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Sent by email to: ESOPerformance@Ofgem.gov.uk

Our ref. Ørsted Response Ofgem
Proposed licence mod network services.

Ørsted response to Ofgem's consultation on potential modifications to generation licence for suitability to assets dedicated to providing network services.

Dear ESO Regulation team,

The Ørsted vision is a world that runs entirely on green energy. In the UK, we develop, construct, and operate offshore and onshore wind farms, battery storage and solar projects. Globally, Ørsted is the market leader in offshore wind and we are constructing the world's biggest offshore wind farms off the East Coast of the UK.

Ørsted welcomes Ofgem's consultation on assets dedicated to providing network services. There is a growing consensus that efficiently managing the network will be key to achieving the Government's target of a net zero electricity system by 2035. Network service technologies such as static synchronous compensators (aka STATCOMs) will form a key part of grid stability, particularly for voltage control and grid strength enhancement. It is however important to recognise that other technologies besides synchronous condensers provide these critical services, hence should equally be included in the generation licence.

We are supportive of Ofgem's acknowledgement of a range of such assets, and the proposal to modify the generation licence to include such assets under an inclusive terminology.

Whilst we are broadly in support of a definition of network service provision that covers a wider scope of assets, there are concerns that the proposed definition remains restrictive and risks excluding relevant technologies that will be highly beneficial to the ESO's optimal operation of the electricity system in an efficient and cost-effective manner.

Also, the proposal to apply the definition of network service assets only to assets dedicated to providing such a service places a restriction on technologies that can provide these services in addition to their main application, thereby limiting the optimal utilisation of such technologies. For instance, a capacitive energy storage combined with static synchronous compensator (ES-STATCOM) can provide damping power to an offshore windfarm as well as offer active inertia and reactive power. We therefore recommend that further considerations are given to the scope of assets defined as providing network services to ensure the best value they provide are duly captured and utilised.

Further, it is imperative considerations are given to how the network service assets commercially operate under applicable regulatory regimes/frameworks. For instance, ensuring that assets that are located and/or operate across ownership boundaries are appropriately reflected in the amended licence.

Ørsted has identified the OFTO regime as a particular challenge for licencing these assets, consequently restricting the potential of offshore wind generators in providing network services. Under the current OFTO regime, network services provided across ownership boundaries would have to be taken into considerations in regard to OFTOs' compliance obligations under Grid Code / System Operator Transmission Owner Code (STC).

Additionally, under the current Ofgem framework, these assets would be owned by the OFTO which is not allowed to participate in ancillary service markets, thereby limiting offshore wind generators from participating in the provision of these network services. Also, the current OFTO framework will not be able to offer incentives to the developers to bear the additional development cost, as it would merely increase divestment complexity without realising any additional value.

We recommend that the proposed licence conditions for network service assets allows for zero active power assets that may be operated in conjunction with OFTO assets but have different ownership boundaries. Consideration should be given to including additional clauses within OFTO licences, that would oblige them to support and facilitate the connection of third-party network service assets to the OFTO assets. The exception to this proposed obligation would be if the OFTOs could demonstrate any detriment to their obligations under the STC. We believe this amendment could remove the above-mentioned barriers and enable the deployment of these assets.

Ørsted has been heavily involved in discussions with Ofgem and UK Government on the OFTO regime since its inception in 2009 and we would welcome the opportunity to provide any further support to Ofgem to address this challenge.

Lastly, we encourage Ofgem to consider the future net zero grid where there will be a significant need for network services from various equipment which could be generation, zero MW equipment, demand etc connected to the network. This could necessitate a new license such as "Network Service Providers License" which will enhance the market participation while not being bound by all the complexities of a generator license.

Below, we have provided our views to specific proposals and questions within the consultation.

If you would like to discuss any elements of our response further, please get in touch with CHINW@orsted.com.

Yours sincerely,

Chiamaka Nwajagu

Senior Regulatory Affairs Analyst

Response

Definitions

1. Do you agree that the current Generation Licence should include a definition of assets dedicated to providing network services in order to activate conditions that were not drafted with these assets in mind?

We agree that the Generation License might require wider definitions for equipment which can provide network services. This is especially true considering new technologies being introduced could enable the ESO to operate the NETS in a more cost effective and environmentally friendly way.

