Company Directive

Policy Directive: DSO6/0

Transmission-Distribution Interface Coordination

Summary

This directive sets requirements and roles for the processes followed by NGED in coordination with NESO and other parties when managing the transmission impact of distribution connections and load growth and the distribution impact of transmission connections and load growth. It expands upon the level 1 process Transmission-Distribution Interface Coordination that is established in Parent Directive DSO.

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Implementation Date: **March 2025**

Approved by

Cathy McClay

Managing Director of DSO

Date: **20/03/2025**

Target Staff Group	**DSO: Transmission-Distribution Interface, System Planning, System Models & Data. DNO: Field Operations, Connections.**
Impact of Change	**Amber (minor): standardises existing processes.**
Planned Assurance checks	**To be reviewed by as part of Second Line Business Assurance of DSO governance**

IMPLEMENTATION PLAN

Introduction

This directive sets requirements and roles for the processes followed by NGED in coordination with NESO and other parties when managing the transmission impact of distribution connections and load growth and the distribution impact of transmission connections and load growth. It expands upon the level 1 process Transmission-Distribution Interface Coordination that is established in Parent Directive DSO.

Main Changes

This is a new directive. It documents and standardises existing de facto processes. The process for managing the distribution impact of transmission connections has been transferred to this directive from Policy Directive DSO4 (*Planning and Network Development*).

Impact of Changes

Target Staff Group	**DSO: Transmission-Distribution Interface, System Planning, System Models & Data. DNO: Field Operations, Connections.**
Impact of Change	**Amber (minor): standardises existing processes.**

Implementation Actions

The authors have made a presentation with voiceovers explaining the changes, it can be viewed here.

The Connections directorate will update Standard Technique NC1AB (*Relating to the Basis for Managing Connections that potentially impact on NGET's Transmission System*) to reflect this directive. If any conflict or contradiction is found between this directive and the current issue 2 of Standard Technique NC1AB, this directive shall take precedence.

Further process implementation actions will be set in Standard Techniques in the DSO4 series in due course.

Implementation Timetable

This directive takes effect from the date of issue.

REVISION HISTORY

DOCUMENT REVISION & REVIEW TABLE			
Issue	**Date**	**Comments**	**Author**
0	26/03/2025	Initial issue of Policy Directive DSO6	Ryan Kavanagh, Magdalena Paluch-Moffat, and Stephen Quinn

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1.0 INTRODUCTION

1.1 Scope and Purpose

This directive expands upon the level 1 process[1] Transmission-Distribution Interface Coordination that is established in Parent Directive DSO. The purpose of Transmission-Distribution Interface Coordination is:

- To coordinate the transfer of regulatory and connections triggered information across the Transmission-Distribution boundary; and
- To work with NESO to ensure efficient outcomes across the Transmission-Distribution boundary and communicating this across NGED so customers can be informed.

Electricity Transmission and Distribution networks are owned and operated separately, but together form a single electricity system. New customer connections and other changes on one network can affect the operation of the other. To ensure safe and efficient operation of both Transmission and Distribution networks, the interface between them is strictly governed. Technical matters are addressed in the Grid Code, whilst commercial and contractual matters are addressed in the Connection and Use of System Code (CUSC) and subordinate Bilateral Connection Agreements (BCAs).

This directive establishes the level 2 processes within Transmission-Distribution Interface Coordination by which NGED:

1. Meets its code and contractual obligations; and
2. Ensures that other parties meet their code and contractual obligations to NGED.

This directive applies to both:

- The transmission impact of distributed generation connections (commonly referred to as “Statement of Works” or “Transmission Impact Assessment”); and
- The distribution impact of transmission connections (commonly referred to as “Third-Party Works”).

