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Long-term 2029 Connections Requirements

Long-term 2029 Network Services: Stability, Voltage and Restoration

NESO
National Energy System Operator

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Purpose of this document and the ITT Pack

This document and the other documents that make up the ITT Pack have been provided in good faith. The purpose of these documents is to provide the market with information about the tender rules and requirements to enable market participants to make an informed tender submission as part of the ITT. This document has been updated accounting for feedback received through the consultation that was held prior to the Invitation to Tender (ITT). As a result, ITT documents may supersede earlier documents and/or information previously communicated during the EOI.

Commercial Decisions

Any commercial decisions made by bidders to facilitate or support tender submissions are made at the full discretion of the tender participant. Neither NESO nor any directors or employees of any such company shall be liable for any results of these commercial decisions and does not accept responsibility for any commercial decisions made by participants.

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Version Control

Version	Description	Date
V1	Initial publication. Connections requirements at EOI Stage of the Long-term 2029 tender. Subject to amends/updates at ITT stage.	24 March 2025
V2	Updated version published at ITT Stage. Updates have been made to the following sections: • Clarifications have been added to Section 3 Option A. Updates can be identified by the "V2 Clarification" indicator. • Minor clarifications have been added to Section 3, Requirement Options B through E. Updates can be identified by the "V2 Clarification" indicator. • A new Section 6 'Interaction with Connections Reform' has been added to make this information clearer. It was originally embedded within Section 5. Updates can be identified by the "V2 Clarification" indicator.	16 July 2025
V3	Updated version published during the ITT Stage to clarify what evidence needs to be submitted in tender submissions with regard to Option B, Option C, Option D and Option E. Updates can be identified by the "V3" indicator.	26 September 2025
V4	Table 1 updated to reflect finalised details about the reserved bays following the completion of the Connection Feasibility Report for reserved bays across England & Wales. Appendix 3 has been added to the document, in relation to the updates made to Table 1. Updates can be identified by the "V4" indicator.	17 November 2025

1. Purpose of this document

This document will:

- Clearly set out the connection requirements for Long-term 2029
- Provide details on the connection requirements that bidders will need to satisfy
- Explain why this approach has been selected

Please note that the connections approach outlined in this document is being used to facilitate the Long-term 2029 tender **only**. National Energy System Operator (NESO) has collaborated with the relevant Transmission Owner(s) (TOs) to enable this process.

2. What are the connections requirements for Long-term 2029?

Each solution that is proposed by a bidder within their tender submission will need to demonstrate that **one of the following** connections requirements are satisfied:

A. **Confirm that the proposed solution will connect via one of the reserved bays**; or

B. **Demonstrate that the bidder has an existing countersigned connection agreement in place which can fully accommodate the proposed solution 'as-is' where the project is built, commissioned and fully connected with no need to mod-app**; or

C. **Demonstrate that the bidder has an existing countersigned connection agreement in place which can fully accommodate the proposed solution 'as-is' where the project is still in delivery stage with construction and commissioning yet to be completed with no need to mod-app;** or

D. **Demonstrate that the bidder has an existing countersigned connection agreement with a full modification application (mod-app) offer which can fully accommodate the proposed solution and can be entered into if the party is successful in the tender**; or

E. **Demonstrate that the bidder has a full connection offer for a new connection that can accommodate the proposed solution and can be entered into if the party is successful in the tender.**

For the avoidance of doubt, one of the above requirements must be demonstrated for each solution being bid into this Long-term 2029 tender.

Please note these criteria are only a subset of the full tender criteria. Within the Technical Specification documents there are also service-specific criteria that must also be met. For full details on all tender criteria and the assessment methodology being followed for this tender please refer to the Long-term 2029 Contract Award Criteria.

It is at the bidder's discretion which of the five connection requirements they choose to meet considering the wider tender assessment criteria such as the eligibility criteria, and the technical specification requirements for each service.

Please see section 3 for more details on each of the five possible connection requirements bidders can choose to meet.

3. Details of the Long-term 2029 connection requirements

A. Confirm that the proposed solution will connect via one of the reserved bays

NESO, through collaboration with the relevant Transmission Owners (TOs), has reserved various substation bays pre-emptively (on a project-unknown / project-agnostic basis) for use in this Long-term 2029 tender process. Bidders can choose to rely on any of the project-unknown reserved bays if they wish to enable their solution.

If bidders participate through this connection requirement:

- Having a connection agreement in place is not a requirement for participating in the tender such that the bidder confirms/demonstrates in their tender submission they plan to connect via one of the transmission-level reserved bays.
- Bidders will not have to submit a connection application for the reserved bay until **after** they have received confirmation that they have been successful in the tender.

The bays reserved by NESO are listed below in Table 1.

