



Ofgem Consultation:

“Extending competition in electricity transmission: criteria, pre-tender and conflict mitigation arrangements”

Response from Horizon Nuclear Power

Horizon Nuclear Power

1. Horizon is a UK energy company developing a new generation of nuclear power stations. The company was established in 2009 following the UK Government’s announcement that new nuclear energy would be a core element of the future electricity mix. The company was acquired by Hitachi in late 2012.
2. Horizon owns two of the eight sites designated in the UK for new build in the National Policy Statement¹ for nuclear power generation. Horizon plans to provide at least 5,400MW of new power station capacity to the UK – enough to power some 10 million homes – with the first project to be located at Wylfa on Anglesey. Horizon plans to deliver two Hitachi-GE UK Advanced Boiling Water reactors (UK ABWRs) at the Wylfa Newydd site, each generating around 1,350MW.
3. Horizon anticipates main construction of Wylfa Newydd beginning around 2020, with the first unit to be operational in the first half of the 2020s. The projects at Wylfa Newydd and our second site at Oldbury, South Gloucestershire represent an investment of some £20 billion, up to 60% of which could be spent in the UK. Each project will see a peak workforce of between 8,000 and 10,000, with around 850 jobs at each site during the subsequent 60 year operational phase.
4. Reinforcement of the grid infrastructure in North Wales is essential for Wylfa Newydd and National Grid are currently consulting on the proposed new Wylfa-Pentir circuit. While, as currently scheduled and costed, this project would not fall within the criteria for tendering, any changes to timelines or costs could see it become potentially eligible for tender. Horizon must also consider any potential impacts for its second project at Oldbury. Therefore the proposed changes to the regime are of key interest to Horizon and we welcome the chance to respond to this consultation.

¹ National Policy Statement Nuclear Power Generation (EN-6):
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47859/2009-nps-for-nuclear-volume1.pdf

Introduction & Overview

5. Horizon welcomes any move that could significantly reduce the costs of building, operating and maintaining the transmission system, as this should lead to lower the charges to itself and other users of the transmission system. However it is not clear to Horizon that introducing competitively appointed transmission owners (CATOs) onshore will bring significant savings without also introducing significant commercial and technical risks. Horizon does not believe that the experience offshore with OFTOs is directly comparable.
6. Horizon's key concern is the additional risks that the introduction of a tendering round and a change to the arrangements for ownership, financing and construction of new infrastructure onshore bring to the Wylfa Newydd project. For Wylfa Newydd to be taken forward and assist in the delivery of UK Government policy, Horizon must ensure that the project is an investible one, with the need to attract additional investors of paramount importance. Any potential investor would look at a new process such as onshore CATOs, with the uncertainties it produces in terms of untested arrangements, unidentified delivery counterparties, and wider unknowns, as introducing significant risk in terms of delayed completion of the necessary grid reinforcements.
7. Hence, Horizon sees at least the strong possibility of an unintended knock-on effect on investor appetite from these proposals. It is not clear to us where in the current consultation or engagement process these risks to projects and delivery of government policy are fully considered. We believe this needs much stronger assessment – not least through the transmission owner of last resort measures which have been (to our knowledge) touched on only briefly to date – before these proposals are progressed.
8. At the moment Horizon does not know the extent to which the proposals for extending competition will impact on its two planned power stations, but a new nuclear power station represents a very large capital investment. It is therefore commercially extremely important to Horizon that there is no additional risk of delay to the completion of the works that are required to allow its two power stations to connect and start full commercial operation as planned. Horizon has already agreed to pay extra to National Grid to initiate consents work early in order to minimise the risks to completing the works associated with Wylfa Newydd and we would be concerned if this extra 'buffer' were eaten into by the process of tendering and appointing a CATO.
9. Also as a nuclear generator, subject to strict nuclear regulation, Horizon is concerned about the reliability, safety and security of the electrical grid connections to its power station sites. Hence any work that may impact those parts of the transmission system and materially affect the reliability of those grid connections is of key interest to Horizon. In National Grid internal documents and in agreements between National Grid and the existing nuclear generators, such parts of the transmission system are designated "coloured circuits".

10. Horizon would ask that specific consideration is given to whether it is deemed appropriate that any coloured circuits should be built, owned or operated by a CATO. However, if any coloured circuits are to be built, owned or operated by a CATO, Horizon would expect the existing arrangements between National Grid and nuclear generators to be extended to the CATO. EDF Energy made a similar comment in its response to an earlier consultation, with reference to the “Nuclear Site Licence Provisions Agreement” that it has with National Grid.
11. The latest consultation seems to be primarily concerned with the arrangements for tendering to be a CATO, and is of particular interest to companies that are considering becoming a CATO. Horizon is not one of such companies, so this response does not offer detailed comments on the specific questions asked in this consultation document. However, Horizon wishes to make a number of more general comments on the introduction of CATOs, which we have not been able to answer fully from reading this and the earlier consultation documents. Horizon would hope that the comments included in this response can form the basis of further engagement with Ofgem, National Grid and others.

