Standards for Transmission Connected Generators

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Current Situation

- Three separate GB standards
- Further SO common standards
- Further standards possible? (OFTOs, new owners?)

- Connection costs may vary from region to region – no level playing field
- Time and cost to check connection design against each region's standards
- Lack of transparency and governance – justification for variation and updates to the standards?

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Example of Variations between Standards

Section	NGET Values	SPT Values
Short Circuit Currents	Section 2.6 Primary Currents 400 kV and 275 KV DC time constant is **45ms** 400 kV / 275 KV short circuit withstand is **63 kA** / 40 kA	Section 11.1 Short Circuit Reqs 400 kV and 275 KV DC time constant is 60ms 400 kV and 275 KV short circuit withstand is 55 kA / 40 kA

Why are short circuit ratings different – is the worst case being applied across entire region?

Sources:

- SPT: "*SPTS 1- Ratings and general requirements for Plant, Equipment and Apparatus for connection to The Company's system, BETTA-11-001*"
- NGET: "*Ratings and Requirements for Plant, Equipment and Apparatus for the National Grid System TS1 2014 Draft*"

Potential Solution

- Single set of Specifications
- Variations permitted but
  - All listed in a single document
  - Justification given for each variation
- Specifications held by independent body (e.g ENA)
- Written and managed by representatives of each TO
- Clear process to record updates and justification for changes

Thank you