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Hinkley-Seabank – Consultation on Final Needs Case and potential delivery models

EDF Energy is one of the UK's largest energy companies with activities throughout the energy chain. Our interests include nuclear, coal and gas-fired electricity generation, renewables, storage, and energy supply to end users. We have over five million electricity and gas customer accounts in the UK, including residential and business users.

The construction and delivery of the Hinkley – Seabank (HSB) grid works are critical to the timely connection of EDF Energy's Hinkley Point C (HPC) nuclear power station project in Somerset. We welcome this consultation setting out that Ofgem is minded to support the Needs Case. This is an important milestone for our HPC project and recognises that National Grid (NGET) has presented a clear economic and technical case demonstrating that it is beneficial to GB consumers for the HSB project to progress.

We note Ofgem's consideration of two new, potential delivery models for the grid works in lieu of the Competitively Appointed Transmission Owner (CATO) regime and as alternatives to Ofgem's normal Strategic Wider Works (SWW) process. We support measures that will help to bear down on network costs to the benefit of electricity consumers including measures to introduce greater competition into electricity transmission. In doing so it is critical that new arrangements carefully balance the potential consumer benefits with any additional risks including ensuring timely delivery.

For HSB, we are concerned that the proposal to introduce tendering processes through the Special Purpose Vehicle (SPV) competition approach brings significant and unnecessary delivery risk. The programme for delivering the HSB grid works is already challenging and complex. To propose to introduce an untried, innovative delivery approach that has not been fully developed to the project at this late stage is of significant concern. This type of arrangement should be developed in detail and introduced at a much earlier stage in the planning for new transmission investment. It should not be consulted on in parallel with the planned delivery. Requiring NGET to develop and implement this proposal with Ofgem at this stage is a significant distraction to NGET from delivering this critical piece of infrastructure. The timescale is simply too short to hold an SPV competition without risking delay to HPC's grid connection dates impacting our costs and schedule.

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The Competition Proxy model, on the other hand, does not appear to introduce the same delivery risks for HSB yet could still bring potential benefits to consumers by lowering costs. Ofgem indicates potential consumer savings of c.£30-£120m. If these benefits were achievable while mitigating risks we would support this option for HSB.
More generally, we support new delivery models that help to bear down on network costs and support their evaluation for future, less developed projects. One area where we believe more work is required is the interaction between the transmission delivery models and the Contract for Difference (CfD) process. Greater alignment of these processes will help to ensure that electricity consumers secure the benefit of driving down network costs. Our own Lewis Wind Power project is a good example of this where the grid costs are a large part of the overall project costs (c.50%). If these can be brought down through competition then consumers will gain but only if they can be included in the CfD auction.

Our detailed responses are set out in the attachment to this letter. Should you wish to discuss any of the issues raised in our response or have any queries, please contact Mark Cox on 01452 658415, or me.

I confirm that this letter and its attachment may be published on Ofgem's website.

Yours sincerely,

Angela Hepworth
Corporate Policy and Regulation Director

Attachment

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EDF Energy's response to your questions

1. Regulatory framework for Hinkley-Seabank and other similar projects

Q1. Do you agree with our initial views on the appropriateness of the new, separable and high value criteria for the SPV and Competition Proxy models?

We agree with Ofgem's initial view that for the SPV model, the new, separable and high value criteria are still appropriate. Additionally, deliverability, transferability and project specific considerations should be examined in detail as these are critical to ensure that the consumer benefit case is fully understood.

For the Competition Proxy model, we do not think that it is imperative for any of the three criteria to apply. Specifically, there is no need for the 'separable' criterion since NGET will own and operate the asset. The 'high value' criterion is only partially relevant because under this model there are no additional tender costs but Ofgem will still need to implement the model and review the costs to determine whether they were incurred efficiently. Bearing in mind that the model is intended to apply as an interim measure for the CATO regime and the only projects which will be considered under this regime will be large new projects, it would make sense to apply the 'new' criterion.

Q2. Do you think the criteria for identifying projects suitable for delivery through models intended to secure the benefits of competition should be the same, irrespective of which delivery model is used?

