

Interactivity Across the Transmission / Distribution Boundary

Introduction

As explained at the start of this guide, interactivity is where network companies receive two or more applications for connection which make use of the same part of the network but where not all the applicants can be connected. Interactivity can occur between Transmission and Distribution where an application to connect to the Transmission Network triggers Interactivity with an in-flight application to the Distribution system, or vice versa. Whilst the Transmission Companies identify Interactivity, each individual Network Company will manage the interactions directly with their customers.

Transmission / Distribution Interactivity will be managed by following the same Conditional Interactivity process as outlined in the previous sections of this guide. Where potential Interactivity is identified, an 'Early Warning' notification will be issued to all affected applicants, where possible, and queues will be established based on when the required application has been deemed competent, as described in section 1 of this document. As previously explained interactive connection offers will be considered as either 'Conditional' or 'Unconditional' and are issued with reduced validity periods. Conditional Offers may be withdrawn where an Offer ahead of them in the queue is accepted.

Distribution and Transmission Interface

Where there is a known impact on the Transmission system, or the DNO believes the connection of generation to their network will have an impact on the Transmission system, they will follow the Statement of Works (SoW) process. This process requires DNOs to submit 'Statement of Works Request' and / or 'Project Progression' applications to NGESO to identify what if any reinforcement is required to accommodate the new connection. To be clear the Project Progression application made by the DNO is the interactive application.

At certain Grid Supply Points (GSPs) on the network however, an alternative process has been established between DNOs and NGESO to assess the Transmission Impact Assessment (TIA). This process was developed as part of the Open Networks Project and is commonly referred to as an 'Appendix G'. Under this process, DNOs provide a list to NGESO of all generators already connected or contracted to connect to a specific GSP, including size and type, for review by NGESO and TOs. In return, the NGESO provides the maximum available 'headroom' at these GSPs to the DNO.

As part of the TIA process, the DNOs will provide an updated list of generators to NGESO on a monthly basis, unless agreed otherwise. This update and data exchange process allows the TOs to assess the remaining headroom. When the volume of accepted generation connections exceeds the available headroom at a GSP, the relevant DNO needs to make an application to NGESO to identify if any works are required by the TO on the Transmission network. This may identify additional projects that need to be considered for interactivity, but the same principles to establish queue position will be maintained.

The high level processes for when interactivity is triggered as part of an established TIA process or through the application of Project Progression is described below. There are illustrations to accompany these in the Scenarios section later in this document.

Triggering Interactivity under Transmission Impact Assessment (TIA)

1. Applicant applies to NGENSO for connection
2. The TO identifies the application may utilise some of the headroom which has been notified to the DNO via the TIA process, and informs NGENSO
3. NGENSO requests update from the DNO(s) of any applications that are in progress against the headroom, that have not been previously notified. This includes applications that have been received but not yet quoted, quoted but not yet accepted, and those who have received and accepted their quotation but not yet notified under the regular update.
4. Data share between the DNO and NGENSO
5. NGENSO confirms interactivity between the Transmission application and an in-flight (not accepted) DNO application.
6. NGENSO confirms queue position which determines the Unconditional application(s)
 - a. The Transmission Application's queue position is determined by the competent application date of the Transmission Application
 - b. The Distribution Application's queue position is determined by the minimum information date of the Distribution Application
7. NGENSO informs the DNO
8. Each company manages interactivity as per existing process including for example issuing early warnings and Interactive Applications (with 30 working days acceptance validity), and updating each other on any changes to the status of their applications (e.g. quoted, accepted, expired)

