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LoA Guidance

**Guidance to support Gate 1 Letter of
Authority and Acknowledgement, and
Gate 2 Readiness**

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Document Control

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V1	March 2024	Inception following CMP417
V2	April 2025	Draft published to give early sight to users ahead of G2toWQ window opening Inclusion of Gate 1 and Gate 2 requirements for users
V2.1	May 2025	Final published following Ofgem approval of CMP435 and CMP 434. Changes include: <ul style="list-style-type: none"> • Included a table breakdown requirements for Gate 1 and Gate 2 • Removal of draft status • Inclusion of CMP434 and CMP435 decision dates • Correct links
V2.2	July 2025	Updates include: <ul style="list-style-type: none"> • Inclusion of specific information for CCUS Projects, on page 15. • Corrections to Examples B and C on Page 18.

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Purpose of this Guidance

On 28 March 2024, CMP427 – “Update to the Transmission Connection Application Process for Onshore Users” introduced into the CUSC a requirement for Users to submit a Letter of Authority (LoA) with any new onshore transmission connection application (other than interconnectors).

On 15 April 2025 CMP434 – “Implementing Connections Reform” and CMP435 – “Application of Gate 2 Criteria” were introduced into CUSC. This guidance has therefore been updated to include the relevant requirements associated with those code changes.

Who is this guidance for?

This guidance is for any user wishing to apply for a connection to or to make use of the National Electricity Transmission System (NETS).

It also contains information for users wishing to connect to the Distribution Network, who will need to provide evidence of their land rights to support the DNOs or Transmission connected iDNOs’ application to NESO, where required to do so in CUSC and the Gate 2 Criteria Methodology.

Relevant Embedded Small and Medium Generation are obliged to meet the Minimum Acreage Requirements and Energy Density Requirements outlined below as part of their Gate 2 application submission to their DNO/Transmission Connected iDNO.

For the avoidance of doubt, distribution-connected users should continue to follow and adhere to the requirements of DNO Letter of Authority policy/guidance and DNO Queue Management policy/guidance.

What does this guidance provide?

This guidance provides directly connected and relevant embedded generation developers with information to support their demonstration of Gate 2 Readiness Criteria in accordance with the Gate 2 Criteria Methodology. It also sets out requirements for directly connected onshore and offshore projects to submit an optional Gate 1 Application.

The Energy Density Tables (below) should be used by users to calculate their minimum acreage/KM² requirements for the purposes of Gate 2 Readiness and Letter of Authority and Letter of Acknowledgement for Gate 1 submissions.

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This guidance also covers:

- **Original Red Line Boundary:** a requirement on users wishing to proceed with a **Gate 2 application**. Information with regards to the Original Red Line boundary can be found in the Gate 2 Criteria Methodology 4.1b and CUSC Section 17.
- **Red Line boundary:** a requirement on users wishing to apply for a **Gate 1 application** and therefore submitting a Letter of Authority or Letter of Acknowledgement.

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Summary Breakdown of Gate 1 and Gate 2 requirements

	Gate 1 Application	Gate 2 Application – Land route	Gate 2 Application – Planning route
Letter of Authority	For onshore applications to show that the User has formally engaged with the landowner(s), or that the User is the landowner of the land. Will be relevant <u>from the first enduring window, and not the Gate 2 to Whole Queue exercise.</u>	Not applicable	Not applicable
Letter of Acknowledgement	For offshore applications to ensure that The Crown Estate (TCE) and/or Crown Estate Scotland (CES) are aware of a project. Will be relevant <u>from the first enduring window, and not the Gate 2 to Whole Queue exercise.</u>	Not applicable	Not applicable
Energy Density Tables	All users should utilise the Energy Density Tables within the LoA Guidance to calculate their proposed minimum acreage / KM ² .		

