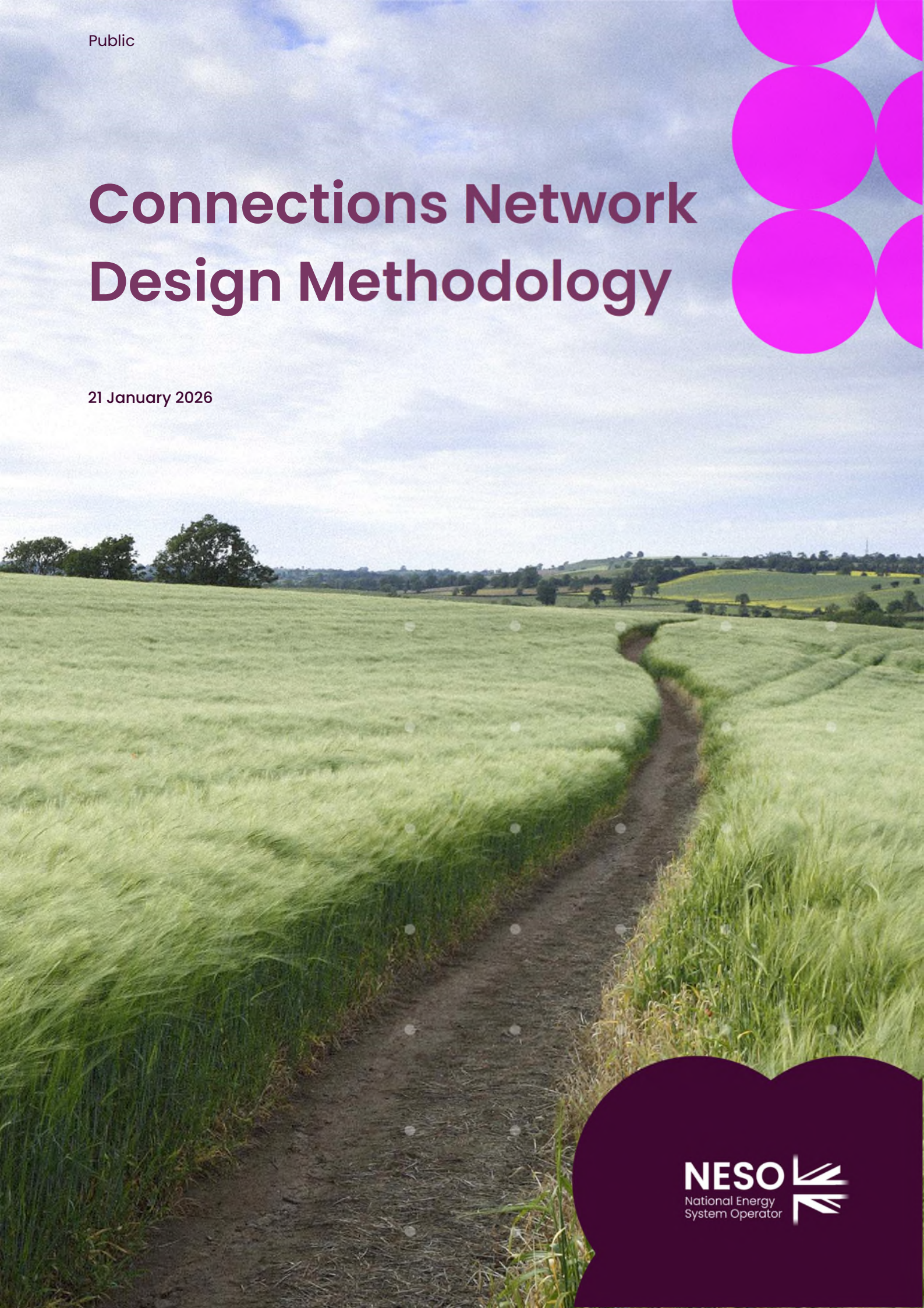
Public

Connections Network Design Methodology

21 January 2026



NESO
National Energy System Operator

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This methodology has been updated from the 19 December 2025 version to illustratively remove content specific to CMP435. This is not a 'live' methodology.

The format and page numbering of this document differ from the marked-up version. This document has been designed to improve readability and provide a more user-friendly experience.

How to read this document

Welcome to our **Connections Network Design Methodology (CNDM) document**. This document provides an overview of our approach to assessing new Gate 1 and Gate 2 applications under the reformed connections process, TMO4+.

Chapters 1 to 3 provide an overview of the purpose of the CNDM, the process it describes and the Framework Objectives and building blocks that underpin it. The full document provides further detail on the process and either explains the steps or refers to other related TMO4+ methodologies and guidance documents.

This document explains the connections assessment and design processes for TMO4+ for **new applications which have met the Gate 2 criteria**.

This document will be reviewed and updated in line with the relevant NESO licence conditions.

This Methodology is applied under the reformed connection process introduced into CUSC as a result of CMP434 and needs to be read in the context of this process. CMP434 sets out the enduring process for applications and offers in Section 17 of CUSC.

Please note any reference to Distribution Network Operators (DNOs) within this document refers to both DNOs and Transmission Connected Independent Distribution Network Operators (IDNOs), unless these are explicitly differentiated.

1. Introduction

This section introduces the purpose of the Connections Network Design Methodology

1.1 Purpose

1.1.1 This methodology, along with the Gate 2 Criteria Methodology and the Project Designation Methodology, underpin the reformed connections process known as TMO4+, and supplement the process that will be outlined in the Connection and Use of System Code (CUSC) and System Operator Transmission Owner Code (STC).

1.1.2 The purpose of the Connections Network Design Methodology is to provide an overview of the process that NESO, Transmission Owners (TOs) and Distribution Network Operators (DNOs) will follow when assessing applications to connect generation, interconnection, storage and transmission connected demand that have met the Gate 1 Criteria or the Gate 2 Readiness Criteria.

1.1.3 This methodology will be followed by NESO, TOs and DNOs as we undertake the connections network design activities for assessing new applications in the application window.

2. CNDM Definition, Framework Objectives and Scope

This section outlines the scope and objectives of the CNDM

2.1 Definition: Connections Network Design Methodology

What do we mean by the CNDM?

"The Connections Network Design Methodology describes how relevant generation and demand connections will be assessed and strategically designed in alignment with wider network planning activities."

It defines the process by which NESO and the TOs will undertake a technical assessment of connection applications and determine:

- the indicative connection date and indicative connection location included in a Gate 1 offer
- the connection date and connection point included in a Gate 2 offer, or the reserved connection date and connection point included in a Gate 1 offer for eligible projects
- opportunities for connections-related anticipatory investment

The methodology also:

- describes how capacity will be reallocated to other projects following termination or Gate 2 offer rejection
- describes how the connection design processes will interact with Government and NESO strategic energy plans
- signposts to other relevant documentation about strategic energy planning and the reformed connections process

2.2 CNDM: Framework Objectives

2.2.1 Five Framework Objectives have been developed to underpin the CNDM and the connection assessment processes outlined within. These are shown in Figure 1 below and are to be considered on an equal footing.

2.2.2 These objectives will be updated where necessary in accordance with NESO, TO and DNO licence obligations.

Objective		Description
	**Safety & Security of Supply**	• Produces a network design that is safe and reliable
	**Economic, Efficient and Sustainable**	• Enables the coordinated assessment of connections, resulting in an economic and efficient system and savings for end consumers • Facilitates contestability and competition for design and delivery of connection infrastructure, encouraging innovation and creating benefits through capital and operational cost savings • Considers environmental and community impacts and aims to minimise or mitigate these in the network design
	**Transition to Net Zero**	• Helps to facilitate the delivery of the Clean Power 2030 Action Plan (CP30 Action Plan) • Is future-proofed to enable alignment with future strategic plans such as the Centralised Strategic Network Plan (CSNP), Strategic Spatial Energy Plan (SSEP) and Regional Energy Strategic Plan (RESP)
	**Deliverability & Operability**	• Provides the greatest opportunity for earlier connection dates for viable, net zero aligned generation and demand projects across Great Britain • Facilitates the connection of projects that deliver material system benefits
	**Consistency & Transparency**	• Promotes consistency between TOs yet respects their independence and appropriately takes account of differences between networks • Provides customers with insight as to how connection projects are assessed and the opportunity to collaborate on shaping the future of the network

Figure 1: CNDM Framework Objectives

2.3 What is in scope of the CNDM?

2.3.1 The below table provides an overview of what is in scope of the CNDM.

In Scope	Description
Gate 1 Assessment (new applications and gated mod apps)	**Documenting the approach that NESO and TOs will follow to produce Gate 1 offers and identify anticipatory investment.** • Purpose of a Gate 1 offer • Approach to determining indicative connection dates and connection locations • Connection point and Capacity Reservation for selected Gate 1 projects • Anticipatory Investment at Gate 1
Gate 2 Assessment (new applications and gated mod apps)	**Documenting the approach that NESO, TOs and DNOs will follow to align each Gate 2 Tranche to the Gate 2 Strategic Alignment Criteria, and assess projects to determine connection dates, PoC and reinforcement works.** • Assessing the Gate 2 Tranche against the Gate 2 Strategic Alignment Criteria • Assessing relevant projects against the Clean Power 2030 Action Plan (CP30 Action Plan) • Treatment of relevant embedded generation, Designated Projects, projects not in scope of the CP30 Action Plan, hybrid projects, transitional projects, holding agreements, and Gate 1 Connection Point and Capacity Reservations • Substitutions to rebalance zonal capacities and address undersupply against the CP30 Action Plan • Utilising existing reservations for undersupply • Publishing the outcome of assessment against the Gate 2 Strategic Alignment • Assessment to determine a connection date and connection point for each project at Gate 2 • Approach to the Gated Design Process • Design Variations, derogations, competition and contestability and bay allocation • Approach to reallocating capacity when projects exit the queue

Interactions with other Strategic Energy Planning Processes	• Interactions between the CNDM and CP30 Action Plan • Interactions between the CNDM and SSEP • Interactions between the CNDM and Transitional Centralised Strategic Network Plans (tCSNP)
Roles and Responsibilities	• Roles and responsibilities of NESO under the CNDM • Roles and responsibilities of TOs under the CNDM • Roles and responsibilities of DNOs under the CNDM • Roles and responsibilities of Transmission Connected IDNOs under the CNDM
Interactions with Strategic Energy Planning Processes	**The following topics are out of scope of this version of the CNDM, but will feature in future iterations of the CNDM once these interactions are better understood:** • Interactions between the CNDM and CSNP • Interactions between the CNDM and RESP

2.4 What policy and publications does the CNDM refer to?

The below table provides links to existing publications and policy documents which are referenced within this document.

Existing Policy	Description
Gate 2 Criteria Methodology	The Gate 2 Criteria Methodology sets out the two parts of the Gate 2 Criteria; the Gate 2 Readiness Criteria and the Gate 2 Strategic Alignment Criteria. It also explains how Users evidence they have met the criteria, and how such evidence is assessed.
Project Designation Methodology	The Project Designation Methodology explains the reasons projects could be designated, sets out the criteria for designation and the process by which NESO will designate projects.
Clean Power 2030 Report	NESO provided advice to Government in November 2024 on achieving Clean Power by 2030 via our Clean Power 2030 Report.
Clean Power 2030 Action Plan (CP30 Action Plan)	The Clean Power 2030 Action Plan: A new era of clean electricity (December 2024) builds on the advice from NESO, setting out Government's view of the requirements for Clean Power by 2030 and the steps needed to get there.
CP30 Action Plan Connections Reform Annex	The CP30 Action Plan contains a Connections reform annex, which provides a detailed breakdown of the permitted capacities to 2030 and to 2035 for in-scope technologies for the purposes of aligning the connections queue to the CP30 Action Plan
Queue Management	Queue Management was introduced following the implementation of CUSC Modification CMP376. This is the current Queue Management Guidance.
Technical Limits	The introduction of Grid Supply Point (GSP) Technical Limits is an initiative developed as part of the ENA's 3-Point Plan, working to accelerate the connection of generation and storage into the distribution network ahead of the required transmission reinforcement works.
Security and Quality of Supply Standard (SQSS)	The SQSS sets out the criteria and methodology for planning and operating the National Electricity Transmission System (NETS): SQSS Code Documents.

Connection and Infrastructure Options Note (CION)	The CION Process was previously used to assess and record the rationale for the selection of the overall preferred connection option for the onshore connection point and offshore transmission system design, for relevant offshore projects.

The below table provides links to future publications and policy documents which are referenced within this document.

Future Policy	Description
Strategic Spatial Energy Plan (SSEP)	On 22nd October NESO were commissioned to deliver SSEP. In December, we published our SSEP Draft methodology for consultation.
Transitional Centralised Strategic Network Plan (tCSNP)	We published the tCSNP2 in March 2024, also known as the Beyond 2030 report. This is currently being refreshed and will be published in early 2026, ahead of the first enduring CSNP. In December, we published our tCSNP Refresh Draft methodology for consultation.
Centralised Strategic Network Plan (CSNP)	The Centralised Strategic Network Plan will provide an independent, coordinated, and long-term approach to network planning in GB to help achieve its net zero ambition. In December, we published our CSNP High-level methodology principles for consultation.
Connect and Manage Guidance	How the range of works required for a connection are categorised as Enabling and Wider works is covered in the Connect and Manage Guidance.
Gated Modification Guidance	The Gated Modification Guidance will set out the types of changes which require a Gated Modification Application to be submitted within a Gated Application Window. It will be published ahead of connections reform go-live.
Material Technology Change Guidance	The Material Technology Change Guidance sets out NESO's process for managing requests for technology changes made via Gated Modification Applications.

