# STCP18-4 Issue 010: Evaluation of Transmission Impact (ETI)

#### **STC Procedure Document Authorisation**

Party	Name of Party Representative	Signature	Date
The Company			
National Grid Electricity Transmission plc			
SP Transmission plc			
Scottish Hydro Electric Transmission plc			
Offshore Transmission Owners			
Competitively Appointed Transmission Owners			

#### **STC Procedure Change Control History**

Issue 001	23/03/2007	First Issue
Issue 002	17/12/2009	Issue 002 incorporating changes for offshore regime.
Issue 003	27/05/2017	Issue 003 Introduction of Lead Person(s) and Admin updates
Issue 004	01/04/2019	Issue 004 incorporating National Grid Legal Separation changes
Issue 005	09/05/2019	Housekeeping Modification to align STCP18-1 - STCP18-6 with existing working practices
Issue 006	25/04/2023	Issue 006 incorporating use of 'The Company' definition as made in the STC PM0130
Issue 007	11/06/2024	Issue 007 incorporating Transmission Impact Assessment Process PM0126
Issue 008	17/04/2025	Issue 008 incorporating PM0144 Digital Communication System Integration
Issue 009	10/06/2025	Issue 009 incorporating PM0143 Implementing Connection Reform
Issue 010	26/11/2025	Issue 010 incorporating Competitively Appointed Transmission Owners to TO Lists on all Definitions – PM0151

#### 1 Introduction

#### 1.1 Scope

- 1.1.1 This process defines the data exchange required between The Company, as defined in the STC and meaning the licence holder with system operator responsibilities, and the TO(s) for the purposes of User Applications for the Evaluation of Transmission Impact (ETI).
- 1.1.2 This procedure describes the following:
- 1.1.2.1 The process of how TO(s) respond to The Company Request for an ETI as a result of a User (the DNO) applying to The Company for a Transmission Evaluation Application or Transmission Impact Assessment.
- 1.1.2.2 It defines the tasks, formal documentation, interface requirements, timescales and responsibilities between The Company and the Host TO, Affected TO(s) and Other Affected TO(s) from receipt of such Request for ETI, to progression of the project through STCP18-1 Connection and Modification Application or Transmission Impact Assessment.
- 1.1.2.3 The process for the ETI which must be carried out prior to any individual or collectively relevant embedded generation that has a Significant Impact on the NETS connecting to the network. The ETI process output determines whether reinforcement works are required or not allowing for either the Transmission Evaluation Application process or Transmission Impact Assessment process to be followed.
- 1.1.2.4 The Transmission Impact Assessment process, which once established at a GSP allows for the connection of single or collective embedded generation, enabling Distribution Network Operators to provide on-going monthly (or a otherwise agreed) progress updates on the connected volume.
- 1.1.2.5 The data exchange requirements in order for The Company to determine when a single or collectively relevant connection of generator(s) has a significant impact on the NETS in the form of trigger criteria for each GSP.
- 1.1.3 This procedure applies to The Company and each TO.
- 1.1.4 For the purposes of this document, the TOs are:
  - NGET;
  - SPT;
  - SHET;
  - All Offshore Transmission Licence holders as appointed by Ofgem; and.
  - All Competitively Appointed Transmission Licence holders as appointed by Ofgem.

#### 1.2 Objectives

- 1.2.1 The objective of this procedure is to detail:
  - how the Transmission Evaluation Application is addressed across The Company ~ TO interface and the TO ~ TO interface;
  - how the request for a Transmission Impact Assessment is addressed across
     The Company ~ TO interface and the TO ~ TO interface

- the requirements for exchange of information in relation to these activities;
- the lines of communication to be used; and
- the Significant Impact Criteria requirements for the TO to supply to The Company at each GSP.