On a medium term to long term, we also encourage Ofgem to consider the future net zero grid where there will be a significant need for network services from various equipment which could be generation, zero MW equipment, demand etc connected to the network. This could lead to a new license such as “Network Service Providers License” which will enhance the market participation while not being bound by all the complexities of a generator license.

2. Do you agree with the proposed scope of assets we intend to capture in this definition?

Considerations should be given to the range of assets that should be captured in a way that covers more than just synchronous condensers, but not too widely. For avoidance of doubt, the definition should include equipment such as Energy Storage STATCOMs, any storage systems coupled with convertors or synchronous machines (e.g., BESS, liquid air, etc.), convertors associated to large or medium size consumers such as applications in P2X, could form the scope.

Also, excluding frequency control services from the proposed network service provision would hinder the use of any energy storage solutions, as this equipment would be able to contribute to frequency control.

3. Do you agree with our proposed definition and terminology?

We agree that the “Asset providing network services” provides the right balance between a very strict terminology and a very broad one i.e., “ancillary services”.

However, the rationale regarding “dedicated to” would limit the better utilization of equipment that are not necessarily dedicated to network services, for example P2X convertors or ES-STATCOM (this could be either an equipment combining capacitive energy storage and static synchronous compensator or a battery storage with a statcom). This equipment can provide network services in addition to their main application and utilization as a means to control voltage or provide damping power in an offshore wind farm. These assets are either zero-MW active power or indeed demand consumers assets. Hence, one might think about a third category of ensuring a level playing field amongst all provisions of the service that could resolve the dilemma mentioned above.

Also, clarity should be provided on the rationale behind the applicable assets having long term contracts with the ESO as well as the proposed definition of ‘long term’ – where long term contract is proposed to apply to contracts greater than a day.

4. Do you think there are any network services that should be considered in scope that are not currently included in our proposed definition?

We do suggest adding the following to the network services.

- a) frequency response contribution
- b) grid forming capability including services such as damping power, phase jump power etc.
- c) power oscillation damping

5. Do you agree with our preferred approach to address any necessary changes through addition of a new Section to the Generation Licence?

We agree with the general approach of creating a new section (i.e., Section F) for the purpose of accommodating the equipment providing network services in the Generator License. However, it is important to note that thorough review of the General Conditions (i.e., Section B) would be required in tandem with the supplementary Section F during drafting and may require changes in Section B (where/if necessary) to ensure that these equipment fits well within the overall license conditions.

Please also refer to our response to Q1 on what actions could be relevant on a medium term to long term.

6. Do you have any other comments relevant to the definition of assets to be covered by the purpose of this consultation?

None currently.

Licence conditions within scope

7. Do you agree with our current assessment that Licence Condition 14 does not apply suitably for the assets within scope of this consideration?

We agree with the observed restriction in Standard Condition 14 where a limit is put upon a MW threshold, whereas new technologies such as ES-STATCOM would be rated based on MVAR or a combination of MVAR, short time MW contributions and/or short time stored energy. Similarly, the assets with MW consumption such as P2X or Battery Storage technologies while providing MVAR and grid stability services are excluded as well.

8. Do you have views on other conditions in the Generation Licence that may not apply suitably to assets within the scope of this consideration?

None currently.

General views

9. Do you have any other views on our interim treatment of assets dedicated to network service provision?

In relation to an enabling regulatory landscape, there are currently regulatory barriers for network service assets that are located and/or operate across ownership boundaries. An example is zero active power assets linked to offshore wind with an OFTO regime that complicates the deployment of the assets. The proposed licence modification for network service providers should recognise that zero active power (e.g., sync comps) may have to be operated in conjunction with OFTO assets but ownerships boundaries could drive different opportunities in the deployment or use of these assets.

Additionally, as Ofgem undertakes a review of an enduring regulatory framework of all assets that provide network services, we ask that the scope of assets include ongoing technological advancements. This should include technological advancements such as Hybrid Power Plants which consider various types of generation (e.g., wind farms, solar farms), energy storage and demand (e.g., P2X) behind the meter and are deemed highly beneficial to overall electricity system operation.

It is our view that there is an urgent need to have a regulatory framework with flexibility to encourage technological advancements. Some of these aspects are already covered in the Section 99 of Electricity Act 1989, but we highly appreciate if Generation License amendments are written in a way that also promotes such developments.