*Table 1 – Reserved bays (**V4 Clarification**: This table has been updated as part of the V4 publication)*

Site	Relevant TO	No. of connection points secured	MVAr Headroom	SCL Headroom	Associated contingencies/risks
Greystones A/B 275kV	NGET	1	-33 MVAR / +50MVAR	Sub-Transient: 2200 MVA Transient: 2200 MVA	NGET have advised this is an old site and some asset upgrades and/or replacements might be required over time.
Templeborough 275kV	NGET	1	-150MVAR / + 130MVAR	Sub-Transient: 2391.6 MVA Transient: 2391.6 MVA	
New High Marnham 400kV	NGET	1	-150 MVAR / +150MVAR	Sub-Transient: 1000MVA Transient: 1000MVA	Market participants should be aware that this is a new substation that is in design and build.
Drakelow 400kV	NGET	1	-175MVAR / +175 MVAR	Sub-Transient: 500 MVA Transient: 500 MVA	
Richborough 400kV	NGET	2	2 x -150MVAr / 2 x +60MVAR	Total across both bays: Sub-Transient: 1927 MVA Transient: 1285 MVA	
Landulph 400kV	NGET	2	2 x -150MVAR / 2 x +150MVAR	Total across both bays: Sub-Transient: 3117 MVA Transient: 2078 MVA	

New Woolavington 400kV	NGET	1	- 276MVAR / + 276 MVAR	Sub-Transient: 1000MVA Transient: 1000 MVA	Market participants should be aware that this is a new substation that is in design and build.

V4 Clarification: ***Table 1 above has been updated in the V4 publication, to reflect the finalised details of the reserved bays, following the completion of the connection feasibility studies for the reserved bays in England and Wales. As a result of the connection feasibility studies, the MVAr and Fault-level SCL Headroom associated with each reserved bay has been finalised considering NESO's requirements and the headroom available at the site. It should be noted that in some circumstances, only a portion of the available headroom is reserved for a bay. Furthermore, NESO has made the decision to release 3 x bays from reservation. Please see Appendix 3 for more details on this. NESO assume no liability for any further changes to this table.***

The reserved bays were identified based on a balance of the following criteria:

1. Whether substation sites of interest in the region(s) of need had a credible connection opportunity, considering other sites within the regions of need and the current connection background (see Appendix 1 for details)
2. Technical effectiveness of substations in the region(s) of need at meeting the Long-term 2029 requirements.
3. Whether there is non-operational land available at the substation sites within the region(s) of need and to what extent (see Appendix 1 for details).

Please note NESO attempted to secure at least one bay per region of need. The reserved bays have been identified following detailed engagement and collaboration with TOs against a backdrop of Connections Reform.

Further details on this connection requirement

To aid the ITT stage the relevant TO(s) for the reserved bays have conducted a detailed feasibility study on the reserved bay(s) and are producing a Connection Feasibility Report (henceforth referred to as "the Report"). The Report provides an indicative view of the connection date, transmission infrastructure costs and site details associated with the reserved bay (see Appendix 2 for more details).

V2 Clarification: *At the time of launching the ITT, the details of the reserved bays are still being finalised through the connection feasibility studies. Once these details have been finalised, the report will be published.*
V4 Clarification: **The connection feasibility studies have now been complete, and the Connection Feasibility Report has now been published.**

- Bidders should note that the information contained in this report may be indicative only at this stage and subject to confirmation when any bidder applies for a reserved bay at the end of the tender process. As result some details may vary when the bidder goes through the connections process.
- Bidders should also note that the feasibility studies completed were based on desktop assessments and that the TOs did not conduct any site-based investigations to inform the Report.

- The Report will be published to all bidders during the Invitation to Tender (ITT) Stage, in advance of the tender submission deadline. Bidders should use the Report to inform their tender submission, for example to understand indicative cost profiles and indicative connection lead times.

- **CONNECTION APPLICATIONS SHOULD NOT BE MADE FOR THE RESERVED BAY PRIOR TO CONTRACT AWARD**. If this occurs, such applications will be treated as a regular connections application and will not receive an offer for the reserved bay.

- These bays in relation to Option A have been reserved on a project-unknown basis (in relation to the Connections Reform Connections Network Design Methodology (CNDM) document).

- At the time of publishing this document, MW capacity is not currently included within the reservation for any of the reserved bays.
    - **V2 Clarification**: The studies completed by the relevant TOs between the EOI stage and the ITT stage have explored whether there was any available MW capacity that could be allocated to the reserved bays. Please refer to the Connection Feasibility Report when it is published for more details. ***V4 Clarification:*** **The connection feasibility studies have now been complete, and the Connection Feasibility Report has now been published.**
    - As a result, should bidders wish to have MW capacity at a reserved bay, they will be required to submit a modification application (mod-app) for their connection agreement through the business-as-usual mod-app process once they have fully entered their connection agreement for the reserved bay.
    - Any mod-app submitted for MW capacity **should not** impact the bidder's ability to deliver their Long-term 2029 contract. As result any mod-apps made are at the bidder's risk.
    - It is understood that these connections may be treated as staged connection, where the earlier stage allows connection for provision of reactive power or stability services, followed by a later stage that will allow MW export. When this MW export is possible is unknown at this stage and will only be determined following the mod-app being made.

- The connection points that have been reserved will be treated as unavailable and therefore in the contracted background for any subsequent connection application. How this materialises in subsequent connection offers made is subject to the connections process and beyond the scope of the Long-term 2029 tender.

