

# Open Networks Project

## Queue Management User Guide

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## DOCUMENT CONTROL

### Authorities

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## TABLE OF CONTENTS

1	Introduction .....	4
2	What is Queue Management? .....	4
3	Why is a Queue Management process needed? .....	5
4	Purpose of this guide.....	5
5	Queue management overview.....	7
6	Milestones .....	8
6.1	Early Milestones, Milestones M1 to M4 and M6 .....	8
6.2	Later Milestones, Milestones M5, M7 and M8 .....	11
6.3	Illustration of Milestones M1 to M8.....	12
7	Tolerance and Cumulative Delay .....	14
7.1	Application of Tolerance to Later Milestones.....	15
7.2	Definition of Tolerance Periods .....	15
8	Examples of Queue Management .....	17
9	Consequences of queue management.....	22
10	Issues out with a customer's control .....	23
11	Appeals process.....	24
12	Statement of Works .....	25
13	Queue Management in practice .....	26
14	Conditions for the treatment of flexible resources in the connection queues .....	29
15	Communication associated with Queue Management .....	31

## 1 Introduction

The Open Networks Project is a major industry initiative that will transform the way our energy networks operate, underpinning the delivery of the smart grid. The project looks to change how the networks operate to facilitate the transition to a smart, flexible energy system. A key objective is to bring consistency in approaches across networks through existing and new processes to support the transition to Distribution System Operations, interactions with each other and interactions with customers. Open Networks is being delivered through a number of Workstreams and Products.

The Open Networks Project consulted on Connection Queue Management in July 2019.<sup>1</sup> Having taken on the inputs to this consultation, an Implementation Plan for Connection Queue Management was published in October 2019.<sup>2</sup> A draft Queue Management User Guide was consulted on in April 2020. This Queue Management User Guide builds on the conclusions from the July 2019 and April 2020 consultations by laying out the processes to be followed including the interactions with projects that are contracted to connect to distribution and transmission networks and network companies.

## 2 What is Queue Management?

Queue management is the process by which network companies manage contracted connections which have not yet connected in connection queues. This enables network companies to:

- a) Take action on contracted projects if they are not progressing against agreed milestones;
- b) Avoid stalled or slow moving projects from affecting other projects in queues; and
- c) Utilise flexible resources in connection queues to better utilise the available capacity.

Queue management is used to remove a project from a connection queue where the project is delayed compared to its contracted milestones and deemed to be outside the agreed tolerance period. Where this occurs, network companies would take steps to terminate the agreement<sup>3</sup>.

The main components in respect of applying queue management are:

- a) **Milestones** – these form the agreed benchmarks by which network companies and their customers can measure and track project progress towards a contracted connection date.
- b) **Tolerance** – this mechanism provides some flexibility to queue management and recognises that there may be some delays which lead to **Milestones** not being achieved on time and provides a customer with an opportunity to get their project back on track within prescribed time periods. For earlier **Milestones**, delays are accumulated and the **Cumulative Delay** (see section 8) is compared to the total allowed **Tolerance** for the project.

Through the use of milestones and tolerances, network companies can apply queue management in a clear and consistent way to remove delayed projects from connection queues and so ensure that network capacity is available for other customer projects that are ready to progress. These could be projects that are already in the connection queue or new connection applications.

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<sup>1</sup> The Open Networks July 2019 consultation document on Application Interactivity and Connection Queue Management is available at [2019 Consultation](#)

<sup>2</sup> The Open Networks October 2019 Implementation Plan for Queue Management is available at [Implementation Plan](#)

<sup>3</sup> Where a project is in the connection queue the customer has accepted the network company's proposal and these are known by different terms, e.g. connection offer, connection agreement, construction agreement etc. The term 'agreement' is a generic term used in this guide and refers to the proposals accepted by the customer.

### Utilisation of Flexible Resources

In respect of utilising flexible resources to better use available network capacity, opportunities will be considered with customers on a case by case basis. The guide outlines the conditions for doing this. Where flexible resources are to be moved up a connection queue in order to delay or offset the need for reinforcement and better utilise capacity, then a contract would be in place with the network company to ensure that wider benefits are provided to the other parties in the connection queue.

## 3 Why is a Queue Management process needed?

In some areas of distribution and transmission networks, there is limited capacity to connect new customers and, when that capacity is utilised, network reinforcement may be required to create new capacity which has both cost and time implications for connecting customers.

In assessing any new connections, network companies need to take into account any customers that have accepted connection offers but have not yet connected. These contracted but not yet connected customers form a queue and can have an impact on any subsequent customers wishing to connect to the network if they are not progressing their connection in a timely manner by achieving their contractual milestones.

A process is therefore required to ensure that there is consistency in how action is taken on projects which are not progressing against their agreed contractual milestones and how any capacity released is allocated to those projects that are able to progress to connection. By using agreed milestones and tolerances, delayed projects can be identified and agreements can be terminated to make connection capacity availability for projects that are progressing in line with agreed milestones.

In some queues, flexible resources can operate to increase the availability of connection capacity. For example, if a flexible resource can commit to taking energy over certain periods, then network constraints can be relieved and other resources will be able to operate. Using flexible resources to manage connection queues for the benefit of other connected parties requires commitment from the flexible resources to operate in certain ways. It is anticipated that contracts would be in place between the relevant flexible resources and network companies to specify the required operation.

## 4 Purpose of this guide

This guide sets out a policy framework to be adopted across transmission and distribution networks enabling network companies to intervene in the connection queue where customers have delayed against agreed milestones or where a flexible resource could delay or offset the need for network reinforcement. In this guide, the term 'network company' is used as a generic term to cover all the Distribution Network Operators<sup>4</sup> and Transmission System Operators and Owners<sup>5</sup> (TSOs).

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<sup>4</sup> Holders of electricity distribution licences.

<sup>5</sup> Transmission System Operators and Owners include NGENSO, the system operator, and National Grid Electricity Transmission, SP Electricity Transmission and Scottish Hydro-Electric Transmission who are transmission owners. NGENSO is responsible for ensuring day to day operation of the transmission system. The transmission owners are responsible for constructing, maintaining and operating the transmission assets.