1.1.1 Future Expansion of Scope

Future issues of this directive will be expanded to cover:

- The impact of Connections Reform
- Site Strategies for Grid Supply Points
- The transmission impact of distribution-connected demand and general distribution network changes
- The distribution impact of general transmission network changes
- The management of milestones once a Modification Offer has been signed

[1] The DSO’s processes are documented in company directives in the DSO series. Parent Directive DSO establishes several level 1 processes. Each of these level 1 processes is detailed by a Policy Directive in the DSO series which breaks it down into level 2 processes. In turn, each level 2 process is detailed by a Standard Technique in the DSO series which breaks it down into level 3 processes.

1.1.2 Other Related Subjects

The following related processes and topics are outside of the scope of this directive:

Process or topic	**Policy reference or accountable department**
The planning and development of NGED's network	Policy reference: DSO4 (Planning & Network Development) series and SD (System Design) series
Making new connections to NGED's network	Policy reference: NC (New Connections) series
Transmission-distribution interface coordination in operational timescales	Policy reference: OC (Operation and Control) series and DSO7 (Network Operation) series
Safety Coordination across the transmission-distribution interface (including Site Responsibility Schedules, Records of Inter-System Safety Precautions, and the Construction & Design Management Regulations)	Policy reference: OC (Operation and Control) series, OS (Operational Safety) series and HS (Health and Safety) series
The design and delivery of new connections and transmission/distribution interface equipment.	Accountable department: Field Operations
Periodic data submissions from NGED to NESO (week 24 and 50) and NESO to NGED (week 42)	Primary System Models & Data - Modelling Asset Management – Submissions & Non-network Modelling Activities

1.2 About the DSO

The Distribution System Operator (DSO) is a directorate within National Grid Electricity Distribution (NGED) that is responsible for:

- Core level 1 processes that deliver the DSO Roles set by Ofgem as part of the DSO Incentive in RIIO-ED2:
    1. Planning and Network Development
    2. Network Operation
    3. Market Development
- Supporting level 1 processes that enable delivery of the DSO Roles, including this Transmission-Distribution Interface Coordination process.

Further information about the DSO can be found in Parent Directive DSO.

1.3 Roles

The Head of Transmission-Distribution Interface is accountable for the Level 1 process Transmission-Distribution Interface Coordination. They may approve the issue, amendment and withdrawal of Standard Techniques and Specifications in the DSO6 (*Transmission-Distribution Interface Coordination*) series to implement the requirements of this directive.

1.4 Interpretation

Where the term “should” is used in this directive it means the provision is a recommendation, which is normally followed. The term “may” is used to express permission. Where the term “shall” or “must” is used in this document it means the provision is mandatory, which must be followed.

> Info: explanatory information is given in blue-outlined boxes adjacent to some provisions of this directive. The explanatory information neither expresses permission nor sets mandatory requirements.

Technical terms shown in **bold** are defined in the DSO Glossary, available internally at https://sharepoint.westernpower.co.uk/sites/wpd/dso/public/Lists/DSO%20Glossary. An excerpt of relevant terms from the DSO Glossary is included here as appendix A.

References to processes and other proper nouns are shown in Title Case (i.e. first letter of each word capitalised).

1.5 Application

Where any difficulty is encountered with the application of this directive, the authors shall be notified, who shall consider whether to recommend a variation to the approver.

2.0 CONSTITUENT LEVEL 2 PROCESSES OF TRANSMISSION-DISTRIBUTION INTERFACE COORDINATION

This directive applies to both:

- The transmission impact of distributed generation connections (commonly referred to as “Statement of Works” and “Project Progression”); and
- The distribution impact of transmission connections (commonly referred to as “Third-Party Works”).

This directive subdivides the level 1 process Transmission-Distribution Interface Coordination into level 2 processes:

- Transmission impact of distributed generation connections:
    - Collate & Submit Information in section 3.0
    - Communicate Outcome to Connection Planners in section 4.0
    - Respond to Modification Offer in section 5.0
- Distribution impact of transmission connections:
    - Technical Assessment of Transmission Connection in section 6.0

For each of these level 2 processes, the following are established:

- The purpose of the process
- How the process is triggered
- High-level requirements for the process, with references to further detail in Standard Techniques and/or Specifications.