Is there a risk that any of the bays reserved might not be used by Long-term 2029 solutions?

There is a potential that the solutions selected for contract award at the end of the Long-term 2029 tender do not rely on a reserved bay, if instead they meet one of the other connection requirements. If this is the case, the reserved bays will be released from the reservation.

Is there a risk that the NESO reserved bay cannot facilitate the size of the successful solution?

Solutions proposed at any reserved bay within the tender process should be within the capacity range that has been reserved to avoid this.

If a bidder wishes to have any additional capacity beyond what has been allocated to the reserved bays, then following success in the tender and entering the connection agreement for the reserved bay, the bidder would be required to seek a mod-app for any additional capacity they require. Any future mod-apps for / associated with additional capacity should not impact the bidder's ability to deliver their successful Long-term 2029 solution, and the risk and cost of any such mod-apps will be borne by the bidder.

NESO reserve the right to review connection applications for reserved bays to ensure they comply with these tender rules.

What if a successful tendered solution and its connection application is fundamentally different to what has been reserved?

Any solution that is bid into the tender process by a bidder and / or connection application made for any reserved bay by a successful bidder should be in line with the capacity reserved (as per the above).

If a bidder wishes to have any additional capacity beyond what has been allocated to the reserved bays, then following success in the tender and entering the connection agreement for the reserved bay, the bidder would be required to seek a mod-app for any additional capacity they require. Such mod-apps should not impact the

bidder's ability to deliver their successful Long-term 2029 solution, and the risk and cost of any such mod-apps will be borne by the bidder.

NESO reserve the right to review connection applications for reserved bays to ensure they comply with these tender rules.

Do bidders have to use a reserved bay?

No, bidders can elect to meet one of the alternative connection requirements. See the following sections for more details.

B. Demonstrate that the bidder has an existing countersigned connection agreement in place which can fully accommodate the proposed solution ‘as-is’ where the project is built, commissioned and fully connected with no need to mod-app

Bidders who wish to bid in solutions based on projects that are already built, commissioned and fully connected at a substation within any defined region(s) of need can choose to meet this requirement. In this option, the existing connection agreement must enable the tendered solution to be delivered in full and on time without requirement for a mod-app.

If bidders participate based on this connection requirement, then these bidders will be required to evidence the following as part of their tender submission:

- **V3 Clarification:** The countersigned connection agreement (with regards to Connections Reform: this can be either an existing connection agreement where a provider is unimpacted by connection form, or a countersigned Gate 2 connection agreement should a provider be impacted by connection reform)
- **V3 Clarification:** A detailed explanation provided by the bidder, with any relevant supporting documentation, that demonstrates how the connection can accommodate the solution ‘as-is' with no need for a mod-app (modification application)
    - **V3 Clarification:** Where bidders can also demonstrate written confirmation through the connections account manager (or an equivalent appropriate authority deemed acceptable by NESO) that a mod-app is not required to enable the solution, this should also be provided. However, this is optional and no longer mandatory due to connections reform processes.
    - **V3 Clarification**: If it materialises during contract delivery that a bidder does require a mod-app, this will be governed in line with the contract terms and the relevant technical specification document.
- **V3 Clarification:** Evidence of operational status through an ION/FON or a LON.

Bidders choosing to participate based on this connection requirement should consider the wider tender criteria for each service, particularly the eligibility criteria.

It does not matter whether this substation is the same substation where NESO have reserved a bay. However, it should be noted that when assessing each service, multiple solutions proposed by the same bidder at the same substation will be treated as mutually exclusive of one another during the tender assessment process. Please refer to the Instructions to Tenderers for more details.

V2 Clarification: Bidders who bid based on Connection Requirement B should ensure that their connection agreement permits the amount of stability, voltage or restoration capability being offered as part of this tender.

V2 Clarification: As a result of market feedback at the EOI Stage, NESO published the Project-Specific Reservation Proforma. This allowed participants to apply for their existing connection(s) to be considered for project-specific reservation as part of the connections reform processes. Participants will receive communications through the connections process, separate to the Long-term 2029 tender process, about if they have been selected for project-specific reservation.

V2 Clarification: When relying on Option B, bidders will be able to indicate if they have received project-specific reservation. Bidders should consider this when bidding on the basis of this Connection Requirement Option B.

How will a bidder know if they require a modification application (mod-app)?

If there is any change to the original connection application or DRC data submitted for the connection, e.g., to the MW capability, the MVAr capability, the fault level, or any change to the equipment, then it is likely that a modification application is required. Bidders should discuss their proposals with their NESO/TO connections managers to confirm whether they require a modification application. This should be done prior to returning

any tender submissions in response to the ITT to ensure bidders are able to meet the connection requirements. If you have any queries about this, please contact the NESO Long-term 2029 tender team.