This guide explains how the queue management process works and network companies will clarify how it is applied to their networks. The guide includes:

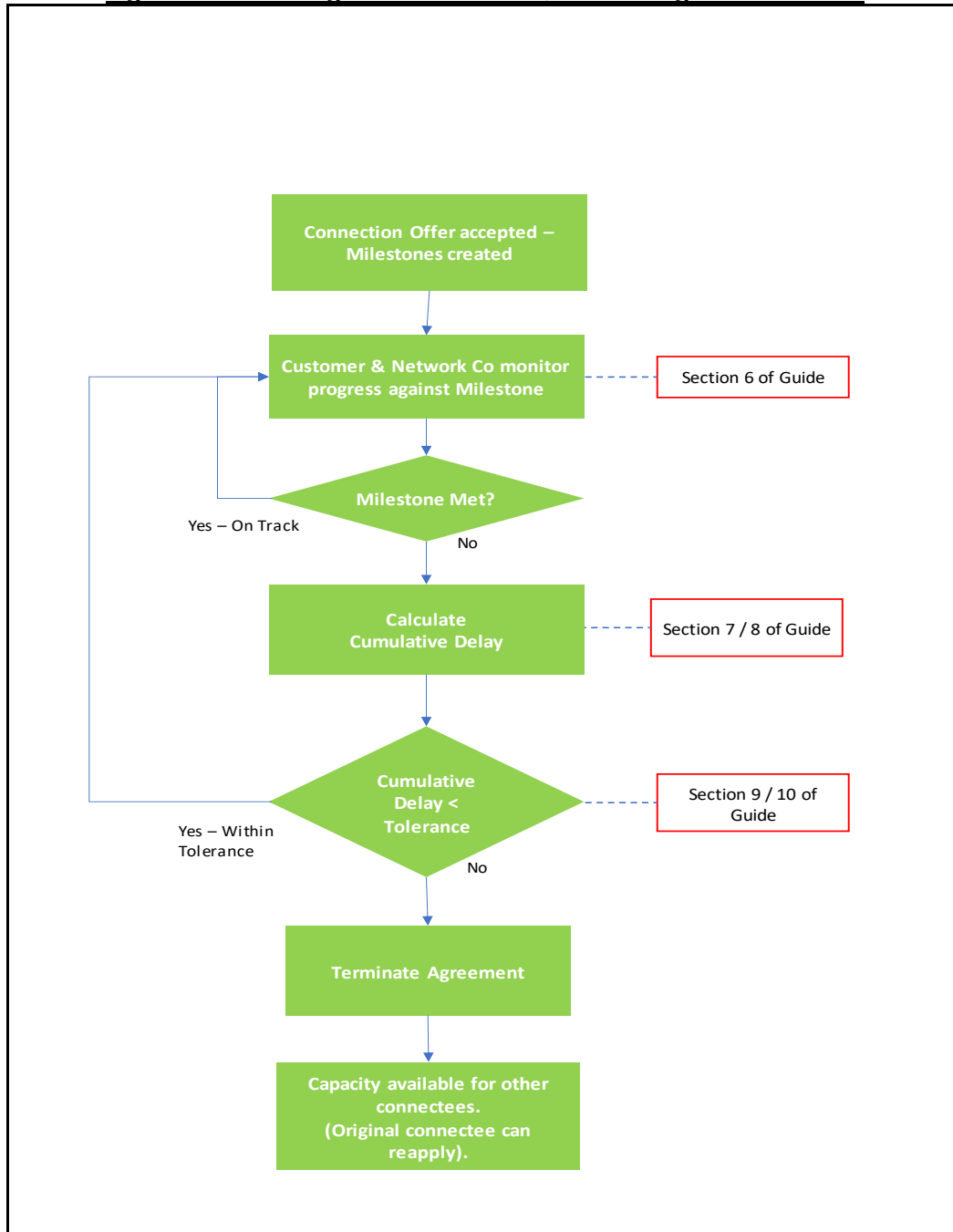
- a) A description of the queue management process that will apply consistently across transmission and distribution. Where there are differences between transmission and distribution then these are clearly identified in the document;
- b) Flow process diagrams to set out the overall process and scenario examples to demonstrate how the process will apply;
- c) Some examples to illustrate queue management in practice;
- d) Suggested communications with connectees during key stages of the queue management process.

This guide supersedes the previous ENA best-practice guide “Fair and Effective Management of DNO Connection Queues: Progression Milestones Best Practice Guide (3<sup>rd</sup> November 2016)”.

## 5 Queue management overview

The following simple flow process diagram highlights the overall process and is supported by guidance on each step.

**Figure 1 – Flow Diagram to Illustrate Queue Management Process**



## 6 Milestones

Milestones form the basis of queue management and are included in contracts to measure the progress of a contracted customer to meet its connection date. This allows customers and network companies to have better visibility of project progression and identify risks where projects delay against defined milestones. Along with agreed tolerances, milestones provide clear definitions of when projects are delayed and blocking capacity that might be used by other projects.

The milestones were originally developed by the ENA DER Steering Group<sup>6</sup> and now include a new milestone called Project Commitment which will provide additional confidence for network companies that a connection project is progressing towards its contracted connection date.

- Milestones represent the completion of key stages in the delivery of projects that connect to electricity networks to export (or generate) electricity, to import electricity (or take supplies) or to both export and import electricity.
- Milestones are intended to be transparent and realistic, with an expectation that customers will have undertaken relevant project development activity before accepting a connection offer.
- Each Milestone is supported by timescales and evidence.
- Once a customer accepts the connection offer, they are responsible for providing suitable evidence to demonstrate that they have met the relevant milestones within the timescales. Failure to provide this evidence in advance of the milestone will lead to the project status<sup>7</sup> changing and may contribute to the project's cumulative delay. If the tolerance is exceeded and the milestone is not achieved, then this could result in contract termination.
- While these principles could apply to all projects, given the small number of projects requiring Development Consent Orders (DCO) these timescales would not apply and bespoke timescales would be agreed between the parties on a case by case basis. For projects requiring DCOs, it is anticipated that timescales to secure statutory consents could increase to around 36 months.

A summary of the milestones, timescales and evidence required is shown below.

### 6.1 Early Milestones, Milestones M1 to M4 and M6

Milestones M1, M2, M3 and M4 become effective when a customer accepts a connection offer from the network company. The timing of milestone M6 is dependent on the achievement of statutory consents (milestone M2).

Milestone M4 relates to the transmission requirements for a project connecting to a distribution network and may not be required in all cases. In cases where there is a need to assess the transmission impacts of connection at distribution, then milestones M1, M2 & M3 will not begin until the TSO interface aspects are resolved and the customer is clear on any transmission requirements to connect the project as well as the distribution works. In such cases, it is anticipated that the customer and the network companies will work in a timely manner to clarify the transmission requirements. (See Milestone M4 description for further information.)

In some cases where projects are connecting to a transmission network, the potential need for works on a distribution network may be identified. In these cases, until the nature of the works is clear, milestones M1, M2 and M3 would not begin.

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<sup>6</sup> [ENA Milestones Best Practice Guide 2016.pdf \(energynetworks.org\)](#)

<sup>7</sup> Note - The project status is used to categorise how a project is progressing against agreed milestones. Project statuses, tolerances and cumulative delay are further explained in sections 7 and 8 of the User Guide.



### Existing milestone M1 - Initiated statutory consents including Planning Permission

Key point: The customer must begin the process of seeking statutory consents, including Planning Permission for the project within the timescales and be able to provide the required evidence. The timescale for this milestone is measured from offer acceptance where no transmission works are required. The customer can initiate this process before offer acceptance if they anticipate longer timescales for their project.

Timescale (in cases where no milestone M4 TSO assessment is required):

- No EIA<sup>8</sup> - 2 months from offer acceptance;
- EIA – Engage third parties within 2 months plus confirmation of application submission within 14 months of offer acceptance.

Timescale (in cases where milestone M4 TSO assessment is required):

- No EIA - 2 months from completion of TSO interface;
- EIA – Engage third parties within 2 months plus confirmation of application submission within 14 months of completion of TSO interface.

