

THE IMPLEMENTATION OF CONSTRUCTION (DESIGN & MANAGEMENT) REGULATIONS (CDM) 2015 FOR THE TRANSMISSION ELECTRICITY CAPITAL PROGRAMME

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PURPOSE AND SCOPE

This procedure defines how National Grid Transmission (Electricity) will both implement the Construction (Design and Management) Regulations 2015 (CDM 2015) and integrate their requirements into the business processes. It applies to all work which comprises the Transmission Electricity Capital programme utilising the Network Development Process (NDP).

It is recognised that for investments that fall in to the category of single asset replacement /refurbishment/recondition (as defined in UKBP/TP236) then the full application of this TP may not provide the most cost efficient means of delivering that investment and hence TP minimum requirements as defined in UKBP/TP236 can be applied.

These minimum requirements are defined for each type of single asset replacement/ refurbishment/ recondition investment and are presented as separate appendices in UKBP/TP236. e.g. Appendix A CB Replacement (with CT's) & (without CT's)

Amendments to this procedure shall be reflected in UKBP/TP236 Appendices (if required) and may result in re-issue of UKBP/TP236 within the same period.

NB: Whereas this procedure as a whole is tasked with addressing the 2015 CDM Regulations, the 'Pre-Construction Information (PCI)' and 'Construction Phase Plan (CPP)' also incorporate environmental legislation, security and sustainability requirements.(Safety, Health, Environmental & Sustainability (SHES) and Security).

PART 1 – PROCEDURAL

1 GOVERNANCE

1.1 Capital Delivery Electricity Transmission Projects

Electricity Transmission Projects developed and delivered by Capital Delivery shall comply with the governance requirements of UKBP/TP137 unless agreed otherwise by CDTA.

The CDM Adviser (CDM-A) in conjunction with the Development team will review the scope of works and identify the governance required by UKBP/TP500 and record this on the CDM summary log.

The model forms, agendas, check sheets etc. are included in this document as a guide to the minimum information required by NG and may be amended & enhanced for use as long as the form remains recognisable and the content not degraded. Agenda items can be split out and form part of other meetings etc. but must be referenced as being covered in the original document.

The CDM summary Log will be used for all projects and N/A recorded for roles not required, additional information may be included as required by the CDM-A

Definition: The Construction Phase is the period of the project when site construction activities are undertaken. It should be noted that under CDM 2015 the term Pre Construction Phase relates to design and the period when the Principal Designer has responsibilities under the Regulations. As a result the Pre-Construction Phase will overlap quite significantly with the Construction Phase for the purposes of the Regulations. However for the purposes of clarity in these procedures the term Construction Phase will be used for that period from the commencement of site mobilisation until completion of site demobilisation and will be deemed to include the Pre-Construction Phase activities and responsibilities of the Principal Designer and other Designers during this time. The term Pre-Construction Phase will be used to identify the period up until the start of site mobilisation.

1.2 ETAM Operations Electricity Transmission Projects

Electricity Transmission Projects developed and delivered by ETAM Operations shall comply with the detailed procedural requirements detailed in AMBP051.

Note: AMBP051 Implementation of Construction (Design and Management) regulations (CDM) 2015. Delivery of ETAM Operations Projects and Temporary work co-ordination for Contractors.

2 GENERAL RESPONSIBILITIES

Appendix A defines CDM duty holders throughout the Network Development lifecycle.

2.1 Client

The Client is the organisation/individual for whom a construction project is carried out.

A Client must make suitable arrangements for managing a project in accordance with the Construction (Design and Management) Regulations 2015, including the allocation of sufficient time and other resources.

The role of Client will be undertaken by National Grid Electricity Transmission Asset Management (ETAM) during NDP4.2 and by National Grid Capital Delivery during NDP4.3 and NDP4.4. The only exception to this is during NDP4.2 where, for Major Infrastructure Development Projects (MID), the role of Client will be undertaken by National Grid Capital Delivery – Head of MID.

This document (UKBP/TP137) proceduralises many of the Client responsibilities particularly that of ensuring that suitable management arrangements are in place.

The Client duties will be mainly discharged by National Grid's competent staff as shown in table below and with Competency defined in Section 5:-

NDP Stage	Notional client	Client Delegated Representative
4.2	Head of ETAM Investment Management	Investment Delivery Engineer (IDE)
4.2	<i>MID Projects Only - Head of MID</i>	<i>Senior Project Manager MID (SPM)</i>
4.3	Capital Delivery Head of Function (e.g. Head of Delivery –Electricity Transmission, Head of Cable Tunnels etc.)	Development Engineer (DE)
4.4	Capital Delivery Head of Function (e.g. Head of Delivery –Electricity Transmission, Head of Cable Tunnels etc.)	Project Engineer (PE)

In addition to the competent staff above, the BP144 Assessed CDM-Adviser will discharge certain duties on behalf of the Client at all NDP stages and will act as an adviser in regard to other duties.

The Client delegated representative must be satisfied that the design at the time of sanction for both the system and plant has been fully reviewed and capable of meeting the objectives and that sufficient time has been allowed for the detailed design & delivery phases.

The Client has a major influence on the establishment of a 'safety by design' environment during the early design and must balance business benefits against SHES hazards and risks to achieve an appropriate design and must consider the implications of the design including the following.

- New build as opposed to replacement in situ is likely to lead to a more incident free SHES environment.
- Standardisation of design leads to familiarity with the work, known problems, minimisation of time on site, routine working practices and refinement of best practice.
- The introduction of new technology and innovation embodies new risks, thereby requiring careful consideration management.

- Whether the proposed design is covered by existing National Grid technical specifications (TS) or whether a new TS is to be prepared.

Client Responsibilities for Designs Prepared or Modified outside Great Britain are covered by CDM 2015 Regulation 10 which requires the Client to ensure that the duties of Designers as specified in Regulation 9 are discharged. These requirements are discharged on behalf of the Client by ensuring all equipment manufactured both from within and outside Great Britain must be Type Registered and that all designs are subject to the requirements of NDP&UKBP/TP500 Investment Procedure and UKBP/TP188 Design Management.

2.2 CDM Adviser (CDM-A)

The CDM Adviser (CDM-A) is a Capital Delivery Technical Assurance (CDTA) appointment, on behalf of National Grid, from the list of BP144 Assessed CDM-Advisers to ensure the client's duties under the Construction (Design and Management) Regulations 2015 (CDM 2015) and NG UKBP/TP137 are complied with. The role comprises monitoring compliance by National Grid, its consultants and contractors, with CDM 2015 and related Transmission Procedures (TP's); providing construction health and safety risk management advice to the client and ensuring, at times when a Principal Designer (PD) is not appointed and National Grid is deemed to be carrying out the duties, that all necessary steps are being taken by the Scheme/Project Team to fulfill these duties. For the avoidance of doubt this role is not a Principal Designer role or the old CDM-C role.

The CDM-A will via this procedure discharge a number of duties on behalf of the Client, they have been deemed competent to do this by virtue of completing the BP144 Assessment.

NB: During the early pre-construction phase of the scheme one CDM-A may be appointed to ensure the client's duties under CDM2015 are complied with for a number of sites & OHL Routes. If more than one CDM-A is allocated to a scheme then one CDM-A shall be nominated as the Lead CDM-A

For minor works projects then the role of CDM-A can be undertaken by the PE allocated to the project who is also a BP144 Assessed CDM-A. This shall be subject to formal agreement by CDTA Technical Process Manager (TPM).

The CDM-A shall monitor duty holders compliance with the CDM regulations generally and UKBP/TP137 specifically, and shall report monthly on CDM compliance. The monthly CDM Compliance report provides procedural and statutory compliance monitoring and reporting to CDTA. Where non-conformance is identified then discussion with relevant duty holder will take place to seek compliance. If non-compliance continues then this shall be highlighted on the monthly CDM Compliance report. If the non-compliance is significant then the CDM-A shall inform CDTA for further escalation.

2.3 Principal Designer (Pre Contract)

The appointed Principal Designer at the pre contract award stage shall be referenced as Principal Designer (Pre Contract).

Principal Designer (Pre Contract) is the design organisation appointed in writing by the Client to undertake Principal Designer duties in accordance with the Construction (Design and Management) Regulations 2015 (CDM 2015), and where referenced as Principal Designer (Pre Contract) in Transmission Procedures, for the pre-construction phase of the project up until main works contract award.

Where an organization is appointed Principal Designer (Pre Contract) they shall appoint a competent individual as their Principal Designer Representative (Pre Contract) to the project who shall be responsible for the day to day enactment of the duties detailed in this Transmission Procedure. Any individual appointed as Principal Designer Representative (Pre Contract) will be required to be a TP141 Assessed Principal Designer Representative (Pre Contract).

A Principal Designer shall always be appointed at NDP Stage 4.3, prior to this, where a specific appointment is not made, National Grid will ensure the general duties of the Principal Designer are enacted through compliance with their procedures by the wider Investment scheme team.

Note: Principal Designer Representative (Pre Contract) = PD Rep (Pre Contract)

See table below which summarizes the appointment of Principal Designer (Pre Contract) for NDP4.2 and NDP4.3 stages.

NDP Stage	Principal Designer (Pre Contract)
4.2	- PD (Pre Contract) - FEED organization appointed (if engaged at this stage) with duties and responsibilities discharged by their appointed TP141 Assessed PD Rep (Pre Contract) <i>If FEED Consultant <u>NOT</u> engaged then:-</i> - Client (NGET) deemed to be PD (Pre Contract) with responsibility for ensuring compliance with CDM (including duties of Principal Designer) resting with the project team under the direction of the IDE in NDP4.2 assisted and monitored by the CDM-A. In this circumstance there is NO requirement to appoint a TP141 Assessed PD Rep (Pre Contract).
4.3	<i>At the start of NDP4.3:-</i> - PD (Pre Contract) - FEED consultant organization appointed (if engaged at this stage) with duties and responsibilities discharged by their appointed TP141 Assessed PD Rep (Pre Contract). <i>If FEED Consultant <u>NOT</u> engaged then:-</i> - PD (Pre Contract) – Client (NGET) is deemed to be PD (Pre Contract) with duties and responsibilities discharged by their appointed TP141 Assessed PD Rep (Pre Contract). e.g. CDM-A
4.4	Appointed PD (Pre Contract) shall be in position until Main works Contract award at this point duties cease and Principal Designer (Design & Build) duties commence. Note:- The PD Rep (Pre Contract) shall attend a PD handover meeting ideally within 2 weeks of main works contract award.

