

Hitachi Energy's Response to Ofgem's 'OFTO Build - ways forward for an early competition model' consultation

Introducing Hitachi Energy

Hitachi Energy is a global leader in technologies that increase the capacity, resilience and flexibility of the electricity grid. Leveraging £5bn of investment, we are harnessing best practises in the energy, industrial, mobility, IT and smart cities sectors around the world and delivering this insight to the markets that we operate in. We are a major investor in the UK, with a turnover of over £1 billion and operations across the country, from Shetland to Somerset and North Wales to Norfolk. We are continuing our growth journey in the UK with over seven hundred employees and are on track to more than double our UK operations over the last five years.

We are advancing the world's energy system based on renewable energy, the lowest cost, most secure and most sustainable source of power. As a technology leader, we collaborate with customers and partners to enable a sustainable energy future – for today's generations and those to come. We are already helping to bring clean energy to more than ten million UK homes by connecting the world's two largest offshore windfarms at Dogger Bank and Hornsea to the grid.

Our response

What are the potential considerations or barriers to using an early competition OFTO build model to build coordinated assets as outlined in the draft CSNP methodology? How could those barriers be addressed?

Hitachi Energy believes that the development of the offshore grid will only happen if any particular leg of the offshore grid is built and operated by a single entity, otherwise the arrangement becomes too complicated. The complexity of offshore transmission infrastructure requires highly competent organisations with the sufficient expertise to build and operate it. Given that a lot of assets consist of novel technologies and considerations, such as the interoperability of HVDC systems, only a limited number of entities have the necessary expertise to build and operate these assets. In other jurisdictions for example, such as the majority of European states, it is common for transmission owners (TOs) to build and operate offshore transmission infrastructure.

In addition to complexity, speed of delivery is a barrier to using an early competition OFTO build model for coordinated assets. If several bodies rather than a singular entity are involved in the construction of offshore transmission infrastructure, there is a risk that the handover process between them would slow down the overall build process. Given that the supply chain engages early in the process of delivery, having commercial break(s) during the process would be unhelpful.

For shared offshore infrastructure that will be linked with the European Union (EU), it is also important that the UK's approach is compatible with the EU's Emissions Trading System (ETS).

The final build model also needs to overcome the disadvantages that developers currently face in attracting competitive supply chains. At present, developers typically deliver single, stand-alone projects with short delivery timescales compared to programs undertaken by transmission companies or in other jurisdictions. They are therefore less attractive to global suppliers, as they lack the scale and continuity of contracting seen elsewhere.

Aggregating projects under a programmatic approach would help address the OFTO disadvantage by creating greater purchasing power and enabling the benefits of programs. These include improving efficiency through standardisation, reducing the need for repeated design and tendering, enhanced quality and reliability by allowing continuity of teams and processes across multiple projects. At the extreme, this could take the form of a single entity designing, building, and operating the offshore network as a whole, combining technical responsibility with long-term visibility of investment and substantial purchasing power advantages over the coming decades.

Do you think the principles regarding the process and the commercial framework of the early competition OFTO build model targeted at non-radial assets can be directly applied to a mechanism for delivering radial assets? If the principles are not the same, what might be the differences?

As highlighted in our prior response, it is important that the offshore transmission owner (OFTO) build model prioritises expertise and competence in the delivery of offshore transmission assets. Under the current OFTO and Competitively Appointed Transmission Owner (CATO) models, many developers build these assets themselves because they don't have sufficient confidence that other entities can build them in a timely, cost-effective, and quality manner.

Will some radial projects benefit from a substantively different framework, e.g. a late competition model in which generator will be responsible for design and other preliminary works? What are the possible circumstances and what are the potential benefits of using a substantively different model?

It is vital that Ofgem adopts an OFTO build model which at a minimum requires competent entities with the ability and experience to deliver timely, reliable, and operable offshore transmission assets. To further support timely delivery Ofgem should consider mechanisms such as the Advanced Procurement Model (APM), which will enable early funding for critical supply-chain engagement and long-lead components. This would help derisk the delivery schedule and improve supply chain confidence in projects awarded under the OFTO regime. In order to ensure that the supply chain prioritises UK projects, it would be beneficial if OFTOs have a pipeline of multiple projects, which would allow assets to be built more efficiently. Under the current OFTO regime, single transmission projects are awarded late in the process, which generates a comparative lack of supply chain interest.

Do you agree we should include both price and non-price elements in the bidding process and assessment criteria for prospective early competition OFTOs? What do you consider is a proper weighting of price and non-price elements?

Hitachi Energy believes that competence and a track record of delivery should be given the most significant weighting in the assessment criteria, which should include a minimum standard for competence.

What non-price elements of an OFTO bid should form evidence of a potential OFTO's capability to deliver transmission infrastructure as part of an early competition OFTO build tender?

As highlighted in our prior responses, non-price elements should include relevant experience and a track record of delivery. Given that hybrid assets are a novel technology, bidders' experience in designing, building, and operating transmission infrastructure should be assessed.

Can the PPWCA mechanism from the CATO model be appropriately applied to the early competition OFTO build model when substantive cost changes occur between bid submission and

construction commencing? What changes are needed to adapt the PPWCA mechanism for use in OFTO build?

Hitachi Energy supports the inclusion of appropriate inflation indices within the OFTO regime to calculate indexation allowances. This is crucial to providing bidders with flexibility and ensuring opportunities are commercially attractive in light of potential cost changes during the process. We strongly recommend that whatever mechanisms the OFTO is able to deploy are aligned with those used by the supply chain businesses, to ensure parties are aligned from the outset. This will mitigate against the risk of needing to reopen negotiations, causing delay, and will further support the commercial attractiveness of projects in the UK at a time of global fluctuations.

Within the onshore early competition commercial framework, preliminary works payments are proposed to be capped at up to 50% of the NESO's estimated preliminary works costs. NESO as the Delivery Body will communicate with potential bidders on whether or not a preliminary works payment mechanism is proposed in respect of a project for tender. Will preliminary works payments be necessary to allow for early competition OFTOs to build transmission assets before their TRS begins? If so, should the preliminary works payments be determined in the same way as the CATO model?

No comment.

Do you agree with imposing a post-award securities obligation on a successful OFTO bidder to reduce the risk of stranded generation assets and increase the confidence and appetite for early competition OFTO build assets?

No comment.

What forms and levels of compensation are appropriate to mitigate the risks faced by generators in the event that an OFTO delay impacts a generator's route to market under an early competition framework?

No comment.

Do you agree that OFTOs would be sufficiently incentivised under a similar payment mechanism to CATO and generator build regimes to deliver transmission assets on time and to sufficient quality?

No comment.

What challenges would a centralised tender approach pose to generators, OFTOs and other stakeholders? How can these challenges be mitigated?

Hitachi Energy recognises the benefits of a centralised tender approach because it offers a higher degree of coordination and facilitates a programmatic approach to the development of offshore transmission infrastructure. However, the success of any centralised tender model depends on a high level of standardisation – both in terms of technical design and commercial terms & conditions. Only with consistent standards can assets be smoothly transferred to the successful OFTO without costly redesign or delay.

Do you consider that centralised tenders can offer benefits by enabling the tendering of projects at their initial development, potentially at the point of seabed leasing?

Hitachi Energy agrees with Ofgem that enabling the tendering of projects at the point of seabed leasing represents the earliest sensible point of development. However, it is important to note that as referenced above, these benefits can only be achieved if the framework ensures a consistent and standardised approach from the earliest stage possible. Early tendering could unlock supply chain certainty and cost efficiency, but only when design interfaces, commercial terms, and governance processes are standardised and transferable between parties.