3. Connections Network Design process steps

This section provides a visual representation of how the CNDM building blocks reflect the TMO4+ process.

3.1 Connections Network Design (CND) process steps

3.1.1. This CNDM sets out how queue formation and the Gated Design Exercise will be undertaken for those applying to connect in a future Gated Application Window who meet the Gate 2 criteria.

3.1.2 Not Used

3.1.3 This document also sets out how the connections network design process will interact with the **CP30 Action Plan** and **SSEP** to ensure that the generation and demand requirements identified through these are considered when assessing connection applications.

3.1.4 In future versions of the CNDM, these will be updated to include interactions with other regional and central network plans such as the **RESP** and **CSNP**.

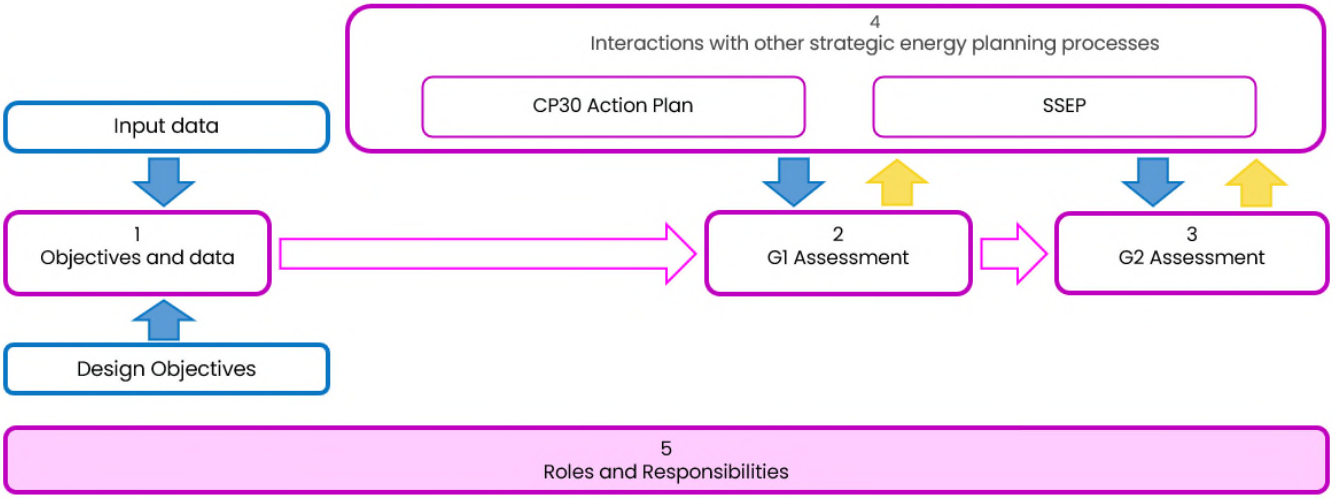


Figure 2: CND Process Overview

3.2 CNDM Building Blocks

Item	Description
Design Objectives and Data	The scope of the connections network design is established with setting the design objectives, the supporting business processes and the data inputs required to assess connections applications.
Gate 1 Assessment	Defines the process and the principles for determining indicative date & location and anticipatory investment triggered by Gate 1 projects, and the process for reserving a connection point and capacity for selected projects.
Gate 2 Assessment	Defines the enduring process and principles for determining Strategic Alignment and producing full connection offers for projects that have met the Gate 2 Criteria.
Interactions with Strategic Energy Plans	Defines how Gate 1 and Gate 2 assessments will interact with Government and NESO plans such as the CP30 Action Plan, SSEP, tCSNP, CSNP and RESP. **CSNP and RESP not yet within CNDM scope**
Roles and Responsibilities	Defines the different roles and responsibilities between NESO, TOs and DNOs when assessing Gate 1 and Gate 2 applications and determining connection dates and reinforcement works.

Figure 3: CNDM Building Blocks

4. Connections Network Design data inputs

This section defines the data inputs that feed into the overall Connections Network Design process.

4.1 Defining objectives and data inputs

4.1.1 Figure 4 shows this initial step in the context of the overall Connections Network Design (CND) process.

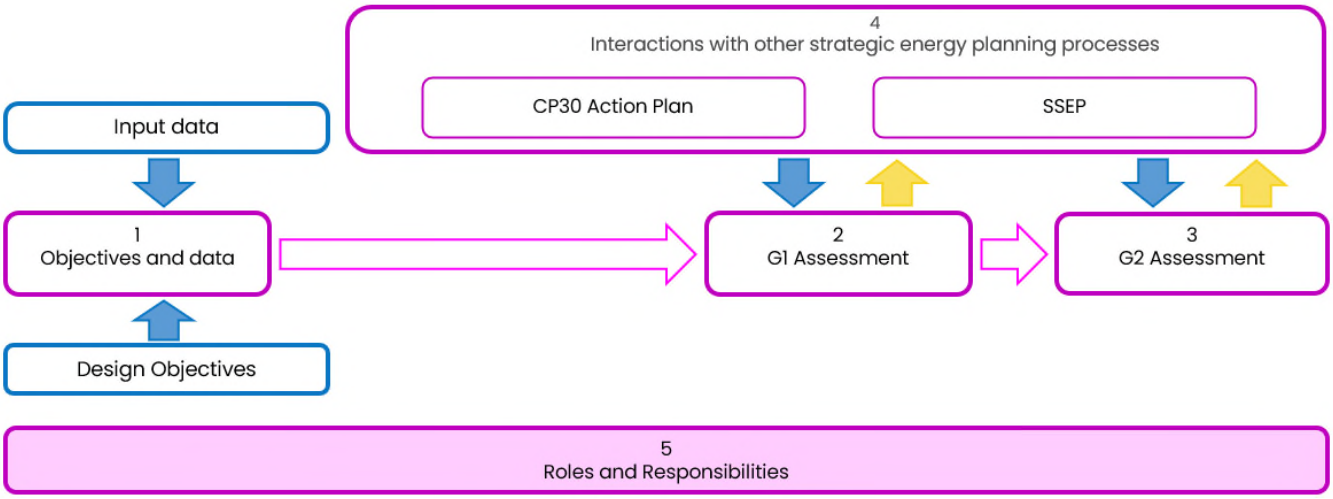


Figure 4: Objectives and Data in the CND process

4.2 Establishment of CND data sets

4.2.1 The first step in assessing Gate 1 and Gate 2 applications is to establish the required data sets. This includes determining the connections projects in scope of the assessment and developing a suitable generation and demand background on which they can be studied.

4.2.2 Sections 4.2.3 to 4.2.5 outline the data requirements for the queue formation and technical assessment of connection applications. This does not include the evidence requirements for the Gate 2 Readiness Criteria or the Gate 2 Strategic Alignment Criteria. These can be found in Section 8 of the Gate 2 Criteria Methodology.

4.2.3 Not Used

4.2.4 The following data sets are required to facilitate the assessment of new Gate 1 applications:

- List of projects that have met the Gate 1 criteria
- List of projects that have been selected for Gate 1 Connection Point and Capacity Reservation
- For each project:
    - SBN/DRC data

4.2.5 The following data sets are required to facilitate the assessment of new Gate 2 applications and projects that are selected for connection point and capacity reservation:

- CP30 Action Plan capacity ranges, with technology and zonal breakdowns
- Detail of reservations made for undersupply
- List of projects that have met the Gate 2 Readiness Criteria
- List of projects that have been designated
- List of projects that have exited the queue since the last Gate 2 Gated Design Process
- List of projects that rejected offers in previous Gate 2 (or Gate 2 to Whole Queue) windows
- For each project:
- Technology type
- Gate 2 Readiness Date
- Date planning consent obtained (where applicable)
- SBN/DRC data
- Construction Planning Assumptions (CPAs)

5. Not Used

6. Gate 1 Assessment

This section provides an overview of the purpose of a Gate 1 application, and the connection point and capacity reservation process for eligible projects at Gate 1.

6.1 Gate 1 Assessment

6.1.1 The figure below shows the Gate 1 Assessment in the context of the overall CND process.

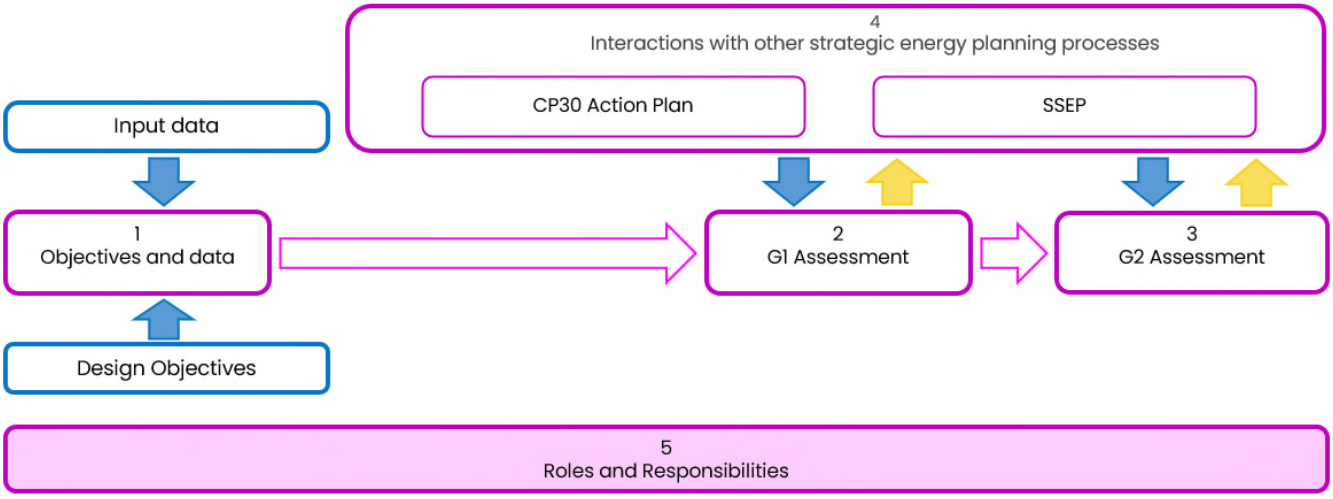


Figure 5: Gate 1 Assessment in the CND process

6.2 Purpose of a Gate 1 application

6.2.1 Applying to Gate 1 is optional, and provides three benefits:

1) It provides the User with an indication of the connection dates being offered for similar projects in the area they have applied to connect
2) It facilitates the reservation of connection points and capacity for eligible projects (see Section 6.5)
3) Informs certain types of anticipatory investment

6.2.2 Gate 1 is not applicable for relevant Small and Medium Embedded projects.

6.3 Not Used

6.4 Indicative Connection Date and Connection Location for new Gate 1 Applications

6.4.1 Users that apply to Gate 1 and are not selected for connection point and capacity reservation will receive a Gate 1 offer with an indicative date and indicative connection location. For these projects, the indicative date and indicative connection location will be determined through a desktop exercise and will be based on recent Gate 2 offers made to Users with projects of a similar technology and capacity, connecting in the same or a nearby location.

6.4.2 NESO will conduct this desktop exercise and will share preliminary results with the relevant TO for review.

6.4.3 A Gate 1 Offer is designed to give a realistic indication of the offer that could be made if a User were to apply in the next Gate 2 application window. Any variance between the indicative offer received at Gate 1 and the full offer received at Gate 2 will primarily be due to the volume of other projects that apply (and meet the Gate 2 criteria) ahead of the project in question, as well as any further network reinforcements that may be triggered by these projects.

6.4.4 Where a permitted capacity for a particular technology has been reached, the indicative date for a Gate 1 project would be set to a date later than the date of the permitted capacity period. For example, if there were sufficient storage capacity in the queue in a particular zone to meet the 2035 permitted capacity, then any storage projects exceeding that permitted capacity would receive an indicative date of 2036 or later in their Gate 1 offer. If there were cases where the 2035 permitted capacity was expected to be achieved later than 2036, the indicative date received would be later than 2036.

6.4.5 A Gate 1 offer will not determine or influence the queue position, connection date or connection location that is allocated if a User later applies to Gate 2 and receives a Gate 2 offer, except in cases where a connection point and capacity are reserved at Gate 1 (see Section 6.5).

6.5 Connection Point and Capacity Reservation at Gate 1

6.5.1 NESO may reserve connection points and capacity for as yet unknown projects (non-project specific reservations), as well as for specific Gate 1 projects that require it (project-specific reservations). Examples of the types of reservation NESO may make include those for:

a) undersupply against CP30 Action Plan 2030 permitted capacities
b) future Network Services Projects ahead of tendering
c) facilitating network competition
d) facilitating future leasing rounds initiated by The Crown Estate and Crown Estate Scotland
e) ad-hoc Interconnector, Offshore Hybrid Asset, or non-GB Generation projects

6.5.2 If a DNO identifies a relevant embedded project which could benefit from connection point and capacity reservation, they can notify NESO and submit relevant information on behalf of the project for consideration by NESO.

6.5.3 Where these reservations require a full assessment akin to a project at Gate 2, these assessments will be conducted alongside Gate 2 assessments. See Section 7.10 for how these projects will form part of the Gate 2 Tranche queue.

6.5.4 For the purposes of network studies, where capacity is being reserved (and not solely a PoC), Gate 1 reservations will be treated as though they have met Gate 2 and assigned a queue position.