#### 2 Key Definitions

#### 2.1 For the purposes of STCP18-4:

- 2.1.1 **Affected Parties** means the Host TO, Affected TO(s) and Other Affected TO(s), as appropriate, involved in carrying out the ETI.
- 2.1.2 **Affected TO(s)** means any Transmission Owner whose Transmission System would be affected by the proposed ETI and satisfies the criteria set out in the STC, Schedule Four. (See STC Section D, Part 4, paragraph 1.1.2)
- 2.1.3 **Appendix G** (being an Appendix within a Bilateral Connection Agreement between The Company and a User) establishes, with other terms the TIA process at a GSP
- 2.1.4 **Appendix TOGG** is an Appendix within a TO Construction Offer used to populate an Appendix G.
- 2.1.5 **Application Programme** means a programme to manage the application process and forms part of the Scheme Briefing Note. The Application Programme lists the milestones and the dates agreed by all parties are inserted.
- 2.1.6 Developer means the party responsible for applying to the DNO in respect of the Relevant Embedded Power Station which is to be connected to that DNO network, and which is the subject of the Transmission Evaluation Application. For the avoidance of doubt, in Scotland the provisions will only be applicable to Small Power Stations.
- 2.1.7 **Evaluation of Transmission Impact (ETI)** is an assessment process whereby the Affected TOs shall assess the impact of The Company Modification Application for a Transmission Evaluation or The Company Request for a TIA.
- 2.1.8 **Host TO** means the Transmission Owner to which the DNO (who the Developer is applying for connection to) is connected.
- 2.1.9 **Lead Person(s)** means representatives from The Company, the Host TO, Affected TO(s) and Other Affected TO(s) (as appropriate), the "Lead Person(s)", shall oversee the application process. The remit of the Lead Person(s) is to agree the Application Programme, monitor progress and agree any changes. The Lead Person(s) are also responsible for resolving any disagreements relating to a The Company TEC Exchange Rate Application at first instance, prior to any necessary escalation. Dialogue will take place in person, via a Designated Information Exchange System, telephone or video conferencing as appropriate.
- 2.1.10 Named Contact means in terms of the TO, the person to initially receive The Company Request for a TIA, and in terms of The Company, the person to whom a Modification Application to establish the Transmission Impact Assessment is sent in accordance with the CUSC.
- 2.1.11 Other Affected TO(s) means any Transmission Owner who is not a Host TO or an Affected TO, but which receives Construction Planning Assumptions or The Company otherwise identifies that it is likely to be required to submit to enter into a TO Construction Agreement in respect of an application.
- 2.1.12 **Site Specific Requirements** means any technical design or operational criteria that a TO has assumed will apply to User Equipment at the Relevant Connection Site in assessing The Company Request for an ETI.

- 2.1.13 **Scheme Briefing Note** means the note that is provided from The Company to the TO to update the status and details of the application (see pro-forma in Appendix B).
- 2.1.14 Significant Impact Criteria consists of Active Power, Apparent Power, Reactive Power or Amperage. Any single or collective embedded generation planned to be connected by the DNO that exceeds any of these limits would be considered a significant impact on the transmission network which will require an ETI to be carried out prior to connecting.
- 2.1.15 **Transmission Evaluation Application** is a User Application for a Transmission Evaluation
- 2.1.16 Transmission Impact Assessment (TIA) is a process used to establish Appendix G. The DNO establishes an enduring TIA (Appendix G) with regular updates provided to the Company.
- 2.1.17 **User** is as defined in the CUSC, but in this instance refers only to a DNO.

#### 3 Procedure

#### 3.1 Nuclear Site Licence Provision

3.1.1 When following this process where this may interact with, impact upon or fall within the boundary of a Nuclear Site Licence holder's site, or may otherwise have any form of affect and/or implication for a nuclear power station, consideration must be given to the relevant provisions of the applicable Nuclear Site Licence Provisions Agreement, the CUSC Bilateral Connection Agreement for that site, paragraph 6.9.4 of the CUSC and Section G3 of the STC to ensure compliance with all of these obligations.

