**CC.6.2.1.2 Substation Plant and Apparatus is relevant part of grid code which requires RES.**

**The Relevant Electrical Standards Document (RES) Mapping**

|  |  |  |  |  |  |  |  |  |  |  |
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|  | **NG** | | | | **SPT** | | | **SHE-T** | | |
| 1 | Back-Up Protection Grading across NGET's and other Network Operator Interfaces | PS(T)044(RES) | 2.0 | 22nd Jan 2015 | Ratings and General  Requirements for Plant, Equipment and  Apparatus for The ScottishPower System  and Connection Points to it. | SPTS 1 | Issue 1  Feb 05 |  |  |  |
| 2 | Ratings and General Requirements for Plant, Equipment, Apparatus and Services for the National Grid System and Connections Points to it. | TS 1 (RES) | 1.0  Draft | 9th Jan 2006 | Transformers and Reactors | SPTTS 2.3 | Issue 1  Mar 05 | Rating and General Requirements for  Plant, Equipment, Apparatus and Services  for the National Grid System and Direct  Connection to it. | NGTS 1: | Issue 3 March 1999. |
| 3 | Substations | TS 2.01 (RES) | 1.0 Draft | 9th Jan 2006 | Substation Control Systems | SPTTS 2.7 | Issue 1  Feb 05 | Substations | NGTS 2.1 | Issue 2 May 1995 |
| 4 | Switchgear | TS 2.02 (RES) | 2.0 | 22nd Jan 2015 | Switchgear | SPTTS 2.2 | Issue 1  Mar 05 |  |  |  |
| 5 | Substation Auxiliary Supplies | TS 2.12 (RES) | 2.0 | 22nd Jan 2015 |  |  |  |  |  |  |
| 6 | Ancillary Light Current Equipment | TS 2.19 (RES) | 2.0 | 22nd Jan 2015 |  |  |  |  |  |  |
| 7 | Substation Interlocking Schemes | TS 3.01.01 (RES) | 1.0 Draft | 9th Jan 2006 |  |  |  | Substation Interlocking Schemes. | NGTS 3.1.1 | Issue 1 October 1993. |
| 8 | Earthing Requirements | TS 3.01.02 (RES) | 2.0 | 22nd Jan 2015 |  |  |  |  |  |  |
| 9 | Circuit Breakers | TS 3.02.01 (RES) | 2.0 | 22nd Jan 2015 |  |  |  | Circuit Breakers and Switches. | NGTS 3.2.1: | Issue 1 September 1992. |
| 10 | Disconnectors and Earthing Switches | TS 3.02.02 (RES) | 2.0 | 22nd Jan 2015 |  |  |  | Disconnectors and Earthing Switches. | NGTS 3.2.2 | Issue 1 |
| 11 | Current Transformers for Protection and General Use on the 132kV, 275kV and 400kV Systems | TS 3.02.04 (RES) | 2.0 | 22nd Jan 2015 |  |  |  | Current Transformers for protection and  General use on the 132, 275 and 400kV  systems. | NGTS 3.2.4: | Issue 1 September 1992. |
| 12 | Voltage Transformers | TS 3.02.05 (RES) | 1.0 Draft | 9th Jan 2006 |  |  |  | Voltage Transformers for use on the 132,  275 and 400 kV systems. | NGTS 3.2.5: | Issue 2 March 1994. |
| 13 | Bushings | TS 3.02.07 (RES) | 2.0 | 22nd Jan 2015 |  |  |  | Bushings for the Grid Systems | NGTS 3.2.7: | Issue 1 September 1992. |
| 14 | Solid Core Post Insulators for Substations | TS 3.02.09 (RES) | 2.0 | 22nd Jan 2015 |  |  |  | Metal-Oxide surge arresters for use on  132, 275 and 400kV systems.  Post Insulators for Substations. | NGTS 3.2.3  NGTS 3.2.9 | Issue 2 May 1994.  Issue 1 May 1996. |
| 15 | Voltage Dividers | TS 3.02.12 (RES) | 1.0 Draft | 9th Jan 2006 |  |  |  |  |  |  |
| 16 | Gas Insulated Switchgear | TS 3.02.14 (RES) | 2.0 | 22nd Jan 2015 |  |  |  |  |  |  |
| 17 | Environmental and Test Requirements for Electronic Equipment | TS 3.24.15 (RES) | 2.0 | 22nd Jan 2015 |  |  |  |  |  |  |
| 18 | Busbar Protection | TS 3.24.34 (RES) | 2.0 | 22nd Jan 2015 | Protection | SPTTS 2.6 | Issue 1  Feb 05 | Protection | NGTS 2.6: | Issue 2 June 1994. |
| 19 | Circuit Breaker Fail Protection | TS 3.24.39 (RES) | 2.0 | 22nd Jan 2015 | Protection | SPTTS 2.6 | Issue 1  Feb 05 | Protection | NGTS 2.6: | Issue 2 June 1994. |
| 20 | System Monitor – Dynamic System Monitoring (DSM) | TS 3.24.70 (RES) | 2.0 | 22nd Jan 2015 |  |  |  |  |  |  |
| 21 | Protection & Control for HVDC Systems | TS 3.24.90 (RES) | 2.0 | 22nd Jan 2015 |  |  |  |  |  |  |
| 22 | Ancillary Services Business Monitoring | TS 3.24.95 (RES) | 2.0 | 22nd Jan 2015 |  |  |  |  |  |  |
| 23 | Guidance for Conductor Jointing | TGN(E)187 (RES) | 2.0 | 22nd Jan 2015 |  |  |  |  |  |  |
|  | ? |  |  |  | Cables | SPTTS 2.5 | Issue 1  Feb 05 | Current and Voltage Measurement  Transformers for Settlement Metering of  33, 66, 132, 275 and 400kV systems. | NGTS 3.2.6 | Issue 1 September 1992 |
|  | ? |  |  |  |  |  |  | Capacitors and Capacitor Banks. | NGTS 3.11.1: | Issued 1 March 1993. |

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|  | **EDT / EDL** |  |
| 1 | EDT Interface Specification | Issue 4 |
| 2 | EDT Submitter Guidance Note | Dec-01 |
| 3 | EDL Message Interface Specifications | Issue 4 |
| 4 | EDL Interface Specification Guidance | Oct-01 |
| 5 | EDL Instruction Interface Valid Reason Codes | Issue 2 |