6.5.5 Reservations of type (e) can be used to determine a PoC for projects at Gate 1 which are unable to meet the Gate 2 Readiness Criteria until their onshore PoC is confirmed. Where these reservations are made for and contracted with a specific User (rather than being held by NESO until assigned to a User), there will be a bilaterally agreed minimum reservation period with an annual review thereafter, to ensure the reservation is not held indefinitely.

6.5.6 The type of Gate 1 reservation in 6.5.5 will provide the detail of the reserved connection point, capacity and connection date in the Gate 1 Offer; however, this will be conditional on the project meeting the Gate 2 Criteria and accepting a Gate 2 offer prior to the reservation expiry date.

6.5.7 Non-project specific reservations will only be reserved for as long as reasonably required. Where reservations are not assigned to a project during the queue formation exercise, they will be periodically reviewed and an updated explanation of intent will be published, if and where this is necessary and not commercially sensitive. It is expected that all open reservations will also be considered as part of SSEP and revised where necessary.

6.5.8 Information about reservations made in a Gated Window will be published where possible, as outlined in Appendix 3.

6.6 Anticipatory Investment

6.6.1 NESO consider the following to be forms of anticipatory investment:

a) prioritising more economic and efficient solutions by undertaking a coordinated network design
b) progressing network build for certain Gate 1 reservations
c) forecasting future connections and progressing network build ahead of these

6.6.2 Prior to SSEP being published, the focus will be on type a) and b) to build the network that is needed to deliver the 2030 and 2035 capacities within the CP30 Action Plan. The "End of Queue study" concept described in Appendix 4 provides a view of the network at a point in time (e.g. 2035) and allows the relevant TO to begin planning and building towards that sooner. Prior to TMO4+, applications were assessed largely on a project-by-project basis and therefore more incremental reinforcements were identified to connect those individual projects. By looking out to the end of the queue, NESO and TOs can determine the 'end state' and work towards that in the most efficient way possible.

6.6.3 Projects that meet Strategic Alignment Criteria allowing them to request a connection after 2035 will also be built for and included in network design where they meet the Gate 2 Readiness Criteria.

6.6.4 For anticipatory investment type 6.6.1 b) NESO expect network build to progress for Connection Point and Capacity Reservations that have an associated User i.e. project-specific reservations. Non-project specific reservations which are to address a need (e.g. Network Services procurement, undersupply) where there is not yet an associated User will be assessed on a case-by-case basis to determine if it is appropriate to progress network build. Where the network requirements are clear and there are few alternatives to meet the requirement, then this may be recommended to proceed ahead of the reservation being issued to a User.

6.6.5 NESO expects anticipatory investment of type 6.6.1 c) to be minimal prior to the first SSEP publication, as until then the focus will be on maximising existing network capacity to 2030 and optimising the network plan to 2035. With the introduction of SSEP there will be a longer-term view of need, accompanied by the necessary spatial information to give NESO and TOs confidence that anticipatory investment will be utilised.

6.6.6 Once TMO4+ is more established, NESO believes there will be a stronger case for using Gate 1 projects that align to future strategic plans to inform anticipatory investment. For relevant embedded generation and demand, the ongoing GC139 grid code modification proposes to extend existing demand forecasts to cover generation and provide an equivalent data source for this group of projects.

7. Gate 2 Assessment

This section applies for all Gated application windows. It provides an overview of the queue formation process and Gated Design Process for new Gate 2 applications that have met the Gate 2 Readiness Criteria.

7.1 Gate 2 Assessment

7.1.1 The figure below shows the Gate 2 Assessment in the context of the overall CND process.

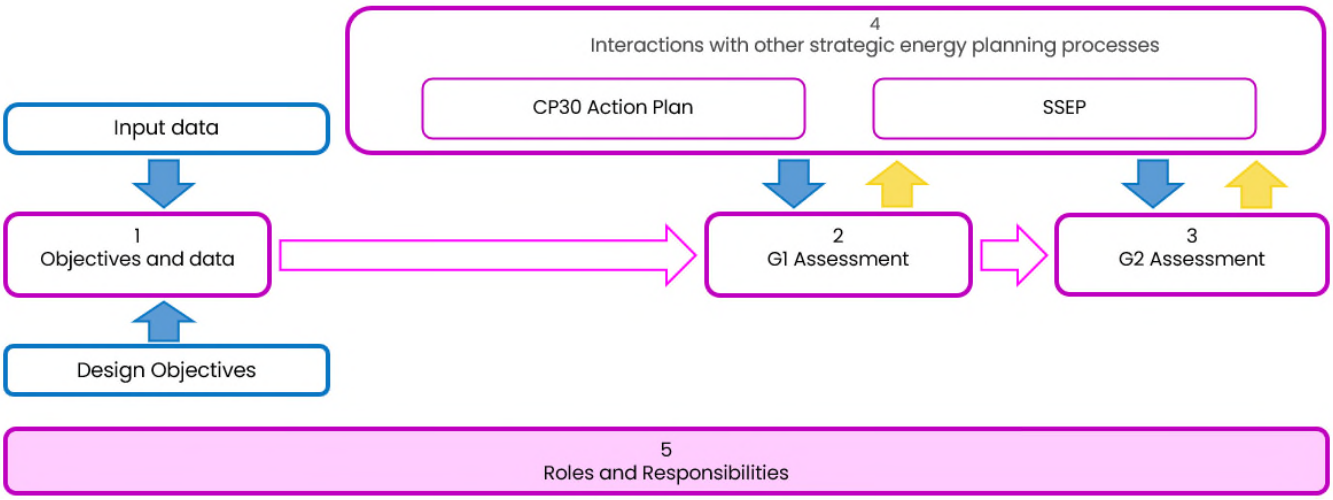


Figure 6: Gate 2 Assessment in the CNDM process

7.2 Application of the Gate 2 Strategic Alignment Criteria to the Gate 2 Tranche

7.2.1 The batch of projects that applies in a particular Gate 2 application window is hereafter referred to as the 'Gate 2 Tranche'. This Section 7 applies to all Gate 2 Tranches (i.e. all new Gate 2 applications) and is expected to apply until the SSEP is published.

7.2.2 Firstly, the Gate 2 Readiness Criteria Initial Checks are conducted on all projects in the Gate 2 Tranche. Projects that pass these Initial checks will be assessed against the Gate 2 Strategic Alignment Criteria.

7.2.3 Projects will meet the Gate 2 Strategic Alignment Criteria by either being:

a) eligible for relevant 'protections' as set out in Section 6.2 of the Gate 2 Criteria Methodology; or
b) aligned to the capacities within the CP30 Action Plan; or
c) designated as described in the Project Designation Methodology; or
d) a project not within scope of the CP30 Action Plan and of a technology type listed in Section 6.3 of the Gate 2 Criteria Methodology
The 'listed' project types for d) are also shown in **Figure 7**.

7.2.4 The relevant 'protections' for Strategic Alignment Criteria a) are also listed below for reference.

- Protection Clause 2b: Projects which are significantly progressed
- Protection Clauses 3a and 3b: Projects which obtain planning consent after closure of the CMP435 Gated Application Window

7.2.5 Projects eligible for Protection Clause 2b and 3a will be guaranteed a place in the Gate 2 Tranche queue and will receive a Gate 2 offer, even if the project exceeds the zonal or GB permitted capacity for its technology type. Projects eligible for Protection Clause 3b will only be required to adhere to the GB total permitted capacity for the relevant technology. Where there is a zonal permitted capacity outlined for the technology, and this is exceeded, the project will still receive a Gate 2 offer provided it does not exceed the GB total permitted capacity. See **Section 6.2** of the Gate 2 Criteria Methodology for further information.

7.2.6 To determine the projects that meet Strategic Alignment Criteria b), the capacity ranges outlined in the Connections reform annex of the CP30 Action Plan will be used for each type of in-scope technology. These capacity ranges cover 2030 and 2035. The annex also outlines the Transmission and Distribution 'zones' applicable to some technologies. For batteries, the network is divided into 11 transmission zones and 8 distribution zones. For onshore wind and solar, the zonal split differs in granularity between transmission and distribution between the 2030 and 2035 time horizons.

7.2.7 Figure 7 shows the technologies that are in and out of scope of the CP30 Action Plan. It also shows the breakdown of capacity ranges for each in-scope technology, and whether they are GB-wide or zonal. Unless they also meet Strategic Alignment Criteria a), c) or d), projects in scope of the Strategic Alignment Criteria b), must be assessed against the 2030 and 2035 permitted capacities as outlined in Section 7.4 before they can be deemed to have met the Gate 2 Strategic Alignment Criteria.

Technology	In scope of CP30 Action Plan?	Breakdown in CP30 Action Plan
Offshore Wind	Yes	GB-wide
Onshore Wind	Yes	Zonal[1]
Solar	Yes	Zonal[2]
Nuclear	Yes	GB-wide
Low Carbon Dispatchable Power	Yes	GB-wide
Unabated Gas	Yes	GB-wide
Long Duration Energy Storage (LDES)	Yes	GB-wide
Batteries	Yes	Zonal
Interconnectors	Yes	GB-wide

Technology	In scope of CP30 Action Plan?
Transmission-Connected Demand	No
Wave	No
Tidal	No
Run-of-river Hydro	No
Geothermal Power	No
Non-GB Generation	No
Reactive Compensation	No

Figure 7: Technologies in and out of scope of the CP30 Action Plan and breakdowns for those in scope

[1] Onshore Wind has a multi-zone breakdown to 2030 and then is amalgamated to a two-zone split (Scotland, England & Wales) for 2031-2035.

[2] Solar zones are amalgamated for 2031-2035, such that the transmission zone boundaries are used to create combined Transmission-Distribution zones, i.e. there is no distinction between transmission and distribution projects within the transmission zone boundary.

7.2.8 For technologies with one GB-wide zone and technologies with no distinction between transmission and distribution capacities, NESO will align the combined transmission and distribution queue to the CP30 Action Plan and determine which projects meet the Gate 2 Strategic Alignment Criteria.

7.2.9 For technologies with zonal breakdowns at transmission and distribution, NESO will align the transmission queue to the CP30 Action Plan and DNOs will provisionally align their distribution queues to the CP30 Action Plan. DNOs will share provisional allocations with NESO for final determination of which projects meet the Gate 2 Strategic Alignment Criteria. Note this differs to the arrangements for Transmission Connected IDNOs. See Section 7.6 for more detail on the DNO and Transmission Connected IDNO responsibilities in this process.

7.2.10 NESO and DNOs will form zonal 'sub-queues' for each technology to facilitate this alignment. The alignment will be conducted in such a way that the zonal sub-queues will merge with the GB-wide queue, i.e. after alignment is conducted, the projects in zonal sub-queues will all have their place in the GB-wide queue relative to projects in other zones or of other technology types.

7.2.11 The capacity breakdowns outlined in the CP30 Action Plan for each technology type also include capacity that is installed and operational.

7.2.12 Where the CP30 Action Plan outlines a capacity range, such as the **"DESNZ 2030 Clean Power Capacity Range"** and the **"2035 FES-derived Capacity Range"** NESO will deduct from the high end of the range.

7.2.13 **Figure 8** shows an example of how the permitted capacity for Offshore Wind would be calculated. This example uses illustrative figures for the capacity of projects that are in the queue at the closure of the Gated Application Window. This figure will include all Gate 1 Connection Point and Capacity Reservations except those for undersupply.

7.2.14 For determining zonal permitted capacities, there may be cases where these capacities have been adjusted in a previous Gate 2 window, as is possible under the processes outlined in Appendix 5 and Appendix 6. In these cases, the adjusted zonal capacities will be used instead of the plan figures, noting this will still maintain alignment with the GB total permitted capacity.

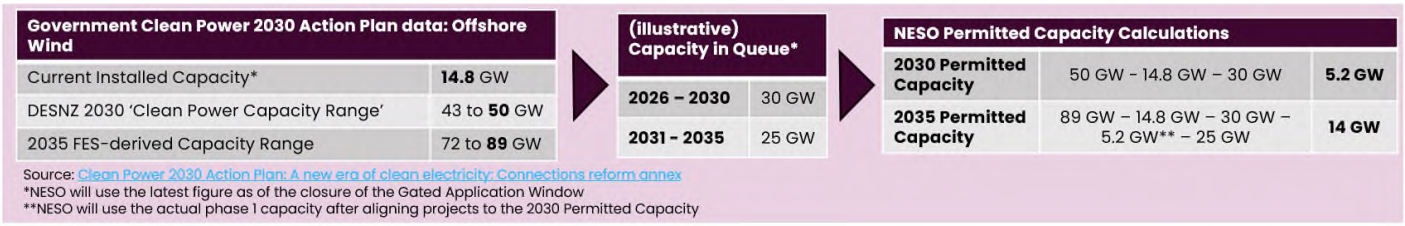


Figure 8: Example of calculating the permitted capacities for 2030 and 2035

7.2.15 Section 7.4 shows an example of how NESO and DNOs will assess projects against the 2030 and 2035 permitted capacities.

7.2.16 Projects that meet Strategic Alignment Criteria d), i.e. are of a technology type listed in **Figure 7** as not in scope of the CP30 Action Plan, will follow a similar process to that outlined in Section 7.4. There will however not be 'permitted capacities' for these technology types. See Section 7.6 for more information.