The relationship between these level 2 processes and other key processes and systems is shown in:

- Figure 1, which shows the process flow for managing the transmission impact of distributed generation connections; and
- Figure 2, which shows the process flow for managing the distribution impact of transmission connections.

2.1 Flowchart: Managing Transmission Impact of Distributed Generation Connections

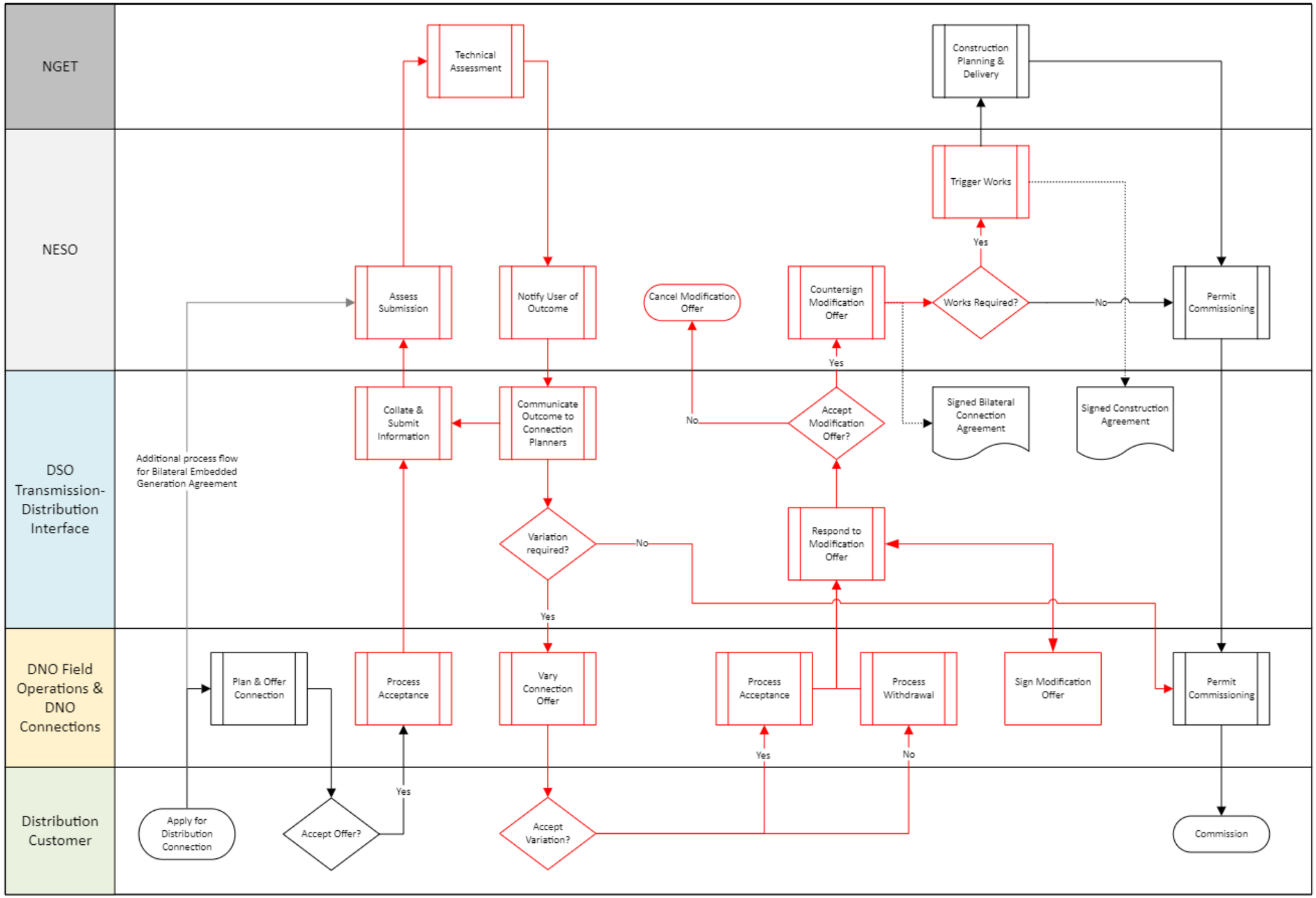

Figure 1: Constituent Level 2 processes of Transmission-Distribution Interface Coordination, and their relationships to other processes, in process flow for managing the transmission impact of distributed generation connections

