Electricity System Restoration Standard

SQSS Panel Presentation

04th April 2023

Key technical elements

- Each user connection point will have a network designed around it to be able to energise a 0MW output to sufficient demand to load the generator above SEL, with only the reactive power from that User.
- No Load gain between adjacent substations must be designed so that it can be energised within a restoration situation. (i.e., circuit busbars and associate reactive plant) This would include energising from Anchor Generator/ Top up services to demand, and then other CUSC Parties.
- Once a Power Island is created with Restoration Contractor, Network and demand, it must be possible to energise to the next User on the network to either offer auxiliary supplies or to Synchronise Power Islands.
- The ability to deliver reactive compensation in steps of up to 60Mvar from a proportion of reactive equipment. Enabling utilisation of this equipment during a restoration.
- Compensation equipment, such as Static Compensators and SVCs should be energised and used within initial stages of a restoration.
- The ability to utilise Offshore Networks as part of the Restoration Process.

SQSS Panel View

We seek the Panels collective view on whether or not we modify the SQSS.
Based on the information in the subgroup report it was marginal whether or not the SQSS should be modified, by confirming the Panel agreement either for or against modification we have an audited process for Ofgem and ESRS.

Justification for modifying SQSS as a result of ESRS:

- Specifies TO/OFTO network design requirements to support restoration
- Introduces System Restoration for consideration
- The ESRS is a new requirement under which all the Codes need to be reviewed to ensure the standard can be met

SQSS Panel View

Justification to not modify the SQSS:

- The role of the SQSS is defined in Section 1, particularly, in clause 1.2. This role is more concerned about the provision of transmission capacity and the requirements to procure services. It does not cover everything that TOs/OFTOs are required to invest to achieve.
- Clause 1.3 points to other documents (Grid Code/STC) that include other requirements that TOs/OFTOs need to ensure compliance with. This triggers investment in transmission plant. Examples of these requirements are NPS, harmonics, switching transients, monitoring, etc.
- We were always required to have a System Restoration plan. This would have presumably required some investment on the TO side. Such investment would have been facilitated mostly by the STC and potentially through the Grid Code.
- Based on the above, and in the first instance, we don't think that adding the new black start requirements to the SQSS is the right thing to do.

What issues, if at all, would arise if we were to include any of these new obligations in the STC/Grid Code and not in the SQSS?

Terms of Reference

Terms of Reference attached.