The PD Rep (Pre Contract) shall be a designer on the project for a significant section of the project (unless agreed otherwise by CDTA) and must plan, manage and monitor the pre-construction phase including any survey works and co-ordinate matters relating to health and safety from appointment through to main works contract award.

The PD Rep (Pre Contract) shall be appointed by their Employing organization which shall be responsible for defining the level of skills, knowledge and experience required to discharge the duties they are to enact on the project. For nomination process see section 3.2.

2.4 Principal Designer (Design & Build)

The appointed Principal Designer at the post main works contract award stage shall be referenced as Principal Designer (Design & Build).

For projects that involve permanent design (applies to the majority of Capital Delivery projects) then the Principal Contractor organisation will be appointed in writing by the client to undertake the Principal Designer duties in accordance with the Construction (Design and Management) Regulations 2015 (CDM 2015), and where referenced as Principal Designer (Design & Build) in Transmission Procedures. The Principal Designer (Design and Build) appointment shall commence at Contract Award and cease on completion of the contract or at an earlier stage if confirmed in writing by the client.

For projects that DO NOT involve permanent design (e.g. Asbestos removal etc) then by agreement with CDTA the Client (NGET) is deemed to be Principal Designer and shall undertake the Principal Designer duties in accordance with the Construction (Design and Management) Regulations 2015 (CDM 2015), and where referenced as Principal Designer (Design & Build) in Transmission Procedures. The Principal Designer (Design and Build)

appointment shall commence at main works Contract Award and cease on completion of the contract or at an earlier stage if confirmed in writing by the client.

Where an organization is engaged as Principal Designer (Design and Build) or Client (NGET) is deemed to be Principal Designer (Design & Build) they shall appoint a competent individual as their Principal Designer Representative (Design and Build) to the project who shall be responsible for the day to day enactment of the duties detailed in this Transmission Procedure. Any individual appointed as Principal Designer Representative (Design and Build) will be required to be a TP141 Assessed Principal Designer Representative (Design & Build).

Note: Principal Designer Representative (Design & Build) = PD Rep (Design & Build)

The PD Rep (Design and Build) shall be a designer for a significant section of the project (unless agreed otherwise by CDTA) and must plan, manage and monitor the pre-construction phase and co-ordinate matters relating to health and safety from appointment through to main works contract completion.

For National Grid Joint Ventures or Alliances formed by Contractors then the partners will determine who will take the role of the Principal Designer (Design & Build).

The PD Rep (Design & Build) shall be appointed by their employing organization which shall be responsible for defining the level of skills, knowledge and experience required to discharge the duties the individual is to enact on a project. For nomination process see section 3.3.

2.5 Designers

All designers, including Permanent Works Designers, Temporary Works Designers and System Designers, have duties under CDM 2015. CDM 2015 states that anyone making a decision that affects design will be considered a designer under the regulations. National Grid engages competent designers assessed to TP141 to ensure final designs have taken full account of any hazards or risks resulting from the decisions of others.

Temporary works designers will be deemed as competent by their employer and will not be part of the TP141 process due to the diversity of skill sets required by temporary works. They are expected to interface with the permanent works designers where required.

Where a Development Engineer is assessed to TP141 they may discharge the same duties as a designer. Where they are assessed only to BP144 they are not empowered to undertake any design but must coordinate other designers only.

All design work must be in accordance with UKBP/TP188 Design Management, Network Development Process (NDP) and associated enabling document UKBP/TP500.

Designers must proactively carry out the following:

- a) Ensure that National Grid policy and process is enacted – particularly relating to hazard and design reviews.
- b) Consider all design from the perspective of eliminating significant hazards and reducing risk on an ALARP basis – by applying the hierarchy of risk control.
- c) Work with all other permanent and temporary work designers to ensure the existence of a 'safety by design' environment.
- d) Ensure the occupier is involved in the design process to ensure that site specific safety hazards are included as far as reasonably practicable.
- e) Establish the site or asset significant risk issues.
- f) Communicate any remaining significant risks with mitigating measures to the Principal Designer for inclusion in Pre-Construction information and/or the H&S File as appropriate and/or to Contractors for inclusion in the CPP.

In addition, the implications of the following must be considered, particularly by System designers within ETAM:

- g) New build as opposed to replacement in situ is likely to lead to a more incident free H&S environment.
- h) Standardisation of design leads to familiarity with the work, known problems, minimisation of time on site, routine working practices and refinement of best practice.
- i) The introduction of new technology and innovation embodies new risks, thereby requiring careful consideration management.
- j) Whether the proposed design is covered by existing National Grid technical specifications (TS) or whether a new TS is to be prepared.

The concept of safety by design does not mandate the most risk free design from an H&S perspective but rather that conscious thought is given to H&S hazards and risks – and conscious thought is given to satisfactory solutions for hazard elimination and risk reduction. Within this context most incidents arise from designs which have not been subject to such a thought process. During the Installation Lifecycle Stages the Designers, when evaluating H&S hazards and risks, must consider the task sequence for each stage of the installation lifecycle. This is Construction – Operation – Maintenance - Extension / alteration – Demolition.

Where safety by design choices exist e.g. different layouts or technologies the Whole Life Value Framework (PS(T)101) shall be utilised to help support chosen design.

Design teams must manage their own co-operation, co-ordination and communications in addition to the more formal requirements specified by the client.

2.6 Principal Contractor (PC)

Principal Contractors have duties as defined in CDM 2015.

The PC is a contractor appointed by the Client under CDM 2015 to co-ordinate the Construction phase of a project where it involves more than one contractor.

The key duty of the PC is to properly plan, manage and monitor the construction phase and coordinate matters relating to health and safety during the construction phase in order to ensure that construction work is carried out without risks to health or safety.

For National Grid Joint Ventures or Alliances formed by Contractors the Partners will determine who will take the role of PC.

The Principal Contractor shall nominate a Principal Contractor Site Manager (PCSM) who shall have appropriate competency (as defined by the Principal Contractor's competency management system and shall meet NG's minimum pre-requisite requirements defined in Appendix Q) based on the content/discipline and complexity of the work being undertaken. The PCSM shall undertake the duties of the PC and be appointed prior to the Pre Site Start Meeting to the point of finalisation of site activities.

The PC shall ensure that an individual with sufficient site experience attends pre site meetings such as design reviews and hazard reviews to bring construction knowledge and input.

2.7 Contractors

Contractors have duties as defined in CDM 2015.

Contractors have a key role planning, managing and monitoring work to ensure that risks are properly controlled and to ensure that the site is a safe and healthy place to work. They will, if working within a Principal Contractors CDM Zone, facilitate good coordination, cooperation and communications with the PC and other Contractors.

They shall implement a safe system of work when setting their staff to work.

2.8 Contractor for Single Contractor Projects

For single contractor projects, the Contractor has a key role in planning, managing and monitoring work to ensure that risks are properly controlled and to ensure that the site is a safe and healthy place to work. They shall implement a safe system of work when setting their staff to work.

For single contractor projects the Contractor shall nominate a Contractor Site Manager who shall be an individual undertaking the Contractor duties from the Pre Site Start meeting, to the point of finalisation of site activities and must have appropriate competency (as defined by the Contractors competency management system and shall meet NG's minimum pre-requisite requirements defined in Appendix Q), based on the content/discipline of the work being undertaken.

For single contractor projects refer to Appendix N.

Definition: A single (or sole) contractor project - where only one contractor is engaged to carry out the work and this contractor does not sub-contract any of the work to any other contractor.

2.9 Land & Development

The Land & Development (L&D) Representative in conjunction with the NG PE & Principal Contractor/Contractor is responsible for agreeing the access routes, CDM Zones etc. between Grantors and the Principal Contractor/Contractor. They must also ensure that Grantors are aware of the Projects CDM requirements and contact details.

The L&D Representative must ensure that any risks introduced via Grantor requirements are notified for consideration in the Design and hazard reviews.

The Land & Development (L&D) representative in conjunction with the DE or NG PE shall be responsible for agreeing the access arrangements with Grantors to enable surveys works to be carried out during NDP 4.2 and NDP4.3.

2.10 Occupier

The Occupier, as controller of premises, has duties and responsibilities under both the Health and Safety at Work Act 1974, and the Occupiers Liability Acts. The Occupier has responsibility for the overall management of the premises. For National Grid operational sites the role of Occupier will be undertaken by Electricity Transmission Asset Management Operations (ETAM OPS.). Certain aspects on a construction site relating to general safety can be discharged on ETAM OPS.'s behalf by the BP144 assessed Construction Interface Engineer in accordance with UKBP/TP163 and NGUK/CD/BP221.

For work undertaken on non NG premises then the relevant Occupier shall identify their requirements.

2.11 Temporary Works Coordinator (TWC)

The TWC will be assessed as competent and appointed by the Principal Contractor/Contractor in writing.

Temporary Works Coordinator will liaise with the Principal Designer (Design & Build) and attend the Permanent Works Designers hazard meetings to discuss and record interfacing issues.

The TWC will ensure that the Construction Phase Plan (CPP) includes and maintains details of the organisational interfaces for temporary works as required by British Standard 5975.

Appoint any TW Supervisors in writing.

2.12 Construction Interface Engineer (CIE)

The Construction Interface Engineer, appointed by the NG PE, enacts the role of Site Representative and is responsible for monitoring that the health, safety, environmental and sustainability aspects of the construction based activities are in accordance with legislation, Contractor/ NG policy and procedures.

2.13 H&S/Sustainability & Environmental Advisers

The H&S/Sustainability & Environmental advisers are accountable for the delivery of Capital Delivery's H&S/Sustainability & Environmental strategy and engagement to ensure continuous improvement and the development of appropriate culture.

The H&S/Sustainability & Environmental advisers are responsible for monitoring that the Contractor operates to the highest standards of Safety, Health, Sustainability and Environmental.