#### 3.2 Introduction

- 3.2.1 The ETI process sets out the trigger criteria for the DNOs to enable them to make a request to The Company for an Evaluation of Transmission Impact via either a Transmission Evaluation Application or a Modification Application to establish the Transmission Impact Assessment.
- 3.2.2

#### 3.3 Evaluation of Transmission Impact (ETI)

- 3.3.1 The ETI may require the TO to supply The Company with the Significant Impact Criteria for Active Power (MW), Apparent Power (MVA), Reactive Power (MVAR), Amperage (KA) at each GSP. The TO will supply the Significant Impact Criteria to The Company on a timetable agreed with The Company.
- 3.3.2 The DNOs will use the Significant Impact Criteria to determine whether any single or collection of embedded generation to be connected within their network will exceed any of the Criteria on the GSP and therefore require an Evaluation of Transmission Impact Assessment to take place.
- 3.3.3 Significant Impact Criteria should be created following the commissioning of any new GSP.

#### 3.4 Transmission Evaluation Applications

- 3.4.1 Transmission Evaluation is an evaluation by the TO of the impact on, and required reinforcements to, its Transmission System as a consequence of Developers wishing to connect to a User's DNO network. This results in a TO Construction Offer being made to The Company, or the submission of a TO No Works Notice (3.5.1).
- 3.4.2 Transmission Evaluation Applications are subject to the Gated Application and Offer Process and as such are subject to the Gated Timetable.

#### 3.4.3 The Company receives a User Application

- 3.4.3.1 The Company shall receive a completed Transmission Evaluation Application from a User.
- 3.4.3.2 A completed Transmission Evaluation Application is one where all technical data (both data received by the User from the Developer and the User's DNO network data) has been received.

#### 3.4.4 The Company checks the User Application

- 3.4.4.1 The Company shall determine who is the Host TO, and (if any) the Affected TO(s) and Other Affected TO(s).
- 3.4.4.2 The Company shall utilise the information in the Transmission Evaluation Application to produce The Company Modification Application for a Transmission Evaluation, in accordance with Schedule 13 of the STC, for each of the Affected Parties.
- 3.4.4.3 Within 5 Business Days of receipt of the correctly completed Transmission Evaluation Application, The Company shall send by email the relevant The Company Modification Application for a Transmission Evaluation to the Host TO and (if any) Affected TO(s) and Other Affected TO(s).

#### 3.4.5 TO Construction Offers are made to The Company

3.4.5.1 The process detailed in STCP 18-1 Connection and Modification Application shall be followed from 3.4.5 to make TO Construction Offers to The Company.

#### 3.5 Subsidiary Processes

#### 3.5.1 TO No Works Notice

- 3.5.1.1 Each TO which does not require Transmission Construction Works to be undertaken in relation to The Company Modification Application for a Transmission Evaluation shall submit a TO No Works Notice to The Company as soon as reasonably practicable but, in any event, prior to the end of the Gated Design Window.
- 3.5.1.2 Each TO where Transmission Construction Works are not required shall specify whether or not, in planning and developing its Transmission System, the Transmission Owner has assumed that any Site Specific Requirements will apply.

#### 3.5.2 Amendments to the Transmission Evaluation Application

3.5.2.1 If details of the **Transmission Evaluation Application** change after the **Transmission Evaluation Application** has been submitted, then The Company and the Affected Parties shall assess what impact this will have on the Affected Parties responseto The Company Modification Application for a Transsmision Evaluation.

#### 3.5.3 Withdrawal of a Transmission Evaluation Application by the User

3.5.3.1 Where a User withdraws their Transmission Evaluation Application, The Company shall share via a Designated Information Exchange System the Affected Parties within 2 Business Days.

#### 4 Transmission Impact Assessment (TIA)

- 4.1.1 The Transmission Impact Assessment is to establish a new Appendix G in the Bilateral Connection Agreement at a GSP and an Appendix TOGG in the TO Construction Agreement where requested by the DNO.
- 4.1.2 The Transmission Impact Assessment is not subject to the Gated Application and Offer Process.
- 4.1.3 Once established at a GSP it allows for the connection of single or collective embedded generation, enabling Distribution Network Operators to provide ongoing monthly (or as otherwise agreed) progress updates on the connected volume.