Evidence:

- No EIA – planning application;
- EIA – written confirmation and cost commitment to engaging third parties to undertake EIA works is needed within 2 months followed by confirmation of application submission within 14 months of acceptance or completion of any TSO interface.

### Existing milestone M2 - Secured statutory consents including Planning Permission

Key point: The customer must have secured statutory consents, including Planning Permission for the project within the timescales and be able to provide the required evidence. The timescale for this milestone is measured from offer acceptance. However, customers may initiate the processes for milestone M1 before offer acceptance such that milestone M2 may be completed earlier.

Timescale (in cases where no milestone M4 TSO assessment is required):

- No EIA - 12 months from offer acceptance
- EIA - 24 months from offer acceptance

Timescale (in cases where milestone M4 TSO assessment is required):

- No EIA - 2 months from completion of TSO interface;
- EIA – 24 months from completion of TSO interface.

Evidence:

- Planning decision notice issued to applicant;

### Existing milestone M3 – Land Rights

Key point: The customer must have secured the required Land Rights to enable the construction of the project. The customer may be the owner/occupier of the land or has the necessary agreement from the owner/occupier, e.g. an ICP or IDNO may secure the land rights from an owner or occupier. The timescale for this milestone is measured from offer acceptance however, the customer can initiate this process before acceptance if they anticipate longer timescales for their project.

Timescale:

- 2 months from offer acceptance or completion of TSO assessment;

Evidence - Customer will provide paperwork to demonstrate that, with respect to the land on which the station is situated, it:

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<sup>8</sup> Environmental Impact Assessment

- Is an owner or lessee of that land; or
- Has entered into an agreement to lease the land; or
- Has an option to purchase or to lease the land; or
- Has entered into an exclusivity agreement in relation to the land.

#### **DER specific milestone M4 – TSO Interface**

Key point: This milestone will only apply where the nature of the connection requires interfacing with the TSO to assess transmission impacts. Some connection applications require interaction with the TSO, either to ascertain if transmission works or operational restrictions are required to make the connection, or to ascertain rights for use of the transmission system (which is obligatory for distributed generators above a certain size). Some of these processes are in the control of the customer and some of the DNO and TSO. In either case, where participation is obliged under the relevant industry code, the customer is required to initiate and continue to progress the relevant TSO process in good faith. The processes by which relevant transmission works are normally laid out in the connection and use of system code (CUSC).

The processes to establish TSO interactions including Statement of Works (SoW) and Project Progression (PP) can be initiated ahead of acceptance of a DNO connection offer i.e. any time after the initial application is made to the DNO though there is normally a fee payable for the applications that the DNO will recover from the applicant. Ultimately it is for the customer to decide as there is a balance between paying for and initiating the SoW request / PP applications early to establish a position in any interactive queue and waiting for the outcome of the DNO Application.

Where there is a need to assess the transmission impacts of connection at distribution, then milestones M1, M2 & M3 will begin from the time at which the TSO interface aspects are resolved. This milestone will be considered as complete where the evidence indicated below is provided within the milestone timescales (taking into account any tolerances).

Timescale:

- All within timescales of relevant TSO processes and governance.
- Applications from the DNO should be submitted to the ESO to enable TSO assessment as soon as possible.
- BEGA/BELLA applications should be submitted by the customer to the ESO to enable TSO assessment in line with what has been agreed and normally within 3 months of accepting the DNO's connection offer.

Evidence – this should include the following:

- Instruction from DNO/confirmation of receipt of application from TSO; and
- DNO has received payment; and
- DNO/TSO has received information; and
- The signed contract.
- In addition, if not directly maintained with the DNO, then TSO confirmation should be provided that relevant securities have been placed.

#### **Existing milestone M6 – Provision and agreement of Construction Plan**

Key point: The customer must agree the Construction Plan (and/or ICP programme of works) with the network operator which demonstrates how they will achieve the agreed connection date. This milestone is measured from planning permission being granted and demonstrates that the customer is ready to proceed with the project. The milestone can be initiated earlier and agreed with the network operator subject to achieving planning permission.

As a minimum the Construction Plan should include dates for the construction start and construction completion dates and milestone M7 (Project Commitment) and, if applicable, milestone M5 (Contestable Design Works

Submission). Interim construction milestones may also be required by the network operator depending on the nature, extent and duration of the project works so that progress can be demonstrated.

The timing of the construction start date is important in demonstrating that the project is progressing. In some cases, this date could occur a considerable time after the agreement of the Construction Plan (for example, the work may be contingent on the completion of network reinforcements), but in most cases, progress would be expected soon after the Construction Plan is agreed. If the proposed construction start date is more than 12 months after milestone M6, then further explanation would be sought from customers and additional evidence of project progression sought.

Timescale:

- Within 6 Months of planning permission being granted.

Evidence:

- Customer's programme of works (and/or ICP programme of works) that demonstrates when project construction will commence and complete and how the project will be ready for the agreed connection date;
- The programme may include interim construction milestones to demonstrate progress towards construction completion.
- Additional evidence may be required to demonstrate project progression if the construction start date is more than 12 months after agreement of the construction plan.

## 6.2 Later Milestones, Milestones M5, M7 and M8

Milestone M6 to establish a Construction Programme for the project must be agreed within 6 months of achieving statutory consents (milestone M2). The remaining milestones, M5, M7 and M8 are agreed as part of the Construction Programme.

### **Existing milestone M5 – Contestable Design Works Submission** (applicable to distribution connections)

Key point: This milestone will apply where a customer has gone down the contestable route for connection, they will be required to provide evidence that their independent connection provider (ICP) has submitted a design for contestable works to the DNO or if they are accredited, notification that they have self-approved their own design.

Timescale:

- To be agreed with the customer, normally working back from connection date but generally no earlier than the date of planning consent.
- At latest, the timescale for completing milestone M5 should be agreed as part of the Construction Plan referred to in milestone M6.

Evidence:

- Complete design submission.

### **New milestone M7 – Project Commitment**

Key point: This milestone demonstrates that the project has the necessary commitment/backing which is necessary for it to proceed.

Timescale:

- Half way between the dates for milestones M6 and M8, unless
- There is less than 12 months between milestones M6 and M8 then it may not be necessary to include this milestone M7 (to be agreed with the network company subject to the provision of reasonable evidence from the customer).

Evidence – One of the following:

- Binding contract for main plant equipment; or
- Staged payment made to the network company; or
- Board paper Evidencing Final Investment Decision (FID); or
- Subsidy award.

### Existing milestone M8 – Project Construction

Key point: Project construction is the project phase from when a customer begins the site works to carry out construction of its project until completion of the construction works in line with the Construction Plan (as agreed at milestone M6). Milestone M8 will be measured against an agreed construction start date taken from the Construction Plan and any other interim construction milestones agreed through the Construction Plan to demonstrate that the project is progressing in line with the planned completion date of the project.

Delays against the construction start date or any interim construction milestones could lead to contract default and potential contract termination if these exceed the allowed Tolerance. However, network companies will look to provide further flexibility in timescales through the construction phase where this is possible. For example, if interim construction milestones have been achieved and construction is progressing, but the construction completion date has been delayed, the Tolerance period might be extended.