2.14 Capital Delivery Technical Assurance, Technical Process Manager (TPM)

The CDTA Technical Process Manager (TPM) shall resolve disputes in relation to project governance or CDM issues.

The CDTA Technical Process Manager (TPM) shall be responsible for appointment of the following:-

- BP144 Assessed CDM-A to a project.
- TP141 Assessed PD Rep (Pre Contract) when Client (NGET) deemed to be the Principal Designer (Pre Contract).
- TP141 Assessed PD Rep (Design & Build) when Client (NGET) deemed to be the Principal Designer (Design & Build).

3 APPOINTMENTS/NOMINATIONS

3.1 CDM Adviser - Appointment.

The CDTA Technical Process Manager (TPM) shall appoint a BP144 Assessed CDM-A to a project following the submission of the Client's completed request form. See Appendix L (Form UKBP/TP137.09). In this instance the CDM Team Leader has the delegated authority of the CDTA TPM to make this appointment.

3.2 Principal Designer (Pre Contract) - Appointment.

The FEED consultant organisation is appointed in writing as Principal Designer (Pre Contract) by Client (NGET) by virtue of the contract award/purchase order for the project.

3.3 Principal Designer Representative (Pre Contract) - Nomination

The Principal Designer (Pre Contract) shall nominate a competent individual as the Principal Designer Representative (Pre Contract) as follows:-

- a) Where a FEED consultant organization is engaged as the Principal Designer (Pre Contract) they shall nominate a TP141 Assessed PD Rep (Pre Contract) using the form in Appendix P prior to NG raising the purchase order. (Form UKBP/TP137.10) This form along with a current CV shall be forwarded to the CDM-A for review.
- b) CDM-A shall check and confirm to the IDE or DE that the individual is a TP141 Assessed PD Rep (Pre Contract) and has relevant skills, knowledge and experience and if satisfied shall ensure that the CDM allocation database is updated when contract awarded/purchase order is raised.
- c) If the allocated individual enacting the PD Rep (Pre Contract) role is to change then the FEED consultant shall notify the IDE or DE (depending on stage) and CDM-A at least 2 weeks prior to the date the changeover is to occur and complete the nomination form in Appendix P (UKBP/TP137.10) for the new individual. This form along with a current CV shall be forwarded to the CDM-A for review. CDM-A shall check and confirm to the IDE or DE that the individual is a TP141 Assessed PD Rep (Pre Contract) and have relevant skills, knowledge and experience and if satisfied shall ensure the CDM allocation database is updated.

The appointment process at NDP4.3 where FEED Consultant will NOT be engaged is detailed as follows:-

- d) The DE at the very beginning of NDP4.3 shall request CDTA to nominate a TP141 Assessed PD Rep (Pre Contract).
- e) CDTA shall nominate a TP141 Assessed PD Rep (Pre Contract) to the project using the form in Appendix P. (UKBP/TP137.10). The form shall be sent back to the DE (copy to CDM-A).

- f) If the allocated individual enacting the PD Rep (Pre Contract) role is to change then CDTA shall complete the nomination form in Appendix P (UKBP/TP137.10) for the new individual. The form shall be sent back to the DE (copy to CDM-A).

3.4 Principal Designer (Design & Build) - Appointment

The appointment of the Principal Designer (Design & Build) organisation will be in writing via Contract Award process.

By accepting the contract the appointed Principal Contractor is acknowledging the appointment and confirming that they will ensure the duties of the Principal Designer are carried out in accordance with CDM 2015.

3.5 Principal Designer Representative (Design & Build) - Nomination

3.5.1 NEC Contracts

The Principal Designer (Design & Build) shall nominate a competent individual as the Principal Designer Representative (Design & Build) as follows:-

- a) The PE shall identify to the NG Commercial Officer/Representative the requirement for the Contractor to undertake the duties of the Principal Designer and that they shall also nominate a Principal Designer Representative (Design & Build). This shall be recorded in Contract Data Part 1.
- b) The Tenderers shall nominate a TP141 Assessed PD Rep (Design & Build) in Contract Data Part 2 and using the nomination form in Appendix P (UKBP/TP137.10) along with a current CV for the individual as part of the Tender return.
- c) The CDM-A shall review and confirm to the PE that the nominated Principal Designer Representative (Design & Build) is TP141 Assessed as PD Rep (Design & Build) and has suitable skills, knowledge and experience and if satisfied shall ensure that the CDM allocation database is updated when Contract is awarded.

3.5.2 Other Types of Contracts (eg FIDIC)

The appointment process is detailed as follows:-

- a) The Tenderer shall nominate a TP141 Assessed PD Rep (Design & Build) using the nomination form in Appendix P (UKBP/TP137.10) along with a current CV as a part of the Tender return. CDM-A shall check and confirm to the PE that the nominated Principal Designer Representative (Design & Build) is TP141 Assessed as PD Rep (Design & Build) and has suitable skills, knowledge and experience and if satisfied shall ensure the CDM allocation database is updated when Contract is awarded.

3.5.3 PD Rep (Design & Build) Individual Enacting the Role Changes During Project Delivery

- a) If the appointed individual enacting the PD Rep (Design & Build) role is to change during project delivery, then the PC shall notify the PE and CDM-A at least 2 weeks prior to the date the changeover is to occur and complete the nomination form in Appendix P (UKBP/TP137.10) for the new individual. This form along with a current CV shall be forwarded to the PE and CDM-A. CDM-A shall check and confirm to the PE that the individual is a TP141 Assessed PD Rep (Design & Build) and has suitable skills, knowledge and experience. If satisfied shall ensure the CDM allocations database is updated.

3.5.4 Where agreed by CDTA that the Client (NGET) deemed to be the Principal Designer (Design & Build)

For Projects where it is agreed that the Client (NGET) is deemed to be Principal Designer (Design & Build) then the following process shall be followed:-

- a) The PE prior to main works contract award shall request CDTA to nominate a TP141 Assessed PD Rep (Design & Build).
- b) CDTA shall nominate a TP141 Assessed PD Rep (Design & Build) to the project using the form in Appendix P. (UKBP/TP137.10). The form shall be sent back to the PE (copy to CDM-A).

If the allocated individual enacting the PD Rep (Design & Build) role is to change then CDTA shall complete the nomination form in Appendix P (UKBP/TP137.10) for the new individual. The form shall be sent back to the PE (copy to CDM-A).

3.6 Principal Contractor Appointment Process

Where there is more than one contractor, or if it is reasonably foreseeable that more than one contractor will be working on a project at any time, then the Client must appoint in writing a Contractor as Principal Contractor.

The appointment of the Principal Contractor will be in writing via Contract Award process.

By accepting the contract the appointed Principal Contractor is acknowledging the appointment and confirming that they will ensure the duties of the Principal Contractor are carried out in accordance with CDM 2015.

The Principal Contractor shall nominate a competent Principal Contractor Site Manager (PCSM) who shall be an individual undertaking the Principal Contractor duties from the Pre Site Start meeting to the point of finalisation of site activities.

3.7 Principal Contractor Site Manager - Nomination

3.7.1 NEC Contracts

The Principal Contractor shall nominate a competent individual as their Principal Contractor Site Manager as follows:-

- a) The NG PE shall identify to the NG Commercial Officer/Representative the requirement for the Contractor to undertake the duties of the Principal Contractor and that they shall nominate a Principal Contractor Site Manager (PCSM). This shall be recorded in Contract Data Part 1.
- b) The Tenderers shall nominate a competent individual as their PCSM in Contract Data Part 2 and using the nomination form in Appendix R (UKBP/TP137.11) which shall be submitted as a part of the Tender return. The Tenderers shall nominate a PCSM who shall have appropriate competency (as defined by the Principal Contractor's competency management system and shall meet NG's minimum pre-requisite requirements defined in Appendix Q) based on the content/discipline and complexity of the work being undertaken. The Tenderer shall provide the competency matrix for the role and the corresponding training record for the nominated individual as a part of the Tender return. The Tenderer shall provide further supporting information where requested. e.g certificates.
- c) At the Tender stage the NG Project Delivery Team and CDM-A shall review the information provided. Reference shall be made to the master record of PCSM/CSM individuals held by CDTA. This is to ascertain if the individual has been reviewed by NG previously.
- d) Post Contract Award but prior to Pre Site Start meeting the NG Project Delivery Team shall review the nominated individuals PCSM/CSM nomination form (UKBP/TP137.11), competency matrix for the role and the corresponding training record and then conduct an interview. The NG PE shall confirm to the Principal Contractor if the nominated PCSM is acceptable. The NG PE shall also inform Capital Delivery Technical Assurance (CDTA) to enable the master record of PCSM/CSM individuals to be updated.

3.7.2 Other Types of Contracts (eg FIDIC)

The appointment process is detailed as follows:-

- a) The Tenderer shall nominate a competent Principal Contractor Site Manager using the nomination form in Appendix R (UKBP/TP137.11) which shall be submitted as a part of the Tender return. The Tenderer shall nominate a Principal Contractor Site Manager who shall have appropriate competency (as defined by the Principal Contractor's competency management system and shall meet NG's minimum pre-requisite requirements defined in Appendix Q) based on the content/discipline and complexity of the work being undertaken. The Tenderer shall provide the competency matrix for the role and the

corresponding training record for the nominated individual as a part of the Tender return. The Tenderer shall provide further supporting information where requested. e.g certificates.

- b) At the Tender stage the NG Project Delivery Team and CDM-A shall review the information provided. Reference shall be made to the master record of PCSM/CSM individuals held by CDTA. This is to ascertain if the individual has been reviewed by NGET previously.
- c) Post Contract Award but prior to Pre Site Start meeting the NG Project Delivery Team shall review the nominated individuals PCSM/CSM nomination form (UKBP/TP137.11), competency matrix for the role and the corresponding training record and then conduct an interview. The NG PE shall confirm to the Principal Contractor if the nominated PCSM is acceptable. The NG PE shall also inform CDTA to enable the master record of PCSM/CSM individuals to be updated.

