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Email to: [box.SQSS.Review@nationalgrideso.com](mailto:box.SQSS.Review@nationalgrideso.com)

Dear Sir/Madam,

## **NETS Security and Quality of Supply Standard (SQSS) Review Consultation**

### *About RenewableUK*

RenewableUK's members are building our future energy system, powered by clean electricity. We bring them together to deliver that future faster; a future which is better for industry, billpayers, and the environment. We support over 400 member companies to ensure increasing amounts of renewable electricity are deployed across the UK and to access export markets all over the world. Our members are business leaders, technology innovators, and expert thinkers from right across industry.

RenewableUK and our members welcome the opportunity to respond to NGENO's consultation on the NETS SQSS review. In general, we are supportive of the need to review key areas of the SQSS during the RIIO-2 period, and of the proposed timeline laid out in the consultation document. It is vital that the UK's codes and standards support the transition to a net zero energy system.

### ***Offshore transmission system***

RenewableUK is strongly involved in the work of the Offshore Transmission Network Review (OTNR), supporting BEIS, NGENO and Ofgem. We have supported the need to move away from the current connection regime, which encourages point-to-point radial connections, to a more coordinated offshore network. Industry agrees with government that the current regime based solely on point-to-point connections is no longer fit for purpose. It will be beneficial to consider a coordinated set of changes to legislation, licences, codes and methodologies for an enduring solution.

In relation to the SQSS, this needs review and a level of wholesale change in relation to offshore wind and offshore transmission, therefore derogations against the existing SQSS are likely to be necessary, at least as a holding position. Developers will need a dedicated resource from NGENO to understand the key issues in these codes and decide on how best to overcome them.

### ***Normal and infrequent infeed loss risk***

We agree that better aligning the limits for offshore networks in the SQSS with the onshore network could potentially allow further integration<sup>1</sup>. We understand that the levels set for normal (1320MW) and infrequent (1800MW) loss risk are reflective of the offshore grid entry point. Given that this does not account for losses in a wind farm's transmission system we propose that the level is linked to the grid interface point (e.g. onshore 400kV connection). This is applicable to radial connections rather than meshed grids. We propose that NGENO

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<sup>1</sup> <https://www.nationalgrideso.com/document/183031/download>

evaluates developing future concepts and standards for future HVDC systems (e.g +525kV), which would see capacities of 2GW.

### ***Generation connection requirements***

We welcome revising the SQSS to explicitly refer to multi-purpose interconnectors. As the onshore and offshore transmission systems become more integrated, interconnectors will become part of the GB transmission system at the first point of connection with the system. We have recommended that part of the work undertaken by the OTNR should be a review of the licensing regime and legal definition of multi-purpose interconnectors, and the SQSS should be aligned with the outcomes of this work.

We appreciate that the limits NGENSO observe relate to balancing risk (i.e. should a loss occur and the frequency drop). To mitigate this risk, co-located energy storage could be encouraged to provide immediate frequency support and maintain inertia in the system.

### ***MITs***

We are pleased that the SQSS review scope includes the treatment of storage. MWh volume reflects more accurately the length of time that storage can be charged and discharged and captures the value that storage can bring to the system. A review could serve to better define the system benefits of long-duration storage technologies and as such, NGENSO is best placed to carry out this review.

We welcome a review of Section 4 of the SQSS to ensure the design of the grid is up to date with the evolving generation mix.

### ***Operational standards***

NGESO's classification of failures within HVDC connected offshore windfarms in the normal or infrequent infeed loss risk should be analysed further. NGENSO should consider that DC transmission systems could be classed as 'infrequent' rather than 'normal', noting the difference between cables, converters and levels of redundancy.

The SQSS modification should recognise the difference between difference types of HVDC technologies e.g. monopole and bi-pole. These have different failure modes and costs associated with them.

### ***CATO***

The introduction of competition to the transmission system is a significant change, and it is important that this is reflected in the SQSS. The initial proposal to change the definition of different transmission areas to include CATO is sensible.

Yours Sincerely,

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