7.3 Ordering the Gate 2 Tranche for Strategic Alignment checks

7.3.1 The projects within each Gate 2 Tranche that meet the Gate 2 Criteria will be added to the end of the existing queue, except in the following circumstances:

a) Where projects address previously identified undersupply against the 2030 permitted capacities and can take advantage of a reservation for undersupply;
b) Where projects are applying to Gate 2 to secure their Gate 1 Connection Point and Capacity Reservation; or
c) Where projects are selected for capacity reallocation following termination of another project.

7.3.2 Designated Projects will be added to the front of the Gate 2 Tranche if prioritisation is required, ordered as determined by NESO.

7.3.3 If a User has obtained planning consent and can evidence this in the Gated Application Window, then this will result in their project being prioritised in the Gate 2 Tranche, behind prioritised Designated Projects and ahead of projects that have not yet obtained planning consent. These projects will be ordered by the date planning consent was obtained.

7.3.4 In addition to the prioritisation in 7.3.3, Users that have obtained planning consent and who submitted their application for planning consent prior to the closure of the CMP435 Gated Application Window will be eligible for Protection Clause 3b and their project will only be required to align to the **GB total** permitted capacity to 2035 in the CP30 Action Plan. The project will be deemed to have met the Strategic Alignment Criteria even if this exceeds the **zonal** permitted capacity to 2035 (for technologies where this exists). Users that have obtained planning consent and submitted their application for planning consent on or before 20th December 2024 will be eligible for Protection Clause 3a, and they will be allowed to exceed both the **zonal** and **GB total** permitted capacities.

7.3.5 All other projects in the Gate 2 Tranche will be ordered by the date the project achieved the Gate 2 Readiness Criteria, (e.g. the date on which the User secured the requisite land rights). For the purposes of this document and in the context of queue ordering only, this will hereafter be referred to as the **Gate 2 Readiness Date**.

7.3.6 Where two or more projects have the same Gate 2 Readiness date or obtained planning consent on the same date, they will be separated based on the date and time their Gate 2 application was submitted. The User with the earliest Gate 2 application submission will be given priority in queue ordering.

7.3.7 Projects which are selected for Gate 1 Connection Point and Capacity Reservation will also be assessed against the Gate 2 Strategic Alignment Criteria where and to the extent appropriate. See Section 6.5 for more information on Gate 1 Connection Point and Capacity Reservation.

7.3.8 **Figure 9** shows the process for ordering projects for alignment against the CP30 Action Plan to address any undersupply. Once the Gate 2 Tranche for each technology in each zone is ordered, projects will be assessed against the 2030 and 2035 permitted capacities. This process is only applicable to projects being assessed against Strategic Alignment Criteria a) and b).

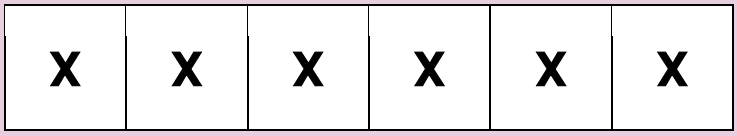
7.3.9 For directly connected projects, their Transmission Entry Capacity (TEC) will be used when determining alignment to the CP30 Action Plan. See Section 7.6 for how relevant embedded projects will be treated, and Section 7.8 for how hybrid or co-located projects will be treated.

7.3.10 Projects that are Designated and therefore meet Strategic Alignment Criteria c) will be ordered as shown in Section 7.5.

7.3.11 The process for projects that are not in scope of the CP30 Action Plan and therefore meet Strategic Alignment Criteria d) is explained in Section 7.6.

7.3.12 The approach to ordering Gate 1 Connection Point and Capacity Reservations is shown in Section 7.10.

1. Identify all the Gate 2 applications for each technology in each zone (e.g. Solar in Transmission Zone T1). These projects are considered 'unordered' at this stage.



2. Identify any projects which are 'protected' under Strategic Alignment Criteria a) and/or projects for which the User has obtained planning consent. Order these by the date on which planning consent was obtained or the 'support contract' was signed*.

3. Order all other projects by their Gate 2 Readiness Date.

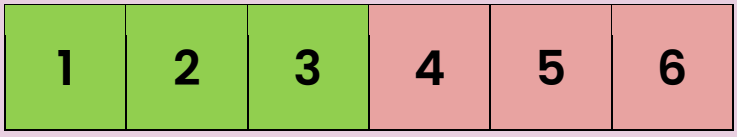


Figure 9: Ordering the Gate 2 Tranche for Strategic Alignment Checks

* Where a project has planning consent and a support contract in place, the earliest of these two dates will be used.

7.4 Aligning the Gate 2 Tranche to the CP30 Action Plan

7.4.1 Figure 10 shows the process for aligning the ordered Gate 2 Tranche to the 2030 and 2035 permitted capacities to address any undersupply.

1. Order the zonal technology sub-queue as shown in Section 7.3

2. Allocate projects to a Phase depending on their requested connection date.

3. Determine the point in the Phase 1 queue where the 2030 permitted capacity is reached. Any projects exceeding the permitted capacity are moved to Phase 2, retaining the relative queue order from step 1.

4. Determine the point in the Phase 2 queue where the 2035 permitted capacity is reached. Any projects exceeding the permitted capacity will not receive a Gate 2 Offer, unless 'protected' and meeting Strategic Alignment Criteria a).

5. Recombine the Phase 1 sub-queue with the Phase 1 GB-wide queue, ordered by the date planning consent was obtained or the Gate 2 Readiness Date as appropriate

6. Recombine the Phase 2 sub-queue with the GB-wide queue, ordered by the date planning consent was obtained or the Gate 2 Readiness Date as appropriate

7. Add the Phase 2 queue to the end of the Phase 1 queue.

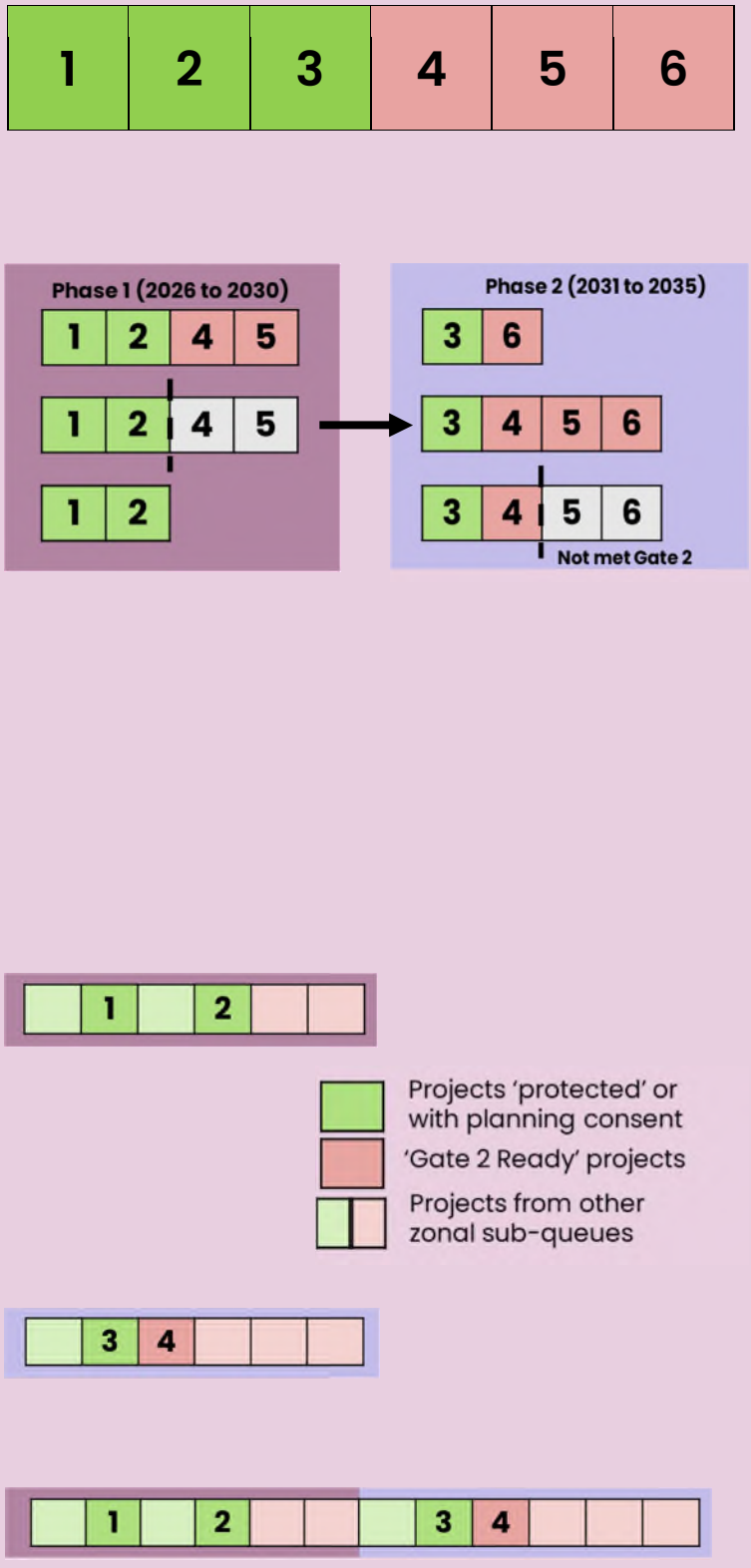


Figure 10: Aligning the Gate 2 Tranche to the CP30 Action Plan

7.5 Designated Projects in the Gate 2 Tranche

7.5.1 NESO may determine that Designated Projects may be prioritised and brought forward in queue to enable more timely connections. **Figure 11** shows how Designated Projects will be treated if prioritisation is required. This will be conducted on the 'GB-wide' queue, rather than individual zonal sub-queues. If prioritisation is not required, Designated Projects will follow the process outlined in Section 7.4.

7.5.2 Where Designated Projects require a connection in 2030 or earlier to deliver the benefits they have been designated for, they will be added to the front of the Phase 1 queue.

7.5.3 Designated Projects that cannot connect in 2030 or earlier will be eligible for prioritisation to the front of the Phase 2 queue.

7.5.4 Projects that are designated under the 'Very long lead times' category will be those where Users are seeking connection dates beyond 2035. Where these are identified, they will be added to the end of the Phase 2 queue.

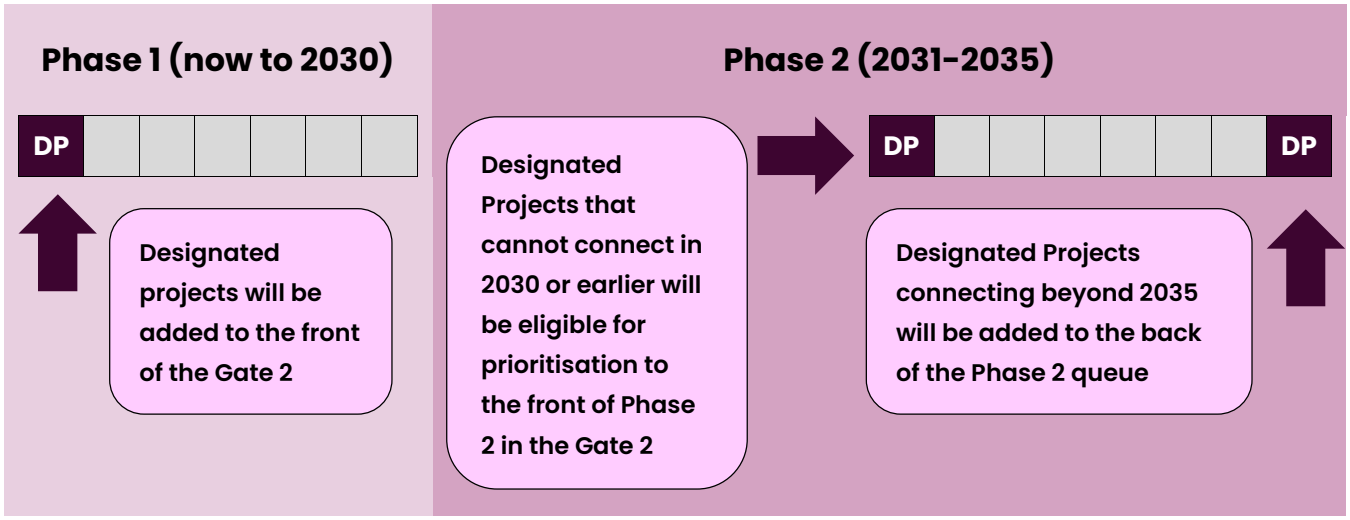


Figure 11: Designated Projects in the Gate 2 Tranche

7.6 Relevant embedded generation in the Gate 2 Tranche

7.6.1 The exercise in Section 7.4 will be provisionally conducted by each DNO for their zone, using sub-queues of Small, Medium and Large embedded projects. Developer Capacity or TEC (as appropriate) will be used when determining alignment to the CP30 Action Plan.

7.6.2 DNOs will recommend those projects which, through their assessment, they believe have met the Gate 2 Strategic Alignment Criteria. NESO will then review this alongside all the other zonal allocations at distribution and transmission and determine any necessary substitutions between zones. See Section 7.12 for more information on substitution.

7.6.3 Large embedded Users will be included in the DNO provisional alignment to the CP30 Action Plan and validated by NESO. NESO are responsible for conducting the Gate 2 Readiness Criteria checks for these projects and so will amend the provisional alignment accordingly if it is found that a Large embedded project does not meet the Gate 2 Readiness Criteria.