Obligations on CATOs

12. It is not clear to Horizon what the obligations will be on CATOs, or even if a decision has been made on such obligations. Horizon would like clarification of the following:
- i. Will CATOs be subject to a transmission licence? Horizon expects that they will, and would be interested to see what obligations will be included in such a transmission licence
 - ii. Will CATOs be obliged to comply with all relevant requirements in the GB Grid Code? Horizon presumes they will, as there are already numerous obligations on OFTOs.
 - iii. Will each CATO be required to be a CUSC party? Horizon expects that as a “user” of the rest of the transmission system each CATO will be required to be a CUSC party. This is very important to nuclear generators including Horizon in order to have the benefit of CUSC clause 6.10 “Nuclear Installations”
 - iv. Will CATOs be required to comply with the Security Standards? Horizon presumes so, but it is not clear whether this falls directly on the CATO, or indirectly on them via obligations on the SO.
 - v. Will CATOs be required to comply with the “Relevant Electrical Standards” as referenced in the Grid Code, and if so, to what extent?
 - vi. Will CATO’s need to be party to the SO-TO Code (STC)? Horizon would expect that they should be, in order that Horizon might have benefit of Clause 3 “Nuclear Installations”. However, the STC as written appears to apply only to the incumbent TOs.

Transmission Owner of last resort

13. As noted above there is a pressing need to further consider, both in the context of the overall system needs and the commercial risk for individual new build generation projects, how to protect against and mitigate the impacts of a CATO failing to fulfil its obligations.
14. For example, there is the danger that a CATO may win the tender round by being considerably cheaper than competing bids because it has significantly underestimated the totality of costs. As a consequence a CATO may fail, either during the construction phase when there is the major capital expenditure, or perhaps later during operation if the CATO has underestimated the ongoing costs of repair and maintenance.
15. There need to be robust arrangements to deal with either of these contingencies. If there is to be a TO of last resort then such a party will need to be adequately remunerated and the process well understood and stress tested before any tender process commences. The financial impact of the delays due to a failed CATO and the payments to the TO of last resort could easily negate any savings from introducing competition.

Technical Aspects of the Tender

16. It is probably not appropriate to tie the hands of a CATO by specifying the particular national or international technical standards or other specifications for the equipment that it is installing. However, Horizon expects that any invitation to tender will require the tenderer to provide details of the technical specification, standards etc. that it is intending to use and to provide assurance that these will provide comparable or better reliability and availability than is achieved from the national or international standards that are commonly used by the incumbent transmission system operators.
17. In addition the tender should include the CATO's plans for the operation, maintenance and repair of its assets including the ability to respond rapidly in emergency situations, in order to provide evidence that it can achieve high availability of its assets.
18. These technical and operational matters should be among the deciding factors in the tenders in addition to the overall price. If Ofgem is to assess the tenders then it will need to build up its in-house technical expertise to be able to properly assess the technical features of the tenders.

Life of CATO assets

19. Horizon understands that the present proposals are to provide the CATO with a guaranteed income for 25 years, but it is unclear from the present or earlier consultation documents what will happen after that. Nuclear power stations being built or developed, including Wylfa Newydd, now have an expectation of an operational life of at least 60

years, and Horizon expects that its initial commercial arrangements will include a Contract for Difference, agreed with the UK Government, lasting at least 35 years.

20. It is not tenable for Horizon, or any future investors in the project, that there should be significant uncertainty, or the risk of a discontinuity in the provision of transmission

connections to any of its power station sites after 25 years operation. There need to be robust proposals for the policy for a CATO's assets after 25 years before any tender process begins or the proposals are taken forward in primary legislation.

Need for Cost Benefit Analysis

21. Horizon believes that it is vitally important that parties who will be impacted by appointment of a CATO should be directly involved in discussions from an early stage. Any decision to proceed with competition for a particular project should be supported by a proper cost-benefit analysis on a case-by-case basis. For example, the appointment of a CATO to construct the new Wylfa-Pentir circuit may bring some capital savings in the construction of that circuit, but these could be dwarfed by any negative impact on Wylfa Newydd, because the capital invested in the power station is at least an order of magnitude greater than the likely cost of the new transmission connections.

Conclusion

22. While Horizon is supportive of the aim of reducing the costs of electricity transmission, it is not convinced that the cost savings from introducing CATOs will always outweigh the risks that this will also introduce. This is particularly true in relation to investor risks for new build generation projects requiring grid reinforcement. There also needs to be more clarity on the obligations on CATOs and the arrangements to be put in place both should a CATO fail to carry out its obligations and beyond the currently envisaged 25 year CATO period.
23. Horizon would welcome the opportunity to discuss these proposals and our comments further with Ofgem, with National Grid, and with other nuclear generators.