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James Norman  
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Our Ref: EN01-005254

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Dear James,

**Re: Extending competition in electricity transmission: arrangements to introduce onshore tenders**

RES is the UK's largest independent renewable energy developer with interests in onshore wind, wave and tidal, offshore wind, solar, energy storage, demand-side management and transmission assets. A wholly owned UK company at the forefront of innovation and infrastructure development around the world, with more than 570km of transmission lines already built; RES now employs over 1000 people and has built over 1000MW of wind energy assets in the UK – around 10% of the UK's total installed capacity.

RES welcomes the Ofgem "Extending competition in electricity transmission: arrangements to introduce onshore tenders" consultation published on 19 October 2015 ("the consultation"). RES continues to strongly support the introduction of competition to onshore transmission assets and welcomes the timely progression of the arrangements necessary to support its implementation. In summary, RES;

- Welcomes the introduction of competition in onshore transmission and supports the general principles and the outline design of the market offering developed so far.
- Believes that the early CATO model will deliver the best and most innovative CATO solutions and as a result most benefits to GB consumers. We would strongly support this as the mid-term goal for competitive onshore transmission arrangements and are further committed to share our ideas and thoughts in order to successfully implement the early CATO model.
- Considers that CATO represents a significant opportunity to generate benefits for GB consumers, through innovation along the entire supply chain and the introduction of new market participants. This will be most widely realised through early CATO, where new technologies and new entrants at all levels in the supply chain, will be able to bring forward novel, value adding solutions without jeopardising system reliability and security.
- Recognises the importance to start with the late CATO model, with its strong parallels to the OFTO regime. Late CATO provides a model that the market understands and supports from its knowledge of the OFTO regime, thereby allowing CATO to start and build from a known, existing arrangement. We do believe that the late CATO model has some natural limitations and benefits will predominantly come from financial engineering.
- Believes CATO should encourage the use of the widest possible range of technologies, including HVDC and seek to establish a thriving market place for transmission activities and participants. We

think supply chain challenges regarding HVDC projects can be addressed in a timely manner and the preclusion of HVDC projects would be discriminatory at the expense of GB consumers.

Our detailed responses to the questions posed in the consultation are outlined below:

### **What will be subject to competition and how will we identify those projects?**

1. What are your views on the proposed detailed interpretations of new, separable and high value (the 'criteria')?

RES agrees that proposed criteria provide a sensible starting point for the first CATO projects; the criteria are transparent and understandable, providing an initial, clear signal to the market. Requiring CATOs to be made up of wholly new assets or complete replacement assets, allows for process simplification and interface administration minimisation, which we believe will allow initial CATO projects to progress more smoothly. We also believe that the CATO process should be a "living project" and even at the outset, there should be an expectation that it will evolve to accommodate continuous feedback and the requirements for more sophisticated requirements and solutions.

RES also believes that the opportunity to split or combine projects could be utilised, where this can potentially generate better value for consumers by offering more CATOs that are more attractive to the market with better risk profiles.

2. Under what circumstances do you think asset transfer from an existing asset owner to a CATO would be required, recognising the principle that projects identified for tendering should be new?

RES believes that asset transfer should be limited to assets at the ownership/operational boundary where this transfer has significant benefit to both CATO and TO. Ideally this would only be new assets acquired or installed by the TO, to facilitate the CATO connection. We can also foresee some occasions where existing assets are transferred prior to their replacement simply to transfer land rights. We believe that significant transfer of assets will force Ofgem into complex consideration of incumbents' existing price control arrangements to ensure that no organisation unduly benefits at the sake of consumers.

3. What are your views on our proposal that electrical separability should not be required at each interface, but that the SO can propose it to us if it thinks there is a cost-benefit justification based on system operability?

We agree with the consultation that there is no need for electrical separability; as stated in the consultation, these arrangements already exist. We further propose that if any party (either CATO, SO or incumbent TO) requires electrical separability then that party should fund the additional plant. For example a CATO might choose to install additional circuit breakers and isolation equipment to achieve its desired operations and maintenance regime and accompanying lifetime costs, this would be priced into that CATO's bid revenue stream.