3.7.3 Individual Enacting the PCSM Role is Changed or PCSM is absent from site for greater than 3 days.

- a) If the appointed individual enacting the Principal Contractor Site Manager role is to change or the PCSM is absent from site for greater than 3 days, then the Principal Contractor shall notify the NG PE at least 2 weeks prior to the planned date of changeover (or within the week if unplanned) and complete the nomination form in Appendix R (UKBP/TP137.11) for the new individual. This form shall be forwarded to the NG PE. The Principal Contractor shall nominate a replacement Principal Contractor Site Manager who shall have appropriate competency (as defined by the Principal Contractor's competency management system and shall meet NG's minimum pre-requisite requirements defined in Appendix Q) based on the content/discipline and complexity of the work being undertaken. The Principal Contractor shall provide the competency matrix for the role and the corresponding training record for the nominated individual. The Principal Contractor shall provide further supporting information where requested. e.g certificates.
- b) The NG Project Delivery Team shall review the information provided and shall interview the nominated individual. (Where the PCSM is absent from site for greater than 3 days, but is due to return, then the NG Project Delivery Team reserves the right to interview the replacement PCSM). Reference shall be made to the master record of PCSM/CSM individuals held by CDTA. This is to ascertain if the individual has been reviewed by NGET previously.
- c) The NG PE shall confirm to the Principal Contractor if the nominated PCSM is acceptable. The NG PE shall also inform CDTA to enable the master record of PCSM/CSM individuals to be updated.

3.7.4 Individual Enacting the Principal Contractor Site Manager Role is absent from site for less than 3 days.

- a) If the appointed individual enacting the Principal Contractor Site Manager role is absent from site for less than 3 days, then the Principal Contractor shall notify the NG PE at least 2 weeks prior to the planned date of changeover (or within the week if unplanned) and complete the nomination form in Appendix R (UKBP/TP137.11) for the new individual. This form shall be forwarded to the NG PE. The Principal Contractor shall nominate a replacement Principal Contractor Site Manager who shall have appropriate competency (as defined by the Principal Contractor's competency management system and shall meet NG's minimum pre-requisite requirements defined in Appendix Q) based on the content/discipline and complexity of the work being undertaken. The Principal Contractor shall provide the competency matrix for the role and the corresponding training record for the nominated individual. The Principal Contractor shall provide further supporting information where requested. e.g certificates.
- b) The NG Project Delivery Team shall review the information provided. Reference shall be made to the master record of PCSM/CSM individuals held by CDTA. This is to ascertain if the individual has been reviewed by NGET previously. The NG PE shall confirm to the Principal Contractor if the nominated PCSM is acceptable.

3.8 Contractor For Single Contractor Projects

For single contractor projects there is no requirement for the Client to appoint the contractor as a Principal Contractor. The Contractor shall nominate a Contractor Site Manager who shall be an individual undertaking the Contractor duties from the Pre Site Start meeting to the point of finalisation of site activities.

3.9 Contractor Site Manager - Nomination

3.9.1 NEC Contracts & Other Types of Contract (e.g. FIDIC)

The Contractor shall nominate a competent individual as their Contractor Site Manager as follows:-

- a) Follow the process defined in section 3.7.2 above.

(Replace the words Principal Contractor with Contractor and Principal Contractor Site Manager (PCSM) with Contractor Site Manager (CSM)).

3.9.2 Individual Enacting the Contractor Site Manager Role is Changed or CSM is absent from site for greater than 3 days.

- a) Follow the process defined in section 3.7.3 above.

(Replace the words Principal Contractor with Contractor and Principal Contractor Site Manager (PCSM) with Contractor Site Manager (CSM)).

3.9.3 Individual Enacting the Contractor Site Manager Role is absent from site for less than 3 days.

- a) Follow the process defined in section 3.7.4 above.

(Replace the words Principal Contractor with Contractor and Principal Contractor Site Manager (PCSM) with Contractor Site Manager (CSM)).

3.10 Summary of NG Review & Interview Interventions for PCSM/CSM Role

Ref	Stage	PCSM/CSM Nomination Form Required (Inc Competency Matrix for role and individuals corresponding record)	Review PCSM/CSM Nomination Form	Interview PCSM/CSM	NG PE Inform CDTA
1	Tender Return	Yes	NG Project Delivery Team & CDM-A	N/A	N/A
2	Contract Award but Prior to Pre Site Start Meeting	Yes	NG Project Delivery Team	NG Project Delivery Team	Yes
3	Change of PCSM/CSM	Yes	NG Project Delivery Team	NG Project Delivery Team	Yes
4	PCSM/CSM Absent from Site ≤3 days	Yes	NG Project Delivery Team	N/A	N/A
5	PCSM/CSM Absent from Site > 3 days	Yes	NG Project Delivery Team	NG Project Delivery Team Reserves the right to interview	Yes

4 PROCEDURE

4.1 NDP4.1 Establish Portfolio

The focus of this stage is to understand the driver for the investment, and identify the high level changes needed to address this driver, rather than developing solutions which happen in NDP 4.2. (See NDP&UKBP/TP500).

The Needs Case is created during NDP4.1 and demonstrates there is a driver for the investment which is aligned to relevant business strategies. When the milestones indicate that it is necessary to begin pre-construction works, the project shall be presented to Gate A2 and if successful move to NDP 4.2. (For customer connection projects – projects will pass through Gate A2 when the customer has signed the offer)

In this respect CDM pre-construction can be considered to commence at the start of NDP4.2

4.2 NDP4.2 Select Option

The brief for this stage is the Needs case (produced during NDP4.1).

The driver for works will be reviewed, along with the initially proposed solutions, before optioneering work is undertaken to identify with more certainty the scope, programme, forecast cost and risks associated with a full set of options.

A Project Brief shall be created and sufficient work undertaken to identify the preferred option.

Once Investment Management are satisfied that it is timely to commit to the greater resources required to develop and sanction the preferred option, the project shall pass through Gate B and into stage 4.3.

4.2.1 NDP4.2 - Client

The Investment Delivery Engineer (IDE) on behalf of the Client during NDP 4.2, in addition to the requirements identified in the General Responsibilities section 2.1 above, shall:

- a) Request a CDM-A be appointed to the project. See Appendix L (Form UKBP/TP137.09).
- b) Invite the CDM-A to the first investment team meeting.

Note! For Connection driven investments the IDE requests a CDM-A at NDP4.1 and also invites the CDM-A to the first investment team meeting. CDTA will allocate a CDM-A to the investment however CDM-A attendance at meetings may be waived by agreement between the CDM-A and the Client until the Connection Offer has been accepted.
- c) Identify to the CDM-A any interfacing projects or Maintenance being delivered in the investments time scales
- d) Ensure FEED organisation (if engaged at this stage) is appointed in writing as the Principal Designer (Pre Contract) and that they have appointed a TP141 Assessed PD Rep (Pre Contract) to discharge their duties and responsibilities.
- e) If a FEED consultant not engaged at this stage then the client (NGET) deemed to be PD (Pre Contract) with responsibility for ensuring compliance with CDM (including duties of Principal Designer) resting with the project team under the direction of the IDE and assisted and monitored by the CDM-A. In this circumstance there is NO requirement to appoint a TP141 Assessed PD Rep (Pre Contract).
- f) Ensure Hazard review meetings are undertaken as required & ensure CDM-A attendance as required. Chaired by CDM-A or, if appointed at this stage, the PD Rep (Pre Contract).
- g) Ensure Design review meetings are undertaken as required & ensure CDM-A attendance as required. Chaired by DE or, if appointed at this stage, the PD Rep (Pre Contract).

- h) Ensure that sufficient time scales are allowed for safe development, design, installation and commissioning activities. When making the decision to accelerate project delivery the IDE on behalf of the Client will confirm to the CDM-A in writing that the new time scales allow sufficient time to allow full compliance with the CDM regulations.
- i) Balance business benefits against SHES hazards and risks to achieve an appropriate design on the Client's behalf. These considerations must be recorded in the Network Development Process 'Whole Life Value Report'.

For Major Infrastructure Development (MID) projects the Senior Project Manager (SPM) in MID on behalf of the Client during NDP 4.2 shall undertake responsibilities and duties as detailed in General Responsibilities section 2.1 and items detailed in this section (4.2.1).

4.2.2 NDP4.2 - Principal Designer (Pre Contract)

The PD (Pre Contract) in addition to the requirements identified in the general responsibilities section 2.3 above, shall:-

- a) When appointing any designers, check that these designers have sufficient skills, knowledge, experience (where appropriate TP141 Assessed Contractor Design Approval Engineer/TP141 Authorized Design Assurance Engineer status) and (if they are an organization) the organizational capability to carry out the work. These checks should be carried out before appointment takes place and confirmation provided to the CDM-A who shall record in the CDM Summary log.
- b) Collate the pre-construction information (PCI) that National Grid already holds, assess the adequacy of existing information to identify any gaps in information which it is necessary to fill and provide advice to National Grid on how the gaps can be filled and help in gathering the necessary information.
 - For NEC contracts - collate the PCI for inclusion in the PEP which shall consist of Works Information and Site Information which shall then be extracted for inclusion in the Invitation to Tender.
 - For non NEC contracts - prepare the Pre Construction Information pack using the template in Appendix G (Form UKBP/TP137.05). E.g. for NICAP, CB Refurbs & P&C schemes.
- c) Provide PCI to assist designers and contractors who are being considered for appointment or have already been appointed to carry out their duties. This shall include for survey works. For further information on the management of survey works please see Appendix M.
- d) Coordinate the health and safety aspects of design work and facilitate good communication between Designers, Temporary Works Designers, Contractors and the occupier.
- e) Convene, chair and minute design review meetings in accordance with the requirements of UKBP/TP188 with appropriate attendees. If PD Rep (Pre Contract) is not appointed at this stage then the DE shall convene, chair and minute the design review meeting. The CDM-A shall be invited to design reviews and sent a copy of all minutes.
- f) Convene and chair hazard review meetings as per UKBP/TP188 and record/maintain entries within the hazard register. If a PD Rep (Pre Contract) is not appointed at this stage then the CDM-A shall convene and chair the hazard review meeting. The hazard review meeting shall discuss the identified high level potential hazards of each design option, which will then feed into the Option Selection Meeting. Where the DE and PD Rep (Pre Contract) or, if not appointed, CDM-A shall agree that a full hazard review meeting is not required in NDP 4.2, the hazards associated with the project shall still be discussed as part of the project design review, captured in the design review minutes and fed into the Option Selection Meeting. The CDM-A shall be invited to hazard reviews and sent a copy of the Hazard Register.