7.6.4 The projects of Users who have an agreement with Transmission Connected Independent Distribution Network Operators (IDNOs) will contribute towards the distribution zone that aligns with the geographic area in which they are requesting to connect. NESO will however conduct the CP30 Action Plan alignment on behalf of Transmission Connected IDNOs, at the same time as reviewing the relevant DNO's provisional allocation. See **Section 8** of the Gate 2 Criteria Methodology for more information on the role of DNOs and Transmission Connected IDNOs in checking evidence in relation to the Gate 2 Strategic Alignment Criteria.

7.6.5 For the avoidance of doubt NESO will be the responsible party for carrying out the final determination of projects which are aligned to the CP30 Action Plan, and all other decisions regarding Gate 2 Strategic Alignment. Where these decisions differ from the DNO recommendation, this will be discussed with the relevant DNO.

7.7 Projects not in scope of the CP30 Action Plan in the Gate 2 Tranche

7.7.1 Transmission connected demand and other out of scope technologies listed in Section 7.2 that have met the Gate 2 Readiness Criteria will be assessed and provided with a Gate 2 offer. These projects will be sorted into Phase 1, Phase 2, or after Phase 2 (2035+) depending on their requested connection date and their Gate 2 Readiness Date (or the date planning consent was obtained, if applicable). The MW volume of these projects in each phase will however not be bound by a permitted capacity as is the case for projects in scope of the CP30 Action Plan.

7.8 Hybrid projects in the Gate 2 Tranche

7.8.1 Hybrid projects will be managed according to how they interact with the system. If a hybrid project comprising of storage and an additional generating technology intends only to export to the transmission system (i.e. import capacity is behind the meter), it will only be considered as contributing towards the CP30 Action Plan permitted capacity for the additional technology. The same logic will apply to "import only" i.e. an energy storage system that is co-located with demand and only imports directly from the network (and not via the energy storage system) should not contribute to the energy storage system permitted capacity. This means that where an import-only energy storage system is co-located with demand, the energy storage system will not contribute towards the permitted capacities for the relevant energy storage system. In both cases above (export-only storage system with generation; and import-only storage system with demand) NESO will set the export or import capacity (as appropriate) of the energy storage system at 0MW. If a hybrid project comprising of storage and an additional technology (or technologies) intends to both import and export to the transmission system, it will be considered as contributing to the CP30 Action Plan permitted capacities for both storage and the additional technology (or technologies).

7.8.2 For each generating technology in a hybrid project, the contributing capacity will be taken as the lower of the Transmission Entry Capacity (or Developer Capacity where applicable) of the project and the installed capacity of the technology type.

7.8.3 Where the capacity of one or more technologies exceeds the 2035 permitted capacity, then that technology element of the hybrid project will not receive a Gate 2 offer. This represents the same treatment as any other project that exceeds the 2035 permitted capacity.

7.9 Gated Modification Applications in the Gate 2 Tranche

7.9.1 Based on the Gated Modification Guidance, if the modification is Gated, it will need to be applied for in the next Gated Application window. If the modification is not Gated, it can be applied for at any time.

7.9.2 If the Gated Modification involves a technology change, whether that be addition or removal, its queue position may be subject to change as set out in the Material Technology Change Guidance.

7.9.3 This change in queue position could result in capacity becoming available, which can be reallocated as per the process outlined in Sections 7.22-7.25.

7.10 Gate 1 reservations in the Gate 2 Tranche

7.10.1 Once the queue order has been determined for the Gate 2 Tranche, any Gate 1 Connection Point and Capacity Reservations will be added to the Tranche as shown in **Figure 12**, grouped depending on whether the reservation is for an onshore or offshore project.

7.10.2 Within each of the onshore and offshore groupings, projects will be ordered as determined by NESO, with consideration given to the requested connection date of projects that have applied to Gate 1 (see Section 6.5 for examples of reservation types).

7.10.3 If there occurs a scenario where an offshore project applies directly to Gate 2, having for example agreed an ad-hoc lease with The Crown Estate or The Crown Estate Scotland, then this project would also be grouped with the Offshore Gate 1 reservations.

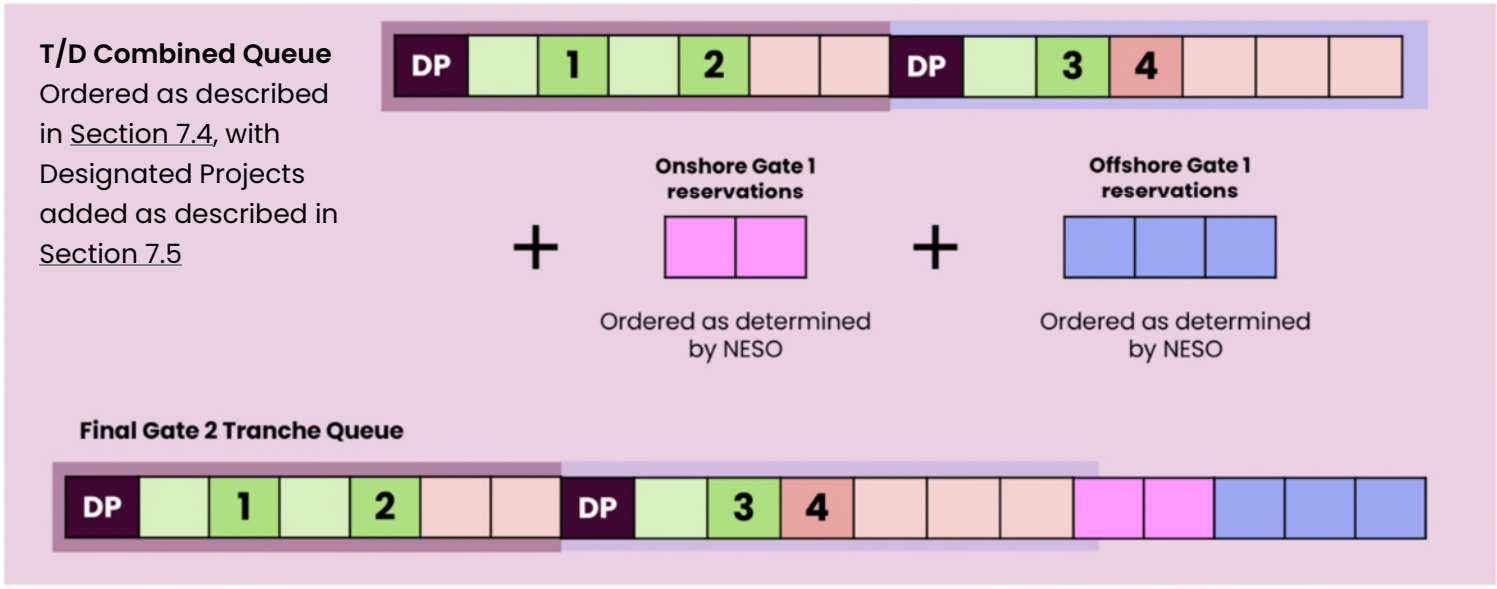


Figure 12: Determining queue position for Gate 1 reservations

7.11 Utilising previous undersupply reservations

7.11.1 Where there is undersupply of a particular technology in a particular zone, and capacity and/or a connection point has previously been reserved in relation to this undersupply, then the project(s) added to Phase 1 to address that undersupply will take the queue position of the 'placeholder project' holding the reservation.

7.11.2 The project(s) addressing the undersupply will then be assessed accordingly from that queue position. The 'gap' left in Gate 2 Tranche Queue is then closed as shown in **Figure 13**.

7.11.3 As the placeholder project has already been assessed and associated works have been identified, the project addressing the undersupply will be compared to the placeholder project to determine if further studies are required. This may be the case where for example the project is connecting to a different site to where the reservation was made.

7.11.4 If further studies identify additional works are required, these will be attributed to the project addressing the undersupply. In the event that these additional works have a consequential impact on existing projects behind this project in the queue, the existing agreements of these projects will be protected.

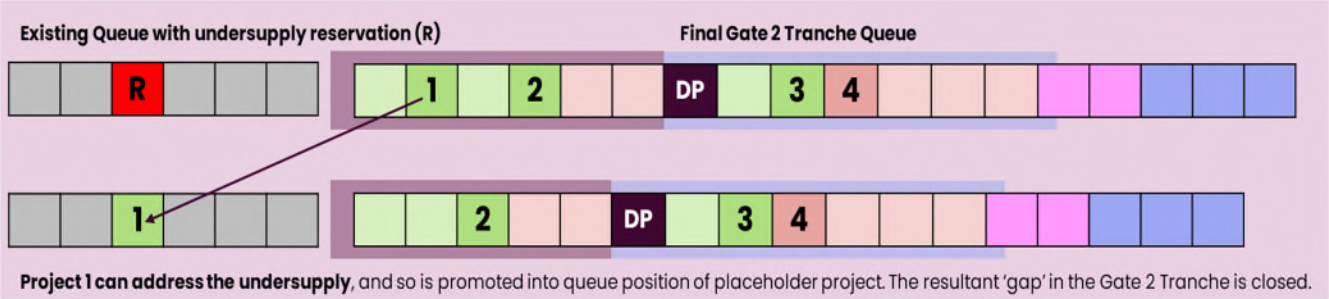


Figure 13: Determining queue position for undersupply reservations

7.12 Rebalancing Zonal Capacities and Zonal Substitutions

7.12.1 Where required and where possible, NESO will rebalance zonal capacities and conduct substitutions to manage cases of over and under-supply.

7.12.2 An example of rebalancing to account for protections under Strategic Alignment Criteria a) is shown in Appendix 5.

7.12.3 An example of substitutions to address undersupply is shown in Appendix 6.

7.12.4 Both rebalancing and substitutions will only be permitted where the criteria outlined in Appendix 6 (A6.2) are met.

7.12.5 Any adjustments made as a result of rebalancing or substitutions will not impact Users with an existing agreement who were assessed in a previous Gated Design Process. Adjustments will only consider projects in the current Gate 2 Tranche.

7.13 Publishing the outcome of the Gate 2 Strategic Alignment exercise

7.13.1 Once both the Gate 2 Readiness and Gate 2 Strategic Alignment Criteria have been applied, NESO will publish the outcome of this activity in a sufficiently anonymised and amalgamated fashion. This will inform existing and prospective Users of the revised status of each zone for each technology (e.g. showing any remaining permitted capacities) and inform future applications to Gate 2.

7.13.2 The type of information published is included within Appendix 3.

7.14 Approach to the Gated Design Process

7.14.1 The stage of process in which projects are assessed is referred to as the Gated Design Process.

7.14.2 The Phase 1 and Phase 2 queues for the Gate 2 Tranche will be formed and combined into the GB-wide queue as shown in Section 7.10. This GB-wide queue will contain Designated Projects and projects not in scope of the CP30 Action Plan. From here, NESO and TOs can apportion the queue into regions appropriate for studies.

7.14.3 Once a regional study queue has been formed, NESO and the TOs can prepare for assessment of these projects. NESO first creates Construction Planning Assumptions (CPAs), and will confirm which projects should be assessed against which set of CPAs. This determines the scenarios and associated generation background against which the projects in question will be studied. These CPAs are then provided to TOs to use in their connection studies.

7.14.4 Through studying the network under several scenarios (e.g. winter case, summer outage case, high import, high export etc.), the relevant TO will determine the limitations of the network with the proposed connection in place. The types of assessments undertaken within connection offer timescales will include thermal, fault level, infeed loss, and pre/post fault assessments. The relevant TO may identify specific cases where additional studies are conducted within these timescales (e.g. NPS, rotor angle or voltage stability) however these will normally be conducted at a later date, prior to connection.

7.14.5 The relevant TO will decide whether it is beneficial to conduct an 'end of queue study' to determine the long-term view of network requirements to 2035 and identify the most optimal reinforcements to be delivered within the 2035 time horizon. This is likely to be the case in zones where there are a significant number of projects in the Gate 2 Tranche. See Appendix 4 for an explanation of the "End of Queue" study concept and how this would be approached for a TO study region. For any offshore projects in the Gate 2 Tranche, a regional offshore design as described in Section 7.15 could then be conducted in parallel to the 'incremental studies' as described in Appendix 7.

7.14.6 In zones where there are a limited number of projects in the current Gate 2 Tranche, the relevant TO may determine that an "End of Queue" study is not required. In this case, the relevant TO will proceed with the 'incremental studies'. For any offshore projects in the Gate 2 Tranche, a regional offshore design will be conducted once the incremental studies are complete.

7.14.7 The relevant TO will then also determine whether an "End of Queue" study is required for any projects requesting connection beyond 2035 (limited to projects that meet strategic alignment criteria a) or d), and 'very long lead time' Designated Projects under strategic alignment criteria c)).

7.14.8 For the 'incremental' studies, TO discretion will be applied to determine when it is suitable to group projects for assessment. In cases where a group of projects are found to trigger a reinforcement, further studies can be conducted as required to determine which projects in that group trigger the reinforcement.

7.14.9 TOs will then propose any additional reinforcements required to facilitate the connection.

7.14.10 Of the reinforcements identified, how these are categorised as enabling and wider works is covered in the **Connect and Manage Guidance**.

7.14.11 Categorisation of works for charging purposes is covered in **CUSC Section 14**.

7.15 Regional Offshore Design

7.15.1 Ordering the queue as shown in Section 7.10 facilitates the collective assessment of ad-hoc offshore projects requiring connection point and capacity reservation at Gate 1. These offshore projects must be considered separately from the rest of the Gate 2 Tranche queue due to the additional assessment required to determine their onshore interface/connection point. Grouping these projects enables a 'regional offshore design' to be developed and different onshore interface/connection point options to be considered without impacting the rest of the queue. See Appendix 4 for further explanation of how this can be conducted in parallel with 'incremental studies'.

