

TECHNICAL DATA PROCESS AND ASSURANCE

This document is for internal and contract specific use only.

Disclaimer

NGG and NGET or their agents, servants or contractors do not accept any liability for any losses arising under or in connection with this information. This limit on liability applies to all and any claims in contract, tort (including negligence), misrepresentation (excluding fraudulent misrepresentation), breach of statutory duty or otherwise. This limit on liability does not exclude or restrict liability where prohibited by the law nor does it supersede the express terms of any related agreements."

TABLE OF CONTENTS

PURPOSE AND SCOPE	1
PART 1 – PROCEDURAL	2
1 RESPONSIBILITIES	2
2 TECHNICAL DATA TYPES AND ASSURANCE REQUIRED	8
3 FORMS AND RECORDS	11
PART 2 - DEFINITIONS AND DOCUMENT HISTORY	11
4 DEFINITIONS	11
5 AMENDMENTS RECORD	12
6 IMPLEMENTATION	13
PART 3 – GUIDANCE NOTES AND APPENDICES	14
APPENDIX A - TECHNICAL DATA ASSURANCE PROCESS FLOWCHART	14
APPENDIX B – INVESTMENT DOCUMENTATION FLOWCHART	15
APPENDIX C – EXAMPLE OF TDW ISSUED FOR COMPLETION	16

PURPOSE AND SCOPE

The main purpose and scope of this procedure is to define the technical data process and subsequent validation to support Transmission Procedures which manage the creation, storage and modification of National Grid UK Electricity Technical Data acquired through the investment process. It is based on defining the process for capturing changes to Asset Data and providing assurance of Technical Data quality throughout the investment change, thus avoiding retrospective TOTEX to correct errors and reduce cost and associated risk that can be caused by inaccurate Technical Data

In addition, the procedure:

- Identifies the source and use of Technical Data covered by the procedure.
- Identifies the key users of Technical Data and Technical Data owners.
- Defines Technical Data validation stages to achieve assurance.
- Identifies Technical Data storage and reporting requirements inline with Asset Data Quality Management Strategy for National Grid (UK) Transmission.

This procedure applies to all processes that creates or modifies Technical Data which comprises of the following data types:

- Operation Diagrams, Site Technical Data Schedules.
- Asset Data.
- Circuit names, Numbering & Nomenclature of HV Plant.
- Technical Data Workbooks.
- Site Responsibility Schedules (SRS).

- Written Schemes of Examination (WSE).
- Fixed Asset Commissioning Certificate (FACC), Fixed Asset Disposal Certificate (FADC) & Fixed Asset Transfer Certificate (FATC) Data.
- SF6 Gas Inventory

This procedure is formatted on the basis that changes to asset data forms part of a Capital Investment delivered by Capital Delivery. For asset changes which form part of an ETAM Operations delivered investment then the responsible Project Engineer/Lead must adhere to the principles of this document.

PART 1 – PROCEDURAL

1 RESPONSIBILITIES

1.1 ETAM Investment Management Investment Delivery Engineer (IDE)

Responsible for leading the Investment Team in progressing projects in line with UKBP/TP500 and ensuring that validated Technical Data is captured and stored for the investment under the correct Investment Category (Infrastructure, Connection, One-off etc)

1.2 Contractor

Responsible for populating the Asset Data Template (ADT) and Technical Data Workbook (TDW) with information which reflects the design and delivery of the investment described in the Design Intent Document (DID) or ETAM Ops Scope of Works to the standards required by National Grid.

Responsible for recording asset details during the construction phase to support TDW population and subsequent validation. This will include the taking of photographs which clearly show the asset nameplate and its details.

1.3 Capital Delivery Project Engineer (PE)

Responsible for ensuring that the creation and/or modification of Technical Data associated with the design and delivery of the investment described in the DID and delivered by the Contractor is recorded to the required standard, adding additional information to the contractor populated ADT as appropriate to ensure full completion. The PE is also responsible for ensuring all documents required by the Technical Data Process defined within this procedure are created to the required timescales and loaded into ECM - CPM Workspace prior to and where appropriate after, any validation.

1.4 ETAM Ops Project Engineer/Lead

Responsible for ensuring that the creation and/or modification of Technical Data associated with the design and delivery of the investment described in the ETAM Ops Scope of Works is recorded to the required standard, adding additional information to the ADT as appropriate to ensure full completion. The Project Engineer/Lead is also responsible for ensuring all documents required by the Technical Data Process defined within this procedure are created to the required timescales and loaded into ECM Livelink prior to and where appropriate after, any validation.

Responsible for the modification of all Asset and associated Technical Data following one-off/fault replacement or when existing data is found to be incorrect, using the PW7: Report Equipment Changes process

1.5 Capital Delivery Design Assurance

Responsible for ensuring that the design aspects for Capital Delivery managed investments are considered and documented throughout the life of an Investment and that required designs/documentation are captured and recorded, using the design process defined in UKBP/TP188

1.6 Capital Delivery Technical Data Assurance Engineer (DAE)

Responsible for the validation of Technical Data associated with Capital Delivery managed Investments including those where ETAM Operations are acting as Contractor and Capital Delivery as Project Manager. Also responsible for providing the necessary reporting throughout the life of the Investment to support the Project Managers Report and Gate Closure.