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Minimum Acreage / KM² Requirement	<p>Onshore users will need to meet minimum acreage requirements, so that the proposed land area (red line boundary) covered in the LoA(s) can be considered sufficient to build the project in question</p> <p>Offshore users will need to meet minimum seabed area requirements for each MW of capacity.</p>	<p>Users submitting a Readiness Declaration via the 'land rights' pathway must provide evidence of securing appropriate rights for the land/seabed within the Original Red Line Boundary. This includes demonstrating compliance with the minimum acreage or KM².</p>	<p>Users that have met Queue Management Milestone M2 at the time of submitting the Readiness Declaration (or where they meet it prior to signature of the Gate 2 Modification Offer) only need to provide the Original Red Line Boundary, installed capacity and evidence of minimum acreage requirements upon their signature of the Gate 2 Modification Offer.</p>
Red Line Boundary	<p>The boundary map should identify the land being referred to for that LoA.</p> <p>The map is not required to cover cable routing, or the land needed for a network substation but should include the area/footprint of the user's proposed</p>	<p>Not applicable</p>	<p>Not applicable</p>

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	development (e.g., the wind farm site). Offshore users do not need to include a red line boundary.		
Original Red Line Boundary	Not Applicable	As set out in CUSC Section 17 and 18, the User would need to provide the Original Red Line Boundary for their project site showing the land/seabed they have secured. 4.1b of the G2 Criteria Methodology outlines the specific criteria.	The Original Red Line Boundary must be provided as part of evidence of meeting Queue Management Milestone M2. The ongoing land compliance requirements against the Original Red Line Boundary (section 7.1 Gate 2 Criteria Methodology) will apply from when the User has met Queue Management Milestone M2.
How I submit	Onshore users are required to submit their LoA in the form of templates provided within Section 2, Schedule 2 of the CUSC into the Connections Portal.	Transmission connected, and Large Embedded users must include information related to their minimum acreage / KM ² as part of their Readiness Declaration and evidence to support variations into the Connections Portal. Small and Medium embedded will submit any information and supporting evidence	

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	Offshore users are required to submit their LoAc in the same form as the one provided to them by TCE/CES into the Connections Portal.	to their relevant DNO or transmission connected iDNO.
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Requirements for Gate 1 Users

Parties to which the Letter of Authority and Letter of Acknowledgement applies

For ease we shall refer to the Letter of Authority as LoA and the Letter of Acknowledgement as LoAc for the rest of this document.

CMP427 introduced the requirement (CUSC Section 2 2.12.1 and 2.13.2) for all directly connected parties applying for a new onshore transmission connection to submit an LoA.

Additionally, CMP434 introduces the requirement (CUSC Section 2 2.12.1 and 2.13.2) for new offshore Gate 1 transmission connections (noting that applying for Gate 1 is optional) to submit an LoAc.

To avoid any confusion, the offshore letter related to Gate 1 applications will be called a Letter of Acknowledgement and it can only be obtained from The Crown Estate (TCE) and/or Crown Estate Scotland (CES) as appropriate.

The requirement to submit an LoA/LoAc does not apply to applications for use of system only (Bilateral Embedded Generation Agreement) or an application for a Bilateral Embedded License exemptible Large power station Agreement (BELLA), as LoA obligations already exist as part of the DNO application process.

The intent of the **Letter of Authority** (i.e applying to directly connected **onshore applications**) is to show that the User has formally engaged with the landowner(s) in respect of the rights needed to enable construction of the User's project on their land, or that the User is the landowner of the land to be used for the construction of the project or already has rights to enable construction of the User's project.

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The intent of the **Letter of Acknowledgement** (i.e applying to directly connected **offshore applications**) is to ensure that The Crown Estate (TCE) and/or Crown Estate Scotland (CES) are aware of a project before it applies for a Gate 1 application.

For the avoidance of doubt, the LoA/LoAc requirement applies to any new connection applications by Distribution Network Operators (DNOs) and Independent Distribution Network Operators (IDNOs). The DNO (or IDNO) will need to provide an LoA for their asset(s) that they are planning to connect to the transmission system when they are registering for a new GSP.

Letter of Authority/Acknowledgement

The requirement to submit the LoA or LoAc will apply to all parties wishing to make a new onshore or offshore connection Gate 1 application to NESO, following the implementation of CMP434, and will be relevant from the first enduring window, and not the Gate 2 to Whole Queue exercise.