4. What are your views on the suggested process and roles for identifying projects for tendering? We have proposed specific roles for the SO – do you think there are any additional roles the SO could take on to support competition? What's the most appropriate way to ensure that the network options assessment (NOA) considers the widest range of network options, including those that would be tendered?

RES broadly agrees with the suggested process and would like to reinforce the view that Ofgem maintains its role as decision maker on whether to tender or not, and also that Ofgem maintains strict oversight of the process itself. We consider that the SO role is best characterised by its ability to view the whole system and as a result determine transmission system needs. RES proposes that a further step is added to the simplified proposed pre-tender project identification process, whereby the SO carries out high level studies of all potential options, once it has identified a potential need; outcomes of these studies could be early warning signals to Ofgem of potential tenders (the initial options are likely to have some indication against the new, high value and separable criteria) and directions to the TO to consider the need against its existing asset base. Both of these aspects, the SO focusing on its whole system view and coming up with early options, should enable the NOA to include the broadest range of options.

5. What incentives and obligations should the SO and TOs have for undertaking preliminary works for tendered projects, and is there any value in considering a success fee incentive?

We agree that the success fee mechanism would be appropriate and we prefer the balanced scorecard approach as opposed to the simple binary approach. Milestone targets are easy measures of timeliness of delivery, but quality of the preliminary works is harder to measure. Seeking feedback from the CATO could provide a possible form of quality measure; this could be coupled with some form of 'retention' that is unlocked when the CATO assets are available for use on time. Clearly this would take some development, but locks the SO and TO into a successful outcome for the CATO.

RES also proposes that in any case Ofgem should seek feedback from CATOs after the first tender rounds, in order to evaluate the general quality and adequacy of preliminary works. This would present the opportunity to build this feedback into wider engagement and reputational incentives for the SO and TO.

6. Should CATOs pay for the preliminary works at the point of transfer?

Our opinion is that the CATO should not fund the preliminary works and that this should be funded by the consumer as part of the SOs role. We consider that the effort required to administrate the transfer will outweigh any benefit to consumers. We recognise that the CATO would not receive any contribution to its RAV/RS under these circumstances. We also believe that this approach is the simplest and provides further incentivisation to the SO to complete the preliminary works efficiently and to a high standard. We further consider that as project complexity varies between projects it would be challenging to define clear rules how preliminary works should be undertaken and how even an ideal transfer could work.

#### **How will the tender work and what will CATOs get?**

1. What are your views on our proposed late CATO build tender model? Do you have any views on the basis of bids, use of cost-sharing factors or what risks, if any, it would not be efficient for a CATO to manage during construction?

RES considers the proposed late CATO model to be realistic model to begin the introduction of CATO, but believes that this model effectively amounts to a battle, centred on cost of capital. In the late CATO model we believe there is significantly reduced scope for innovation, as result of the consents process; the consents process will deliver an output that requires construction to be broadly in line with existing incumbent standards and specifications. As a result of these factors we

consider tender specification should be as detailed as possible, allowing bidders to focus on detailed design, procurement and construction aspects. We consider that sharing factors are not necessarily suited to this process, but we believe reopeners for specific issues would allow bidders to submit the most economic and efficient bids with reasonable levels of risk. Specifically we consider the risk associated with inadequate or late preliminary works carried out by the SO or TO, causing unforeseen costs and delays to the CATO, to be significant, with the resulting impact requiring some form of reopener, where the CATO is required to accommodate or rectify the inadequacy or delay.

2. What are your views on our proposed early CATO build tender model? Do you have any views on what tender specification would best facilitate innovative but deliverable bids, and how we can best manage cost uncertainty after the tender?

RES strongly supports the early CATO option and believes that this is the truest form of transmission competition, whereby bidders seek to resolve a transmission requirement through competitive process. We consider that only the early CATO will fully unlock the value from innovation and new market entrants, when compared to some of the natural constraints imposed by the late CATO model. Therefore RES considers that the tender specification should be based around a high level statement of the transmission need in the form of capacity requirement, connection points and significant environmental factors, together with a required timeframe.

