## Annex 11

## **Additional HVDC System Management Requirements**

	Articles	ТО	so	Comments
1	Article 17 Maximum loss of Active Power	As per SQSS requirements – suggested the maximum infrequent infeed loss is set to 1800MW	As per SQSS requirements – suggested the maximum infrequent infeed loss is set to 1800MW	This is both an SO and TO responsibility. For the SO it is important that System Frequency limits are retained within limits (49.2Hz for a 1800MW loss) and for the TO to ensure that no more than 1800MW is lost for a credible transmission system fault.
2	Article 24, 44 and 50 Power Quality	Quality of Supply requirements and determination of limits are the responsibility of the TO	As per CC.6.1.5, CC.6.1.6, CC.6.1.7 and CC.6.1.8 of the Grid Code. No need to change the requirements of the Grid Code CC's mapped to ECC's	As per current Grid Code.
3	Article 27 Fast Recovery from DC Faults	NA	New requirement. The ECC's will be updated to cater for this requirement.	
4	Article 29 Interaction between HVDC Systems or other plants and equipment	NA	The Grid Code is currently light in this area and the opportunity has been taken to update the ECC's to ensure they are consistent with the requirements of the HVDC Code.	Under the current GB arrangements there is loose reference to interaction between HVDC Systems and other plant / equipment through the Bilateral Agreement which requires compliance with TS.3.24.90_RES.
5	Article 31 Subsynchronous torsional interaction damping capability	Some TO interaction will be required on this issue	These issues are broadly covered in CC.6.1.9 and CC.6.1.10. They do however not fully cover the HVDC requirements and the opportunity has therefore been taken to update the ECC's to ensure consistency with the HVDC Code	

Article Robus	HVDC System NA	These requirements are new and the ECC's have been updated to address these requirements.	
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