7.15.2 The **'regional offshore design'** will resemble that of the previous Connection and Infrastructure Options Note (CION) process, whereby several connection options are assessed from an economic and environmental perspective in addition to assessing their impact on the overall transmission system.

7.16 Indicative Offshore Design Exercise

7.16.1 Offshore projects which are within scope of any new The Crown Estate and/or Crown Estate Scotland leasing rounds in future will be assessed via a separate process. This separate process is proposed to be an **'Indicative offshore design exercise'** which will be a precursor to the CSNP and will consider theoretical projects likely beyond 2035. This indicative design will then be refined and finalised through the CSNP options assessment.

7.16.2 As of December 2024, this 'indicative offshore design exercise' proposal is being consulted on as part of the CSNP high level methodology principles (See Chapter 4 of Centralised Strategic Network Plan High Level Methodology Principles– December 2024).

7.16.3 It is also proposed that this 'indicative offshore design exercise' includes interconnectors. If, following consultation, interconnectors are removed from the scope of this exercise, then they will instead be captured through the regional offshore design described in Section 7.14 above.

7.16.4 As these projects will be theoretical, the Gate 1 Connection Point and Capacity Reservation process will be used to facilitate this exercise at the point this requires a 'placeholder' in the connections queue. See Section 6.5 for further detail on non-project specific reservations.

7.16.5 It is anticipated that these reservations will be held until after SSEP is published and applications for connections beyond 2035 are invited.

7.17 Assessment of relevant embedded generation

7.17.1 Assessments will also be undertaken at Grid Supply Points (GSPs) to determine any further local or GSP works required to connect relevant embedded projects. These assessments will enable TOs to identify requirements for e.g. new Super Grid Transformers (SGTs).

7.17.2 Technical Limits will continue to be used to facilitate the connection of relevant embedded generation before transmission reinforcement works have been completed.

7.17.3 In areas where Technical Limits are not currently in place, other design variations will be explored to facilitate earlier connections under temporary restrictions to availability.

7.17.4 Projects eligible to connect under Technical Limits are determined by the principles outlined in Appendix 8. The connection date requested in the User's Gate 2 application will be the earliest temporary non-firm connection date that will be offered.

7.18 Design Variations and Interim Restrictions on Availability

7.18.1 Users may continue to request design variations as part of their Gate 2 application, which may be facilitated through interim and/or enduring restrictions on availability.

7.18.2 The User may provide detail within their application of the design variations they would like to be considered for their connection. NESO and the relevant TO will take this into account however may also consider alternative variations where appropriate.

7.18.3 NESO and TOs will determine which options are appropriate for the User and their connection and advise the User of their options as early as possible within the design process, prior to offer.

7.18.4 The Accelerated Storage initiative will be considered as an option in the above, where applicable.

7.18.5 There may be cases where a project's firm connection date, identified through studies, is not sufficient to align to the permitted capacity it was intended to address undersupply for. For example, where a project addressing undersupply against the 2030 permitted capacity can only be offered a firm connection in 2031, the TO may undertake further assessments to determine if interim restrictions on availability will enable the project to connect within the permitted capacity time horizon on a "non-firm" basis.

7.19 Derogations

7.19.1 In limited circumstances there may be a requirement for NESO and the relevant TO to request, from the Authority, a derogation from SQSS in order to facilitate a connection.

7.19.2 In the case in 7.19.1, any affected User will be notified when this is initially identified within the Gate 2 assessment period and the implications of this will be discussed with the User prior to an offer being issued.

7.20 Competition and Contestability

7.20.1 Where early or late competition is identified by a process other than Network Services Procurement (such as CSNP), the Connection Point and Capacity Reservation process may potentially be used to make any necessary reservations, such as bays, to facilitate the connection of the Competitively Appointed Transmission Owner (CATO) project.

7.20.2 Following the completion of each Gated Design Process, TOs will be required to identify and inform NESO of any works which are 'separable' and could be eligible for network competition.

7.20.3 Users may continue to request contestable assets for their connection under TMO4+ in accordance with the CUSC. This request can be made upon application to Gate 2, or application to Gate 1 where eligible for Connection Point and Capacity Reservation.

7.20.4 For the avoidance of doubt, contestable connections must still meet the Gate 2 Readiness and Gate 2 Strategic Alignment Criteria.

7.21 Connection Bays

7.21.1 As a result of Gate 1 Connection Point and Capacity Reservation, bays may be reserved for particular projects, or for projects as yet to be identified.

7.21.2 Where appropriate, NESO and TOs will consider opportunities for users to share bays, particularly where this facilitates earlier and/or more efficient connections. Considerations will be made in line with **Bay Sharing Policy**.

7.22 Capacity reallocation at Gate 2

7.22.1 There are several circumstances where a project with a Gate 2 agreement, or in the process of receiving a Gate 2 offer, may exit the queue. These include failing Gate 2 Criteria **Detailed** Checks, self-termination, NESO termination (due to missed Queue Management milestones), and rejection of a Gate 2 offer. When a project exits the queue, capacity will be "freed up" and NESO will endeavour to reallocate this capacity or offer advancement to the next most suitable project that can make use of it.

7.22.2 Where possible, NESO will endeavour to reallocate capacity as part of the next Gated Design Process. However, due to the overlap between the offer acceptance period of window n and the Gated Design Process of window n+1, this may not be possible until window n+2.

7.22.3 The ideal method of reallocating capacity would be to reassess every project in the queue behind the exiting project, to determine if their connection offer could be improved. However, it is not efficient to conduct this every time a project exits the queue, and so a more practical approach must be taken. The alternative approach outlined in this section is intended to minimise the impact on other projects in the queue when capacity is reallocated. For capacity reallocation at transmission, NESO will review the projects that are behind the exiting project in the queue and work with the relevant TO to identify the most suitable project(s) for reallocation.

7.22.4 Capacity reallocation for transmission and distribution will be managed separately, to allow DNOs to manage capacity reallocation independently as outlined in Section 7.25. However, if there are cases where a transmission project exits the queue and there are no suitable transmission projects to which the capacity can be reallocated, then NESO will engage with the DNO to understand the potential for reallocating capacity to the next distribution project(s) in the GB-wide queue. Similarly, DNOs and Transmission Connected IDNOs will be expected to engage where capacity reallocation between their projects is appropriate.

7.22.5 Users with a Gate 2 Agreement will be able to indicate their ability to advance their connection date. Users will be advised to update this declaration at regular intervals and it will be taken into account when determining how capacity should be reallocated. Suitable projects may also be approached by NESO to discuss the potential for advancement as a result of capacity reallocation. This could involve discussing the possibility of reducing capacity to align to the MW capacity made available by another project exiting the queue.

7.22.6 No contractual changes will be made to any other projects as a result of capacity reallocation i.e. when Project A exits the queue, reallocating its capacity will not result in a negative impact on Project B, the next project in the queue (and so on).

7.22.7 Until the publication of SSEP, capacity reallocation will primarily be used in cases where projects that align to the 2030 permitted capacity exit the queue. If projects that are aligned to the 2035 permitted capacity exit the queue, capacity will only be reallocated in limited circumstances. See Section 7.24 for how capacity reallocation for these projects will be managed.

7.23 Capacity reallocation for transmission - connected projects connecting in 2030 or earlier

7.23.1 The following approach applies to transmission connected projects. See Section 7.25 for capacity reallocation for relevant embedded projects.

7.23.2 If a 2030 project exits the queue, capacity will be reallocated to a 2035 project that is already in the queue where possible.

7.23.3 The capacity will normally be reallocated to the next project that best aligns with the following guidelines:

a) Is of the same technology as the exiting project
b) Is in the same CP30 Action Plan zone as the exiting project
c) Is also directly connected to the Transmission network
d) Is of the same or less capacity as the exiting project
e) Can make use of the available capacity i.e. will not have a significantly different impact on constraints, or require new network reinforcement to connect

7.23.4 There are limited circumstances under which capacity may be reallocated to a project that does not align with all the guidelines in 7.23.3, namely:

a) Where another technology is more undersupplied against its 2030 permitted capacity and there are 2035 permitted capacity projects of this technology that can advance
b) Where a Designated Project has not been sufficiently advanced to address the need it was designated for
c) Where the project is of slightly greater capacity and still adheres to 7.23.3 e)
d) Where there are no suitable transmission connected projects for reallocation, and there are suitable distribution projects

7.23.5 This reallocation will mean the 2030 zonal capacity for that technology is 'topped up' to maintain alignment with the 2030 permitted capacity. This will leave a 'gap' in place of the 2035 project's original queue position. This capacity will in turn be allocated in line with Section 7.24. Where this cannot be achieved within the same application window, the 'gap' in the queue will be preserved until the following application window.

7.23.6 This approach will apply from the first CMP434 Gated Process and is expected to apply until the SSEP is published.

7.24 Capacity reallocation for transmission - connected projects connecting between 2031 and 2035

7.24.1 The following approach applies to transmission connected projects. See Section 7.25 for capacity reallocation for relevant embedded projects.

7.24.2 NESO and DNOs will align the Gate 2 Tranche queue to the 2030 and 2035 permitted capacities. Where, after zonal substitution (if applicable), undersupply remains against this permitted capacity, Users will be able to apply in the next application window to address this undersupply.

7.24.3 Where a Phase 2 project has been advanced to replace a Phase 1 project, the Phase 2 project will be replaced by a new project applying to Gate 2 in a future application window. Any remaining undersupply in 2035 will be recalculated to account for projects that advance to Phase 1.

7.24.4 Where a Phase 2 project exits the queue entirely, **NESO will assess the reason for the project exiting the queue and allow SSEP to determine the optimal replacement for this capacity**. The undersupply calculated based on the initial queue alignment will not be adjusted to account for projects exiting the queue.

7.24.5 In the case of 7.24.4, acceleration of other Phase 2 projects that can make use of the capacity will be considered where possible. The project to be accelerated will be selected in line with the guidelines in sections 7.23.3 and 7.23.4.

7.24.6 This approach will apply from the first CMP434 Gated Process and is expected to apply until the SSEP is published.

7.25 Capacity reallocation for relevant embedded projects

7.25.1 Capacity reallocation for relevant embedded projects will continue to follow the existing Capacity Reallocation Process for Distribution, which will be updated to account for the CP30 Action Plan as described in sections 7.25.2 to 7.25.5.

7.25.2 Reallocation will only be permitted where it does not result in a CP30 Action Plan permitted capacity being exceeded. As such, the current process will be followed until this point, with capacity being reallocated to the next project that can be accommodated within the bounds of the scaling factors.

7.25.3 If reallocation is to another project that aligns to the same phase as the exiting project (either Phase 1 or Phase 2), then this does not need to be a project of the same technology type, as this reallocation will not increase the total capacity level of that technology within the time horizon.

7.25.4 When a Phase 1 project exits the queue, where possible, capacity will continue to be reallocated until it facilitates a project from Phase 2 being advanced to align to Phase 1. This advancing project can only be a project of the same technology type as the original exiting project, or a different technology which is also undersupplied against the 2030 permitted capacity.

7.25.5 Where a Phase 2 project exits the queue, acceleration of other Phase 2 projects that **already have a Gate 2 agreement** will also be considered where possible.

7.25.6 This approach will apply from the first CMP434 Gated Process and is expected to apply until the SSEP is published.

8. Interactions with Strategic Energy Planning Processes

This section provides an overview of the interactions between the CP30 Action Plan, SSEP, tCSNP and the Connections Network Design process.

8.1 Interactions with strategic energy planning processes

8.1.1 The figure below shows the interaction with the CP30 Action Plan and SSEP, in the context of the overall CND process.

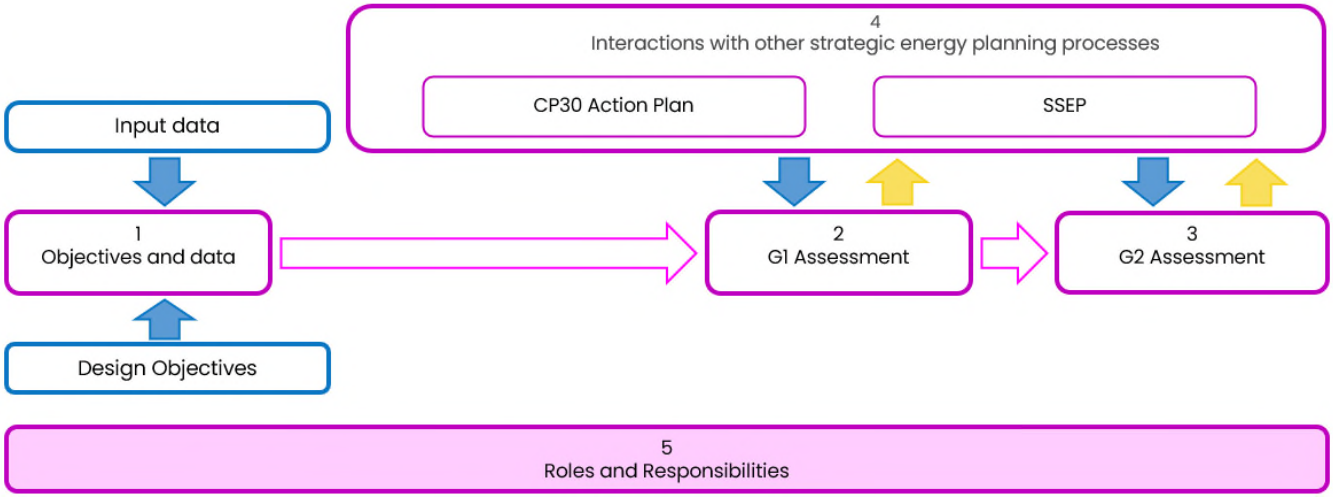


Figure 14: Interactions with strategic energy planning processes

8.2 Interaction between the CP30 Action Plan and CNDM

8.2.1 The interactions with the CP30 Action Plan and approach to aligning the connections queue to this have been described throughout this document. If any amendments are made to the CP30 Action Plan or policy referenced therein, NESO will update the CNDM accordingly where required.