RES believes that this arrangement would require the splitting of the revenue stream into a (fixed) development phase revenue stream with milestone payments and incentivisation, and a (best indicative) construction and operation revenue stream based on best indicative costs. For the construction element particularly we consider that there is potentially the opportunity for a binding cap and floor arrangement with a gain and pain sharing mechanism. We believe that this form of arrangement would allow greater scrutiny and comparison of bidders' proposals and associated cost calculations, as well as mitigate any strategic bidding; regardless we would expect oversight and challenge to confirm that the proposed construction and operation costs remain efficient and good value.

It is RES' opinion that infrastructure development, including electricity transmission assets will continue to be increasingly challenging. Competition and innovation will mitigate some of the physical and cost challenges, but for early CATO, we consider that cost uncertainty will still arise from potential changes in requirement and issues in the land acquisitions and route consenting process, and it is important to protect both the GB consumer and the CATO from undue risk (and associated risk pricing) due to these two elements. Even the cap and floor regime may not completely mitigate these risks adequately. However by the splitting of the development phase and construction and operation phase revenue streams, there is a natural gateway, which provides an opportunity for review and final sign off of the final construction and operation revenue stream.

3. Do you have any views on the best way to tender projects that use high voltage direct current (HVDC) technology?

RES sees no reason for HVDC projects not to be included in the tender process; the existing transmission licensing and funding regime is technology agnostic. It would therefore be arbitrary and discriminatory to exclude a specific subset of transmission investments solely on the basis of technology, particularly when such assets exist within the asset base of the incumbent TOs. By their very nature, HVDC projects are new, separable and high value, as such they are perfectly suited for CATO.

We believe that the early CATO model is best suited to the delivery of HVDC projects; this would allow the CATO to be involved in the development and procurement of the HVDC solution. This approach also has the advantage of stimulating the HVDC market, with CATOs more likely to seek new and alternative suppliers. We also consider that even delivery under the late CATO model is possible, with the SO carrying out some activities (initial specification and procurement); in the current market place for HVDC there are unlikely to be wide price variations attributed to the customer, as such the role of procurement of this service is diminished.

4. Do you have any views on our proposal to prioritise late CATO build? Do you have any views on specific circumstances where early CATO build might lead to better outcomes than late CATO build?

RES understands the practical reason for prioritising late CATO build, in that it allows CATO to become reality significantly earlier than starting with the early CATO model. The late CATO model is also similar to the known OFTO regime, offering the market enough transparency to understand the risks associated with CATO. We do strongly believe however, that the greatest value comes from the early CATO model and this should be progressed in parallel with the late CATO process, i.e. the running of late CATO tenders should not stop the development of the early CATO process and possible candidate projects.

RES has a strong track record of developing transmission infrastructure from an initial requirement, in other transmission markets and would be keen to support and see the benefits realised by the early CATO principle.

5. Do you have any views on how we could mitigate the risk of a CATO not being in place?

RES believes it is highly unlikely a CATO will not be in place, as a result of a Tender process being run. If a CATO fails in service then the arrangements already in place for an OFTO of Last Resort could be applied equally to a CATO. We consider the construction phase potentially to be one of the high risk periods of the CATO lifecycle and that this will require a degree of oversight, governance and reporting to Ofgem, which includes the 'health' of the CATO itself.

6. What are your views on our proposed revenue package for CATOs? Do you have any views on the proposed duration of the revenue term, including how it links to the asset cost recovery period, and whether operations and maintenance costs can be fixed over this period? Do you have any views on our proposed approach to indexation, refinancing and enabling new asset investment?

RES considers that the revenue stream approach rather than the RAV approach is significantly more suitable to CATO and that a 25 year revenue term with a RV or extension option is likely to deliver the most competitive benefit. In this framework, we consider that there will be sufficient detail available to fix operations and maintenance costs for the revenue term.