2.2 Flowchart: Managing Distribution Impact of Transmission Connections

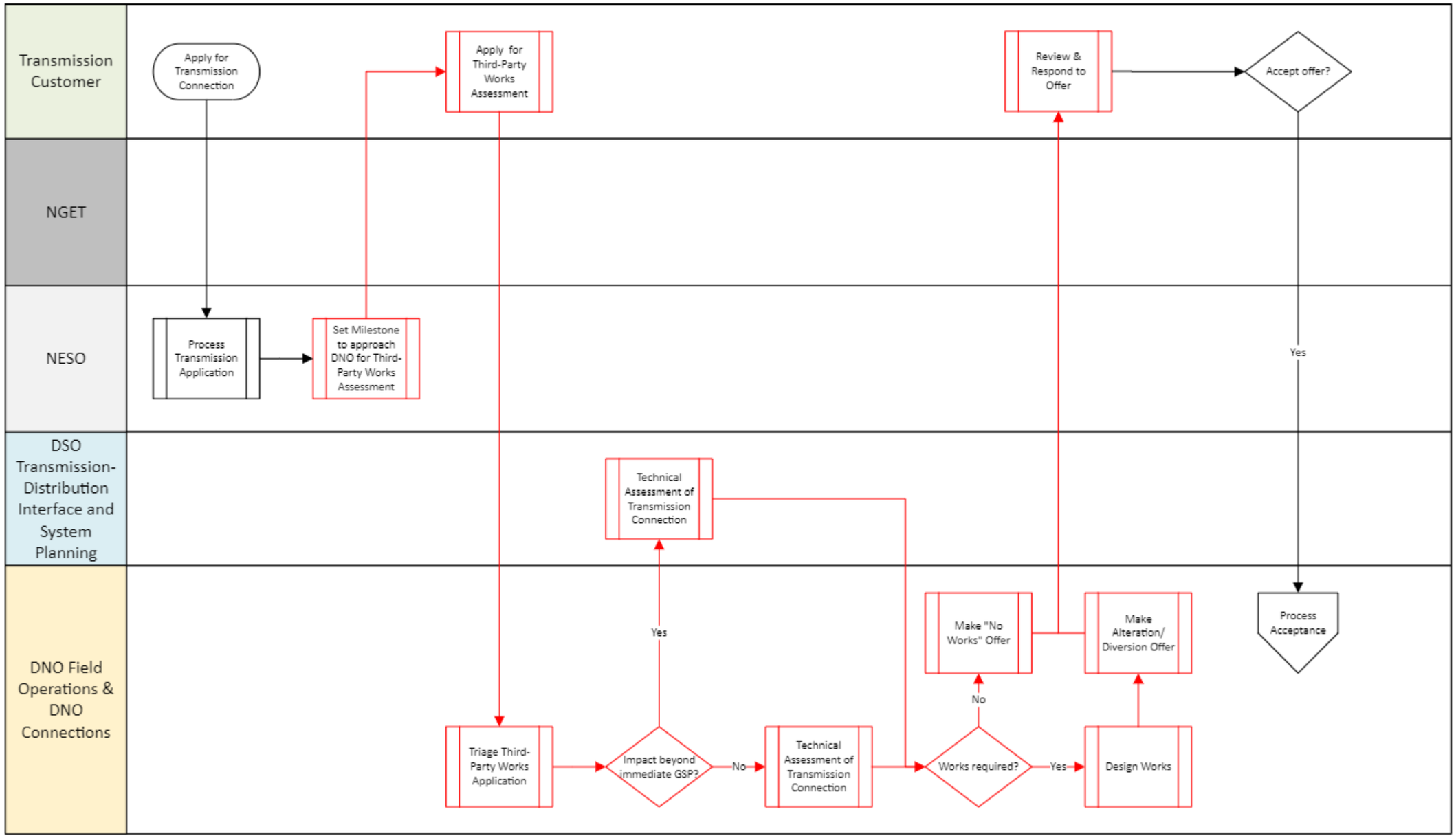

Figure 2: Constituent Level 2 processes of Transmission-Distribution Interface Coordination, and their relationships to other processes, in process flow for managing the distribution impact of transmission connections

3.0 LEVEL 2 PROCESS: COLLATE & SUBMIT INFORMATION

3.1 Purpose

To notify NESO of proposed generation connections to the distribution network that could have an impact on the transmission network or total system, either individually or in aggregate.

3.2 Trigger

This process shall be triggered:

1. By DNO Field Operations planning teams notifying DSO Transmission-Distribution Interface that a customer has accepted a connection offer for distributed generation; and

2. At least monthly for each grid supply point (GSP).

3.3 Requirements

3.3.1 High-Level Requirements

The Head of Transmission Distribution Interface or their delegate:

1. Shall, for each GSP, create and maintain Transmission Impact Assessment (TIA) datasets.

2. Shall, for each GSP, assess the accepted connection offers against the materiality trigger and fault level headroom in Schedule 1 of Appendix G of the current signed Bilateral Connection Agreement (BCA) whether it is necessary to submit each of the following outputs to NESO:

   a. Project Progression Submission

   b. Modification Application

   c. Bilateral Connection Agreement Appendix G Schedule 1 Update Submission

   Info: the appropriate submission will depend on the requirements of CUSC and the characteristics and status of the GSP.

3. Shall, where necessary, perform electrical analysis for the outputs.

4. Shall create the outputs in accordance with requirements set in section 3.4 below.

5. Shall submit the outputs to NESO.

3.3.2 Reference to detailed requirements

Further requirements for this level 2 process and its component level 3 processes will be set in Standard Techniques and Specifications to be issued in the DSO6 series in due course.