For **Offshore users** There is no template for the LoAc to be provided by TCE and/or CES provided within this LoA Guidance and developers should contact TCE/CES for further information if they are considering submitting a Gate 1 Application.

Onshore users are required to submit an LoA in the form of the templates provided for in Section 2, Schedule 2 of the CUSC. Depending on the land arrangements, users may need to submit more than one LoA for a particular application.

In the case of both Template A and Template B the applicable template is to be completed and signed by the respective landowner (which in the case of Template B is the User) or their representative. However, it is the User's responsibility to ensure the application requirement is met and that the template is completed accurately and submitted¹ as part of their connection application. All LoAs must be signed and dated not more than one year **prior** to the date the connection application is submitted to The Company. This can be provided via electronic or wet signature.

Users must also ensure that the technology type(s) referenced within the LoA(s) match that which is referenced within their CUSC connection application form.

¹ The requirements of Gate 1 applications apply in the same way for those indicating an interest in Reservation.

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How to submit a Letter of Authority/Acknowledgement

Offshore users are required to submit their LoAc in the same form as the one provided to them by TCE/CES.

Onshore users are required to submit their LoA in the form of templates provided within Section 2, Schedule 2 of the CUSC. All information as requested within the template should be provided, with relevant sections in parenthesis deleted as appropriate.

Users should submit their LoA / LoAc into the NESO Connections Portal to form part of their Gate 1 application.

Users for **onshore projects** that submit LoAs which differ from the templates provided for within the CUSC will be rejected, consequently delaying their application being progressed.

Red Line Boundary

Offshore users do not need to include a red line boundary (unless it is included within the LoAc template provided by TCE/CES).

Onshore users will note that each LoA template requires the inclusion of an image of a standard red line boundary map. The boundary map should identify the land being referred to for that LoA.

The map is not required to cover cable routing, or the land needed for a network substation but should include the area/footprint of the user's proposed development (e.g., the wind farm site).

The red line boundary referred to in this section must not be confused with the Original Red Line Boundary requirement for Gate 2 Applications, referenced below.

Minimum Acreage Requirements

Onshore users (and Interconnectors, OHAs and non-GB Projects) will need to meet minimum acreage requirements, so that the proposed land area (red line boundary) covered in the LoA(s) or LoAc(s) (as appropriate) can be considered sufficient to build the project in question

Offshore users, except for Interconnectors, OHAs and non-GB Projects (where the minimum acreage requirement will be based on the onshore converter station, as below), will need to meet minimum seabed area requirements for each MW of capacity.

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The following section sets out how the proposed total acreage provided within the LoA(s) and LoAc(s) will be assessed.

The LoA/LoAc and accompanying application information will be checked against the Energy Density table (see below). If the project does not meet the Energy Density criteria, it will not be allowed to enter the Gate 1 application process, until a revision is made which aligns with the Energy Density table.

NESO will undertake checks that the land referred to in the LoA(s) and LoAc(s) is sufficient in principle to build the project in question. Where multiple landowners are involved, the User must ensure that the required number of LoAs or LoAc(s) are submitted to meet minimum acreage or KM² requirements. The Energy Density table below should be used as a guide to identify the minimum requirements we will expect for each plant type.

Important information for all Gate 1 Users

Checking of Letters

Letters will be checked in line with connection application processing timescales. If the letter (and the accompanying application information) is incomplete, or is unclear, additional clarity will be sought which may delay the processing of the application. If the required information is not obtained in time during the application stage the developer may end up not being able to participate in that window and may need to wait for the next window.

Disputes

If an LoA or LoAc is not accepted by The Company and a User wishes to make a complaint, there will be initial discussions with the User to seek to resolve the issue ahead of raising a dispute. If this cannot be resolved, the User may wish to raise a formal complaint via official channels by emailing box.neso.complaints@nationalenergyiso.com.

If still unresolved, the actions to be taken are the same as existing rights via the CUSC disputes process at CUSC section 7 'other disputes.'