8.3 Interaction between SSEP and CNDM

8.3.1 The first application window that opens following publication of the SSEP will align the queue to the permitted capacity outlined in the SSEP.

8.3.2 Where an SSEP permitted capacity is lower than that in the CP30 Action Plan, any Users with agreements that align to the CP30 Action Plan and not to SSEP will retain their agreements. **The SSEP permitted capacity will not be applied retrospectively to amend existing connection agreements.**

8.3.3 Once the form and content of SSEP has been consulted on and confirmed, we will update the CNDM to describe how NESO, TOs and DNOs will align the queue to the SSEP permitted capacity. This will include a process for how applications for connections beyond 2035 will be added to the queue and assessed, and how capacity reallocation will be undertaken for each of the 5-year time horizons.

8.4 Interaction between tCSNP and CNDM

8.4.1 The first Gated Design Process that takes place following publication of the refreshed Transitional Centralised Strategic Network Plan will adopt the latest network assumptions from this plan.

8.4.2 Where outputs of the latest tCSNP studies are available prior to the final document being published, NESO and TOs will share relevant information to allow these to be taken into consideration in the Gated Design Process as soon as possible.

8.4.3 If the tCSNP is updated during a Gated Design Process, the network assumptions will, where possible, be accounted for in any outstanding studies in the ongoing Gated Design Process.

9. Roles and Responsibilities

This section defines the different roles and responsibilities between NESO, TOs and DNOs when following this methodology.

9.1 Roles and Responsibilities

9.1.1 The figure below shows the roles and responsibilities in the context of the overall CND process.

9.1.2 The roles and responsibilities outlined in Sections 9.2 to 9.5 are in relation to CNDM only and therefore do not cover broader aspects of the process such as assessment of the Gate 2 Readiness criteria evidence, or the creation and issuing of TOCOs and Offers.

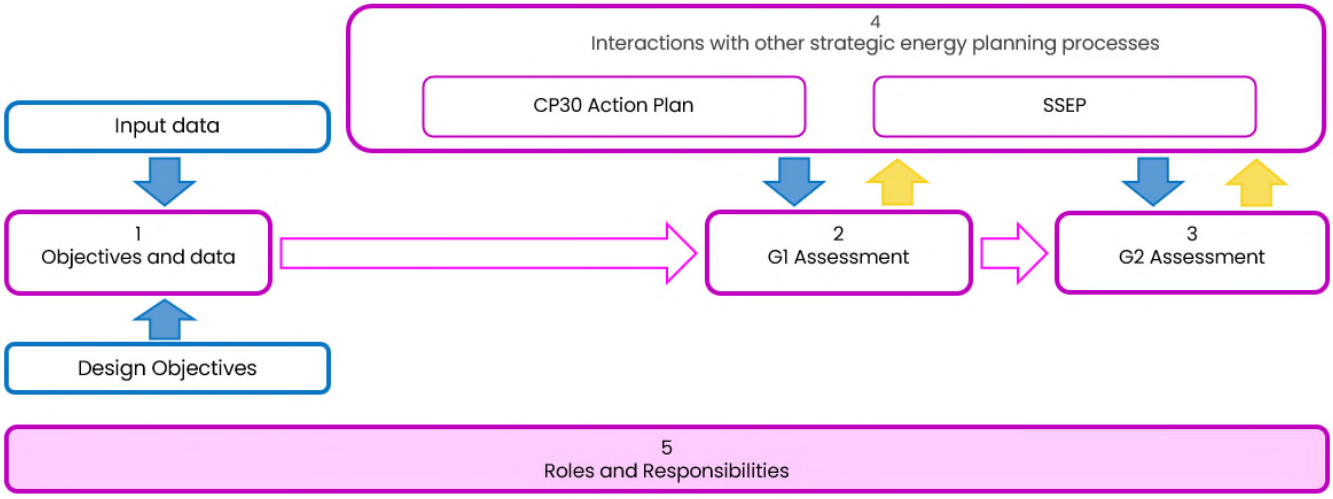


Figure 15: Roles and responsibilities in the context of the CND process

9.2 Role of NESO in the CNDM

9.2.1 NESO is responsible for the following in relation to the processes outlined in the CNDM:

1. Applying the Gate 2 Readiness Criteria to Gate 2 Transmission applications (including Large Embedded Generation applications)
2. Applying the Gate 2 Strategic Alignment Criteria to applications that meet the Gate 2 Readiness Criteria
3. Aligning the Transmission queue to the CP30 Action Plan
4. Determining the projects that meet the Gate 2 Strategic Alignment Criteria based on provisional alignments and recommendations from DNOs and IDNOs
5. Working with TOs and DNOs to identify opportunities for addressing zonal imbalances through substitution and undersupply reservation
6. Publishing the outcome of the Gate 2 Strategic Alignment Criteria checks as soon as practicable
7. Identifying and selecting projects which require connection point and capacity reservation at Gate 1
8. Working with TOs to determine suitable projects for capacity reallocation
9. Providing CPAs to TOs to conduct Gate 2 assessments
10. Supplying TOs with the necessary project data to conduct the Gated Design Process
11. Working with TOs to complete regional offshore design exercises and conduct supporting analysis
12. Facilitating engagement between TOs, DNOs and Users where required to agree design variations or other notable characteristics
13. Determining an indicative connection date and indicative connection location for projects which apply to Gate 1 and are not selected for connection point and capacity reservation at Gate 1

9.2.2 Obligations regarding the regular revision of CNDM and consulting on changes are expected to be included in NESO's electricity system operator licence.

9.3 Role of TOs in the CNDM

9.3.1 TOs are responsible for the following in relation to the processes outlined in the CNDM:

1. Working with NESO to identify opportunities for addressing zonal imbalances through substitution and undersupply reservation
2. Determining suitable sites for reserving connection points and capacity
3. Working with NESO to determine suitable projects for capacity reallocation
4. Conducting power system studies on the applications in Gate 2 Tranche to determine new Transmission Reinforcement Work requirements, connection dates and connection points for each project, including projects selected for Gate 1 Connection Point and Capacity Reservation.

9.3.2 Obligations regarding engaging with NESO to support the revision and development of the CNDM are included in the TO's transmission licences.

9.4 Role of DNOs in the CNDM

9.4.1 DNOs are responsible for the following in relation to the processes outlined in the CNDM:

1. Conducting the Gate 2 Readiness Criteria Initial Checks for relevant projects in Gate 2 application windows, and informing NESO of the outcome
2. Assessing relevant projects in Gate 2 application windows against Gate 2 Strategic Alignment Criterion a)
3. Provisionally assessing relevant projects in Gate 2 application windows against the Gate 2 Strategic Alignment Criteria b) and d) and making a recommendation of strategically aligned projects to NESO for final determination
4. Determining suitable projects for capacity reallocation when a distribution-connected project exits the queue and engaging with relevant IDNO(s) where required
5. Supplying NESO (for onward sharing to the relevant TO) with the necessary project data to conduct the Gated Design Process

9.5 Role of Transmission Connected IDNOs in the CNDM

9.5.1 Transmission Connected IDNOs are responsible for the following in relation to the processes outlined in the CNDM:

1. Conducting the Gate 2 Readiness Criteria Initial Checks for projects in Gate 2 application windows which apply directly to the IDNO, and informing NESO of the outcome
2. Assessing relevant projects in Gate 2 application windows against Gate 2 Strategic Alignment Criterion a)
3. Provisionally assessing relevant projects in Gate 2 application windows against the Gate 2 Strategic Alignment Criterion d) and making a recommendation of strategically aligned projects to NESO for final determination
4. Determining suitable projects for capacity reallocation when a distribution-connected project exits the queue and engaging with relevant DNO(s) where required
5. Supplying NESO (for onward sharing to the relevant TO) with the necessary project data to conduct the Gated Design Process

10. Appendices

Appendix 1: CNDM abbreviations

The below table lists abbreviations used throughout this document.

Abbreviation	Meaning	Abbreviation	Meaning
ATV	Agreement To Vary	**OHA**	Offshore Hybrid Asset
CATO	Competitively Appointed Transmission Owner	**PoC**	Point of Connection
CND	Connections Network Design	**RESP**	Regional Energy Strategic Plan
CNDM	Connections Network Design Methodology	**SBN**	Scheme Briefing Note
CPA	Construction Planning Assumptions	**SGT**	Super Grid Transformer
CSNP	Centralised Strategic Network Plan	**SQSS**	Security and Quality of Supply Standard
CUSC	Connection and Use of System Code	**SSEP**	Strategic Spatial Energy Plan
DNO	Distribution Network Operators	**tCSNP**	Transitional Centralised Strategic Network plan
DRC	Data Registration Code	**TMO4+**	Target Model Option (TMO4 is core foundational process)
FES	Future Energy Scenarios	**TO**	Transmission Owner
GSP	Grid Supply Point	**TOCO**	Transmission Owner Construction Offer
HND	Holistic Network Design		

Appendix 2: Key CNDM Terminologies

Detailed description of terminologies mentioned throughout this document.

Terminologies	Description
Enabling Works	The transmission reinforcement works which need to be completed before a generator can connect without Temporary Non-Firm arrangements / temporary restrictions on availability (and so is connecting either Enduring Non-Firm or Firm).
Enduring Non-Firm	Also known as a Design Variation or Customer Choice connection. This means the User has been offered or has accepted a connection which will never be fully firm. This is most commonly a single PoC to the transmission system (as opposed to a double busbar connection), which means for the outage of that piece of transmission equipment the user will be disconnected and not compensated. There could however be other enduring non-firm arrangements.
Firm	An offer or agreement that has no restrictions on availability, other than those that can be imposed under the codes (e.g. cat2 and cat4 intertrips). This is the default assumption for a connection, and Users have a right to insist on a firm connection. These Users can still be taken off the system as needed, but only through commercial trading or Balancing Mechanism actions (outside of emergency conditions) and so are compensated for those actions.
Gate 2 Readiness Date	The date on which the project achieved the Gate 2 Readiness Criteria (e.g. the date the User secured the requisite land rights).
Permitted Capacity	The capacity ranges outlined in the CP30 Action Plan for each technology type also include capacity that is installed and operational. Once installed and operational capacity has been subtracted from these capacity ranges, the remaining available capacity that can be allocated to projects that meet the Gate 2 Criteria is defined within this document as the Permitted Capacity.
Temporary Non-Firm	These are temporary restrictions that apply from a certain date until another date or until certain works are completed. This is most commonly as a result of the User wishing to connect ahead of the earliest firm connection date that can be provided and means that until that firm date the User accepts the temporary restrictions. Note that a party can have both temporary and enduring non-firm restrictions. This will mean that both sets of restrictions initially apply, then at a certain date or when certain works are complete the temporary restrictions will cease to apply, but the enduring ones will remain.

	There can also be stages of temporary restrictions where the restrictions change but are not yet entirely removed until another later date.
Wider Works	All other (non-Enabling Works) transmission reinforcement works associated with accommodating the new generator to ensure compliance with the Security and Quality of Supply Standards (SQSS).

Appendix 3: Publishing the Queue Revision Outcome

A3.1 Based on the outcome of the Gate 2 Criteria assessment and as soon as reasonably practicable, the following will be published for each zone by NESO to the extent it is practicable (and where it does not result in individual projects being identifiable):

a) MW volume of projects that are expected to receive a Gate 2 offer, broken down by allocations to Phase 1 and Phase 2
b) MW volume of projects that are expected to receive a Gate 1 offer (or, for small and medium embedded Users, revert to an existing DNO offer)
c) MW volume of 'protected' projects deemed to have met Strategic Alignment Criteria a)
d) Detail of any substitutions made to account for 'protected' projects or undersupply
e) Detail of any changes made to the permitted capacity in the zone as a result of substitutions
f) MW volume of 'project specific' Gate 1 reservations and the reasons for these
g) MW volume of 'non-project specific' Gate 1 reservations and reasons for these
h) MW permitted capacity (per technology) remaining that is available for future Gated Application Windows
i) Total MW volume of designated projects and reasons for these
j) The "Gate 2 Register" (containing the information which would have been included under CMP434 WACM7, where users provide consent)

A3.2 If, for any of the information listed in A3.1, a zonal breakdown will result in individual projects being identifiable, this data will be amalgamated and presented for larger zones (e.g. Transmission Zone 1 and Distribution Zone 1 combined, all zones in Scotland combined, etc.)

A3.3 A3.1 e) and A3.1 h) will not be amalgamated to provide clarity ahead of the next CMP434 application window as to where permitted capacity has not yet been reached.