- g) Consider the implications of any design changes and the need for additional design review and/or hazard meetings.
- h) Fully assess all potential hazards identified by the hazard review meeting with regard to the principles of prevention and record in the hazard register.
- i) Update/populate H&S file as required.
- j) Co-operate and provide to the CDM-A correspondence/information as requested and as identified in this procedure.

4.2.3 NDP4.2 - Designer

Designers in addition to the requirements identified in the General Responsibilities section 2.5 above shall:

- a) Attend design review meetings and hazard meetings as defined in UKBP/TP188
- b) Liaise with internal & third party Interfacing designers
- c) Provide the CDM-A or PD Rep (Pre Contract) if appointed, with information relating to significant risks for inclusion in the PCI and, if required, the H&S File.

4.2.4 NDP4.2 - CDM-Adviser

The CDM-A in NDP 4.2, in addition to the requirements identified in the General Responsibilities section 2.2 above shall:

- a) Consider the requirement to Convene, chair and minute a CDM Strategy meeting. The intention of this meeting is to plan how CDM will be organized for any unusual projects, where multiple technologies interface or where there is significant interaction with other clients or between PC's. The CDM-A will produce a CDM Strategy Document detailing the agreed strategy following the meeting and distribute to all attendees and PD (Pre Contract) when appointed.
- b) Commence CDM Summary Log and maintain throughout the life of project; check competence authorisations/assessments of duty holders. For CDM Summary log see Appendix F.(UKBP/TP137.04)
- c) If FEED is engaged and appointed as Principal Designer (Pre Contract) then check and confirm to the IDE that the PD Rep (Pre Contract) is a TP141 Assessed PD Rep (Pre Contract) and has relevant skills, knowledge and experience for the project. If satisfied shall ensure that the CDM allocation database is updated when contract awarded/purchase order is raised and any subsequent change thereafter.
- d) If FEED is not engaged and a Principal Designer (Pre Contract) not appointed then the Client (NGET) is deemed to be the Principal Designer (Pre Contract). CDM-A to then gather the pre- construction information (PCI) on behalf of Client. The CDM-A shall liaise with the occupier to gather existing site information that is readily available. The CDM-A will identify any information that is missing and agree with the IDE/DE at what stage this information should be obtained.
- e) Attend Investment team meetings and support Investment team to ensure SHES considered in decisions.
- f) Ensure hazard reviews are undertaken and attend the meetings. CDM-A should ensure the PD Rep (Pre Contract), if appointed, is preparing and maintaining a Hazard Register as well as ensuring the content of the Hazard Register considers significant and unusual hazards (or as specified in UKBP/TP188). If PD Rep(Pre Contract) is not appointed at this stage then CDM-A shall convene, chair and minute this meeting.
- g) Ensure design review meetings are undertaken and attend the meetings as required. Review all design review meeting minutes to confirm compliance with UKBP/TP188 and requirements of CDM 2015.
- h) In conjunction with the project team, review scope of works and identify if UKBP/TP500 governance options can be applied & record this on the CDM summary log.

- i) If FEED is not engaged and a Principal Designer (Pre Contract) not appointed then the Client is deemed to be the Principal Designer (Pre Contract). CDM-A, on behalf of the Client, to provide PCI to contractors for NDP 4.2 survey work and raise an F10 if required. For further information on the management of survey works please see Appendix M.
- j) Monitor that key documents associated with this NDP stage are loaded in to ECM – CPM workspace in the Tracked Project Folder Structure.

4.2.5 NDP4.2 - Occupier

The Occupier/Representative in addition to the requirements identified in the General Responsibilities section 2.10 above shall:

- a) Supply pre-construction Information.
- b) Identify to the PD Rep (Pre Contract) or, if not appointed, the CDM-A, any significant site risks/hazards or unique features for inclusion in pre-construction Information.

4.3 **NDP4.3 Develop & Sanction**

The brief for this stage is the Project Brief (produced during NDP4.2).

During this stage further work will be undertaken to develop the preferred option to the level of accuracy required to achieve financial sanction and move into the delivery phase

The Project Execution Plan (PEP) is created during this stage and develops the preferred option with sufficient detail to be able to achieve sanction for the investment and provide sufficient detail for handover to delivery. Once the sanctioned option is due to progress to delivery, it shall be presented to Gate C and if successful shall pass through to NDP 4.4.

4.3.1 NDP4.3 Client

The Development Engineer (DE) on behalf of the Client during NDP 4.3, in addition to the requirements identified in the General Responsibilities section 2.1 above shall:

- a) If FEED not engaged at NDP 4.2 and are engaged at this stage then ensure FEED organisation is appointed in writing as the Principal Designer (Pre Contract) and that they have appointed a TP141 Assessed PD Rep (Pre Contract) to discharge their duties and responsibilities.
- b) If a FEED consultant is not engaged at this stage then the client (NGET) deemed to be Principal Designer (Pre Contract) with duties and responsibilities discharged by their appointed TP141 Assessed PD Rep (Pre Contract).
- c) Balance business benefits against SHES hazards and risks to achieve an appropriate design on the Client's behalf.
- d) Identify to the PD Rep (Pre Contract) any interfacing projects or Maintenance being delivered in the investments time scales.
- e) Provide or make provision for the supply of existing route/site information to the PD Rep (Pre Contract).
- f) Ensure that sufficient time scales are allowed for safe development, design, and installation and commissioning activities. When making the decision to accelerate project delivery the DE on behalf of the Client will confirm to the CDM-A in writing that the new time scales allow sufficient time to allow full compliance with the CDM regulations.
- g) Ensure that hazard reviews take place and consider the programme of works as well as construction with respect to safe delivery.
- h) Consider the need to hold TP153 HV System Access Coordination meeting and request appointment of chair
- i) Ensure Commissioning Panel Meetings (if required at this stage) are undertaken.

- j) Liaise with CDM-A regarding any survey works. For further information on the management of survey works please see Appendix M.
- k) Give consideration to the requirement for a Site visit by Land & Development and representatives from Capital Delivery involved in establishing temporary access routes, lay down areas, winching positions etc. with a view of establishing the safest possible solutions that are acceptable to the Land owners & interested parties

4.3.2 NDP4.3 - Principal Designer (Pre Contract)

A Principal Designer (Pre Contract), if not appointed in NDP4.2, shall always be appointed at the beginning of this stage.

In addition to the requirements identified in the general responsibilities section 2.3 above the Principal Designer (Pre Contract) shall:

- a) When appointing any designers, check that these designers have sufficient skills, knowledge, experience (where appropriate TP141 Assessed Contractor Design Approval Engineer/TP141 Authorized Design Assurance Engineer status) and (if they are an organization) the organizational capability to carry out the work. These checks should be carried out before appointment takes place and confirmation provided to the CDM-A who shall record in the CDM Summary log.
- b) Collate the PCI that National Grid already holds, assess the adequacy of existing information to identify any gaps in information which it is necessary to fill and provide advice to National Grid on how the gaps can be filled and help in gathering the necessary information.
 - For NEC contracts - collate the PCI for inclusion in the PEP which shall consist of Works Information and Site Information which shall then be extracted for inclusion in the Invitation to Tender.
 - For non NEC contracts - prepare the Pre Construction Information pack using the template in Appendix G (Form UKBP/TP137.05).
- c) Provide PCI to assist designers and contractors who are being considered for appointment or have already been appointed to carry out their duties. This shall include for survey works. For further information on the management of survey works please see Appendix M.
- d) Coordinate the health and safety aspects of design work and facilitate good communication between Designers, Temporary Works Designers, Contractors and the occupier.
- e) Convene, chair and minute design review meeting(s) in accordance with the requirements of UKBP/TP188 with appropriate attendees which may include interfacing third party representatives. The CDM-A shall be invited to design reviews and be sent a copy of all minutes.
- f) Convene and chair hazard review meetings at NDP 4.3 to review hazards identified during NDP 4.2, and to identify and/or assess any further potential hazards as they arise from the design development. Record and maintain entries within the Hazard Register. The DE and PD Rep (Pre Contract) shall agree the requirement for further Hazard review meetings in the NDP 4.3 phase. The CDM-A shall be invited to hazard reviews and sent a copy the revised Hazard Register.
- g) Consider the implications of any design changes and the need for additional design review and/or hazard meetings.
- h) Fully assess all potential hazards identified by the hazard review meeting with regard to the principles of prevention and record in the hazard register.
- i) Ensure residual hazards (in the form of the hazard register) and PCI is identified in the "Works Information" and "Site Information" sections of the PEP.
- j) Determine the necessity for connection related projects to convene a 'CDM & Safety Rules Arrangement' meeting between the third parties project team, the PE's, Principal Designers,

TP153 Chair (where appropriate) and ETAM OPS representative (as a minimum) to determine a strategy for enacting both the CDM zone responsibilities for each stage of the project and determining which parties HV safety rules will be enacted. The CDM-A shall be invited to this meeting and sent a copy of all minutes.

- k) Review CDM strategy document developed at NDP4.2 and develop for inclusion in the Invitation to Tender. For Non NEC contracts these shall be included in the standalone Pre-Construction information pack.
- l) Update/populate H&S file as required.
- m) Co-operate and provide to the CDM-A correspondence/information as requested and as identified in this procedure.

4.3.3 NDP4.3 - Designer

Designers in addition to the requirements identified in the General Responsibilities section 2.5 above shall:

- a) Attend design review meetings and hazard meetings as defined in UKBP/TP188.
- b) Produce a Site Waste Management Plan for projects with a value in excess of £300,000
- c) Liaise with internal & third party Interfacing designers
- d) Provide the PD Rep (Pre Contract) with information relating to significant risks for inclusion in the PCI and, if required, the H&S File.