In accordance with CUSC 7.4.1, there will be initial discussions between the NESO and the User seeking a resolution ahead of raising a dispute. If this cannot be resolved, either party may then refer the Other Dispute to the London Court of International Arbitration (LCIA).

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Requirements for Gate 2 Users

Parties to which this section applies

All users (**both onshore and offshore**) wishing to submit a 'Gate 2 Application' are required to meet the requirements of the Gate 2 readiness criteria set out in the [Gate 2 Criteria Methodology](#). This applies for the Gate 2 to Whole Queue exercise AND for G2 applications in the first enduring and any subsequent G2 application windows. As set out in the [Gate 2 Criteria Methodology](#), this readiness criteria is applicable to:

- Transmission connected Generation² and Demand
- Interconnectors, Offshore Hybrid Assets and Non-GB Projects
- Large Embedded Generation
- Small and Medium Embedded Generation

Minimum Acreage / KM² Requirements

As per the [Gate 2 Criteria Methodology](#), Users submitting a Readiness Declaration who are taking the 'land rights' route to demonstrate readiness³ must demonstrate they have secured appropriate land rights, including demonstrating they meet the minimum acreage / KM² requirements in accordance with this guidance document. Users must therefore state their acreage for their Project Site in their Readiness Declaration. 100% of the land/seabed is required for their project to meet the Gate 2 criteria. This 100% requirement will be calculated using the Energy Density Table defined in this guidance document. Further information can be found within the [Gate 2 Criteria Methodology](#).

For **offshore users** specifically (excluding Interconnectors, OHAs and non-GB Projects), developers can alternatively demonstrate that the MWs set out within their 'Gate 2 Application' match the MWs set out within their land rights documentation with TCE and/or CES (as the alternative to using the Energy Density Table).

² For the avoidance of doubt this includes storage.

³ Those submitting a Readiness Declaration on the basis of the Planning route to readiness do not need to demonstrate their evidence of land rights and compliance with density requirements until a later date, as set out in the Gate 2 Criteria Methodology.

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Interconnectors, OHAs and non-GB Projects should use the 'Onshore Converter Substation' row within the Energy Density Table.

All Transmission users (both onshore and offshore) will also need to confirm at each subsequent Queue Management Milestone (as referenced in the [Queue Management Guidance](#)⁴) that they have sufficient acreage (as per CUSC 16.4.9.3.1) or KM² (as appropriate).

Where a User does not meet the Minimum Acreage / KM² Requirements, they can provide an explanation in their Readiness Declaration as to why a reduced minimum acreage is appropriate for their project site. Transmission-connected customers may be contacted by NESO, and Distribution-connected customers by their relevant DNO or Transmission Connected iDNO, during the Detailed Checks stage of the process. For Gate 2 to Whole Queue applications, this process will be during the Detailed Checks after the application window closes. (See also below).

Original Red Line Boundary

As set out in CUSC Section 17, CUSC Section 18 and the [Gate 2 Criteria Methodology](#), the User will at some stage (but in any case, either alongside the Readiness Declaration or at a later date if the user chooses the Planning route³) also need to provide an Original Red Line Boundary for their project site. Note that, for transmission-connected applicants, the Original Red Line Boundary is provided for the purpose of the Gate 2 readiness criteria and does not have to align with the Red Line Boundary submitted with the LoA/LoAc as this is a different application. Requirements may be different for distribution-connected applicants.

Energy Density Table and Gate 2

NESO (or for small/ medium embedded generators the DNO or transmission-connected iDNO) will check the Original Red Line Boundary total acreage against the energy density table. The Energy Density table check will apply to all users (**both onshore and offshore**) in respect of the Gate 2 Readiness Criteria and will be undertaken within the Gate 2 to Whole Queue exercise and in the enduring Gate 2 application windows.

⁴ To confirm, the Transmission Queue Management process in CUSC does not apply to parties embedded in a distribution system as they are subject to the (separate) Distribution Queue Management process through their arrangements with the DNO.

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Energy Density Tables for the use of Gate 1 and Gate 2 Requirements

We have sought the expertise of an independent engineering consultancy to determine the most appropriate minimum acreage / KM² per MW for each technology type of project. Their findings have been used to develop the Energy Density tables below.