#### 4.2 TIA Process

#### 4.2.1 The Company receives the Request for a TIA

4.2.1.1 The Company Named Contact shall receive a completed Request for a TIA via a Modification Application to establish the Transmission Impact Assessment from a DNO which may be for a single or multiple generators.

#### 4.2.2 The Company checks the DNO TIA Application

- 4.2.2.1 The Company Named Contact shall appoint The Company Lead Person. The Company Lead Person shall check that the Request for a TIA is completed correctly. Where the TIA is not completed correctly, The Company Lead Person shall inform the DNO as soon as they determine that it is not correct.
- 4.2.2.2 The Company Lead Person shall determine who is the Host TO, Affected TO(s) and Other Affected TO(s).
- 4.2.2.3 The Company Lead Person shall utilise the information in the Request for a TIA to produce The Company Request for a Transmission Impact Assessment, in accordance with Schedule 13 of the STC, for each of the Affected Parties. The Company Lead Person shall initially complete the appropriate Transmission Impact Assessment Briefing Notes, with details from the Request for a TIA, the Affected Parties, The Company Lead Person, the CPA and a The Company unique TIA Analysis number.
- 4.2.2.4 In the event that The Company does not intend to generate a revised set of TIA Planning Assumptions for a TIA, The Company shall notify the TO(s) within 2 Business Days of the Request for TIA Date and advise the Affected Parties which set of TIA Planning Assumptions shall apply.
- 4.2.2.5 Within 3 Business Days of receipt of the technically effective Request for a TIA, The Company Lead Person shall send by e-mail the relevant The Company Request for a TIA and the appropriate TIA Briefing Note to the TO Named Contacts.
- 4.2.2.6 The Company Request for a TIA will be sent to the Affected Parties within 3 Business Days of receipt of the DNO Application, regardless of whether the DNO Application is effective or not, so that the TO(s) are aware a Request for a TIA has been received. Should any Party decide to undertake any work on The Company Request for a TIA before it is effective, then this will be at such Party's own risk.

4.2.2.7 An effective The Company Request for a TIA is one that is technically effective and The Company has informed the TO via the appropriate TIA Briefing Note that the Application Fee has been cleared.

#### 4.2.3 Receipt of a The Company Request for a TIA acknowledged by TO(s)

- 4.2.3.1 Within 2 Business Days of receipt of The Company Request for a TIA, the Affected Parties shall acknowledge receipt of The Company Request for a TIA to The Company Lead Person via a Designated Information Exchange System and advise The Company Lead Person of the name and contact details of their Lead Person.
- 4.2.3.2 The Company shall update the TIA Briefing Notes with details of the Lead Person of the Affected Parties to whom all formal communication for the application will be addressed. The Company shall e-mail the appropriate updated TIA Briefing Notes to the Affected Parties' Lead Person(s).

#### 4.2.4 Application fee not cleared

- 4.2.4.1 If the Application Fee has not cleared within the terms set out, The Company Lead Person shall seek to obtain the Application Fee from the DNO.
- 4.2.4.2 If the application fee has not been paid within the timescales detailed within the invoice The Company shall inform all parties of the cancellation.

#### 4.2.5 The Company confirms that Application Fee cleared

- 4.2.5.1 When the Application Fee is cleared, The Company shall update the TIA Briefing Notes with the clearance date and via a Designated Information Exchange System the appropriate TIA Briefing Notes to the Affected Parties' Lead Person(s).
- 4.2.5.2 The TO(s) shall invoice The Company with their relevant TO component of the Application Fee in accordance with STCP 19-6 Application Fees.