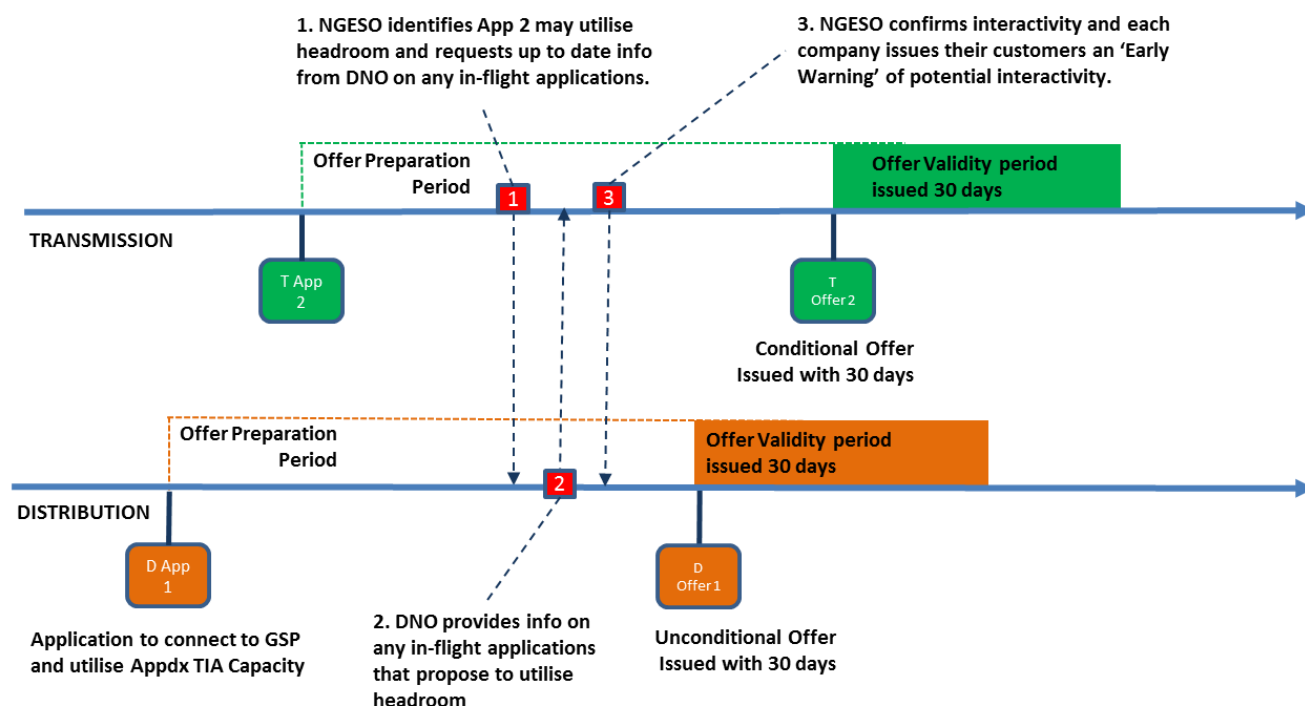
Triggering Interactivity through Statement of Works / Project Progression

1. Applicant applies directly to DNO for Distribution connection
2. DNO issues a connection offer to the customer subject to Statement of Works / Project Progression
3. There may be further optional steps such as Statement of Works
4. DNO initiates Project Progression application with NGENSO. **Note this can be initiated at any point from the distribution application being made (step 1 above).**
5. NGENSO identifies the DNO Project Progression application is interactive with an in-flight Transmission application
6. NGENSO confirms queue position which determines the Unconditional application(s)
 - a. The Distribution Application's queue position is determined by the competent application date of the **Project Progression** application
 - b. The Transmission Application's queue position is determined by the competent application date of the Transmission application
7. NGENSO informs the DNO
8. Each company manages interactivity as per existing process including for example issuing early warnings and Interactive Applications (with 30 working days acceptance validity), and updating each other on any changes to the status of their applications (e.g. quoted, accepted, expired)

Scenario 8 Transmission Application triggers Interactivity with a DNO Application – TIA

In this scenario NGENSO receives an application to connect to a GSP where there is a TIA capacity headroom established. The Transmission application may utilise some or all of that headroom.

The diagram below illustrates two parallel processes on separate timelines - a Transmission Application and a Distribution application, that become interactive with each other.