Where technologies were listed in the previous guidance, but an increase has been identified, the previous figures are used, i.e. any increase will not be applied retrospectively for the purpose of Gate 2 to Whole Queue. The figures listed in this updated guidance account for this approach (i.e we list one figure, not both the 2024 and 2025 figures.)

The Energy Density Tables do not include Carbon Capture and Storage (CCS). Because the footprint of a CCS plant varies depending on its CO₂ storage volume, identifying a single minimum acreage figure would not be appropriate.

Users should therefore base their Minimum Acreage on their Projects primary technology, excluding the land needed for the CCS element.

Further information is provided below if you believe your project acreage is below the threshold given in the table.

Onshore Energy Density Table

Technology Type			Minimum acres per MW
Demand	Electrolysis	Transmission	0.12
	Demand (includes data centres and traction, for example Network Rail or HS2)	Distribution (not in scope for Connections Reform)	–
		Transmission	0.084
Generation	Nuclear	Distribution	0.084
		Transmission	0.0246
	PV Array (Photo Voltaic/Solar)	Distribution	1.1603
		Transmission	2
	Onshore Wind	Distribution	7.6829

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		Transmission	7.6829
	Combined Heat and Power (CHP)	Distribution	0.1238
		Transmission	0.022
	Coal	Distribution	0.0629
		Transmission	0.0629
	Hydro	Distribution	0.7722
		Transmission	0.0158
	Geothermal	Distribution	0.3767
		Transmission	0.0229
	Energy from Waste	Distribution	0.4523
		Transmission	0.1528
Low Carbon Dispatchable	Biomass	Distribution	0.0631
		Transmission	0.0307
	Hydrogen CCGT	Distribution	0.0265
		Transmission	0.0265
Storage	Battery Energy Storage Systems	Distribution	0.0099
		Transmission	0.0151
	Pumped Storage	Distribution	0.0158
		Transmission	0.0158
	Compressed Air Energy Storage	Distribution	0.0824
		Transmission	0.0824
	Liquid Air Energy Storage	Distribution	0.1058
		Transmission	0.1058
Un dispatchable	Combined Cycle	Distribution	0.0951

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	Gas Turbine (CCGT)	Transmission	0.0109
	Gas Reciprocating	Distribution	0.0111
		Transmission	0.0111
	Open Cycle Gas Turbine (OCGT)	Distribution	0.0371
		Transmission	0.0125
	Oil and Advanced Gas	Distribution	0.015
		Transmission	0.015
Other	Synchronous Compensation	Distribution	0.0088
		Transmission	0.0031
	Reactive Compensation	Distribution	0.0042
		Transmission	0.0042

Figure 1. Energy Density Table

Offshore Energy Density Table – Offshore 1

Technology Type	Minimum KM ² / MW
Wind Fixed	0.0581
Wind Floating	0.0900
Wave Oscillating Water Column (Offshore)	0.0531
Wave Oscillating Water Column (Shoreline)	0.0022
Wave Floating Overtopping	0.0321
Wave Hinged	0.0623
Wave Test / Demonstration Unit Centre	0.1174
Tidal Barrage	0.0323
Tidal Floating	0.2353
Tidal Seabed	0.0378
Tidal Test / Demonstration Unit Centre	0.1312

Energy Density Table – Offshore 2

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Technology Type	Minimum acres per MW
Onshore Converter Station (Interconnectors, OHAs and Non-GB Projects)	0.007907

Calculating your Minimum Acreage

Examples for single technology projects

User 'A' submits a connection application to NESO for an onshore wind transmission connected project requesting 250MW of capacity. Their minimum acreage requirements are calculated as follows: $250\text{MW} \times 7.6829 \text{ acres} = \mathbf{1,920.07 \text{ acres}}$

User 'B' submits a connection application to their DNO for a battery distribution connected project requesting 10MW of capacity. Their minimum acreage requirements are calculated as follows: $10\text{MW} \times 0.0099 \text{ acres} = \mathbf{0.099 \text{ acres}}$

User 'C' submits a connection application to NESO for an offshore wind (fixed) transmission connected project requesting 1100MW of capacity. Their minimum acreage requirements are calculated as follows: $1100\text{MW} \times 0.0581 = \mathbf{63.91 \text{ KM}^2}$

Process for assessing minimum acreage of hybrid projects

When undertaking the minimum acreage check, NESO will multiply the installed capacity for each technology by the appropriate density figure and then combine these figures to identify the minimum acreage for the total site. As described above, NESO may need to contact the User during Gate 2 detailed checks post application to enable the NESO to better understand the technology mix to consider the minimum acreage per MW required.