4.3.4 NDP4.3 - CDM-Adviser

The CDM Adviser at NDP4.3, in addition to the requirements identified in the General Responsibilities section 2.2 above shall:-

- a) Pass on PCI, on behalf of the Client, to the PD Rep (Pre Contract) and record in the CDM Summary log.
- b) In conjunction with the project team review scope of works and identify if UKBP/TP500 governance options can be applied & record this on the CDM summary log.
- c) Ensure design review meetings are undertaken and attend meetings as required. Review all meeting minutes to confirm compliance with UKBP/TP188 and requirements of CDM 2015.
- d) Ensure hazard review meetings are undertaken and attend meetings as required. CDM-A should ensure the PD Rep (Pre Contract) is preparing and maintaining a Hazard Register as well as ensuring the content of the Hazard Register considers significant and unusual hazards (or as specified in UKBP/TP188).
- e) Receive information from the PD Rep (Pre Contract) regarding designer competence.
- f) Maintain CDM Summary Log throughout life of project; check competence authorisations/assessments of duty holders.
- g) Ensure CDM and Safety Rules Meetings are undertaken if required and attend if required. Review all meeting minutes to ensure that a suitable strategy for enacting both CDM zone responsibilities for each stage of the project and determining which parties HV safety rules will be enacted.
- h) Ensure PCI is reviewed prior to PEP completion.
- i) Liaise with DE/PE regarding any planned survey works and confirm compliance with Appendix M
- j) Notify HSE when survey works are notifiable.
- k) Prior to any survey works commencing ensure SHES requirements are discussed including holding a Pre site start meeting if required.
- l) Confirm to Client suitable welfare facilities in place for survey works.
- m) Review CPP for survey work and confirm suitability to client.

- n) Check formal appointment of Principal Designer (Pre Contract).
- o) Check and confirm to the DE that the PD Rep (Pre Contract) is a TP141 Assessed PD Rep (Pre Contract) and has relevant skills, knowledge and experience for the project. If satisfied shall ensure that the CDM allocation database is updated.
- p) Ensure consideration has been given to the requirement to hold TP153 HV System Access Coordination meetings and attend as required. Review all meeting minutes to confirm compliance with UKBP/TP153.
- q) Ensure Commissioning Panel Meetings (if required at this stage) are undertaken.
- r) Advise CDTA of any contact with HSE.
- s) Monitor that key documents associated with this NDP stage are loaded in to ECM – CPM workspace in the Tracked Project Folder Structure.

4.3.5 NDP4.3 - Occupier

The Occupier/Representative in addition to the requirements identified in the General Responsibilities section 2.10 above shall:

- a) Supply pre-construction Information.
- b) Identify to the PD Rep (Pre Contract) any additional significant site risks/hazards or unique features for inclusion in the pre-construction Information.

4.4 **NDP4.4 Execute Project**

The brief at this stage is the Project Execution Plan (PEP), produced during NDP4.3, which is used to prepare Tender documentation.

This stage encompasses the delivery phase, from tendering and contract award through physical works on site to commissioning and completion of asset data and drawings.

Once physical works have been completed (i.e. the Contractor has demobilised), the Project Manager's report will be finalised. The Project Manager's Report shall contain all the key information required to complete the financial closure process and capture lessons learnt.

The project is presented to Gate D and if successful will pass through to NDP4.5.

4.4.1 NDP4.4 - Client

The Project Engineer (PE) on behalf of the Client during NDP 4.4 in addition to the requirements identified in the General Responsibilities section 2.1 above shall:-

- a) Identify to the PD Rep (Pre Contract) any new information regarding interfacing projects or maintenance being delivered in the investments time scales
- b) Liaise with CDM-A regarding any survey works required prior to Contract Award. For further information on the management of survey works please see Appendix M.
- c) Ensure that sufficient time scales are allowed for safe design, installation and commissioning activities. When making the decision to accelerate project delivery the PE on behalf of the Client will confirm to the CDM-A in writing that the new time scales allow sufficient time to allow full compliance with the CDM regulations.
- d) Ensure that hazard reviews take place and consider the programme of works as well as construction with respect to safe delivery.
- e) Ensure TP153 HV System Access Coordination meetings are held
- f) Ensure Commissioning Panel meetings are held.
- g) Ensure a Construction Interface Engineer is appointed with sufficient time to carry out his required duties
- h) Ensure at the Tender stage that the PCSM nomination process is followed as detailed in section 3.7.1 or 3.7.2 (depending on contract type).

- i) Ensure at post contract award stage but prior to Pre Site Start meeting that the PCSM nomination/interview process is followed as detailed in section 3.7.1 or 3.7.2 (depending on contract type).
- j) Ensure that any change of PCSM follows the process detailed in section 3.7.3 or 3.7.4.
- k) For single contractor projects, ensure at the Tender stage CSM nomination process is followed as detailed in section 3.9.1.
- l) For single contractor projects, ensure at the post contract award stage but prior to the Pre Site Start meeting that the CSM nomination/interview process is followed as detailed in section 3.9.1.
- m) For single contractor projects, ensure that any change of CSM follows the process detailed in section 3.9.2 or 3.9.3.

4.4.2 NDP4.4 - Principal Designer (Pre Contract)

In addition to the requirements identified in the general responsibilities section 2.3 above the Principal Designer (Pre Contract) shall:

- a) Ensure that the Principal Designer Representative (Pre Contract) is maintained in post until the PD Handover meeting has been held (for projects involving more than one contractor) or attendance at the Inaugural Contract Meeting (for project involving a single contractor).
- b) Ensure residual hazards (in the form of the hazard register) and PCI is included in the “Works Information” and “Site Information” in the Invitation to Tender.
 - For Non NEC contracts the residual hazards and PCI shall be identified in the standalone Pre-Construction Information (PCI) pack.
- c) Convene, chair and minute a Pre-Construction Information review meeting prior to the Invitation to Tender document being issued. This is to review the information, check the accuracy and ensure that for NEC contracts the PCI contained in the PEP has been correctly transferred to the Invitation to Tender. The CDM-A shall be invited to this meeting and be sent copies of all minutes.
 - For non NEC contracts this will act as a final review and accuracy check to ensure that all necessary PCI is included in the PCI pack.

Note: If a similar meeting has been held then this can be referred to on the CDM Summary log (by the CDM-A) and replaces the Pre-Construction information review meeting. E.g. Level C review meeting etc.

- d) Provide assistance to the PE/DE if additional/updated SHES information becomes available between post invitation to tender and Contract award.
 - For NEC Contracts the additional/updated SHES information should be communicated as part of the Tender process. This will result in appended updates to the “Works Information” and/or “Site Information” in the contract documentation which is frozen at Contract award.
 - For Non NEC Contracts the additional/updated SHES information should, wherever possible, be incorporated by the PD Rep (Pre Contract) in to the standalone Pre Construction Information pack for communicating as part of the tender process.
- e) Provide guidance, where required, as part of the Tendering process.

For projects involving more than one contractor, attend PD Handover meeting ideally within 2 weeks of Contract Award. This meeting shall be convened, chaired and minutes taken by the CDM-A and is to hand over the Principal Designer duties and responsibilities from PD Rep (Pre Contract Award) to PD Rep (Design & Build) and to review the PCI. The agenda for the meeting is detailed in Appendix O. For single contractor projects the PD Handover meeting is not required. However PD Rep (Pre Contract) shall ensure PCI has been provided to the Contractor to enable a suitable CPP

to be prepared. PD Rep (Pre Contract) will attend the Inaugural Contract meeting and ensure that PCI is an agenda item.

Note: The Principal Designer (Pre Contract) appointment will cease at main works contract award. CDM-A shall record the date in the PD handover minutes.

- f) Co-operate and provide to the CDM-A correspondence/information as requested and also as identified in this procedure.

4.4.3 NDP4.4 - Principal Designer (Design & Build)

In addition to the requirements identified in the general responsibilities section 2.4 above the Principal Designer (Design & Build) shall:

- a) Attend the PD Handover meeting ideally within 2 weeks of Contract Award. This meeting shall be convened, chaired and minutes produced by the CDM-A and its purpose is to hand over the Principal Designer duties and responsibilities from PD Rep (Pre Contract Award) to PD Rep (Design & Build) and to review the PCI. The agenda for the meeting is detailed in Appendix O.

The Principal Designer (Pre Contract) appointment will cease when the Principal Designer (Design & Build) is appointed at Contract award. CDM-A shall record the date in the PD handover minutes and CDM Summary log.

- b) When appointing any designers check that these designers have sufficient skills, knowledge, experience (where appropriate TP141 Assessed Contractor Design Approval Engineer) and (if they are an organization) the organizational capability to carry out the work. These checks should be carried out before appointment takes place and confirmation provided to the CDM-A who shall record in the CDM Summary log.

- c) Coordinate the health and safety aspects of design work and facilitate good communication between designers.

In particular the PD Rep (Design & Build) shall ensure that:-

- There is regular communication with the Temporary Work co-ordinator (TWC). (The CDM-A shall be included in all communications).
- The Temporary Works Register is being maintained by the TWC & shared with the permanent work designers. (The CDM-A shall be included in all communications).
- The PC has suitable quality assured processes in place for recording design decisions with reference to SHES.

- d) For third party work re-confirm arrangements for the application of CDM Regulations as agreed in the CDM & Safety Rules Arrangement meeting held during NDP4.3 Development phase.

- e) Convene, chair and minute design review meetings in accordance with PC processes and as a minimum in accordance with the requirements of UKBP/TP188 with appropriate attendees. These shall include third parties where there are design interfaces. At least one Design Review meeting shall focus on evaluating all design clearance drawings (both OHL and Substation) from a safety, build and maintainability perspective. This review shall include evaluation of tower/gantry positions if down lead clearances are unusually tight. ETAM Operations agreement of these proposals shall be recorded in the minutes of the meeting. The CDM-A shall be invited to design reviews and sent a copy of all minutes.

- f) Convene and chair hazard review meetings in accordance with PC processes and as a minimum as per UKBP/TP188. Record and maintain entries within the Hazard Register provided to them at contract award. The PD Rep (Design & Build) shall be able to demonstrate a series of challenge and review of key project SHES decisions throughout the design process. The CDM-A shall be invited to hazard reviews and sent a copy of all minutes.