Timescale:

- Commence construction in line with date agreed in the Construction Plan (M6).
- Delivery and completion of the customer works in accordance with the agreed construction programme including any interim construction milestones and the completion date.

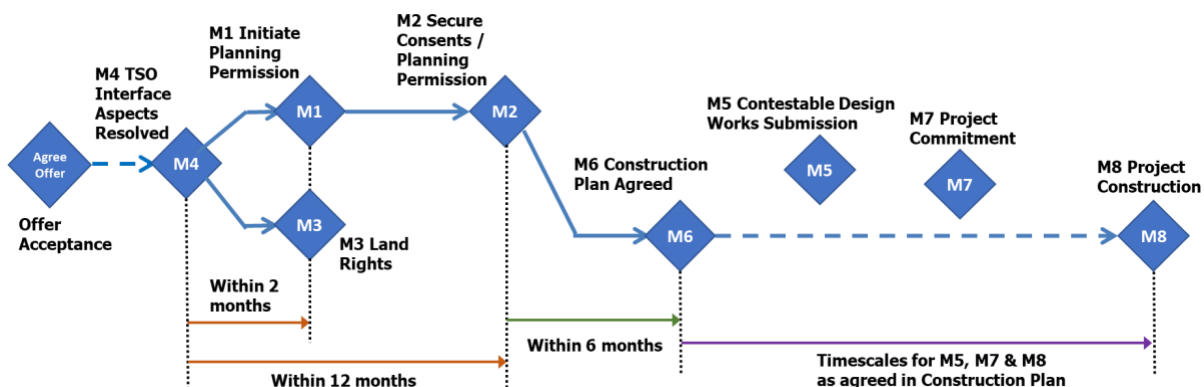
Evidence:

- Commencement of substantive works at the customer’s project site.
- Clear progress as per the construction plan agreed with the network company.

## 6.3 Illustration of Milestones M1 to M8

Milestones M1 to M8 are shown together on Figure 2. The sequence of milestones in this illustration is for projects at distribution level where there is an impact on the transmission system, i.e. the milestone M4 TSO Interface will apply.

**Figure 2 – Milestones for distribution projects where transmission interface is required**



In this example M4 is initiated in accordance with relevant TSO processes following the customer's acceptance of the offer. Milestones M1, M2 & M3 will apply from the completion of the TSO interface (M4) rather than offer acceptance. This allows the customer to have a complete picture of any costs in advance of seeking planning permission. Following the achievement of planning permission, the Construction Plan, milestone M6, is agreed within 6 months. The timescales for the later milestones are then as set out in the Construction Plan.

If there is requirement to assess impacts on the transmission system, then milestones M1, M2 & M3 would apply from offer acceptance, i.e. milestone M4 TSO Interface is not required. If an EIA is necessary, then milestones M1 & M2 will have longer timescales as indicated above.

## 7 Tolerance and Cumulative Delay

Tolerance has been developed to allow customers to manage reasonable delays that are within their control, without the risk of immediately terminating their agreement if they fail to meet an agreed milestone. It also provides an opportunity for customers to highlight any issues out with their control, provide reasonable evidence and discuss this with the network company (see section 10 for further information). The creation of a tolerance period provides a degree of flexibility for delayed projects where specific circumstances aren't extreme enough to warrant termination of the agreement.

The tolerance period for a project varies by voltage level as shown in Table 1 below. For example, for an LV or HV project, the total allowed Tolerance is 3 months. If a project is delayed against one or more milestones, it's status changes. One of three different statuses is used to describe the project depending on the extent of the delay and the relevant tolerance period. These project statuses are termed 'On Track', 'Within Tolerance' and 'Termination' and are further explained below.

- 'On Track,' – the project is proceeding within the relevant milestone periods; or
- 'Within Tolerance' – the project has exceeded one or more of its required milestones but the Cumulative Delay (for earlier milestones), or individual milestone delays (for later milestones) do not exceed the Tolerance; or
- 'Termination'- the project has not met a milestone or milestones and the Cumulative Delay (for earlier milestones), or individual milestone delays (for later milestones) have exceeded the tolerance. In this case the network company would seek to terminate the contract.

There are differences to how Tolerance is used for the earlier and later milestones. For the earlier milestones, the concept of 'Cumulative Delay' is applied so that delays against milestones are added up and compared to the relevant tolerance period. For the later milestones after a Construction Plan has been agreed, the delay against the specific milestone is compared to the relevant tolerance period to determine the project status. This is explained further in the following paragraphs.

### Application of Tolerance to Earlier Milestones

Milestones 1 to 3 are measured from the date that the customer accepts a connection offer, i.e. Offer Acceptance, or from the date that milestone M4 is resolved if the transmission impacts of connection to a distribution network need to be assessed. Milestone M6 to agree a Construction Plan is measured from milestone M2, the achievement of statutory consents.

Where a customer project is delayed against one of these earlier milestones (milestones M1, M2, M3, M4 & M6), the project status will change from "On Track" to "Within Tolerance". The delay, measured in working days, accumulates until that milestone is completed. So long as the delay does not exceed the tolerance period, the project would remain "Within Tolerance".

Any delay against an early milestone would continue to contribute to Cumulative Delay even after that milestone is achieved and, if the project is subsequently delayed against another early milestone, this further delay would add to the Cumulative Delay to determine whether the project status remains "Within tolerance" or moves to "Termination". This helps to ensure that project milestones are achievable, and that progress is managed through project development and delivery.

If a customer project is delayed against more than one milestone at the same time, i.e. the milestones involved can be considered as concurrent as opposed to cumulative, then only one of these delays would add to the Cumulative Delay. This is further illustrated in section 8, example 4.

From the customer perspective, Cumulative Delay allows the tolerance period to be utilised to manage a delay for a single milestone, or it could be divided to manage multiple delays across milestones.

## 7.1 Application of Tolerance to Later Milestones

The later milestones (milestones M5, M7 and M8) are agreed when the Construction Plan is established at milestone M6. For these later milestones, Cumulative Delay is not used and each milestone is measured separately against the tolerance periods shown in Table 1. Further, any Cumulative Delay accrued in achieving the earlier milestones (milestones M1, M2, M3, M4 & M6) is not carried over to the later milestones. Not using Cumulative Delay for later milestones allows more leeway against milestone dates as a project moves into its construction phase.

## 7.2 Definition of Tolerance Periods

The key point in respect of queue management is that the tolerance period should not be exceeded for the project. Table 1 shows the tolerance timescales by project voltage showing when the project status will change from 'On Track' to 'Within Tolerance' to 'Termination' of the project.