3.4 **Outputs**

Each of the following outputs shall comply with the requirements of CUSC:

1. Project Progression Submission
2. Modification Application
3. Bilateral Connection Agreement Appendix G Schedule 1 Update Submission

4.0 LEVEL 2 PROCESS: COMMUNICATE OUTCOME TO CONNECTION PLANNERS

4.1 Purpose

To provide the necessary information, based upon Transmission Impact Assessment, for the DNO to either vary customer Agreements or permit commissioning.

4.2 Trigger

This process shall be triggered by receipt from NESO of either:

1. A Modification Offer; or

> Info: NESO will send a Modification Offer in response to either of a Modification Application or a Project Progression Submission.

2. The response to a Bilateral Connection Agreement (BCA) Appendix G Schedule 1 Update Submission.

4.3 Requirements

4.3.1 High-Level Requirements

The Head of Transmission-Distribution Interface or their delegate:

1. Shall review the return from NESO.

2. Shall query and resolve any discrepancies with NESO. Where a customer has a query, the relevant DNO Field Operations connections planner shall interface with the customer, but Head of Transmission-Distribution Interface or their delegate shall interface with NESO.

3. Shall, if NESO rejects a Bilateral Connection Agreement Appendix G Schedule 1 Update Submission, return to the Collate & Submit Information to resubmit in a format appropriate to the situation.

4. Shall, if NESO accepts a Bilateral Connection Agreement Appendix G Schedule 1 Update Submission, notify the relevant DNO Field Operations connections planners that they may proceed to permit commissioning.

5. Shall, if NESO returns a Modification Offer, determine what variations to customer agreements will be necessary as a result, then instruct the relevant DNO Field Operations connections planners to make those variations and issue them to customers.