A3.4 For the avoidance of doubt, 'permitted' and 'available' capacity in the above context refer to the capacity totals outlined in the CP30 Action Plan. Where this permitted capacity has not yet been reached in a zone, there is 'available' capacity remaining in that zone. This is not illustrative of the actual capacity available on the network, which may be greater or lesser than the 'permitted' capacity for future applications.

Appendix 4: "End of Queue" Study Concept

A4.1 TOs will assess the queue in three stages: first, the projects in Phase 1 will be assessed, followed by the projects in Phase 2, and finally any projects that meet Strategic Alignment Criteria a), c) or d) and are due to connect beyond 2035.

A4.2 For assessing Phase 1 and Phase 2, an "End of Queue" study will be conducted to allow the TOs to understand the infrastructure required to, where possible, facilitate connection of the Phase 1 projects by 2030 and the Phase 2 projects by 2035. **Figure A1** introduces the concept of an "End of Queue" study and shows how this would be approached on a regional basis. This approach will be repeated when studying the Phase 2 projects and may then also be used for any 2035+ projects if required.

A4.3 Forming the regional study queue in this way facilitates the collective assessment of Gate 1 offshore projects requiring connection point and capacity reservation. Grouping these projects enables a more coordinated connection to be developed and several onshore interface/connection points to be considered without impacting the rest of the queue.

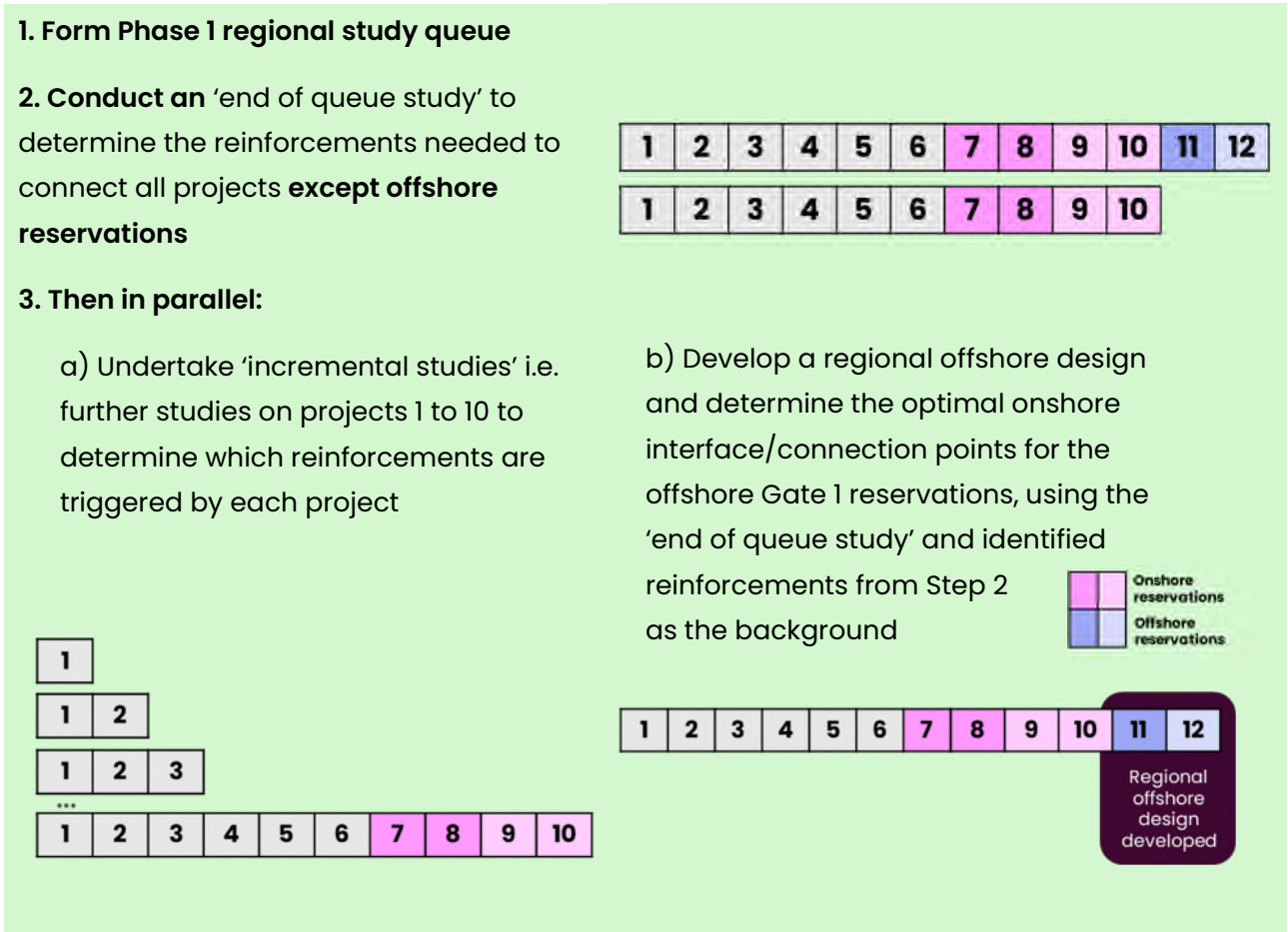


Figure A1: Example of how the Phase 1 queue will be assessed for each study region

Appendix 5: Rebalancing zonal capacities to account for protections

A5.1 Due to the protections NESO has provided for existing projects, there may be cases where permitted capacities for 2030 or 2035 are exceeded in some zones. Where possible, NESO will adjust or 'rebalance' the zonal capacities to maintain alignment to the GB-wide total permitted capacities. This rebalancing will only be permitted where the criteria outlined for substitutions in Appendix 6 are met.

A5.2 This rebalancing will not result in any 'protected' projects being removed from the queue. If all zonal (and therefore also the GB total) permitted capacities were exceeded when considering only protected projects, then all of these projects would still be deemed to meet the Gate 2 Strategic Alignment Criteria.

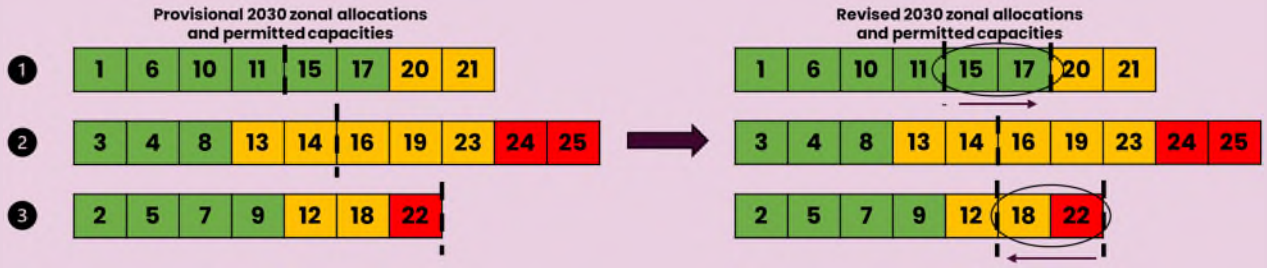
A5.3 This rebalancing does not require a change to the connection location of any associated project(s). Rather, the permitted capacity would be increased to accommodate the additional project(s) in one zone and another zone's permitted capacity would be decreased to ensure alignment to the overall GB permitted capacity is maintained.

A5.4 Figure A2 shows an example of how NESO will adjust zonal permitted capacities to account for protections.

For each technology with a zonal breakdown, the GB-wide queue will be divided into zones and aligned to the CP30 Action Plan as outlined in **Section 7.4**. In the following example, there are 25 projects in the GB-wide queue for this particular technology, which are split across 3 zones.

For simplicity, each project is assumed to have the same 100MW capacity.

The 25 projects are allocated provisionally to each zone. Projects 15 and 17 exceed the 2030 zonal permitted capacity but are 'protected'. **The projects in the provisional allocations with the latest queue positions (projects 18 and 22) are removed** to accommodate projects 15 and 17 being added. This results in the revised zonal allocation.



The 2030 permitted capacity for each zone is now recalculated as shown in the table.

This process would be repeated for the 2035 permitted capacity for each technology with a zonal breakdown. Projects 18 and 22 would be reconsidered for alignment to the 2035 requirements.

Zone	2030 Permitted Capacity	Total Capacity of 'Protected' Projects	Adjusted 2030 Permitted Capacity
1	400 MW	600 MW	600 MW
2	500 MW	300 MW	500 MW
3	700 MW	400 MW	500 MW

Figure A2: Example of adjusting zonal allocations and permitted capacities

Appendix 6: Zonal substitutions to address undersupply

A6.1 Where undersupply is a result of a zonal imbalance against the CP30 Action Plan, NESO will determine whether adjusting the capacity allocated to adjacent zones will resolve the issue.

A6.2 This will only be permitted where **all** of the following criteria are met:

a) The undersupply in zone A and the oversupply in zone B relate to the same technology
b) Zone A and zone B are geographically overlapping or adjacent zones
c) The project(s) in zone B are not known* to have a significantly worse impact on local constraints than a project connecting in zone A

A6.3 For the avoidance of doubt, substitution between overlying or adjacent transmission and distribution zones is also permitted.

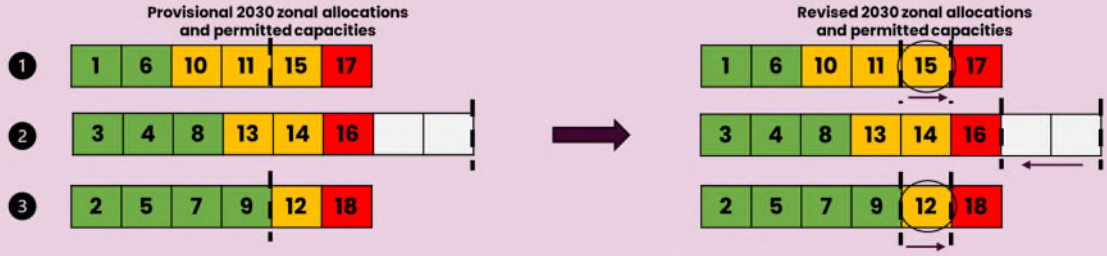
A6.4 This approach is outlined in **Figure A3** and is designed such that planning status is a factor in determining which projects are 'substituted'.

** this will be determined prior to detailed network studies and as such will only consider clear cases that are known based on existing projects and/or that can be clearly demonstrated through a high-level examination of the network and constraint boundaries*

A6.5 Substitution does not require a change to the connection location of the project(s) in question; rather, the permitted capacity would be increased to accommodate the additional capacity in one zone and another zone's permitted capacity would be decreased to ensure alignment to the overall GB requirement is maintained. This is explained in **Figure A3**.

In this example, there are 18 projects in the GB-wide queue for this technology which are split across 3 zones. **Each project has the same 100MW capacity**.

These projects are provisionally aligned within each zone. Projects 12, 15, 17 and 18 exceed the 2030 zonal permitted capacities of Zones 1 and 3; meanwhile there is undersupply in Zone 2. **The projects that have the earliest queue positions and are out with their zonal permitted capacities (projects 12 and 15) are added to their zones** to substitute for the undersupply in Zone 2. This results in the revised zonal allocation shown below.



The 2030 permitted capacity for each zone is now recalculated as shown in the table.

This process would be repeated for the 2035 permitted capacity for each technology with a zonal breakdown. Projects 17 and 18 would be reconsidered for alignment to the 2035 requirements.

Zone	2030 Permitted Capacity	Oversupply/ Undersupply	Adjusted 2030 Permitted Capacity
1	400 MW	+ 200 MW oversupply	500 MW
2	800 MW	- 200 MW undersupply	600 MW
3	400 MW	+ 200 MW oversupply	500 MW

Figure A3: Example of using zonal substitutions to address undersupply

Appendix 7: Incremental Studies

A7.1 For each "End of Queue" study, projects will be reassessed against the existing plan of transmission reinforcement works. These studies will identify any changes required to the delivery timescales of these works, as well as identifying any new requirements for local works.

A7.2 TOs will use a combination of queue-based and year-based studies to re-optimise the planned works and then determine which projects trigger or are dependent on these works.

A7.3 Queue-based studies involve assessing a project against all the other projects ahead of it in the queue, regardless of the year in which those projects are requesting to connect. Year-based studies focus only on the projects that will be connected before or within the year being studied. The former is required to determine which works each individual project triggers.

A7.4 TO discretion will be applied to determine when it is suitable to group projects for assessment. In cases where a group of projects are found to trigger a reinforcement, further studies may be conducted as required to determine which projects in that group trigger the reinforcement.

Appendix 8: Assessment of relevant embedded generation

A8.1 The relevant TO will identify the scenarios where a GSP may require assessment.

A8.2 If a Phase 1 project cannot be connected in 2030 or earlier under a firm (or enduring non-firm) connection, it will be assessed against the Technical Limits for 2030 and connected earlier under temporary restrictions to availability where possible.

A8.3 Where Phase 2 projects have requested to connect before 2030, these projects will be assessed against the Technical Limits for 2030 and connected earlier under temporary restrictions to availability where possible. These projects will remain aligned to the 2035 permitted capacity for the purposes of queue position and the date of their full connection, whether that be a firm connection or a connection under enduring restrictions on availability. Their earlier connection date under temporary restrictions will not result in them being counted towards the 2030 permitted capacity.

A8.4 Projects which do not align with the 2030 or 2035 permitted capacities will not be permitted to connect under Technical Limits. This will apply until the SSEP outlines a permitted capacity beyond 2035. At this point, projects that align to the 2035+ permitted capacity will be considered against 2035 Technical Limits where appropriate

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