Yes. Irrespective of which model may be used, we expect the System Operator (SO) to identify potential SWW projects in the Network Options Assessment (NOA) process as now.

2. SWW Final Needs Case assessment

Q3. Do you agree that there is a technical need for the HSB project and that the proposed connection is compliant with SQSS requirements? If not, please give evidence.

Yes, we agree that there is a technical need for the HSB project and that the proposed connection is compliant with SQSS requirements.

Q4. Do you agree with our initial conclusions?

We agree with Ofgem that HPC connecting to the transmission system creates a need for investment in transmission infrastructure in the South West and that connecting HPC

using an additional 400kV double circuit resolves the technical issues referenced in paragraph 2.3. We also agree that there is an economic and technical need for the HSB project to progress and that NGET has selected an appropriate routing option. Our views on some of the other specific points raised are:

- **Undergrounding of the section through the Mendip Hills.** We agree that NGET's undergrounding proposals are reasonable and a key part of their planning consent.

- **Additional cost of using T-pylons.** We understand that the Pylon Design Competition ran by the Department of Energy & Climate Change, NGET, and the Royal Institute of British Architects back in 2011 was a result of the level of opposition to new conventional towers. In our opinion, NGET would have faced overwhelming opposition if they had not taken substantive measures to address the visual impact concerns. For instance, it is quite possible that more undergrounding of the route, at much higher costs, would have been required if the new tower design had not been used. Clearly now we will not know what otherwise would have been the case but we believe NGET followed a reasonable process to secure the route at least cost. We also understand from NGET that the £17m T-pylon development costs were incurred as part of the planning development costs for HSB and a key development cost to ensure that the design could be used for HSB. Hence it seems reasonable for NGET to be able to recover these costs.

- **Risk funding.** Given the recent flooding issues experienced on the Somerset levels we believe that there is a reasonable risk that NGET will incur additional costs during the construction of HSB. We agree with Ofgem that an alternative approach needs to be agreed between Ofgem and NGET that addresses this sort of high-impact, low-probability events to minimise costs to consumers while protecting NGET in the event of challenging weather conditions.

Q5. Are there any additional factors that we should consider as part of our SWW Final Needs Case assessment?

No.

3. Assessment of suitability for competition and potential delivery models

Q6. Do you agree with our assessment of HSB against the criteria for competition, including our view on potentially re-packaging the project so that it meets all the criteria?

Yes, we agree that the assets are 'new' and 'high value'. While the project is mainly 'separable' this is a complex project with multiple interfaces including with the local Distribution Network Operator (DNO) and, as Ofgem note, it is less clear that the project meets this criterion. In addition, any approach needs to consider deliverability as Ofgem highlight and we provide further detail on our concerns in the following questions.

Q7. Do you agree that the SPV model or Competition Proxy model would deliver a more favourable outcome for consumers relative to the existing status quo SWW delivery arrangements under RIIO?

In principle, both models have the potential to deliver a more favourable outcome for consumers relative to the status quo under RIIO. We support proposals that bear down on costs for electricity consumers.

For the HSB project, we believe that the Competition Proxy model may have the potential to deliver a more favourable outcome for consumers relative to the status quo since it should not raise any deliverability problems or transferability issues. However, we do not believe the SPV model will bring a favourable outcome for consumers in this specific case since it is likely to introduce construction delay risk for both HSB and HPC projects. To propose to introduce an untried, innovative delivery approach that has not been fully developed to the project at this late stage is of significant concern. This type of arrangement should be developed in detail and introduced at a much earlier stage in the planning for new transmission investment. We believe that it should not be consulted on in parallel with the planned delivery particularly where it will have a direct impact on the connecting generator. Requiring NGET to develop and implement this proposal with Ofgem at this stage is a significant distraction to NGET from delivering this critical piece of infrastructure. The timescale is simply too short to hold an SPV competition without risking delay to HPC's grid connection dates impacting our costs and schedule.