Responsible for identifying project and reputational risk arising from errors/omissions in Technical Data and where necessary to ensure the correct authorisation is obtained from the Technical Process Manager to continue investment delivery based on the identified risks.

1.7 ETAM Business Assurance and Systems - Data Delivery

Responsible for working with the Investment Teams, Capital Delivery, Investment Delivery Unit, ETAM Ops and Finance to ensure that necessary transactions identified via the ADT, TDW and FACC/FATC/FADC are delivered in a timely and accurate manner, in accordance with the UKBP/TP500 investment process and the requirements of this procedure.

Responsible for the updating of Ellipse with data submitted for processing on ADT's/TDW's and issuing of FACC's/FATC's/FADC's.

1.8 ETAM Business Assurance and Systems – Information Quality

Responsible for defining asset and technical data requirements for the asset records held in National Grid Systems which are covered by the validation activities in this procedure.

Responsible for the update of UKBP/TP169 – Ellipse Asset data structure, and carrying out regular audits of the work of the Technical Data Assurance and Data Delivery teams.

1.9 ETAM Network Engineering Asset Policy

Responsible for the Type Registration of new Assets within NG Systems and allocation of Equipment Group Identifiers (EGI), ensuring that Ellipse is updated with the EGI code and associated generic attributes.

Responsible for the development, management and subsequent implementation of Maintenance Policy at EGI level for all NG owned HV assets and ancillary equipment.

1.10 Transmission Network Control Centre (TNCC) - Operations Development

Responsible for the management of Operations Diagrams and Technical Data Schedules in line with UKBP/TP119, Nomenclature in line with UKBP/TP109, approval of Single Line Diagrams and approval of Stage by Stage Drawings in line with UKBP/TP153.

1.11 Commercial Engineering Services (CES)

Responsible for negotiating contracts with Unlicensed Customers in order for National Grid to perform maintenance activities on assets owned by customers. Also responsible for providing all required data for the purpose of updating Ellipse Asset Register and application of the appropriate Maintenance Policy.

1.12 Technical Data Process

This procedure supports the processes defined with UKBP/TP500 Network Development Process Map Enabling Document. The process for recording data changes and the associated validation is shown in UKBP/TP221 Appendix A

Any changes made by ETAM Ops as a result of minor works or fault replacement are not covered by this procedure and should be notified using existing form PW7.

To achieve the technical data validation checks outlined in this procedure the following details the Investment phase where validation is required (see appendix A).

1.12.1 Investment Phase 4.1 - Establish Portfolio:

Technical Data validation is not required at this stage in the investment process as there is no impact on existing Technical Data records.

1.12.2 Investment Phase 4.2 – Select Option:

Technical Data validation is not required at this stage in the investment process as there is no impact on existing Technical Data records.

1.12.3 Investment Phase 4.3 – Develop and Sanction:

Technical Data validation is not required at this stage in the investment process as there is no impact on existing Technical Data records.

1.12.4 Investment Phase 4.4 – Execute Project: 4.4.1 – Commit Delivery Unit

A Scheme Design Specification will be issued but Technical Data validation is not required at this stage in the investment process as there is no impact on existing Technical Data records.

1.12.5 Investment Phase 4.4 – Execute Project: 4.4.2 – Develop Detailed Design

A Contractor Response will be received but Technical Data validation is not required at this stage in the investment process as there is no impact on existing Technical Data records

1.12.6 Investment Phase 4.4 – Execute Project: 4.4.3 – Deliver Construction Work

At a time after Contract award the finalised Design Intent Document (DID) will be signed and frozen. This finalised DID will be supported by a fully completed Asset Data Template (ADT) as part of the submission.

The Project Engineer (excluding ETAM Ops) shall notify Technical Data Assurance that data validation for the investment is required.

Technical Data Assurance will update SharePoint with the Investment Number, Title and assigned Data Assurance Engineer.

The Contractor is responsible for populating the version controlled ADT in UKBP/TP221.01 with information specifying the assets/works being delivered by the Investment, including any works associated with “Self Build” schemes.

The Project Engineer is responsible for ensuring that the version controlled ADT in UKBP/TP221.01 is populated by the contractor with all fields appropriate to the Assets/works being delivered by the Investment, including any works associated with “Self Build” schemes. The Project Engineer is also responsible for populating the version controlled ADT with any missing data relating to the Investment category, phasing and proposed commissioning dates.

The Project Engineer is also responsible for ensuring that any assets which are to be purchased by the investment as strategic/national spares are also populated on the ADT stating that they are to be spare assets, along with the location that the spare asset will be stored. This also applies to any assets being removed from service which are being retained as spare assets.

For Bulk Purchase investments and ETAM Ops delivered projects the Project Engineer/Lead is responsible for ensuring that the version controlled ADT in UKBP/TP221.01 is populated with the asset data relevant to the investment.