Bidders should take into account the ongoing Connections Reform processes and any windows for mod-apps. For more information on Connections Reform please visit:

- https://www.neso.energy/industry-information/connections
- https://www.neso.energy/industry-information/connections/connections-reform
- https://www.neso.energy/industry-information/connections/transition-connections-reform

V2 Clarification: It is acceptable to NESO for bidders who need to make minor changes to their existing connection agreement to reflect operation in Grid Forming Mode or ability to operate at 0MW (without any fundamental changes to their MW capacity, MVAr capacity or fault level/SCL capacity) to rely on Option B and subsequently seek the minor modification to their existing connection agreement during delivery of the Long-term 2029 contract (post contract-award). Such bidders will need to confirm when this will be complete by as part of their tender submission. This will not be allowed for bidders that need to change their MW capacity, MVAr capacity or fault level/SCL capacity.

C. Demonstrate that the bidder has an existing countersigned connection agreement in place which can fully accommodate the proposed solution 'as-is' where the project is still in delivery stage with construction and commissioning yet to be completed, with no need to mod-app

Bidders who wish to bid in solutions based on projects that are in build stage that hold an existing connection agreement and are on-track to be connected within the regions of need can choose to meet this requirement. In this option, the existing connection agreement must enable the tendered solution to be delivered in full and on time without requirement for a mod-app.

If bidders participate based on this connection requirement, then these bidders will be required to evidence the following as part of their tender submission:

- **V3 Clarification:** The countersigned connection agreement (with regards to Connections Reform, this would be a Gate 2 connection agreement)
- **V3 Clarification:** A detailed explanation provided by the bidder, with any relevant supporting documentation, that demonstrates how the connection can accommodate the solution 'as-is' with no need for a mod-app (modification application)
    - **V3 Clarification:** Where bidders can also demonstrate written confirmation through the connections account manager (or an equivalent appropriate authority deemed acceptable by NESO) that a mod-app is not required to enable the solution, this should also be provided. However, this is optional and no longer mandatory due to connections reform processes.
    - **V3 Clarification**: If it materialises during contract delivery that a bidder does require a mod-app, this will be governed in line with the contract terms and the relevant technical specification document.

It does not matter whether this substation is the same substation where NESO have reserved a bay. However, it should be noted that when assessing each service, multiple solutions proposed by the same bidder at the same substation will be treated as mutually exclusive of one another during the tender assessment process. Please refer to the Instructions to Tenderers for more details.

V2 Clarification: Bidders who bid based on Connection Requirement C should ensure that their connection agreement permits the amount of stability, voltage or restoration capability being offered as part of this tender.

V2 Clarification: As a result of market feedback at the EOI Stage, NESO published the Project-Specific Reservation Proforma. This allowed participants to apply for their existing connection(s) to be considered for

project-specific reservation as part of the connections reform processes. Participants will receive communications through the connections process, separate to the Long-term 2029 tender process, about if they have been selected for project-specific reservation.

V2 Clarification: When relying on Option C, bidders will be able to indicate if they have received project-specific reservation. Bidders should consider this when bidding on the basis of this Connection Requirement Option C.

How will a bidder know if they require a modification application (mod-app)?

If there is any change to the original connection application or DRC data submitted for the connection, e.g., to the MW capability, the MVAr capability, the fault level, or any change to the equipment, then it is likely that a modification application is required. Bidders should discuss their proposals with their NESO/TO connections managers to confirm whether they require a modification application. This should be done prior to returning any tender submissions in response to the ITT to ensure bidders are able to meet the connection requirements. If you have any queries about this, please contact the NESO Long-term 2029 tender team.

Bidders should take into account the ongoing Connections Reform processes and any windows for mod-apps. For more information on Connections Reform please visit:

- https://www.neso.energy/industry-information/connections
- https://www.neso.energy/industry-information/connections/connections-reform
- https://www.neso.energy/industry-information/connections/transition-connections-reform

V2 Clarification: It is acceptable to NESO for bidders who need to make minor changes to their existing connection agreement to reflect operation in Grid Forming Mode or ability to operate at 0MW (without any fundamental changes to their MW capacity, MVAr capacity or fault level/SCL capacity) to rely on Option C and subsequently seek the minor modification to their existing connection agreement during delivery of the Long-term 2029 contract (post contract-award). Such bidders will need to confirm when this will be complete by as part of their tender submission. This will not be allowed for bidders that need to change their MW capacity, MVAr capacity or fault level/SCL capacity.

D. Demonstrate that the bidder has an existing countersigned connection agreement with a full modification application (mod-app) offer, which can fully accommodate the proposed solution, and can be entered into if the party is successful in the tender.

Bidders who wish to bid in solutions based on projects that are either already built and connected or are in build and on-track to be connected within the regions of need but require a mod-app to enable the solution they wish to offer can choose to meet this requirement.

If bidders participate through this connection requirement, then these bidders will be required to evidence the following as part of their tender submission:

- The original countersigned connection agreement (with regards to Connections Reform, this means a full Gate 2 connection agreement)
- The full mod-app offer (with regards to Connections Reform, this means a full Gate 2 mod-app offer)
- **V3 Clarification:** A detailed explanation provided by the bidder, with any relevant supporting documentation, that explains how the connection with the mod-app accommodates the solution

Please note the mod-app offer being relied upon needs to be valid for acceptance i.e. it cannot have expired. Due to how the tender timeline for Long-term 2029 compares to the duration of the connection process for some bidders this might mean bidders need to accept / agree the mod-app offers prior to the publication of the tender results. How this is managed is at the bidder's discretion such that the connection offer is still valid upon signature of the Long-term 2029 contract.