The potential benefits of the SPV model rely on its ability to attract a wide pool of investors at a low cost of capital. In turn, this requires that the SPV commercial / legal framework and risk allocation are robustly and carefully designed reflecting investor and customer perspectives. If the SPV is not designed well with clear risk allocation and legal structures, it will not be attractive to investors, benefits will not be secured, and the arrangement may not offer optimal customer value for money. It is imperative that time is taken to design the framework rigorously and appropriately, if this option is to be taken forward generally.

Q8. What are your thoughts on the SPV model, including:

(a) The structure of the model and length of revenue term?

We do not support the SPV model for the HSB grid works as set out above.

In terms of the model generically, we agree with Ofgem that to secure the best financing outcomes a term of around 25 years is likely to deliver the best option. This is likely to be the limit on the term of debt available in the market so to go beyond this will open up increased re-financing risk. However, we believe that this raises two issues that need further consideration:

First, a 25 year term may well mean that consumers are being forced to pay for the grid assets faster than they should as the assets most likely will last 40 to 60 years. This means that there is inequity between generations of electricity consumers. As far as possible regulated assets should be financed over a term that broadly aligns with their technical /

commercial life. The OFTO regime, where similar models are used, worked well in this respect as the grid assets' useful life is more directly linked to the offshore windfarm life as generally the grid connection is a radial circuit for the prime purpose of connecting the windfarm; onshore assets are part of a complex meshed system with a much wider range of users some of whom, including consumers, will be there well beyond 25 years.

Second, it will be critical for Ofgem to consider how transmission charging arrangement will overlay these revenue requirements. Transmission charging arrangements recover these allowed revenues. At the same time, they provide locational signals to users but in some instances these signals are much sharper if the assets are deemed to be local assets. If the transmission funding approach varies the asset commercial life of large high value transmission circuits this may flow through to grid charges. It is not right that the regulatory approach determined for funding specific projects will affect the (generation) market and create distortions itself.

More generally we believe a lot more detail needs to be developed to make this option workable not least around risk allocation, benefit sharing and shareholding. If SPV is to be taken forward as a model for future development of grid infrastructure, to make a success of it will require extensive and comprehensive detail on risk allocation and legal structures to i) attract bids from a widest range of third party investors, ii) to ensure the competency of the bidders to deliver the projects, and iii) to ensure that the framework is optimal from a customer perspective.

(b) Should construction funding start during construction, or once it has completed?

Revenues during construction have the potential to improve customer value for money with the HSB project.

Allowing revenues during the construction phase can be an effective way of reducing costs for customers. It can widen the pool of potential investors that are willing and/or able to invest in the project (some investors have a strong preference or requirement that their committed capital earns a yield) increasing competition in providers of finance. Revenues during construction can also potentially reduce the required rate of return for those investors prepared to invest by lowering financial risk (for example by improving cash flow ratios during construction, enabling higher gearing and/or lower cost debt) and more closely aligning the profile of financial returns with debt and equity investor preferences.

In addition to any reductions in investors' required rate of return, the reduction in accumulated interest during construction will lower customer bills during the operation phase, offsetting the impact on customers of earlier customer payments made during the construction phase. This could be a more efficient way to recover costs from a customer perspective. The potential benefits discussed above are likely to be particularly evident for larger projects with longer construction times such as the HSB project.

Optimising customer value for money under an approach that allows revenues during construction will require strong investor incentives to deliver to time and budget.

Revenues during construction were an important component of the package available to investors at the Thames Tideway Tunnel. The project provides a good example of the potential benefits for customers of this allowance (high investor interest at a low cost of capital), including mechanisms to incentivise timely delivery.

(c) The contractual and regulatory arrangements?

The consultation suggests that for HSB, the SPV competition may need to begin by Q1 2018 to meet the connection contract for HPC. We believe that Q1 2018 is unachievable since the decision for the Final Needs Case for HSB is currently expected in December 2017 followed by another consultation on the delivery approach of the HSB. NGET will have to fully understand the requirements of the SPV; mobilise a team; put in place appropriate arrangements to avoid conflicts and ensure a fair and transparent process; and produce a near final draft of the Delivery Agreement before commencing the SPV tender. Interested parties will also have to put a bid in place within the limited timescale. The timescale is simply too short to hold an SPV competition without impacting on the connection contract for HPC.