**Table 1 Tolerances for Connections at Different Voltage Levels to determine Project Status**

Project voltage	Project status for milestones M1, M2, M3, M4 & M6 (Any delays against milestones are added to give a Cumulative Delay)		
	On Track	Within Tolerance	Termination
LV & HV	All milestones to date achieved without delay	Up to 65 working days Cumulative Delay (approx. 3 months)	More than 65 working days Cumulative Delay (approx. 3 months)
EHV & 132kV	All milestones to date achieved without delay	Up to 130 working days Cumulative Delay (approx. 6 months)	More than 130 working days Cumulative Delay (approx. 6 months)
275kV, 400kV & offshore 132kV	All milestones to date achieved without delay	Up to 260 working days Cumulative Delay (approx. 12 months)	More than 260 working days Cumulative Delay (approx. 12 months)

Project voltage	Project status for milestones M5, M7 & M8		
	On Track	Within Tolerance	Termination
LV & HV	All milestones to date achieved without delay	Up to 65 working days delay (approx. 3 months)	More than 65 working days delay (approx. 3 months)
EHV & 132kV	All milestones to date achieved without delay	Up to 130 working days delay (approx. 6 months)	More than 130 working days delay (approx. 6 months)
275kV, 400kV & offshore 132kV	All milestones to date achieved without delay	Up to 260 working days delay (approx. 12 months)	More than 260 working days delay (approx. 12 months)

Table note: Milestones are often expressed in months rather than working days to express timescales. 'Working days' have been included in the above table to provide more clarity and precision.

Any delays against milestones are compared to the tolerances shown in Table 1 for the purposes of determining the project status. Whereas the Tolerance provides customers with a degree of flexibility to manage reasonable delays, delays against earlier milestones will use up the tolerance period and could lead to a change in the project status. For longer delays this could ultimately result in the termination of the project. Delays that exceed the tolerance period for later milestones could also result in the termination of the project. In all cases, if a customer misses a milestone date, it is essential that they provide suitable evidence (see section 6) as soon as possible to minimise the impact on the tolerance.

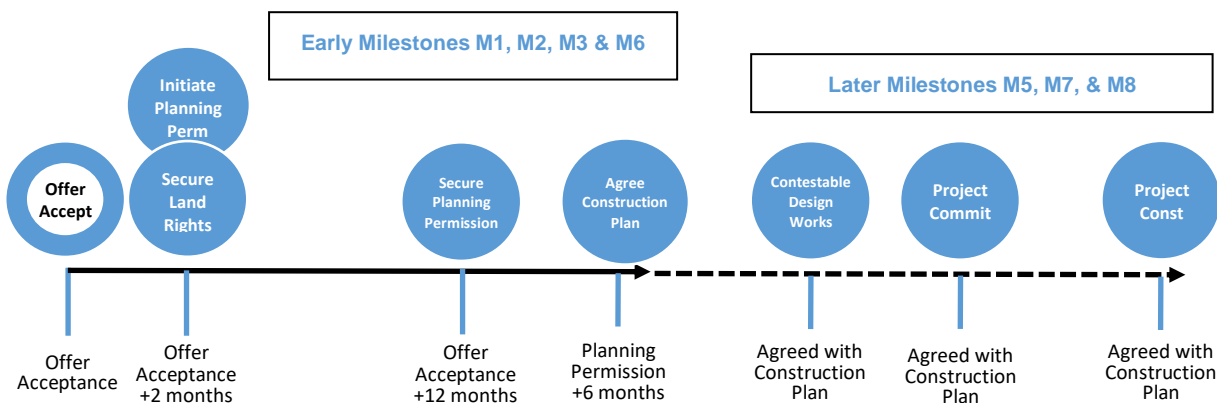
The following examples in section 8 illustrate how Cumulative Delay is calculated and the effect on the project status based on the different project voltage levels.



## 8 Examples of Queue Management

Figure 3 illustrates the sequence of milestones where no transmission interface is required.

**Figure 3 Milestones for distribution projects where no transmission interface is required**

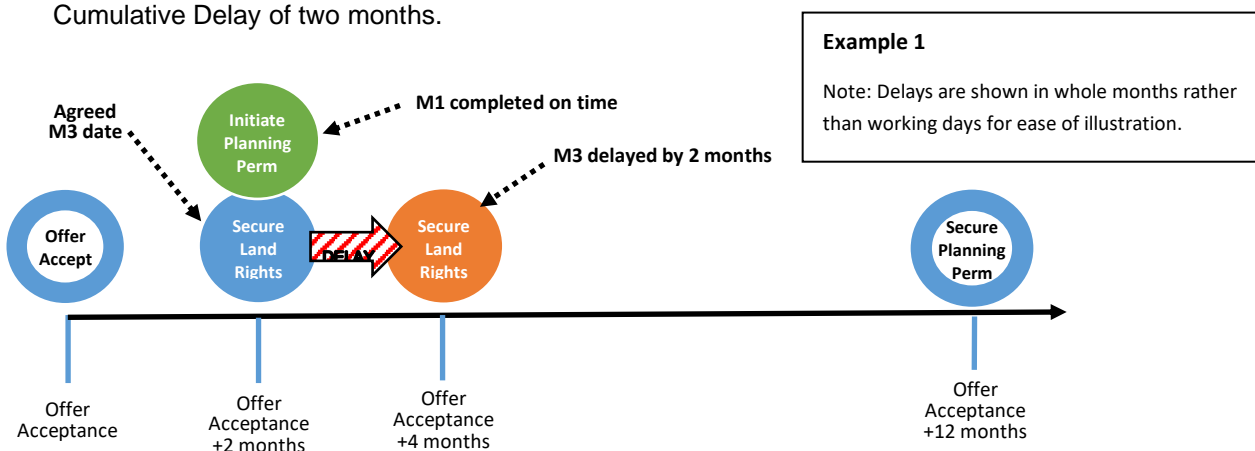


The following 4 examples explain how cumulative delays are measured. For ease of presentation, delays against milestones are illustrated in months rather than in working days. For simplicity only the early milestones M1, M2 and M3 have been used and it is assumed that these are non-EIA projects:

- Initiate planning permission (IPP) – 2 months from offer acceptance;
- Secure planning permission (SPP) – 12 months from offer acceptance;
- Secure land rights (SLR) – 2 months from offer acceptance.

### Example 1 – Project status is ‘Within Tolerance’

In this example the ‘Initiate Planning Permission’ milestone has been completed on time and shown as ‘green’ in the diagram below. However there is a two month delay in ‘Securing Land Rights’; the actual date this milestone is completed is shown as ‘amber’. At the point that the ‘Securing Land Rights’ milestone is met, there is a Cumulative Delay of two months.



