexible connections

RES is one of the world's leading independent renewable energy companies working across the globe to develop projects that contribute to our goal of a secure, low carbon and affordable energy future. We develop, construct, finance and operate onshore wind, solar PV, transmission network and energy storage assets. In over three decades of operation, we have developed 10% of the UK's onshore wind capacity and 12GW of wind globally, developed 1.3GW of solar PV globally, built over 1,600km of transmission network outside the UK and become a world leader in energy storage.

RES welcomes the Ofgem "*Consultation on principles to be considered when recovering the costs of providing 'flexible connections'*" of 29 January 2018 ("the Consultation")¹. As dynamic connections proliferate across the total system, so a clear and consistent approach to charging for such connections to be applied by all electricity networks companies is required. SSE Networks is to be commended in taking a step towards bringing flexible connections further into DNO business as usual and, more generally, for attempting to bring greater clarity and consistency in its connection charging methodology.

However, we would also highlight the extensive and wide-ranging work that is taking place across the industry in paving way for transition to the world of the Distribution System Operator (DSO): a future state in which DNOs can call upon flexibility services from all users in delivering an optimised dynamic total system to the benefit of all users. We think that some of SSEN's proposals are not well aligned with the evolution of the DSO. Specifically, we disagree with the view that flexible connections are for the sole benefit of the connectee and that applying a "deep" first comer charge on the relevant connectee is a proposal from the past of the passive DNO and not one that will encourage the arrival of the DSO. We think that a more strategic and "forward looking" approach to recovery of ANM costs is more aligned with the long term best interests of the energy consumer.

¹ <https://www.ofgem.gov.uk/publications-and-updates/consultation-principles-be-considered-when-recovering-costs-providing-flexible-connections>

In summary; flexible connections are likely to become the dominant business-as-usual connection in a near future of DSO-managed networks. This proposal promotes a "deep" connection charge boundary for such connections, which misaligns with the current charging boundary, and introduces an unnecessary barrier to market entry for new Distributed Energy Resources.

Responses to the questions posed in the Consultation are outlined below.

Consultation Questions

1. Do you agree with SSEN's approach to classify the costs relating to operating 'flexible connections' as 'Operation and Maintenance' (O&M)? Please explain your reasoning.

We have a concern that the DNO is making this distinction with the aim to apply any related charges to the connecting party irrespective of the nature of charges incurred. In terms of operation, rather than design and delivery, of flexible connections, yes we agree they should be recovered as O&M charges, but caution that appropriate sharing should be acknowledged, and that the DNOs should be pursuing best overall value for electricity customers. For example, with software licencing – a product which could be used over multiple locations for multiple flexible connections with good planning – there is a risk that if the DNO's spending is inefficient this could fall 100% on a single connecting party, which becomes an adverse market signal. Contrary to SSEN's statement on p3 of the 'evidence' document that "These charges... will be specific to each flexible connection", we believe that DNOs will be working towards standardised offerings to maximise the benefit to consumers and to optimise management of the network. For example, software costs shared across multiple sites, hardware which can deliver multiple connections, and real-time measurement and monitoring equipment which provides the DNO with data on the dynamic condition of the network to better identify power quality issues and/or future capacity solutions for all related users of that part of the network. For all of these reasons much of the work involved in a flexible connection could be appropriately cost-shared as per the principles of a 'shallowish' connection boundary.

2. Do you agree with SSEN's proposed principle that a 'flexible connection' cannot be a 'Minimum Scheme'? Please explain your answer.

In light of current network planning standards, SSEN's proposal is understandable. However, these standards are focused primarily on network infrastructure as the sole means of meeting security and quality of supply, an assumption that becomes increasingly outdated as the industry evolves into the DSO. We suggest that DNOs should keep this position under review and adapt as network planning standards change to reflect the use of flexibility services as a means of providing security of supply and flexible connections as part of business as usual.

The relevance of the "minimum scheme" (from a passive network design standard) in a more actively managed system may be flawed. As flexible connections become the norm, it is right to question whether a "P2" standard minimum scheme is the correct benchmark for connection costs.

3. Under the Common Connections Charging Methodology ('the CCCM'), the ongoing costs of operation and maintenance relating to additional assets requested by the connecting customer (over and above those associated with the Minimum Scheme) will be payable in full by that customer (not supported through the Use of System Tariff).

Based on

- SSEN's interpretation of the 'Minimum Scheme',

- SSEN's proposed classification of flexible connections' costs as 'O&M', and
- the CCCM,

under SSENs proposed methodology, the entirety of costs of 'flexible connections' will be borne by the connecting customer.