On evaluating the application (T App 2) the TO identifies that it may need to utilise some or all of the headroom notified to the DNO via the TIA process for the T application. NGENSO request an update from the DNO on the headroom potentially used by generators that has not yet been updated to the NGENSO as part of the regular update, for example amount of capacity that:

- Is proposed to be used for an in-flight application (no quote sent)
- Is proposed to be used for a quote that has been sent but not accepted
- Has been secured by an applicant on an accepted quote

On receipt of the updated information the NGENSO identifies whether Interactivity applies and in the above scenario the Transmission Application (T App 2) cannot connect with the Distribution Application (D App 1) but each can connect in isolation - they are Interactive with each other.

NGESO confirms queue position and conditionality of the interactive applications and notifies the DNO to allow each company to issue early warning notifications to their respective applicants. In this scenario the DNO Application queue position (minimum information

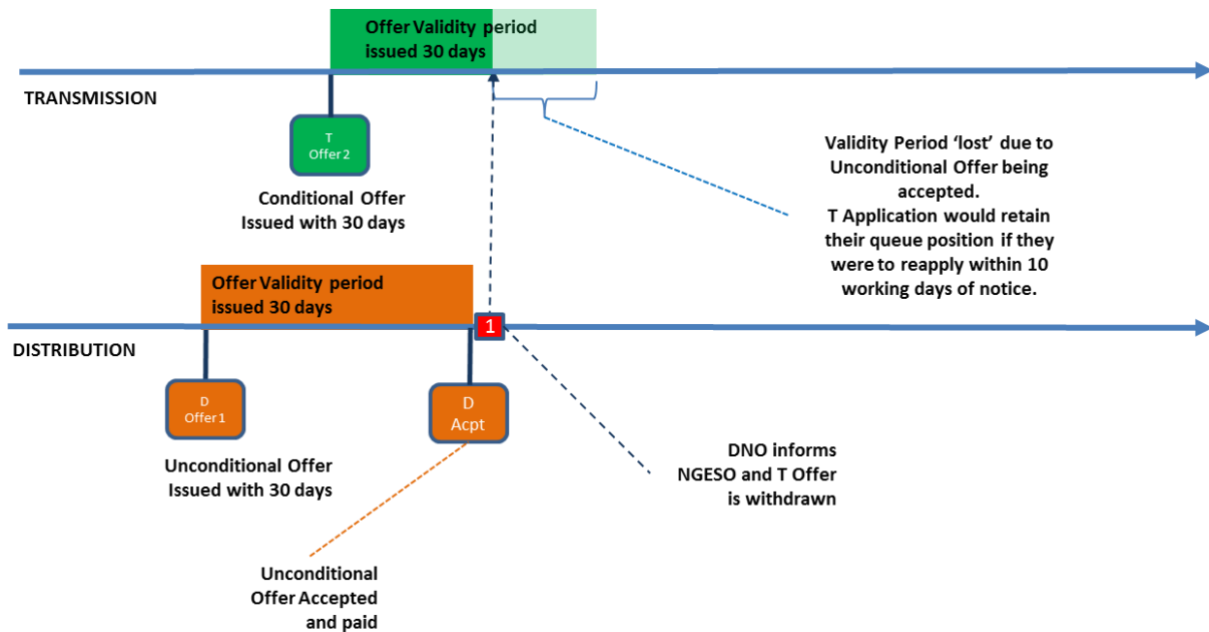
received) is earlier than the Transmission Application (competent application date) and when ready:

- an Unconditional offer is issued with a 30 day validity period to Distribution Applicant 1 and
- a Conditional offer with 30 day validity period is issued to Transmission Applicant 2

Offers can be accepted within their validity period but where a Conditional Offer is accepted validation of the offer follows the same principles as described in section 5 of this guide.

Scenario 8 Transmission Application triggers Interactivity with a DNO Application – TIA (contd)

Following on from the previous page the below diagram illustrates the impact of the Unconditional Distribution offer being accepted



As the DNO Application was accepted (an Unconditional offer), the network company is able to confirm its validity. The DNO contacts NGESO to update on the status of the DNO Offer and NGESO will withdraw the offer to their customer.