In Example 1 the:

- Initiate Planning Permission milestone (M1) has been completed on time – 0 months delay;
- Secure Land Rights milestone (M3) has been completed late – 2 month delay;

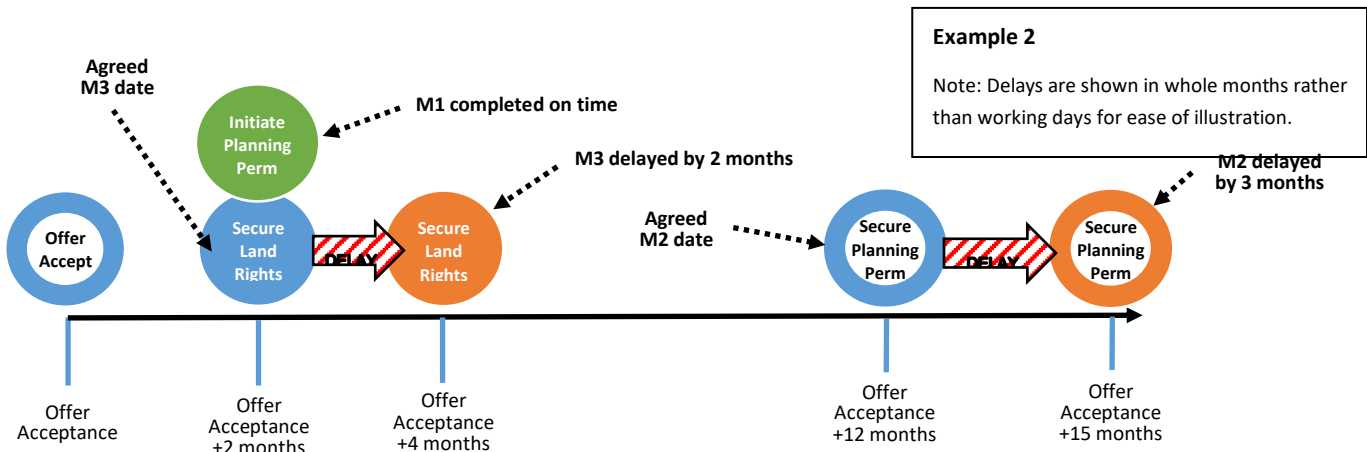
- Total cumulative delay is  $0 (M1) + 2 (M3) = 2$  months.

From the tolerances in Table 1 above, the status by project voltage level in Example 1 would be:

- LV & HV – delay is less than 65 working days (approx. 3 months) and so 'Within tolerance';
- EHV & 132kV – delay is less than 130 working days (approx. 6 months) and so 'Within tolerance';
- 275kV, 400kV and Offshore 132kV – delay is less than 260 working days (approx. 12 months) and so 'Within tolerance'.

### Example 2 – Project status is ‘Termination’ for LV & HV Connections

Example 2 builds on Example 1 in that there is an additional delay and the ‘Securing Planning Permission’ milestone is not met until three months after the agreed milestone date. The actual date this milestone is completed is shown as ‘amber’. There is then a Cumulative Delay of five months.



In Example 2 the:

- Initiate Planning Permission milestone (M1) has been completed on time – 0 months delay;
- Secure Land Rights milestone (M3) has been completed late – 2 month delay;
- Secure Planning Permission milestone (M2) has been completed late – 3 month delay;
- Total cumulative delay is 0 (M1) + 3 (M2) + 2 (M3) = 5 months.

Whilst it might be argued that the project is delayed by 3 months compared to its planned timescale, the addition of the delays across 2 milestones means that the cumulative delay is 5 months.

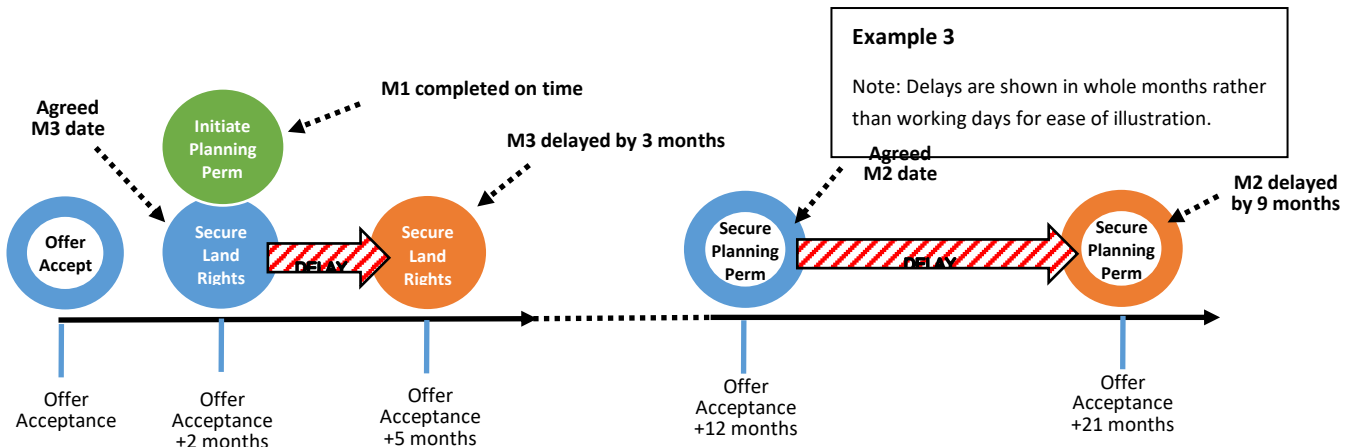
From the tolerances in Table 1 above the status by project voltage level would be:

- LV & HV – delay is greater than 65 working days (approx. 3 months) and so ‘Termination’;
- EHV & 132kV – delay is less than 130 working days (approx. 6 months) and so ‘Within tolerance’;
- 275kV, 400kV and Offshore 132kV – delay is less than 260 working days (approx. 12 months) and so ‘Within tolerance’.

For this example, if the project is connecting at an LV or HV voltage level, contract termination would be sought after a delay of 3 months to free up capacity for other projects.

### Example 3 – Project statuses are ‘Termination’ or ‘Within tolerance’

In this example, the project below experiences a delay of three months against the ‘Securing Land Rights’ milestone and a further delay of nine months against the ‘Securing Planning Permission’ milestone. In this example there is then a cumulative delay of 12 months.



In this example the:

- Initiate Planning Permission milestone (M1) has been completed on time – 0 months delay;
- Secure Land Rights milestone (M3) has been completed late – 3 month delay;
- Secure Planning Permission milestone (M2) has been completed late – 9 month delay;
- Total cumulative delay is 0 (M1) + 9 (M2) + 3 (M3) = 12 months.

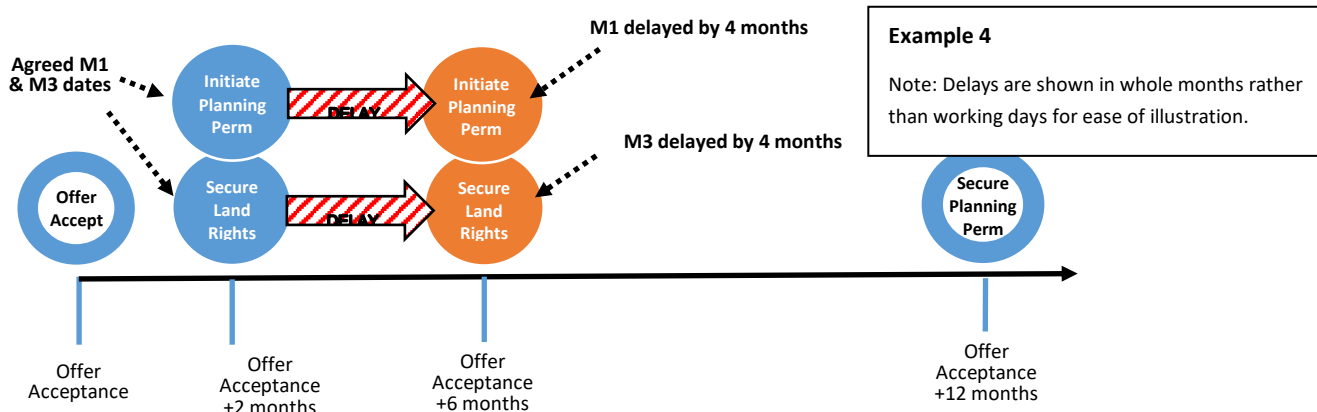
From Table 1 above the status by project voltage level would be:

