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# Relevant Electrical Standards (RES)

*Grid Code Review Panel – January 2014*

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# Summary

- Background / Issues
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- Governance
- Impact on Technical Appendices
- Questions

# Background / Issues

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- Grid Code CC.6.2.1.2 defines the standards and specifications which apply to equipment contained within the Transmission busbar Protection zone at the Connection Point.
- These are defined in the Technical Appendices (Appendix F) of the Bilateral Connection Agreement and historically referred to the NGTS's.
- From 2005 the key NGTS's were merged into one document (called the Relevant Electrical Standards (RES)) which is subject to the Grid Code Governance process.
- Many NGTS's now supersede the requirements in the RES
- The current technical appendices within the Bilateral Agreement includes additional requirements beyond those of the RES (e.g. Dynamic System Monitoring and Ancillary Services Business Monitoring).
- The current technical appendices refer to a number of NGTS's rather than the RES

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# Proposed New Structure

- Since the first issue of the RES there have been updates to National Grid's Technical Specifications.
- The RES now needs to be reissued with the updated versions of these NGTS's incorporated into the document.
- In order to reduce the future administrative burden of updating the entire document , which runs to some 223 pages, we propose the following changes to the format and structure of the RES: -
  - Produce a covering document defining the general scope and requirements
  - Replace each section of the Part 4 - Specific requirements with individual RES Versions of the applicable National Grid's Technical Specifications and reference these in the covering document.
  - Reinforce Internal Governance - When an NGTS is updated the RES version will also be reviewed and if considered relevant will be updated and notified to the GCRP.
  - Individual RES versions of the applicable Technical Specifications to be listed on the NGET website as part of the overall RES document http://www.nationalgrid.com/uk/Electricity/Codes/gridcode/ges/ewelecstandards/
  - Changes submitted for approval?
    - Annually
    - Ad-hoc

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# Proposed New Structure

| Title | Base NGTS | RES Version |
|---|---|---|
| Ratings and General Requirements for Plant, Equipment, Apparatus and Services for the National Grid System and Connections Points to it. | NGTS 1 | NGTS 1_RES_Issue1 |
| Substations | NGTS 2.01 | NGTS 2.01_RES_Issue1 |
| Switchgear for the National Grid System | NGTS 2.02 | NGTS 2.02_RES_Issue 1 |
| Substation Auxiliary Supplies | NGTS 2.12 | NGTS 2.12_RES_Issue 1 |
| Ancillary Light Current Equipment | NGTS 2.19 | NGTS 2.19_RES_Issue 1 |
| Substation Interlocking Schemes | NGTS 3.01.01 | NGTS 3.01.01_RES_Issue 1 |
| Earthing Requirements | NGTS 3.01.02 | NGTS 3.01.02_RES_Issue 1 |

Issue number of NGTS_RES documents managed independently – latest version of RES documents date tagged

# RES Governance

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- Remove references to NGTS's in Bilateral Connection Agreement Technical appendices and replace with RES versions of TS's
- If there is an additional technical requirement but no relevant RES TS, NGET will review the requirement for including the new NGTS in the RES and submit this to the GCRP for consideration as part of the existing RES Governance process.
- External amendment process remains unchanged as per current RES / GC11 of the Grid Code

# Generic Templates - Proposed

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- Example – Appendix F5 – Protection of Interconnecting Connections

- Existing
  - *The User shall provide for two Current Transformer Type 'PX-B' cores (unless otherwise agreed) in each of the User's bays, in accordance with National Grid's Technical Specification TS 3.02.04 (to ensure compatibility with The Company's interconnecting connections protection system) ……*

- Future
  - *The User shall provide for two Current Transformer Type 'PX-B' cores (unless otherwise agreed) in each of the User's bays, in accordance with National Grid's Technical Specification* ***TS 3.02.04_RES*** *(to ensure compatibility with The Company's interconnecting connections protection system) ……*

# Questions