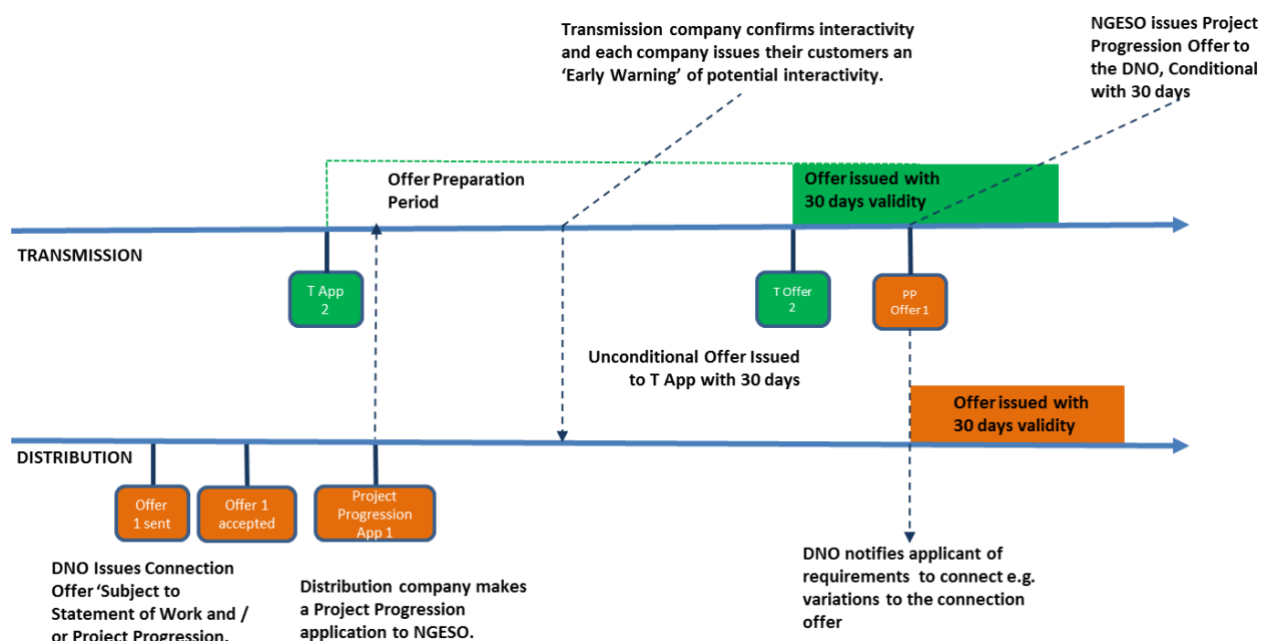
The Transmission application will be offered the opportunity to apply again within 10 working days and their original queue position will be maintained for any subsequent interactivity as it was a valid connection offer when it was withdrawn. Additional charges may apply if they wish to reapply.

Scenario 9 Distribution Application triggers Interactivity with a Transmission Application

In this scenario the DNO has received an application to connect to a GSP where there is no TIA process in place. The DNO will issue to its customer an offer that is subject to Statement of Works and/or Project Progression, and make the Project Progression application on behalf of the applicant after acceptance (but this application can be made earlier).

Assessment of the application by NGESO will identify enabling works, requirements for security and liability, and any required technical details for the DNO Connection, and these will be included in the Project Progression Offer to the DNO. The DNO notifies it's customer of the requirements with, for example, a variation to the connection offer

In this scenario the Project Progression application was made by the DNO after the applicant accepted their quotation.



On evaluating 'Project Progression App 1' NGESO identifies that there is interactivity with a previously received Transmission Application (T App 2) e.g. both cannot connect without reinforcement, but each can connect in isolation. NGESO confirms queue position and conditionality of the interactive applications and notifies the DNO to allow each company to issue early warning notifications to their respective applicants.