Please note that in the event a mod-app is required then bidders will be required to enter the connections process, such that system studies and assessments of the application can be completed. Under this route to market, bidders will need to have gone through this process and received the mod-app offer that meets the criteria set out in this document.

Any bidder considering bidding on this basis should ensure they are aware of the initiatives that are currently in place to manage the implementation of Connections Reform (such as the use of transitional offers, the pause on certain connection applications, and what exceptions are permitted for certain mod-apps). Bidders should account for this when developing bids and any delivery programmes. Please be aware that a transitional offer alone will not be considered satisfactory evidence of a valid connection offer as this is subject to change when it becomes a full offer. For more information on Connections Reform please visit:

- https://www.neso.energy/industry-information/connections
- https://www.neso.energy/industry-information/connections/connections-reform
- https://www.neso.energy/industry-information/connections/transition-connections-reform

It does not matter whether this substation is the same substation where NESO have reserved a bay. However, it should be noted that when assessing each service, multiple solutions proposed by the same bidder at the same substation will be treated as mutually exclusive of one another during the tender assessment process. Please refer to the Instructions to Tenderers for more details on these tender rules.

V2 Clarification: Bidders who bid based on Connection Requirement D should ensure that their connection agreement permits the amount of stability, voltage or restoration capability being offered as part of this tender.

V2 Clarification: As a result of market feedback at the EOI Stage, NESO published the Project-Specific Reservation Proforma. This allowed participants to apply for their existing connection(s) to be considered for project-specific reservation as part of the connections reform processes. Participants will receive communications through the connections process, separate to the Long-term 2029 tender process, about if they have been selected for project-specific reservation.

V2 Clarification: When relying on Option D, bidders will be able to indicate if they have received project-specific reservation. Bidders should consider this when bidding on the basis of this Connection Requirement Option D.

How will a bidder know if they require a modification application?

If there is any change to the original connection application or DRC data submitted for the connection, e.g., to the MW capability, the MVAr capability, the fault level, or any change to the equipment, then it is likely that a modification application is required. Bidders should discuss their proposals with their NESO/TO connections managers to confirm whether they require a modification application. This should be done prior to returning any tender submissions in response to the ITT to ensure bidders are able to meet the connection requirements. If you have any queries about this, please contact the NESO Long-term 2029 tender team.

Bidders should take into account the ongoing Connections Reform processes and any windows for mod-apps. For more information on Connections Reform please visit:

- https://www.neso.energy/industry-information/connections
- https://www.neso.energy/industry-information/connections/connections-reform
- https://www.neso.energy/industry-information/connections/transition-connections-reform

V2 Clarification: It is acceptable to NESO for bidders who need to make minor changes to their existing connection agreement to reflect operation in Grid Forming Mode or ability to operate at 0MW (without any fundamental changes to their MW capacity, MVAr capacity or fault level/SCL capacity) to rely on Option B or Option C and subsequently seek the minor modification to their existing connection agreement during delivery of the Long-term 2029 contract (post contract-award). Such bidders will need to confirm when this will be complete by as part of their tender submission. This will not be allowed for bidders that need to change their MW capacity, MVAr capacity or fault level/SCL capacity.

E. Demonstrate that the bidder has a full connection offer for a new connection that can accommodate the proposed solution and can be entered into if the party is successful in the tender.

Bidders who do not have an existing connection agreement for their solution can choose to meet this connection criteria by independently going through the connection process to secure a connection offer for one of the substations within the regions of need.

If bidders participate through this connection requirement, then these bidders will be required to evidence the following as part of their tender submission:

- the connection offer that they have received and confirmation that the new connection enables the proposed solution (with regards to Connections Reform, this means a full Gate 2 connection agreement)
- **V3 Clarification:** A detailed explanation provided by the bidder, with any relevant supporting documentation, that explains how the connection accommodates the solution

Please note the offer being relied upon needs to be valid for acceptance i.e. it cannot have expired. Due to how the tender timeline for Long-term 2029 compares to the duration of the connection process for some bidders this might mean bidders need to accept / agree connection offers prior to the publication of the tender results. How this is managed is at the bidder's discretion such that the connection offer is still valid upon signature of the Long-term 2029 contract.

By choosing to participate through this connection requirement, bidders will be required to enter the connections process, such that system studies and assessments of the application can be completed. The system studies and assessments of the connection application will consider what is in the contracted background and previous offers made, including any reserved bays already held back for Long-term 2029. How this materialises in subsequent connection offers is subject to the connections process.