- LV & HV – delay is greater than 65 working days (approx. 3 months) and so ‘Termination’;
- EHV & 132kV – delay is greater than 130 working days (approx. 6 months) and so ‘Termination’;
- 275kV, 400kV and Offshore 132kV – delay is 260 working days (12 months) and so ‘Within tolerance’;

For this example, if the project is connecting at the LV or HV voltage level, or the EHV or 132kV level, the network company would seek termination of the agreement after the tolerance period. If the project is connecting at the 275kV, 400kV or Offshore 132kV voltage level, it would remain just ‘Within tolerance’.

### Example 4 – Concurrent Delays

In the event that a delay impacts both the ‘Initiating Planning Permission’ and ‘Securing Land Rights’ milestones the delay is not compounded as the project is delayed against 2 milestones at the same time. At the point where both milestones are overdue by 4 months then the Cumulative Delay at that point would be 4 months.



In this example the:

- Initiate Planning Permission milestone (M1) is late – 4 months delay;
- Secure Land Rights milestone (M3) is late – 4 months delay;
- As these are concurrent delays the total cumulative delay is 4 months.

From Table 1 above the status by project voltage level would be:

- LV & HV – cumulative delay is greater than 65 working days (approx. 3 months) therefore ‘Termination’;
- EHV & 132kV – cumulative delay is less than 130 working days (approx. 6 months) therefore ‘Within tolerance’;
- 275kV, 400kV and Offshore 132kV – delay is less than 260 working days (approx. 12 months) therefore ‘Within tolerance’.

For this example, if the project is connecting at the LV or HV voltage level, the network company would seek termination of the agreement after the 3 month tolerance period.

## 9 Consequences of queue management

The application of queue management means that there may be consequences for slow moving projects. For projects where the cumulative delay results in a project exceeding the agreed tolerance, then the agreement may be terminated so that the capacity is available for other projects. For projects where the cumulative delay results in a project status becoming 'termination', then the project's agreement would be terminated.

The consequences of having its agreement terminated means that the customer will need to make a new connection application if connection is still sought. Additional costs in the form of reinforcement costs or increased securities and liabilities might then apply. If the customer accepts the connection offer associated with a new application, they will join the queue based on their new acceptance date, i.e. they will not retain their original queue position.

As a result of network capacity being made available, other project connections may be able to progress more quickly and may cease to be dependent on reinforcement work.

With regard to projects that are dependent on transmission works and have previously elected to 'fix' their attributable liability in accordance with CUSC Section 15, it would be appropriate for the project moving forwards in the queue to be given the opportunity to unfix i.e. so that their liability and resulting security no longer includes works that are not required for their connection.

Overall the impact of queue management would be that projects that can progress more quickly would be given the opportunity to obtain an earlier connection date with lower costs (at distribution) or potentially lower liabilities and securities (at transmission) if another project is not progressing. Contracts for such projects would be updated to show the new works and costs (or liabilities and securities) appropriate as a result of queue management. This provides a further incentive on projects to meet their contracted milestones and ensures more effective use of available capacity.

## 10 Issues out with a customer's control

The queue management process recognises that there may be a small number of exceptional issues that customers cannot control and which may lead to project delay. With this in mind, delays occurring as a result of such issues would not contribute to the Cumulative Delay. Examples of such exceptional issues include, but are not limited to:

- Force Majeure is a provision in a contract that excuses a party from not performing its contractual obligations that becomes impossible or impracticable, due to an event or effect that the parties could not have anticipated or controlled<sup>9</sup>;
- Planning appeals and third party challenges: Where a planning decision by the determining authority is challenged through a formal appeal process by the developer or a third party to that decision.
- Any delay which is caused by the network company, e.g. the customer/ICP is awaiting a required input from the network operator.

Where a project experiences delays as a result of the above, it can be placed on hold and the customer's connection terms will be maintained providing the customer complies with the following conditions:

- they discuss the specifics of the delay with the network company at the earliest opportunity; and
- they provide reasonable evidence to justify the specific delay.

For the avoidance of doubt, a failure to comply with any of these conditions can result in a failure of a milestone and a change in the project status.

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<sup>9</sup> Definitions are in the National Terms of Connection (<http://www.connectionterms.org.uk/>) or in the Connection and Use of System Code (<https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc>)

## 11 Appeals process

Customers that wish to appeal a network companies' decision to terminate an agreement to release connection capacity can do so under the existing complaints procedure. This would require the following steps to be taken.

- Initial challenge with contract manager: Internal review of decision.
- Escalation: Business would undertake review with appropriate manager.
- Further escalation in line with the relevant network company existing procedures.

Ofgem has the power to determine disputes between Electricity Distributors and customers (both commercial and domestic) in certain circumstances. More information on Ofgem's determination powers, and how to refer a determination to Ofgem, can be found in Ofgem's guidance<sup>10</sup>. For transmission the procedure for dispute resolution is set out in Section 7 of the CUSC.

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<sup>10</sup> <https://www.ofgem.gov.uk/ofgem-publications/38164/determinationsguidanceaug2012.pdf>



## 12 Statement of Works

Where a customer is subject to a Statement of Works Request (SoW) or Statement of Works Project Progression Application (PP), until such time that the DNO has confirmed to the customer the transmission impact on their project, and the customer has accepted the varied terms to their contract with the DNO, Milestones M1, M2 and M3 will not be measured against under the Queue Management Policy. This is however subject to the SoW or PP being submitted without unreasonable delay. Any attempt by the customer to delay the SoW or PP, will be considered by the DNO as a failure to progress the project in line with the Terms and Conditions of the contract with the DNO.

As noted in the discussion of milestone M4, a SoW or PP can be initiated ahead of acceptance of a DNO connection offer i.e. any time after the initial application is made to the DNO, but there is normally a fee payable for the applications that the DNO will recover from the applicant. Ultimately it is for the customer to decide as there is a balance between paying for and initiating the SoW request / PP applications early to establish a position in any interactive queue and waiting for the outcome of the DNO Application. At latest, the SoW request or PP application should be submitted shortly after acceptance of the DNO offer.

## 13 Queue Management in practice

The following examples illustrate how projects will be subject to queue management based on the project status in Table 1 above. In principle, if additional network capacity becomes available through the termination of a project's connection agreement:

1. The network capacity (typically an earlier connection date or a connection no longer dependent on network reinforcement) will be made available to other parties in the connection queue, and
2. The capacity will be made available to parties in order of their connection queue position.