We note Ofgem's view that the project can be split into different package to mitigate timing and delivery risks. This is already a complex and challenging project with multiple interfaces. To add further complexity raises serious concerns around deliverability.

(d) The identified benefits?

Ofgem highlight that potential benefits to consumers from SPV and competition proxy models could be in the range c.£30m to £120m. An effective tender for a project will provide a market based price for the cost of finance if there is sufficient competition. An efficient price for the cost of finance could benefit customers if it is lower than the allowed return set under RIIO (which it might be for a number of reasons – including those listed in the consultation). The SPV model could in principal achieve this, but the model will have to be effectively, appropriately and carefully designed. If this cannot be ensured then any potential benefits are unlikely to be realised as there may not be sufficient competition in the tender and/or the framework design may not provide optimal value for money for customers. Given the tight timeframe, it is unlikely that an appropriate SPV model will be ready for the HSB project and therefore uncertain that the potential benefits will be realised.

For the Competition Proxy model, it will be necessary for Ofgem to identify specific benchmarks to help determine these savings as discussed further in question 9(c).

In principle we agree that a project finance type approach may well bring benefits but this will be dependent on how risks are allocated and the term of the model as previously discussed. We note Ofgem / CEPA's assessment of the relative benefits of the OFTO transmission investment rounds against the RIIO settlement which identified savings from introducing further competition.

(e) Any potential downsides or implementation risks?

See responses to (a) and (c).

(f) Any other considerations?

The implementation of the new model should be structured so that it does not impact on project delivery. As far as possible these opportunities should be identified as early as possible in the planning process and early decision taken to pursue these options. This will ensure that they do not impact on deliverability. We also note that for some grid projects, where they more directly impact on generator costs (through TNUoS charges), Ofgem should consider how they can provide certainty over these lower grid costs so that consumers can secure these benefits. For instance, for some Contract for Difference wind projects the grid costs are a large part of the overall project costs. Our own Lewis Wind Power project the grid costs are around 50% of the total project costs. If these can be brought down through competition then consumers will gain through lower CfD clearing prices. Ofgem should consider how they can align these competitive transmission delivery models with the CfD regime to deliver enhanced consumer benefits.

Q9. What are your thoughts on the Competition Proxy model, including:

(a) The structure of the model and length of revenue term?

See response to question 8(a).

(b) Should construction funding start during construction, or once it has completed?

See response to question 8(b).

(c) How we identify comparable benchmarks?

Ofgem has access to information from the OFTO regime which will provide some excellent comparative information for the financing and operation of similar assets. It does not cover the construction of the assets in the same way though. The interconnection regimes will also provide some useful benchmarks on the construction, financing and operation of transmission assets. Outside of the sector, the recent Thames Tideway development undertaken in the water sector may well also provide some insights of how to manage these developments and the sorts of financing available.

(d) The identified benefits?

Ofgem highlight that potential benefits to consumers from SPV and competition proxy models could be in the range c.£30m to £120m. This is based on the lower prevailing cost of debt s (relative to RIIO trailing average), realising current investor demand for these types of assets through lower cost of equity and from higher geared financing models based on experience from OFTO regime.

The benefits from incorporating the lower prevailing cost of debt than the (higher) trailing average are quite apparent. With respect to benchmark implied cost of equity and gearing it will be important to incorporate any differences between risk-allocation under the respective regulatory frameworks and underlying activity (for instance OFTO tenders are for operational assets and do not therefore reflect any construction risk). Other factors to consider include the impact of higher gearing on cost of equity – all else being equal higher gearing implies a higher cost of equity. It will also be important to consider the total cost of project finance where requirements may impose costs on the project in addition to interest costs, which would not be apparent based on a simple comparison of interest costs.

(e) Any potential downsides or implementation risks?

See responses to (a) and (c).

(f) Any other considerations?

The implementation of the new model should be structured so that it does not impact on project delivery.

EDF Energy
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