## 4.2.6 The Company shall be informed as to whether The Company Request for a TIA is technically effective or not

- 4.2.6.1 Within 5 Business Days of receipt of The Company Request for a TIA, the Affected Parties Lead Person(s) shall notify The Company Lead Person by e-mail, as to whether The Company Request for a TIA is technically effective or not.
- 4.2.6.2 Where The Company Request for a TIA is considered to be technically non-effective, then the Affected Parties Lead Person(s) shall send via a Designated Information Exchange System to The Company Lead Person with detailed reasons as to why it considers it incomplete or unclear in a material respect and the amendments it considers are required to make it technically effective

## 4.2.7 DNO and TO(s) shall be informed that DNO Application is technically noneffective

- 4.2.7.1 A technically non-effective Request for a TIA is one where all technical data (both data received by the DNO from the Developer and the DNO's DNO network data) has not been received.
- 4.2.7.2 If the Request for a TIA is technically non-effective, The Company Lead Person shall inform the DNO of what data is missing. The Company Lead Person shall ask the DNO for any missing data from the Developer or for any DNO network data identified as being required by the Host TO in section 4.2.6. The Company shall update the TIA Briefing Notes with the date the DNO was contacted and send via a Designated Information Exchange System the appropriate TIA Briefing Notes to the Affected Parties.

#### 4.2.8 Resolve technical non-effectiveness

- 4.2.8.1 Where a The Company Request for a TIA is technically non-effective as a consequence of the Request for a TIA being technically non-effective, the Affected Parties shall use reasonable endeavours to liaise and assist The Company to resolve their elements of the technical non-effectiveness. In order to achieve this, The Company may request the TO to resolve the technical non-effectiveness with the DNO directly.
- 4.2.8.2 If the DNO cannot submit the data (e.g. because data is not available for new technology) then the Lead Person(s) shall assess and advise the Parties whether to progress The Company Request for a TIA or not and note/agree any assumptions made. If The Company Request for a TIA is to continue then alternative data may be requested from the DNO.
- 4.2.8.3 If the Lead Person(s) assess that The Company Request for a TIA cannot progress without the missing technical data then The Company Request for a TIA will be put on hold as being non-effective. If and when the missing technical data is supplied to The Company then the process will recommence from 4.2.9.

## 4.2.9 The Company informed that The Company Request for a TIA is technically effective

- 4.2.9.1 On receipt of the missing/additional data from the DNO (data from the Developer and/or any DNO network data), The Company Lead Person shall circulate the data to the Affected Parties Lead Person(s). The Company shall also record on the TIA Briefing Notes the date of when the missing/additional technical data has been received and send via a Designated Information Exchange System the appropriate TIA Briefing Note to each Affected Party.
- 4.2.9.2 Within 3 Business Days of receipt of the missing/additional data, the Affected Parties Lead Person(s) shall confirm to The Company Lead Person via a Designated Information Exchange System whether The Company Request for a TIA is now technically effective. If The Company Request for a TIA is still not technically effective then the process returns to 4.2.8but otherwise proceeds to 4.2.10

## 4.2.10 The Company confirms DNO Application Date and The Company Application Date

- 4.2.10.1 The Company shall update the TIA Briefing Notes with the Request for TIA Date, The Company Application Date and send via a Designated Information Exchange System the appropriate TIA Briefing Note to each Affected Party.
- 4.2.10.2 TIA planning assumptions that have previously been submitted, should be used as the TIA planning assumptions.
- 4.2.10.3 If there is a delay between receipt of the Request for TIA and the Request for TIA being effective, it may be necessary for The Company to provide the Affected Parties with revised and updated TIA planning assumptions.
- 4.2.10.4 The Company may change, or Affected Parties may request a change to, the TIA planning assumptions.

#### 4.2.11 The Company and the Affected TOs create GB models

4.2.11.1 The Company and the Affected TOs shall, where required for an application each take the TIA planning assumptions provided by The Company in step Error! R eference source not found., together with the relevant network models and create a series of consistent National Electricity Transmission System models in accordance with STCP 22-1 Production of Models for National Electricity Transmission System Planning.

