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Draft Guidelines for Good Practice on Electricity Grid Connection and Access

Executive Summary

EDF Energy is supportive of moves to improve transparency of rules for connection and access to electricity grids. Where harmonisation of such rules across synchronised areas can contribute to improved system security without imposing disproportionate costs on any one class of grid user, then this is also supported. In particular EDF Energy suggests that:-

- the guidelines should contain only high level principles to ensure full stakeholder and system operator support
- adopting the guidelines may help contribute to improved security of supply in any particular synchronised area
- the technical requirements for connection to networks should be published in national codes which are approved by national regulators
- the commercial terms for connection to transmission and distribution networks should be transparent and non-discriminatory
- the roles and responsibilities of different stakeholders appear reasonable

EDF Energy has made some more detailed comments as follows on text changes which it is felt will better ensure the first bullet point above can be achieved.

Detailed Comments

- 4.2.1** It is recognised that existing installations will be expected to retain the technical features they had when connected where these contribute to security of networks. The suggestion that this has to be confirmed by regular testing throughout the life of the plant imposes unnecessary burden on TSOs and installation owners. Plant capability may change temporarily due to technical limitations or permanently due to replacement of obsolete systems or components. In such circumstances the installation owners should be obliged to inform the TSO of plant shortfalls and procedures followed to restore compliance or seek derogations as appropriate. Testing of installations should be permitted by a TSO where they have not been notified of shortfalls but routine monitoring suggests plant response has changed or subsequent to modifications to confirm compliance has been restored.
- 5.2.1.2** A synchronous generator has a number of defined reactances both saturated and unsaturated. These reactances are not the only generator parameters that can contribute to stable power system operation. It is better to say in general terms that TSOs may include specific generating unit technical parameters in their grid codes which are designed to ensure stability of generating units and stable power system operation. TSOs may accept different parameters where these can be shown to have no adverse effect on the transmission networks.
- 5.2.1.5** It would be better not to refer to PSS as it is really the functionality which is required. First sentence, we propose "The TSO shall require generators to be equipped with voltage control systems suitable to damp voltage and power oscillations, in normal operation." Last sentence: "The settings and the functional capabilities for this control system shall be...".
- 5.2.1.6** The requirements for a generating unit relating to continuous and short term operation for frequency and voltage ranges should be published in grid codes. These should represent the minimum technical requirements and there is no requirement for a generating unit to remain connected outside of the TSO defined envelopes. However generators may make known enhanced capabilities to a TSO which can be factored into network resilience studies.
- 5.2.4** Not all generation technologies may be able to fulfil the requirement to run back to house generation following disconnection from the network. Individual TSOs may specify such a requirement but if not specified it should be optional for the generator rather than it being an exception not to provide.
- 5.2.6.1** Another very prescriptive clause. It should be for each TSO to determine best how specifications should be verified either by full scale tests, works test, type tests, simulation studies or self certification.

Yours sincerely,

A handwritten signature in black ink, appearing to read "D. Linford", with a long horizontal flourish extending to the right.

Denis Linford
Corporate Policy and Regulation Director