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Level 2

Engineering Assurance Requirements for Design and Implementation of Electrical Power Engineering Infrastructure Projects

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Issue record

Issue	Date	Comments
E1	April 2006	New Standard
2	June 2008	Amended for Engineering/Maintenance Phase 2a
3	June 2010	Amended to include entry into service and engineering completion
4	June 2011	Updated to allow engineering assurance to begin earlier in the project lifecycle

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 3 September 2011.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 3 (Option Selection) to continue to comply with the issue of any relevant Network Rail standards current when GRIP Stage 3 was completed and not to comply with requirements contained herein, unless stipulated otherwise in the scope of this standard.

Reference documentation

NR/L2/INI/02009	Engineering Management for Projects
NR/L2/INI/CP0069	Route Requirement Management and Engineering Remit Production
NR/L2/INI/PM/GRIP/101	Governance for Railway Investment Projects (GRIP) – Project Management
NR/L3/ELP/27406	Engineering Deliverables for Electrical Power Asset Design
EPF/GEN/007	Form A - Approval In Principle of Single Option Selection
EPF/GEN/008	Form B - Acceptance of Detailed Design
EPF/GEN/009	Form E - Certificate of Engineering Completion

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1 Purpose

The purpose of this specification is to control the risk to Network Rail's infrastructure and railway operations that may arise as a result of any changes to electrical power assets by mandating an engineering assurance process.

The standard provides details of the process for each phase of a scheme.

2 Scope

This specification applies to all design work associated with the renewal, enhancement and extension, including temporary works, of the following elements of Electrical Power infrastructure: DNO/TNO incoming supply equipment, HV power supply distribution systems, HV and DC traction power supply systems and all associated subsystems, overhead and third rail contact systems, signalling power supply systems, points heating systems and all other fixed plant systems.

This specification does not apply to electrification and plant asset routine maintenance or testing activities, work carried out under emergency conditions, or project works that can be carried out solely within the parameters of the maintenance risk manual.

3 Definitions and abbreviations

Acceptance of Engineering Deliverables Technical acceptance signifying that the Project Engineer (E&P) is satisfied that the Engineering Deliverables have been Checked and Approved by the Design Organisation in accordance with NR/L2/INI/02009 and that appropriate standards and/or design criteria have been used. An appropriate review has been carried out based on the agreed risk level to support the declaration by the CRE that the deliverable complies with specified requirements.

Contractor's Responsible Engineer (CRE) The CRE is responsible for confirming that the Engineering Deliverables for Electrical Power satisfy the requirements of the specific Contract and follow the process specified in this standard. The role of the CRE is outlined in NR/L2/INI/02009.

Contract Requirements - Technical for Implementation The technical requirements included in implementation contracts: the level of technical detail being determined by the contracting strategy. It may be necessary for the delivery organisation to produce engineering deliverables in addition to the deliverables produced to support the AIP. This term also refers to any requirements that are specified for in house delivery.

Designated Project Engineer As outlined in NR/L2/INI/02009.