- g) Consider the implications of any design changes and whether they require additional design review and/or hazard review meetings.
- h) Manage a hazard register for the duration of the project.
- i) Liaise with the PC for the duration of their appointment which, during the pre-construction phase, shall include sharing information that may affect the planning, management, monitoring and co-ordination of the construction phase.
- j) Assist the PC in preparing the CPP by providing pre-construction information obtained from National Grid and any information obtained from designers about any risks that could not be eliminated.
- k) Take account of, where relevant, the content of any CPP. This will be relevant when the plan has implications for any design work that is carried out after construction phase has started.
- l) Where required attend weekly SHESQ&P meetings to deal with any ongoing design and to obtain any information required for the H&S file. Ensure that all on-site design decisions are referred to a competent designer.
- m) Attend H&S file review meeting as convened and chaired by CDM-A at appropriate times through the construction phase and at least within 1 month of construction works completion.
- n) Prepare a new H&S file (or revise an existing one) in accordance with the agreed format in Appendix E (Form UKBP/TP137.03) and submit to the CDM-A for review. CDM-A shall review the H&S file and make comments where applicable. If a revision to the H&S file is required then this shall be completed by the PD Rep (Design & Build) and re-submitted to the CDM-A for final acceptance. CDM-A shall confirm with National Grid ETAM Operations Team Leader that all drawings, O&M manuals and documentation are available on site for the new equipment and handover the final H&S file. CDM-A shall obtain written acceptance of the H&S file from either the Operations Team Leader or NG Commissioning Engineer. Consideration shall be given to prepare H&S file for elements of projects which are energized separately

NB: Information required for operational purposes must be made available at the time of commissioning. This shall also include all test reports, certificates, drawings, Building Engineering Services and structures etc.

- o) Throughout the appointment ensure that the H&S file is updated as appropriate and is available to the Client (Occupier).
- p) Attend the Continuous Improvement meeting and provide feedback on whether risks identified during the design stage were relevant and whether any other unusual risks arose that were not identified. Furthermore, undertake a specific review with the PC to find out whether the pre-construction information assisted them during the construction phase and if any information that would have been helpful was not provided.
- q) Co-operate and provide to the CDM-A correspondence/information as requested and also as identified in this procedure.

4.4.4 NDP4.4 - Designer

Designers including Temporary Works Designers in addition to the requirements identified in the General Responsibilities section 2.5 above shall:

- a) For projects involving more than one contractor, identify to the PD Rep (Design & Build) any significant risks in the Design Intent Document (DID). For single contractor projects, identify to the Lead Contractor Design Approval Engineer any significant risks in the Design Intent Document (DID).
- b) Attend design reviews and undertake hazard reviews as defined in UKBP/TP188 and ensure third party representation where required. NB: No design changes shall take place unless under a defined change control process.

- c) For projects involving more than one contractor, provide the PD Rep (Design & Build) with information, particularly relating to residual significant risks for inclusion in the CPP and/or the H&S File and of any design changes. For single contractor projects, provide the Contractor with information, particularly relating to residual significant risks for inclusion in the CPP and/or the H&S File and of any design changes.
- d) Continue liaison with other designers and TWC
- e) For single contractor projects, a TP141 Assessed Contractor Design Approval Engineer shall undertake the Lead Contractor Design Approval Engineer Role and discharge responsibilities and duties as identified in UKBP/TP188

4.4.5 NDP4.4 - CDM-Adviser

The CDM-A in addition to the requirements identified in the General Responsibilities section 2.2 above shall:

- a) Provide guidance, where required, as part of the Tendering process.
- b) If the CDM-A has not been part of the tender process then they will confirm with the Business Unit Contract Lead (BUCL) that the Contractor "Company" competency has been checked as part of the National Grid Procurement Tendering process. Where a contract is let with a company that has not been subject to the NG Global procurement process the CDM-A will undertake the required competency checks on Company, its Safety Management Systems and key staff.
- c) Review and confirm to the PE that the nominated Principal Designer Representative (Design & Build) is TP141 Assessed as PD Rep (Design & Build) and has suitable skills, knowledge and experience and if satisfied shall ensure that the CDM allocation database is updated when Contract is awarded and any subsequent change thereafter.
- d) At Tender stage in conjunction with the NG Project Delivery Team review the information provided for the nominated Principal Contractor Site Manager/Contractor Site Manager. Reference shall be made to the master record of PCSM/CSM individuals held by CDTA.
- e) For projects involving more than one contractor, convene, chair and produce minutes for the Principal Designer (PD) handover meeting ideally within 2 weeks of contract award. For single contractor projects, ensure PD Rep (Pre Contract) attends the Inaugural Contract meeting and PCI is an agenda item.
- f) Notify HSE in accordance with section 6 and subsequently update the F10 if required.
- g) Ensure design review meetings are being undertaken and attend as required where possible. Review all design review meeting minutes to confirm compliance with UKBP/TP188 and requirements of CDM 2015.
- h) For projects involving more than one contractor, ensure PD Rep (Design & Build) is undertaking responsibilities and recording all design changes. Ensuring SHES implications are considered which demonstrate a robust design change process. For single contractor projects, ensure Lead Contractor Design Approval Engineer is undertaking responsibilities and recording all design changes. Ensuring SHES implications are considered which demonstrate a robust design change process
- i) For project involving more than one contractor, ensure hazard review meetings are being undertaken and attend as required where possible. CDM-A should ensure the PD Rep (Design & Build) is preparing and maintaining a Hazard Register as well as ensuring the content of the Hazard Register considers significant and unusual hazards (or as specified in UKBP/TP188). For single contractor projects, ensure hazard review meetings are being undertaken and attend as required where possible. CDM-A should ensure the Lead Contractor Design Approval Engineer is preparing and maintaining a Hazard Register as well as ensuring the content of the Hazard Register considers significant and unusual hazards (or as specified in UKBP/TP188).

- j) For projects involving more than one contractor, receive from PD Rep (Design and Build) information regarding designer competence and check competencies against the CDTA register. For single contractor projects, receive from Lead Contractor Design Approval Engineer information regarding designer competence and check competencies against the CDTA register.
- k) Update CDM Summary Log throughout NDP 4.4 stage. Check competence - TP141/BP144 Authorisations/Assessments.
 - Check if an individual TP141/BP144 Assessment is correct for the level of the work defined in UKBP/TP500. (i.e. if any derogations are acceptable)
 - Check if individual TP141/BP144 Assessment is in date and also if the organisation they work for aligns with that recorded on the TP141Assessment database. (EG if the individual is working for ABB and their assessment is for Siemens then they are not TP141Assessed)
- l) Ensure consideration has been given to the requirement to hold TP153 HV System Access Coordination meetings and attend as required. Review all TP153 meeting minutes to confirm compliance with UKBP/TP153.
- m) Monitor Commissioning Panel Meetings are undertaken.
- n) Review CPP for any relevant survey works required prior to Contract Award or after Contract Award and prior to main contract works commencing. Confirm on behalf of the client that work can commence
- o) Ensure Pre start meeting held for any survey work and attend where possible
- p) Confirm to Client suitable welfare facilities in place for any survey works
- q) Review CPP in conjunction with the SHES adviser for main contract works. Confirm on behalf of the client that construction can commence. Complete the Construction Phase Plan Review in Appendix C. (Form UKBP/TP137.01)
- r) Review the CPP periodically through the duration of the construction phase to ensure it is being updated on a regular basis.
- s) Ensure Pre site start meeting held for main project work and attend where possible.
- t) Ensure Site Waste Management Plan is available prior to site set-up.
- u) Confirm to Client suitable welfare facilities are in place for main contract works
- v) Confirm to client F10 displayed correctly
- w) For projects involving more than one contractor, review Temporary Works information from PD Rep (Design & Build) to confirm that this aspect of design and work coordination is being properly monitored. For single contractor projects, review Temporary Works information from Lead Contractor Design Approval Engineer to confirm that this aspect of design and work coordination is being properly monitored
- x) Monitor that all required parties attend the site weekly safety, health, environmental, security, quality and progress (SHESQ&P) meeting and cooperate fully and coordinate their activities. Review all meeting minutes for compliance with UKBP/TP163.
- y) Ensure the Principal Contractor/Contractor has an agreed method of communicating the status of the CDM Zone to the occupier during out of hour's emergency working.
- z) Ensuring Principal Contractor/Contractor handover CDM areas correctly in accordance with Appendix H1 & K.
- aa) Update CDM Summary log with Principal Contractors Site Manager.
- bb) Inform the CDTA Technical Process Manager of any contact with the HSE.
- cc) Review H&S File and pass to Occupier.
- dd) Obtain written acceptance of the H&S File from the Occupier. See Appendix D (Form UKBP/TP137.02 H&S File Handover certificate)

NB: Information required for operational purposes must be made available at time of commissioning.

- ee) Convene, chair and produce minutes for the H&S File Review Meeting(s)
- ff) For projects involving more than one contractor, ensure duty holders are cooperating on schemes that cross technologies. E.g. PD Rep (Design & Build) Substation works liaising with PD Rep (Design & Build) OHL etc. For single contractor projects, ensure duty holders are cooperating on schemes that cross technologies. e.g. Lead Contractor Design Approval Engineer Substation works liaising with Lead Contractor Design Approval Engineer OHL etc
- gg) Monitor that key documents associated with this NDP stage are loaded in to ECM – CPM workspace in the Tracked Project Folder Structure.

4.4.6 NDP4.4 - Occupier

In addition to the requirements identified in the Responsibilities section 2.10 the Occupier shall:

- a) Agree the extent of the boundaries and method of delineation of the Construction Site CDM Zone, appropriate to the activities. See Appendix K. (Form UKBP/TP137.08)
- b) For projects involving more than one contractor, ensure that the PC has established a safe and defined access to and egress from the Construction Site. For single contractor projects, ensure that the Contractor has established a safe and defined access to and egress from the Construction Site
- c) Ensure that precautions have been taken to ensure that the Construction Site is safe by establishing Safety from the System, and that appropriate safety documentation is issued to an appointed Competent Person.
- d) Ensure that sensible monitoring for safety from the system is in place with visits and findings documented
- e) For projects involving more than one contractor, review the PC RAMS for safety from the system. For single contractor projects, review the Contractor RAMS for safety from the system.
- f) Attend the site weekly SHESQ&P meetings when required.
- g) Attend Design Review meetings (when specifically requested)
- h) Attend Hazard Review meetings (when specifically requested)
- i) Attend Health and Safety (H&S) File Review Meeting.
- j) Attend TP153 Co-ordination meetings
Attend TP106 commissioning panel meetings

4.4.7 NDP4.4 Principal Contractor (PC)

The PC in addition to the requirements identified in the General Responsibilities section 2.6, the PC shall:

- a) Appoint a Principal Contractor Site Manager prior to the Pre Site start meeting.