Any bidder considering bidding on this basis should ensure they are aware of the initiatives that are currently in place to manage the implementation of Connections Reform (such as the use of transitional offers, the pause on certain connection applications, and what exceptions are permitted). Bidders should account for this when developing bids and any delivery programmes. Please be aware that a transitional offer alone will not be considered satisfactory evidence of a valid connection offer as this is subject to change when it becomes a full offer. For more information on Connections Reform please visit:

- https://www.neso.energy/industry-information/connections
- https://www.neso.energy/industry-information/connections/connections-reform
- https://www.neso.energy/industry-information/connections/transition-connections-reform

Please note that any bidders who wish to take this approach do so at their own risk and cost. NESO will not be liable for any result of doing so.

It does not matter whether this substation is the same substation where NESO have reserved a bay. However, it should be noted that when assessing each service, multiple solutions proposed by the same bidder at the same substation will be treated as mutually exclusive of one another during the tender assessment process. Please refer to the Instructions to Tenderers for more details on these tender rules.

V2 Clarification: Bidders who bid based on Connection Requirement E should ensure that their connection offer or agreement permits the amount of stability, voltage or restoration capability being offered as part of this tender.

4. Additional information

What if a bidder wants to propose a solution that utilises other types of connection such as tertiaries or t-points within the regions of need?

NESO are minded to allow solutions that utilise other types of connections within the regions of need (e.g. a tertiary or a t-point, rather than a bay). If a bidder wants to propose a solution that utilises other types of connection, e.g., tertiaries and t-points, they will need to:

1. Contact the NESO Long-term 2029 tender team by **Friday 5 September at 5pm** to confirm if the connection point is acceptable and where applicable request the associated effectiveness factor of the connection point. As part of this request bidders will need to provide information on which service they are interested in bidding for (stability, voltage, or restoration), the type of connection, the specific geographic location, e.g. substation and distance (km) from terminal substations in case of t-points, and voltage level of the connection point. Based on this NESO will confirm whether this connection point in question is acceptable on a service-by-service basis.
    - While the stability and voltage effectiveness site data documents published as part of this tender define the electrical nodes that fall within the regions of need for this tender and their associated effectiveness factors, the effectiveness of any specific tertiary or t-point connection point associated with these nodes may vary and will need to be checked.
    - Please note, it is at NESO's discretion if a connection is acceptable for the scope of this tender considering the information received.

2. Subject to NESO confirmation in relation to point 1, then the bidder will need to demonstrate that they meet either connection requirement B, C, D or E as explained in the previous section 3.

NESO note that some tertiary connections have the MVAr capacity capped at approximately +/-15MVAr. Bidders who wish to participate based on a tertiary connection should ensure they are aware of any such limitations on their connection and how this impacts how much reactive power they are able to offer in this tender in relation to each service being procured. NESO will not accept bids where the offered capacity cannot be facilitated by the evidenced connection agreement.

What if a bidder wants to participate in this tender through a site outside of the regions of need?

For services where NESO have defined specific regions of need (i.e. Stability and Voltage), bids need to connect through sites that are considered within the regions of need for each service. NESO will not accept any submissions that would connect at sites outside of any regions of need that NESO have set out. This tender rule will be applied on a service-by-service basis.

What does this mean for connection customers who are not interested in Long-term 2029 but wish to connect at a site within the regions of need for the tender?

Such customer connections will follow the connection process accounting for the processes currently in place to facilitate Connections Reform. NESO recommend that these customers engage with NESO and/or TO connections teams through BAU communication channels to understand the feasible connection options available and the process that needs to be followed.

How do these requirements impact land and planning?

Tender participants are fully responsible for securing land and planning permission to enable their solutions for this tender. Tender participants are fully responsible for any information they gather and use about land availability, planning permission or similar when developing their tender submission for Long-term 2029. NESO shall not be held liable for this information and how it is used. For clarity, NESO has **not** reserved any land for the purpose of this tender as part of the bay reservations.

5. Why is this approach being followed?

- The ability to reserve substation bays is permitted under Section 4.3 of STCP16-1
- The reservation of a project-unknown bay minimises barriers to entry for tender participants that a) are not already connected, or b) have not already submitted a connection application, without the need to submit and pay for connection applications prior to certainty of success in the tender, providing a more equitable route to market for bidders.
- Previous applications of bay reservation have been a success, receiving positive feedback from the market about improving barriers to entry and routes to market.
    - Alternatively, bidders are permitted to develop tender submissions using known information from their existing connection agreement, mod-app offer, or new connection offer. This tender does not restrict those not relying on reserved bays in the interest of fair and equal opportunities.
- This approach enables access to solutions with existing connections (subject to meeting the alternative connection requirements and the eligibility criteria), maximising competition.
- The approach reduces the risk for bidders and NESO associated with waiting until contract award before bidders attempt to secure connections. This better enables the requirements to be met on time.

6. Interaction with Connections Reform

V2 Clarification: *This information was previously embedded within Section 5. Following consultation feedback received during the EOI stage, to make this information clearer to bidders, as part of the V2 publication we have made it its own Section 6 and restructured the information.*

There's currently a transitional offer process in place as well as a pause on certain connection applications, how does the approach for this tender fit into this wider Connections Reform context?

A large amount of work is currently going on in the Connections Reform space.