RES believes that an approach to indexation that allows the CATO to select the proportion of the revenue stream that is index linked, allows individual CATOs to offer the most competitive revenue stream based on their cost and finance proposals. RES' preference would be to continue to use RPI as the inflation index for this purpose, as is the case for the majority of UK regulated industry.

RES considers that refinancing should follow the OFTO regime, i.e. 50:50 at the outset. Finally we believe that new, marginal asset investment that delivers new capacity or connections can and should be achieved through the CATO, through a process of reopeners. This scenario would also be

supported by the Residual Value (RV) of the 25 year + RV revenue stream model with options available to modify any or all elements.

7. What are your views on our proposed package of financial incentives for CATOs? Do you have any views on how we could structure an availability-based incentive to ensure CATOs operate their assets with a 'whole network' view? Do you have any views on whether there are circumstances under which 'payment on completion' would not be appropriate to incentivise timely asset delivery?

RES considers that a simple, straightforward approach to incentivisation, reflecting the narrower scope of the CATO should be in place, i.e. the CATO should not bear the full requirement for reporting and compliance as an incumbent TO. The main incentive should be a simple availability incentive, similar to the OFTO regime.

We believe the CATO should be bound by the STC and NAP. Together with a reputational element, we believe these criteria will be sufficient to ensure that the CATO manages its network in a responsible manner that supports the whole network. We also believe that it would be appropriate to have a small range of Network Output Measures that further require the CATO to manage the health and condition of its assets.

In terms of incentivisation on timely delivery, RES considers that the 'payment on completion' will be effective at both delivering an incentive to achieve deadlines for delivery and cost efficiency, if coupled with a reopener process. We believe that allowing limited reopeners will allow the most competitive revenue streams to be bid, without exposing the GB consumer or CATO to unreasonable levels of built in risk, but at the same time recognising that some aspects cannot be straightforwardly risk managed.

8. Are there other types of incentives not covered in this chapter that you think should apply to CATOs?

We believe that innovation should be specifically incentivised in the CATO regime, as the creation of CATOs represents a unique opportunity to introduce new technologies, suppliers and practices into the GB transmission market. Clearly there is an inbuilt incentivisation in the process, to innovate and as a result reduce costs, but we believe that further overt incentivisation could bring out significant long term gain. We believe this incentivisation would likely have greater impact and is better suited to use with the early CATO model.

### **Managing conflicts of interest**

1. Are there any risks or conflicts of interest arising from the SO's role that we haven't identified?

We do not consider that there are further significant conflicts of interest around the role of the SO.

2. Are there any risks or conflicts of interest arising from the participation of incumbent onshore TOs that we haven't identified?

RES considers the most significant conflict of interest to arise when the incumbent TO is involved in preliminary works and has the opportunity to either influence the resulting full works or gain competitive advantage through the completing of the preliminary works.

RES also believes that financial independence of the SO is of significant importance. The SO will be responsible for recommending project packages to Ofgem, it is therefore important that the SO has

no financial incentive to decrease the amount of projects brought forward to tender, i.e. if the SO would financially benefit from a project being delivered by an incumbent TO, due to increasing the TO's RAV and therefore generating money for the SO and TO parent organisation.

3. Are there any additional conflicts of interest that we haven't identified?

At this stage, RES does not foresee any additional conflicts of interest other than those already identified.

4. What measures do you think would be appropriate to mitigate the risks and conflicts of interest? What additional conflict mitigation measures would be needed if the SO takes on a broader role in supporting competition?

RES believes the modifications to NGET's license effective 2 November 2015 are adequate to cover the potential risks and conflicts of interest, once reference to CATO has been added. In this context we understand an incumbent TO organisation would be a Relevant Other Competitive Business. We do not consider further mitigation necessary for the SO to take on a broader role.

We would like to re-iterate our support to the development of the CATO regime and look forward to the next steps in the process. We are also happy to clarify any of the points raised in our response to your consultation.

Yours sincerely,



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