Example for Hybrid Projects

User 'D' submits a connection application to NESO for a combined transmission connected solar farm and battery on a single site, requesting 30MW for the solar farm and 60MW for battery storage. Worst case scenario would be based on minimum required for the combination of both technology types. Minimum acreage for 30MW solar farm = **60 acres** ($30\text{MW} \times 2 \text{ acres}$) Minimum acreage for 60MW battery = **0.906**

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acres (60MW x 0.0151 acres) Total minimum acreage required = **60.906** acres (60 acres + 0.906 acres)

Process for Gate 2 projects not meeting minimum acreage requirements

All Users/ applicants should note that while the figures in the density tables represent the de minimis requirement of expected acre per MW, these figures will be treated as an indicative guide only. As described above, where a User does not meet the Minimum Acreage / KM² Requirements, they can provide evidence via their Readiness Declaration as to why a reduced minimum acreage is appropriate for their Project Site.

To ensure projects are not disadvantaged by the Energy Density Table, where the Original Red Line Boundary has an acre or KM² per MW which is less than that in the Energy Density table:

- For Large/ Directly Connected projects, NESO may contact the applicant to fully understand the context of why the acreage requirement is not met. For Gate 2 to Whole Queue applications, this process will be during the Detailed Checks after the application window closes.
- For Small/Medium distribution-connected projects, the DNO/ iDNO may contact the applicant to fully understand the context of why the acreage requirement is not met.

Where NESO (or the DNO/iDNO, as appropriate) is not satisfied that the total land acreage provided meets the de minimis level, the application will not meet the Gate 2 Readiness Criteria, and a new Gate 2 application would need to be made in a future window.

Process for Gate 2 projects where the technology is not given in the density table

If your technology is not provided for in the density table, please contact box.connectionsreform@nationalenergyso.com with the email subject 'Technology Not in Density Table' as soon as possible and at a minimum 3 weeks before submitting the Readiness Declaration. Users may be asked to provide NESO with documents of the intended technology such as Single Line Diagrams. NESO will review on a case-by-case basis.

To ensure they remain up to date, both the onshore and offshore Energy Density tables will be reviewed annually to account for any updates or changes to technology types which may, for instance, lead to the increase in MW per acreage values. Note that these reviews will take into account distribution connected sites as well. We will also engage with industry prior to publishing any amendments to the table.

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Useful information

Gate 2 Criteria Methodology	https://www.neso.energy/industry-information/connections-reform
CMP 434 – Implementation of Connections Reform	https://www.neso.energy/industry-information/codes/cusc/modifications/cmp434-implementing-connections-reform
CMP 435 – Application of Gate 2 Criteria to existing contracted background	https://www.neso.energy/industry-information/codes/cusc/modifications/cmp435-application-gate-2-criteria-existing-contracted-background
CMP427 – Update to the Transmission Connection Application Process for Onshore Users	https://www.neso.energy/industry-information/codes/cusc/modifications/cmp427-update-transmission-connection-application-process-onshore-Users
Transmission Queue Management Guidance	https://www.neso.energy/industry-information/connections/queue-management
Distribution Queue Management Guidance	https://www.energynetworks.org/publications/on21-ws2-p2-updated-queue-management-user-guide-(30-jul-2021)

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DNO Queue Entry Requirements for Generation Schemes (includes Letter of Authority guidance) <https://www.energynetworks.org/asset/s/images/Publications/2024/241218new-distribution-queue-entry-requirements-v1.pdf?1739917614>