The above nominees must be deemed competent by the PC and have received appropriate information, instruction, training and experience to discharge the duties and responsibilities of the PC. The PC will not appoint any PC Site Manager who has not attained the competency requirements as detailed for the role in the PC's competency management system and shall meet National Grid's minimum pre-requisite requirements for the role as defined in Appendix Q.
- b) The PC will receive the Pre Construction information from the appointed Principal Designer (Design & Build). It is then the responsibility of the PC (and later the Principal Contractor site manager) to suitably develop and execute the CPP.

- c) Ensure that a competent Principal Contractor Site Manager (PCSM) is on site at all times. (Competency as defined by the PC's competency management system and shall meet NG's minimum pre-requisite requirements defined in Appendix Q)

The Principal Contractor Site Manager, on behalf of the PC, in addition to the requirements identified in the General Responsibilities section 2.6, shall:

- d) Ensure that a suitable CPP, accepted by the CDM-A on behalf of the Client, is available on site from the commencement of site access and reviewed, updated and implemented as necessary until the completion of all works.
- e) Ensure development of the Site Waste Management Plan.
- f) Ensure information is supplied to the PD Rep (Design & Build) for incorporation into the H&S File.
- g) Convene, chair and prepare minutes for the Pre Site Start Meeting at least 6 weeks prior to site access. Pre site start meeting agenda items to include CPP, pre-construction information, welfare arrangements and the agenda items as defined in the TP163 Weekly SHESQ&P meeting where relevant. This period may be reduced subject to formal agreement between the PE, CDM-A and PC Site Manager which will be recorded on the CDM Summary Log.
- h) Convene, chair and minute the first Weekly SHESQ&P meeting as soon as is practicable after site access and then further weekly meetings as defined in UKBP/TP163.
- i) Ensure that the Request for Safety Documentation forms are given to and discussed with the SAP at least three weeks prior to work commencing (Form UKBPTP163.03 – Request for National Grid Safety Document).
- j) To have an agreed method of communicating the status of the CDM Zone to the occupier during out of hours emergency working. See Appendix H1 (Form UKBP/TP137.06)
- k) Maintain an accurate CDM Demarcation zone drawing managed in accordance with Appendix K. (Form UKBP/TP137.08)
- l) Ensure that all Contractors and sub-contractors are competent to discharge their role and sensibly monitor their activities.
- m) Be the key site interface to the PD Rep (Design & Build) and keep them informed of any key site driven design changes.
- n) Inform the CDM-A of any contact with the HSE and communicate, on a monthly basis, to enable the CDM-A to update the CDM Summary log.

4.4.8 NDP4.4 Contractors

Contractors in addition to the requirements identified in the General Responsibilities section, 2.7 shall:

- a) Cooperate and coordinate with the Principal Contractor and other Contractors.

Single Contractor Projects

For single contractor projects there is no requirement to appoint a PC or a Principal Designer but the general duties under CDM2015 will still apply and in particular the Contractor is required to take account of the general principles of prevention with regard to design, technical and organisational aspects of the work. The Contractor will be required to prepare a CPP prior to any construction work commencing.

Further procedural governance is detailed in Appendix N

4.4.9 NDP4.4 – Construction Interface Engineer (CIE)

The Construction Interface Engineer in addition to the requirements identified in the General Responsibilities section 2.12, shall:

- a) Be responsible for undertaking a risk review to define the level of monitoring required and to develop, maintain and implement a sensible monitoring programme in accordance with the requirements of UKBP/TP163.

4.4.10 NDP4.4 – H&S/Sustainability & Environmental Advisers

The H&S/Sustainability & Environmental Advisers are accountable in addition to the requirements identified in the General Responsibilities section 2.12, shall:

- a) Be responsible for undertaking audits / inspections as detailed in the Project Specific SHE Audit Plan.

4.5 **NDP4.5 Review and Close Project**

The brief at this stage is the Project Manager's Report (produced at the end of NDP4.4).

The purpose of this stage is to create a Closure Paper which is presented to the appropriate sanctioning body for approval. Gate E then provides final confirmation that the scheme elements have been closed in all business systems, and that all reported costs are final and complete.

5 **SKILLS, KNOWLEDGE & EXPERIENCE (COMPETENCY)**

The CDM 2015 Regulations require that a designer (including principal designer) or contractor (including a principal contractor) appointed to work on a project must have the skills, knowledge and experience, and, if they are an organisation, the organisational capability, necessary to fulfil the role that they are appointed to undertake, in a manner that secures the health and safety of any persons affected by the project.

Skills, knowledge & experience (Competency) requirements for those concerned with the National Grid Electrical Transmission capital programme are as follows.

Role	Undertaken by	Competency Requirements
Informed Client	Electricity Transmission Asset Management (ETAM) at NDP4.2	To be defined by ETAM
	Capital Delivery Head of Functions at NDP4.3 & NDP4.4	- Defined by Employing organisation. - BP144 Assessed and nominated from a register held by CDTA (BP144 Assessed as DE at NDP4.3 & BP144 Assessed as PE at NDP4.4).
CDM Adviser (CDM-A)	CDTA	- Defined by Employing organisation. - BP144 Assessed and nominated from a register held by CDTA
Principal Designer Representative (Pre Contract)	FEED Consultant or CDTA or other employing organisation	- Defined by Employing organisation - TP141 Assessed as PD Rep (Pre Contract) and nominated from a register held by CDTA
Principal Designer Representative (Design & Build)	Principal Contractor Or Other Employing organisation	- Defined by Employing organisation - TP141 Assessed as PD Rep (Design & Build) and nominated from a register held by CDTA
Designer	System Design (ETAM)	To be defined by ETAM
	Asset Strategy & Engineering (ETAM)	To be defined by ETAM

Role	Undertaken by	Competency Requirements
	▪ Development Engineer	▪ Design Engineers in each technology defined in TP141 and nominated from a register held by CDTA
	▪ CDTA	▪ Defined in TP141 and nominated by a register held by CDTA
	▪ Contractors	▪ Defined by contractor. ▪ TP141 Assessed and nominated from a register held by CDTA ▪ All other Designers defined by the Contractor and assessed by CDTA
Temporary Works Coordinator	▪ Contractors	▪ Defined by contractor and in TP184 ▪ Recorded on a register held by CDTA
Principal Contractor Site Manager	▪ Principal Contractor	▪ Defined by contractor organisation ▪ NG minimum pre-requisite requirements defined in Appendix Q.
Contractor Site Manager (single contractor projects)	▪ Contractor	▪ Defined by contractor organisation ▪ NG minimum pre-requisite requirements defined in Appendix Q.
Project Engineers	▪ All Delivery Units	▪ Defined by employing organisation. ▪ BP144 Assessed and nominated from a register held by CDTA
Construction Interface Engineers	▪ All Delivery Units	▪ Defined by employing organisation. ▪ BP144 Assessed and nominated from a register held by CDTA
Commissioning	▪ National Grid ETAM OPS. & Contractors	▪ Defined in TP141 and nominated from a register held by CDTA
Occupier	▪ National Grid ETAM OPS.	▪ Defined by ETAM OPS.

- 5.1** Any duty holder accepting the nomination of competency – and therefore named on the CDM Summary Log – is similarly confirming that they understand their duties under the CDM 2015 Regulations.
- 5.2** Competency of duty holders other than those listed above shall be defined and confirmed by the Principal Contractor/Contractors
- 5.3** Contractor 'Company' Competency will be checked as part of the National Grid Procurement Tendering process. If the CDM-A has not been part of the tender process then they will confirm with the Business Unit Contract Lead (BUCL) that this was done. Where a contract is let with a company that has not been subject to the NG Global procurement process the CDM-A will undertake the required competency checks on Company, its Safety Management Systems and key staff.

6 COMPLETION OF F10 FORM

6.1 The HSE will be given notice of every project which has a construction phase that is scheduled to:-

- last longer than 30 working days and have more than 20 workers working simultaneously at any point in the project; or
- exceed 500 person days.

The F10 will be completed by the CDM-A using the online system as soon as practicable after Contract Award and will be revised by the CDM-A following any changes in duty holders.

6.2 Consideration will be given to the requirement for the issue of an F10 to cover intrusive or significant survey works during the earlier investment phases if the threshold for notification is met.

6.3 The duty holders on the F10 will be completed as follows;

- The Client is National Grid Electricity Transmission.
 - For OHL, cable and Substation projects include the E mail address, postal address and telephone number of the Head of Delivery - Electricity Transmission
 - For cable tunnel projects include the E mail address, postal address and telephone number of the Head of Cable Tunnels
 - For other projects the E mail address, postal address and telephone number will be advised by the Client.
- The Principal Designer is Principal Contractor organisation appointed by National Grid.
 - Email address and telephone number will be for the individual nominated by the organisation.
 - The Address will be that of the Principal Contractor organisation
- The PC will be the organisation nominated in writing for projects where there are expected to be more than one contractor.
 - Name & E mail address will be the individual designated by the PC organisation.
 - The Address and telephone number will be provided by the PC organisation.
- The Designer will be the organisation appointed directly by National Grid to carry out design for a project.
 - Name & E mail address will be the individual designated by the Contractor or Designer organisation
 - The Address and telephone number will be provided by the Contractor or Design organisation
- The Contractor will be any contractor appointed on the project who is not the Principal Contractor.
 - Name & E mail address will be the individual designated by the Contractor organisation
 - The Address and telephone number will be provided by the Contractor organisation
- The Declaration section will be on behalf of the Client by the CDM-A.

6.4 A copy of the original F10 and any subsequent revisions will be forwarded to the PE (on behalf of the client) and other duty holders named on the F10.