4.3.2 Reference to detailed requirements

Further requirements for this level 2 process and its component level 3 processes will be set in Standard Techniques and Specifications to be issued in the DSO6 series in due course.

5.0 LEVEL 2 PROCESS: RESPOND TO MODIFICATION OFFER

5.1 Purpose

To collate the responses that DNO Field Operations planning teams receive from distributed generation customers and respond to a Modification Offer from NESO accordingly.

5.2 Trigger

This process shall be triggered by DNO Field Operations planning teams notifying DSO Transmission-Distribution Interface whether each customer has accepted or rejected variation to their Agreements in response to a Modification Offer.

5.3 Requirements

5.3.1 High-Level Requirements

The Head of Transmission-Distribution Interface or their delegate:

1. Shall, for each Modification Offer, review relevant responses from DNO Field Operations planning teams and:

    a. If one or more customers have accepted variation to their Agreement, shall

        i. Instruct the Primary Network Design Manager to sign the Modification Offer, then

        ii. Return the signed Modification Offer to NESO; but

    b. If all customers have rejected variation to their Agreements, shall notify NESO that the Modification Offer will be allowed to expire.

5.3.2 Reference to detailed requirements

Further requirements for this level 2 process and its component level 3 processes will be set in Standard Techniques and Specifications to be issued in the DSO6 series in due course.

6.0 LEVEL 2 PROCESS: TECHNICAL ASSESSMENT OF TRANSMISSION CONNECTION

6.1 Purpose

To analyse the impact on NGED's distribution network of a proposed transmission connection, where that impact is likely to extend beyond the GSP immediately associated with the connection.

6.2 Trigger

This process shall be triggered by notification from DNO Primary Network Design of a Third-Party Works Application.

6.3 Requirements

6.3.1 High-Level Requirements

The Head of Transmission-Distribution Interface and Head of System Planning or their delegates:

1. Shall assess the impact of the proposed transmission connection that is described in the Third-Party Works Application in accordance with the principles of the Constraint Identification and Solution Triage level 2 processes established in Policy Directive DSO4 (*Planning & Network Design*).

2. Shall, if any **constraints** are found, describe them in a Constraint Brief and return it to DNO Primary Network Design.

3. Shall otherwise notify DNO Primary Network Design that no **constraint**s were found.

6.3.2 Reference to detailed requirements

Further requirements for this level 2 process and its component level 3 processes will be set in Standard Techniques and Specifications to be issued in the DSO6 series in due course.

APPENDIX A: GLOSSARY

The following is an excerpt of the DSO Glossary, which is available internally at https://sharepoint.westernpower.co.uk/sites/wpd/dso/public/Lists/DSO%20Glossary.

Term	Definition	Source
Constraint	Distribution constraint means any limit on the ability of the licensee's Distribution System, or any part of it, to transmit the power supplied onto the licensee's Distribution System to the location where the demand for that power is situated, such limit arising as a result of any one or more of: (a) the need to not exceed the thermal rating of any asset forming part of the licensee's Distribution System; (b) the need to maintain voltages on the licensee's Distribution System; and (c) the need to maintain the transient and dynamic stability of electricity plant, equipment and systems directly or indirectly connected to the licensee's Distribution System and used by the licensee to operate the licensee's electricity distribution system in accordance with the Act, this licence, or any other requirement of law;	Electricity Distribution Licence - within Standard Condition 31E

APPENDIX B: SUPERSEDED DOCUMENTATION

No directly superseded directives, but.

- If any conflict or contradiction is found between this directive and the current issue 2 of Standard Technique NC1AB, this directive shall take precedence.

- The process for managing the distribution impact of transmission connections has been transferred to this directive from issue 0 of Policy Directive DSO4.

APPENDIX C: KEYWORDS

Statement of Works, Modification Application, Project Progression, Mod App, Modification Offer, Mod Offer, Transmission Impact Assessment, Bilateral Connection Agreement, Appendix G, CUSC, Connection and Use of System Code, Transmission-Distribution Interface, Transmission, Distribution Impact Assessment, Third-Party Works