Information to populate the ADT shall be taken from the following documentation where applicable and validation will not be undertaken if the documents are not available:

- Design Intent Document (DID). The document shall be available from the mandatory project file section of ECM - CPM Workspace.
- Single Line Diagram (SLD) and Gas Zone Diagram where applicable. The diagrams shall be available from the mandatory project file section of ECM - CPM Workspace and nomenclature used shall comply with UKBP/TP109.
- Overhead Line and Cable Schedules
- Stage by Stage drawings
- ETAM Ops Scope of Works

Following population of the ADT the Project Engineer shall email the final ADT to the assigned Data Assurance Engineer for validation.

For ETAM Ops delivered works the ADT should be submitted directly to Data Delivery with a Scope of Works for processing a minimum of 6 weeks prior to the start of the works. Validation of ETAM Ops delivered investments will not be undertaken by Capital Delivery. Any changes to the scope of works after the initial submission should be notified to Data Delivery and be supported by a modified ADT.

Successful validation by the Data Assurance Engineer shall be within 30 days from receipt of the completed ADT or as agreed with Project Engineer. Following successful validation the Data Assurance Engineer shall load the validated ADT to the mandatory project file section of ECM - CPM Workspace. The Data Assurance Engineer will load, where appropriate, all versions prior to the approved/validated ADT into SharePoint for audit purposes.

The Data Assurance Engineer shall validate the ADT in line with the assurance activities detailed later in this procedure. Any amendment or recommendations resulting from validation shall be returned to the Project Manager/Engineer for consideration / correction via UKBP/TP181 design process.

Following successful validation the Data Assurance Engineer is to notify Data Delivery and the Project Engineer, that the validated ADT is available from the mandatory project file section of ECM - CPM Workspace to allow the creation of Planned Assets and the recording of proposed asset changes in Ellipse.

Data Delivery will ensure that all assets/works identified on the validated ADT will be loaded into Ellipse within 30 days of notification that the validated ADT is available for processing.

Any subsequent changes to the scope of works should be notified to the Data Assurance Engineer by the Project Engineer with an updated ADT and the appropriate column on the ADT completed to identify the type of change. Supporting documents to support the scope change should be available from the mandatory project file section of ECM - CPM Workspace in order for the Data Assurance Engineer to undertake further validation checks.

1.12.7 Investment Phase 4.4 – Execute Project: 4.4.4 – Commission Assets

Data Delivery shall use the Planned Asset Data in Ellipse to create and issue a version controlled Technical Data Workbook (TDW) to the Project Engineer for the investment, including, where appropriate, any generic Equipment Group Identifier (EGI) codes.

The issued TDW template shall include all planned assets on the final ADT for which technical data is required unless the Project Engineer agrees that the information can be divided into separate workbooks. Where this occurs it should be documented in the UKBP/TP106 minutes. The Project Engineer shall manage the subsequent release of the entire workbook to cover the investment.

The Project Engineer is responsible for ensuring that the TDW is completed and validated as described in UKBP/TP106, including any TDW for works associated with “Self Build” schemes.

For Static Wound Bulk Purchase investments; following Factory Acceptance Testing (FAT) in line with UKBP/TP211 and at least six (6) weeks prior to each Equipment Acceptance Certificate (EAC) being issued, the Project Engineer for the Bulk Purchase investment is to email Data Delivery the completed TDW in order for the details to be loaded into Ellipse. The Project Engineer for the Bulk Purchase investment shall also email the Data Assurance Engineer who will validate the TDW when visiting site to validate the TDW for the installation investment.

For all other investments, excluding those delivered by ETAM Ops, at least six (6) weeks prior to each EAC being issued the Project Engineer is to email the Data Assurance Engineer the completed TDW in order for the details to be validated.

For ETAM Ops and where a TDW is required, the Project Engineer/Lead is to notify Data Delivery that the TDW is available for processing in timescales appropriate to the works being delivered in order that the TDW can be validated and processed within 2 weeks of commissioning.

The Data Assurance Engineer shall validate the completed TDW (excluding ETAM Ops TDW's) in line with the assurance activities detailed later in this procedure. Any conflicts/queries resulting from validation should be referred to the Project Engineer for resolution in the first instance.

If the TDW significantly fails any of the validation checks then the TDW is referred back to the Project Engineer for correction and re-submission whereupon further validation will be undertaken using the same validation criteria.

Where positive validation cannot be achieved within the EAC minus six weeks date the Data Assurance Engineer shall notify the Project Engineer of the need to change associated EAC dates or obtain a derogation via the Commissioning Panel Chair (CPC) In order for EAC/commissioning dates to be met and by exception, partially completed TDW's will only be processed following agreement with the Project Engineer and documenting in the commissioning panel minutes with timescales for achieving full validation, in line with UKBP/TP106

Following positive validation the Data Assurance Engineer shall carry out the following:

- a) Notify the Project Engineer of successful validation and load the validated TDW to the mandatory project files section of ECM - CPM Workspace at least six (6) weeks prior to EAC to allow sufficient time for Data Delivery to carry out the necessary actions in Ellipse.
- b) As applicable, validate the SF6 Gas Zone Operations Diagram(s) and SF6 Gas Inventory in line with UKBP/TP106, UKBP/TP119 and UKBP/TP187.