Do you agree with SSEN's proposed apportionment of costs of 'flexible connections' and stated rationale (that all of these costs are bespoke and specific to the connection, do not provide any value to wider use-of-system customers and should not be recovered from the wider customer base)?

Please explain your reasoning.

Flexible connections are becoming more widespread across the total electricity system and will soon become "business as usual" in the routine operation of an economic, efficient and secure network. Many of the flexible schemes in operation (or being developed) pioneer connection techniques that can be applied more widely and many introduce flexibility that frees up network capability headroom to enable future users to access the system who, otherwise, would have been prevented from connecting or delayed pending completion of infrastructure reinforcements.

For this reason, we **do not agree** that "all of these costs are bespoke and specific to the connection" and do not agree that they "do not provide any value to wider use-of-system customers". We consider that SSEN's proposed approach harks back to the days of "deep" connection charging, in which new connectees picked up the full cost of any network infrastructure reinforcements associated with their connection, regardless of the extent to which that new connectee would actually use the reinforced assets nor of the potential value to future users. We think that this approach is unreasonable and potentially anti-competitive. DNOs have for some time, applied a policy of "shallowish" connection charging in which new connectees only pick up a proportion of the cost of wider network reinforcement (the Cost Apportionment Factor (CAF)) and the remainder of the cost is recovered from wider network users. Such an approach strikes a balance between cost reflectivity and enabling effective competition in generation and supply. We think that, where flexible connections are;

- potentially shareable,
- release the potential for future connectees or
- enable learning that can be applied in other connections,

then this should be reflected in the charges applied to the first comer connectee.

We expect that active management of the network will be a necessity to reveal the benefits of a smart flexible energy system, and that this will entail upgrading the backbone of IT and communications infrastructure across the whole DNO network; a requirement with ultimate benefits to all system users. Such IT and communications upgrades should not be exclusively charged to single connecting parties who have the misfortune of being the first in one area to request a flexible connection.

4. Are there any relevant differences between types of flexible connections (eg timed, ANM, etc.) which should be considered in determining the approach to classifying and allocating associated costs? Please explain your answer.

We think that the extent to which the cost of a flexible connection is recovered from users other than the associated connectee(s) should take account of;

- The potential for future users to benefit from the scheme in question

- The potential for replication of a particular arrangement or technique that is, at the time of connecting, considered innovative or not business as usual in some way.

See also our answer to question 3 above - any broader IT, communications or monitoring upgrades may be viewed as a step towards overall active management (DSO role) with shareable benefits beyond a single connectee.

5. a) The following is primarily addressed to the Distributors. How do you currently classify and recover the costs of 'flexible connections'? What are the reasons for your approach? Does your approach differ depending on the type of scheme? How do you expect your current approach to evolve (if at all) over the medium term (next 3-7 years)?

N/A

5. b) The following is primarily addressed to the connecting customers. We note that 'flexible connections' is not defined anywhere in the Charging Statement. SSEN is also proposing to remove paragraph 6.32 which details the 'operation, repair and maintenance' services they provide. What are your views on the clarity and internal consistency of the Statement?

We support SSEN's objective of making its charging statement as simple and concise as is practicable but consider that the changes proposed leave an unacceptable level of ambiguity in relation to the treatment of flexible connections. We do not propose specific drafting changes at this time because, as noted above, we think there are other areas in which the methodology could be improved most notably in relation to potential future use / value of flexible connections.

5. c) The following is primarily addressed to the connecting customers. What are your views on SSEN's proposal - that where there are annual third party costs incurred in operating the 'flexible connections', SSEN will pass these charges onto the customer on an annual basis?

Whilst we agree that, at this stage in the development of flexible connections, it would not be right to socialise associated costs across all users, we also do not consider it reasonable that those costs should be borne solely by the first comer connectee. We think that the methodology should take account of future potential shareability, wider customer benefit and apportion appropriately. This would be consistent with the "shallowish" charging signal sent by the CAF to new generator connectees in relation to the recovery of cost associated with wider distribution reinforcements.

6. Do you believe the modifications made in SSEN's Statement are reasonable and are in line with the Relevant Objectives? Please provide reasons for your response.

We currently have concerns around the meeting of the relevant objectives of "Facilitating competition" and also of "Ensuring charges reflect developments in the Licensees Distribution business". Specifically, we think that passing all capital costs associated with a flexible connection on to the first comer connectee is potentially anti-competitive and also does not encourage the distribution licensee to incorporate flexible connections into its longer term network planning and strategy, as will inevitably be required as the industry progresses towards the DSO.

We hope you find this response helpful. If you wish to discuss its contents or any issues associated with it, please do not hesitate to contact me.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'P. Smart', with a horizontal line underneath.

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