In this scenario the DNO Application queue position (Project Progression Application Date) is later than the Transmission Application (competent application date) and when ready:

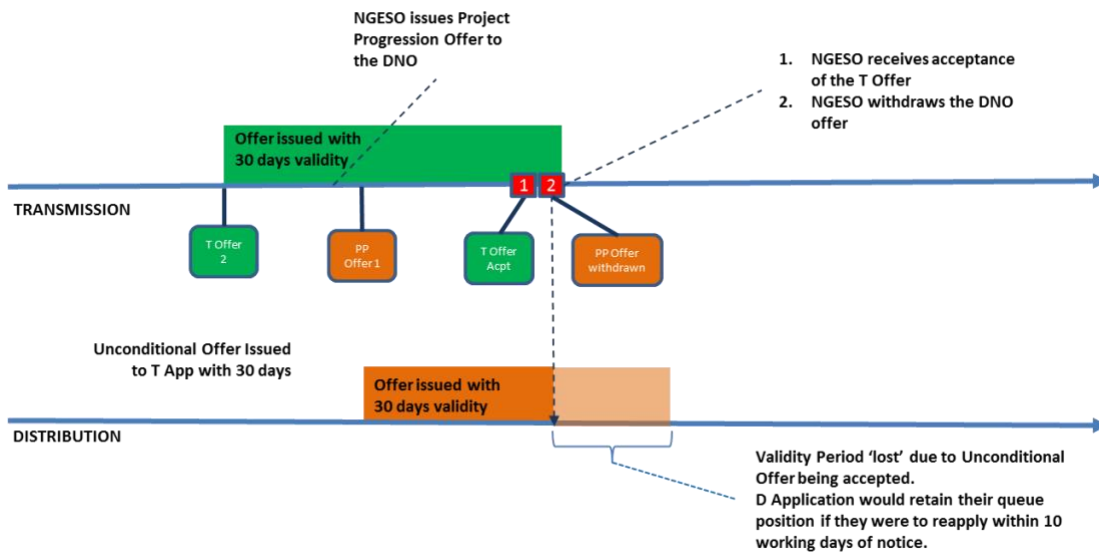
- an Unconditional offer is issued with a 30 day validity period to Transmission Applicant 2,
- a Conditional Project Progression offer with a 30 day validity period is issued to the DNO, and
- the DNO notifies the applicant of any required enabling works or security and liability, for example.

Offers can be accepted within their validity period (the Project Progression Offer is accepted by the DNO) but where a Conditional Offer is accepted validation of the offer follows the same principles as described in section 5 of this guide.

Scenario 9 Distribution Application triggers Interactivity with a Transmission Application (contd)

Following on from the previous page the below diagram illustrates the impact of the Unconditional Transmission Offer being accepted

Scenario 9 Distribution Application triggers Interactivity with a Transmission Application



As the Transmission Application was accepted (an Unconditional offer), NGESO is able to confirm its validity. The NGESO contacts DNO to update on the status of the Transmission Offer and the DNO will withdraw the offer to their customer.

The distribution applicant will be offered the opportunity to apply again within 10 working days and their original queue position will be maintained for any subsequent interactivity as it was a valid connection offer when it was withdrawn. Additional charges may apply if they wish to reapply.

Definitions / Acronyms

Term	Definition
PoC	Point of Connection
DNO	Distribution Network Operators
DNO	Distribution Network Operators
TO	Transmission System Operators
iDNO	Independent Distribution Network Operators
Application Date (Distribution)	Minimum information received
Application Date (Transmission)	Competent Application Date
Calendar Days	Any day
Working Day	Any day other than a weekend or bank holiday
NGESO	National Grid Electricity System Operator.
Conditional Interactive Offer	An Offer that is dependent on some or all previously issued and related Interactive offers not being accepted
Unconditional Interactive Offer	An Offer that is not dependent on any other Offers
Offer	The connection offer issued by the network company
Stage 1 acceptance	For Conditional Offers only, signed acceptance of the connection offer
Stage 2 payment	For Conditional Offers only, following
TIA	Transmission Impact Assessment