#### 4.2.12 The Affected TOs assess the impact of The Company Request for a TIA

4.2.12.1 The Affected TOs shall assess the impact of The Company Request for a TIA on their respective Transmission System.

#### 4.2.13 The Company is provided with TO Construction offers

- 4.2.13.1 Each Affected TO shall submit to The Company the Construction offer resulting from their assessment via a Designated Information Exchange System. The timescales of the submission is within 2 months for a draft and 2 months and 14 days for a final offer.
- 4.2.13.2 Each affected TO should specify whether Transmission Construction Works are to be undertaken in respect of the TIA Project.
- 4.2.13.3 Where the TO specifies that Transmission Construction Works would not be required, the TO should specify whether or not, in planning and developing its Transmission System, the TO has assumed that any Site Specific Requirements will apply, and details of any such requirements.

#### 4.2.14 The Company notifies the DNO

4.2.14.1 The Company shall notify the DNO of the outcome of the Request for a TIA within 3 months of when the fee was cleared and the application deemed technically effective.

### Appendix B: Scheme Briefing Note

## The Company DNO Application

## For Transmission Evaluation Applications and Transmission Impact Assessment Applications

Application Type	Transmission Evaluation / TIA
1.CCM Name	
2.CCM Telephone Number	
3. TO Charging Zone	
4. Host TO	
5. Affected TO	
6. ESO Reference	
7. User	
8. User's Registered Company	
Address	
9. User's Registered Company	
Number	
10. DNO Company	
11. DNO Registered Address	
12. DNO Registered Company Number	
13.DNO Parent Company (if	
applicable)	
14. DNO Project Name	
15. Customer Contact Details (if	
consent of sharing given)	
16. Site Project Name	
17. Connection Site or Grid Supply Point	
18. Technology Type	
19. Co-ordinates	
20. Consents	
21. User Application Date received	[DD/MM/YYYY]
by The Company	[ID/IVIIVI/TTT]
22. Date Application emailed to TO(s)	[DD/MM/YYYY]
23. Application Fee Type	
24. Level of Application Fee (excl VAT)	
25. Application Fee received	No

26. Total MW of additional	
developer capacity requested (MW)	
27. Where demand driven, MW of	
additional demand required (MW)	MW/MVA
28. Standard Planning Data	
included?	Yes/No
29. Is the Application for Active	
Network Management (ANM)?	YES/NO
30. Does the Application request	
an ESO product such as RDP?	
31. Connection Security	SQSS Compliant/Firm/Customer Choice
Requested	3Q33 Compliant/ lim/customer choice
32. Anticipated Date when the	
Embedded Power Station(s) will	
have its connection energised	
and/or commence use of the	
Distribution System	
33. Connection Charging Payment Options	Capital Contributions/Annualised

SBN

#### Appendix C: Abbreviations & Definitions

Affected TO Affected Transmission Owner
DNO Distribution Network Operator
ETI Evaluation of Transmission Impact

Host TO Host Transmission Owner
OFTO Offshore Transmission Owner

Other Affected TO Other Affected Transmission Owner SHET Scottish Hydro Electric Transmission plc

SPT SP Transmission plc

TEC Transmission Entry Capacity
TIA Transmission Impact Assessment

TO Transmission Owner

#### **Definitions**

#### STC definitions used:

Business Day CUSC

Gated Application and Offer Process

Gated Timetable

#### STCP 18-4 Request for a Statement of Works

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The Company

NGET

The Company Application Date

The Company Modification Application

National Electricity Transmission System

Planning Assumptions

Power Station

Relevant Connection Site

The Company Modification Application for a Transmission Evaluation

TO No Works Notice

**Transmission Construction Works** 

Transmission Entry Capacity

Transmission Evaluation

Transmission Owner

Transmission System

User Application

User Application Date

User Equipment

#### **CUSC** definitions used:

Bilateral Agreement

**Bilateral Connection Agreement** 

Disconnection

Relevant Embedded Power Station

#### **Definition used from other STCPs:**

Application Fee STCP19-6: Application Fee