- In September 2024, a transitional offer process was implemented for any new connection applications that wish to connect to the transmission network to help manage the volume of applications as NESO in collaboration with TOs to implement Connections Reform.
- Since then, as of January 2025, a further pause on all connection applications has also been implemented. In May 2025, Ofgem extended this pause further to the 9 June 2025 to align with connections reform.
- In April 2025 it was announced that Ofgem had provided approval to progress with the proposed Connections Reform
- Under the new reformed process, from 10 June onwards customers are required to follow the new process under the Gated Modification Guidance to submit a Modification Application.

For more information, please refer to the following links:

- https://www.neso.energy/industry-information/connections
- https://www.neso.energy/industry-information/connections/connections-reform
- https://www.neso.energy/industry-information/connections/transition-connections-reform

The tender timeline and connection requirements for this tender have been developed based on the Connections Reform implementation methodologies taking precedence. **This is to say that beyond what has already been published about the pause on connections, the transitional offer process, the exception on certain modification applications, and the new connections process being implemented under Connections Reform , no further "exceptions" or "special process" will be enabled specifically for the Long-term 2029 tender.** How bidders choose to meet the tender criteria set out in this document considering the wider context of Connections Reform is at their commercial discretion.

V2 Clarification: Connections Reform and Bay Reservation (project-unknown bays)

The ability to reserve project-unknown connection bays is not impacted by the implementation of Connections Reform as this is facilitated through STCP mechanisms rather than through the connections process. It is expected that for any future use of a project-unknown bay reservation, by the time a provider needs to make their application for a reserved bay, the transitional process should be complete, and the new connections process through Connections Reform will be in place.

V2 Clarification: Existing assets, the Gate 2 to Whole Queue Process and the Long-term 2029 tender process

During the EOI stage, NESO received feedback that with the Gate 2 to Whole Queue process occurring in parallel to the planned Long-term 2029 tender process, this presented risk to those parties with existing connection agreements that faced the uncertainty of their outcome in the Gate 2 to Whole Queue process.

As a result of market feedback at the EOI Stage, NESO published the Project-Specific Reservation Proforma. This allowed participants to apply for their existing connection(s) to be considered for project-specific reservation as part of the connections reform processes. Participants will receive communications through the connections process, separate to the Long-term 2029 tender process, about if they have been selected for project-specific reservation.

V2 Clarification: Connections Reform Process Timelines, and the Long-term 2029 Tender Timeline

During the consultation stage, NESO received feedback that with the Gate 2 to Whole Queue process occurring in parallel to the Long-term 2029 tender process, this presents complexity. Instead, the market suggested NESO should change the tender timeline to better align to the connections reform process to allow connections reform to complete prior to the tender. At this time, NESO will not be changing the tender timelines for Long-term 2029. However, NESO will continue to monitor how connections reform progresses and should there be a need to update tender timelines NESO reserves the right to do so.

During the consultation stage it was also suggested the NESO should allow an exception to the connections process to allow connection applications (whether for new applications or modifications applications) to enable Long-term 2029 bids. NESO have considered this suggestion. After detailed deliberation, the decision has been made to maintain the approach to **not** allow any additional 'exceptions' or 'special permissions' beyond the current connections processes to allow applications (whether for new connections or modifications) for the purpose of enabling Long-term 2029 bids.

Appendices

Appendix 1

This information contained in Appendix 1 has been used to select which bay(s) to reserve (Option A).

NGET Information

To inform which bays to reserve, NGET provided NESO with 'RAG' traffic light analysis for a defined list of over 90 substations. The information provided by NGET to NESO was correct at the time, but it is subject to change as the connections background changes. Please refer to the "Connections RAG" Spreadsheet for a summary outcome of the RAG Analysis.

RAG definition

R-A-G	Definition
Red	There is no spare bay and there is no opportunity to create a bay due to major injections with other connections works and / or other projects
Amber	There is no spare bay but there is an opportunity to create spare bay, with interactions with other connections works or projects
Green	There is a spare bay or there is the opportunity to create a bay with little or no interaction with other connection works or projects

Land Availability

NGET have informed NESO that where there is non-operational land at any NGET substation, this land will not be made available for purchase or lease at this time. Developers should seek third party land for the location of their assets. Cable easements can be facilitated. For cable easements, providers will need to engage with the NGET Property Team to secure land rights across NGET non-operational land via the "Use of NGET Land" Process. Many sites are very constrained however NGET will work with customers through this process to find suitable cable routes to facilitate their connection. For more information, please refer to the 'Long-term 2029 NGET non-operational land information' document which has been published as part of the ITT Pack.

SSEN-T Information

To inform which bays to reserve, SSEN-T provided NESO with 'RAG' traffic light analysis for a defined list of 18 substations. The information provided by SSEN-T to NESO was correct at the time, but it is subject to change as the connections background changes. Please refer to the "Connections RAG" Spreadsheet for a summary outcome of the RAG Analysis.

RAG definition

R-A-G	Definition
Red	There is no spare bay and there is no opportunity to create a bay due to major interactions with other connections works and / or other projects
Amber	There is no spare bay but there is an opportunity to create spare bay, with interactions with other connections works or projects
Green	There is a spare bay or there is the opportunity to create a bay with little or no interaction with other connection works or projects

Land Availability

Developers should seek third party land for the location of their assets. Any cabling would be documented through an Interface Agreement through the usual connection process.