The transfer of network capacity to another party will be subject to network assessment that the connection is technically feasible and the full agreement of the party to whom the network capacity is offered.

### Example 1: Simple queue management

Consider 8 projects (A to H) in a queue where the order is based on their offer acceptance dates:

- Projects A to D have accepted their connection offers for connections that do not require reinforcement;
- Projects E to H have accepted their connection offers for connections that do require reinforcement;
- Project A has missed milestones and the cumulative delay has exceeded the relevant tolerance such that the project status becomes 'Termination'; and
- Projects B to H's have met project milestones such that their project status is 'On track'.

Queue	Project	Status
No reinforcement required to connect projects A to D		
1	A	Termination
2	B	On track
3	C	On track
4	D	On track
Reinforcement required to connect projects E to H		
5	E	On track
6	F	On track
7	G	On track
8	H	On track

As project A has exceeded the tolerance its connection is terminated. Project E has a similar capacity requirement as project A. The network company assesses the network and establishes that Project E can be connected without the need for network reinforcement. Project E is then offered the opportunity for an earlier connection with revised costs, i.e. move up the queue and no longer dependent on the reinforcement work or liable for those costs. Project E accepts this offer and the queue is reordered as follows:

- Project A has its agreement terminated and is no longer in the queue;
- 'On track' project E moves from queue position 5 to 4 as projects B, C & D are still classed as 'On track'. Project E is no longer liable for reinforcement work and associated costs prior to connection to being connected.

Queue	Project	Status
No reinforcement required to connect projects A to D		
1	B	On track
2	C	On track
3	D	On track
4	E	On track

Reinforcement required to connect projects F, G & H		
5	F	On track
6	G	On track
7	H	On track

### Example 2: Managing the available capacity

This example is similar to Example 1 but the party that is next in connection queue does not want to take advantage of network capacity that is freed up. In this example, network capacity is then offered to the next project in the connection queue.

Consider 8 projects (A to H) in a queue where the order is based on their offer acceptance dates:

- Projects A to D have accepted their connection offers for connections that do not require reinforcement;
- Projects E to H have accepted their connection offers for connections that do require reinforcement;
- Project A has missed a milestone or milestones such that the cumulative delay exceeds tolerance and the project agreement is terminated”; and
- Projects B to H’s cumulative delay places their project status as either ‘On track’ or ‘Within tolerance’.

Queue	Project	Status
No reinforcement required to connect projects A to D		
1	A	Termination
2	B	On track
3	C	Within tolerance
4	D	On track
Reinforcement required to connect projects E to H		
5	E	Within tolerance
6	F	Within tolerance
7	G	On track
8	H	On track

The next projects in the queue (B, C and D) are still ‘On track’ or “Within tolerance” and retain their queue positions. Project E is offered the opportunity for an earlier connection but decides not to take this opportunity as it would have to reduce its capacity requirement. Following further network assessment, project F is then offered the opportunity for an earlier connection with revised costs, i.e. move up the queue and no longer dependent on the reinforcement work or liable for those costs. Project F accepts this offer and the queue is reordered as follows:

- ‘On track’ project F moves from queue position 6 to 4 as projects B, C & D are still classed as ‘On track’ and project E rejected the lower capacity offer.

Queue	Project	Status
No reinforcement required to connect projects A to D		
1	B	On track
2	C	Within tolerance

3	D	On track
4	F	Within tolerance
Reinforcement required to connect projects E, G & H		
5	E	Within tolerance
6	G	On track
7	H	On track

A further example is included in the following section to help illustrate the treatment of flexibility.

## 14 Conditions for the treatment of flexible resources in the connection queues

The Smart Systems and Flexibility Plan placed an action on network companies to manage network connections more effectively for flexible assets such as storage that can bring wider system benefits.

Queue Management can result in flexible resources being promoted in connection queues on the basis that additional capacity is then enabled for other connectees. Example 3 of this guide, illustrates how a project that is able to resolve a network constraint might be promoted in a connection queue to benefit other connected projects. The processes described in this guide do not consider the detailed market mechanisms required to drive this behaviour in an economic and efficient manner, but opportunities for the promotion of flexible resources should be considered by network companies as a means to address the network constraints that underlie connection queues.

The promotion of flexible resources in the connection queue would require the contractual agreement of a suitable form of commitment or surety that the customer concerned will act to alleviate the specific network constraint. Such arrangements will depend on the particular circumstances that give rise to the connection queue including the nature of the network constraint, the timing of any agreed network reinforcement and the availability and location of other flexible resources.

### Example: Treatment of Flexibility

The following example sets out how the process of queue management could treat such users.

- Projects A to D have accepted connection offers that do not require reinforcement;
- Projects E & G have accepted connection offers that do require reinforcement;
- Project F (Flexibility) has applied for a later connection.

Queue	Project	Status
No reinforcement required to connect projects A to D		
1	A	On track
2	B	On track
3	C	On track
4	D	On track
Reinforcement required to connect projects E to G		
5	E	On track
6	F (Flexibility)	On track
7	G	On track

Project F is offered and accepts the option to connect earlier relieve/delay the need for the required reinforcement. The network company would need to satisfy itself that Project F will positively benefit the relevant network constraints before it is offered an earlier connection date. Customers will be required to enter into a specific contract with the network company to alleviate the relevant specific constraint; general intention to operate in flexibility markets would not be sufficient evidence.

Other projects previously dependent on reinforcement can now be offered earlier connection dates and the queue management principles apply for the volume of capacity that is available. In this case, Project E is next in the queue and accepts the offer of earlier connection.

Project F (Flexibility) and E can move up the queue and will be required to achieve their relevant milestones in order to maintain their new queue position. The new queue position for project F (Flexibility) is conditional on its ability to achieve the earlier connection date and alleviate the specific constraint. In the event that project F (Flexibility) fails a milestone and has their agreement terminated they will lose their position in the queue and project E will return to their original queue position and require reinforcement to be able to connect.

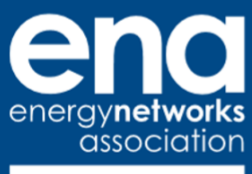
Queue	Project	Status
No reinforcement required to connect projects A to D		
1	A	On track
2	B	On track
3	C	On track
4	D	On track
5	F (Flexibility)	On track
6	E	On track
Reinforcement required to connect project E		
5	G	On track

## 15 Communication associated with Queue Management

Network company communications to customers regarding Queue Management process will include the information below. Network companies may also develop further monitoring and communications over time.

- QM information in connection offer letters:
  - Milestone information;
  - Brief explanation of the project status categories;
  - Link to further information on ENA website.
- Notification of a change in project status to 'Termination'.

It is the responsibility of customers to ensure that they progress projects against the agreed milestones and provide evidence of milestone completion. Network companies will monitor project milestones for all projects in a connection queue. Where a project misses a milestone, the network company will inform the project of this and that the project is starting to build up a "Cumulative Delay". In some cases, (e.g. transmission connected projects), the network company may also inform the customer when their project's "Cumulative Delay" has reached a level where the project is close to the level where the project could be subject to "Termination".



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