SPT Information

To inform which bays to reserve, SPT provided NESO with 'RAG' traffic light analysis for some specific substations of interest. The information provided by SPT to NESO was correct at the time, but it is subject to change as the connections background changes. Please refer to the "Connections RAG" Spreadsheet for a summary outcome of the RAG Analysis.

RAG definition

R-A-G	Definition
Red	There is no spare bay and there is no opportunity to create a bay due to major interactions with other connections works and / or other projects
Amber	There is no spare bay but there is an opportunity to create spare bay, with interactions with other connections works or projects
Green	There is a spare bay or there is the opportunity to create a bay with little or no interaction with other connection works or projects

Land Availability

Developers should seek third party land for the location of their assets. Any cabling would be documented through an Interface Agreement through the usual process.

Appendix 2

The information provided in this appendix is in relation to Option A.

Details of the Connection Feasibility Report

This section describes what can be expected to be included within the Connection Feasibility Report (the Report) that will be produced by the TO:

- Clear identification of the bay that has been reserved at the substation
- Whether any substation TO reinforcement works are required to facilitate the connection bay and the associated costs of these works
- Where available, a single line diagram may be provided to identify the infrastructure assets, user assets, and if possible, any envisaged cable routes that could be utilised.
- Site diagrams to depict the layout of TO substation and, where relevant, any surrounding non-operational land with clear access/egress information
    - Please note acquisition of land is the responsibility to the bidder.
    - Not all TOs own additional land beyond the substation perimeter fence.
    - NESO will not be acquiring or reserving land for use by bidders.
    - Please refer to the NGET non-operational land information document for more information.
- High-level assessment of lead time and earliest in-service delivery date (EISD) for the TO works or reinforcements. This will be indicative and subject to confirmation during the connections process when the successful bidder applies for the connection.
- Estimation of any infrastructure costs involved as applicable in connecting a solution to the network for each site within the Report. This will be indicative and subject to confirmation during the connections process when the successful bidder applies for the connection.

Additional points to note

- Tender participants are to recognise that any indicative costs and indicative dates provided in the Report are subject to variation and will be finalised through the connection process should tender participants be successful and required to go through the connection process to receive the reserved bay.
- The TO will assume that all connections will be SQSS (Security and Quality of Supply Standard) compliant.
- The studies will be based on assumptions agreed between NESO and the TO. These assumptions will be stated in the Report that will be issued to tender participants.
- Categorisation of infrastructure and connection assets (if applicable) will follow the principles laid out in the CUSC (Connection and Use of System Code), Section 14 - Charging Methodologies.
- Infrastructure costs are not directly borne by the tender participant but will need to be secured for by the tender participant in the formal connections process. The infrastructure costs will be accounted for in the assessment stage by NESO and do not need to be included in the commercial bid of the tender participant. The tender participant will need to account for any costs for the provision of security in their commercial submission.
- Connection charges (where applicable) and costs of user assets will need to be accounted for by the tender participant in their commercial submission.
- The details of the Report will not be binding and is the best indicative view that can be provided at the point of issue. Any successful tender participant that does not already have a connection agreement will

still require a formal connection offer following the announcement of the tender results in line with the contractual requirements for the contracted service.

- Successful tender participants who are required to go through the connection process for the reserved bay post-contract award are required to apply for their connection in line with contractual requirements. It is encouraged that connection applications are submitted as soon as possible.
  - Reminder: the details of the connection may vary when the successful party applies for the connection and receives their formal offer.
- All requirements and obligations from Grid Code, CUSC, NETS SQSS will apply unless otherwise stated. Any specific requirements will be reflected in the Bilateral Connection Agreement (BCA) when a connection offer is issued.
- All user assets and works will be delivered by the tender participant who will seek and ensure that they have all necessary consenting rights, permits, land rights and access.
- The tender participant needs to ensure that they have the appropriate licenses to deliver the service.

Appendix 3 (**V4 Clarification**)

The sites listed below previously had a reserved bay connection point for the purpose of the Long-term 2029 tender.

Site	Relevant TO	No. of connection points	Associated contingencies/risks
Penwortham 400kV	NGET	1	
Ocker Hill 275kV	NGET	1	
New Kemsley 400kV	NGET	1	Market participants should be aware that this is a new substation that is in design and build.

Following the completion of the feasibility studies and the production of the Connection Feasibility Report for the reserved bays across England and Wales, NESO has decided to release these bays. **As such, NESO no longer has a reserved bay at these sites.**

The rationale for the release of these bays is due to at least one of the following reasons for each bay:

- the indicative connection date for the connection point was beyond the time period that is acceptable and sufficient for NESO to meet the identified reactive power and stability requirements (e.g. the connection date is 2034).
- there is a lack of reactive power or fault-level headroom at the site.

Information about these three sites is still included within the Connection Feasibility Report, however bidders should **note that these are no longer reserved bay NESO**.