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Connections Reform

Consultation Response Proforma

Your feedback is important to this process. Please take this opportunity to provide any feedback that you may have. To aid your response, each question is linked back to the relevant document for ease of reference.

Please provide your feedback using this Proforma and sending an electronic copy to box.connectionsreform@nationalenergyso.com by **5pm** on the closing date of **2nd December 2024**.

We encourage early submission ahead of the deadline where possible to aid the processing of responses.

Respondent Details	
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Which category best describes your organisation?	<input type="checkbox"/> Consumer body <input type="checkbox"/> Demand <input type="checkbox"/> Distribution Network Operator <input checked="" type="checkbox"/> Generator <input type="checkbox"/> Industry body <input type="checkbox"/> Interconnector <input type="checkbox"/> Storage <input checked="" type="checkbox"/> Supplier <input type="checkbox"/> System Operator <input type="checkbox"/> Transmission Owner <input type="checkbox"/> Virtual Lead Party <input type="checkbox"/> Other
Is this response confidential?	<input type="checkbox"/> Yes – I do not wish for this response to be shared publicly; however I understand it will be shared with Ofgem <input checked="" type="checkbox"/> No – I am happy for my response to be available publicly

Section 1 – Policy

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You can find the relevant information in the **Great Britain's Connections Reform: Overview Document**

1. Do you agree with our intention to align the connections process to Government's Clean Power 2030 Action Plan?

You can find the relevant information in **Section 2 – Context**

We agree that a radical change in the way transmission capacity is allocated is needed given the dysfunction of the current 'first come first served' process. Aligning the technology mix with CP30 makes sense as a way to make the connections process support policy targets.

Removing 'zombie' projects through readiness criteria and milestones may help 'real' projects connect more quickly e.g. through the advancement request mechanism. However, limiting the number of Gate 2 offers available via quotas will not, in itself, improve connection dates. Relative ordering of the queue will not be changed (CNDM methodology p.27) and transmission works delivery will continue as planned in CP30 and before in the HND/NOA7 Refresh documents ('Pathway to 2030'). Other actions to make better use of existing network capacity are not in scope of CP30 reform e.g. optimising bay allocation based on project sizing, encouraging co-location with flexible management, refining engineering assumptions, amending access rights to promote flexibility etc. (we note that lots of these initiatives are discussed or in flight but are outside of the scope of this reform & consultation). Actions to accelerate delivery of network infrastructure are also out of scope of this reform & consultation.

In the absence of other reforms to optimise use of existing network capacity, reducing the length of the queue by removing firm connection offers from projects that exceed CP30 quotas will not create more network capacity for the remaining projects.

This means that delivery of new transmission capacity, a.k.a delivery of enabling works, will remain the key constraint on volumes connected by 2030.

We recognise that accelerating transmission delivery is out of scope for CP30 connection reform, however there is a major interdependency between both if revised connection dates for projects are based on the assumption that Pathway to 2030 transmission projects will be delivered on time. In our view, there are multiple constraints on the feasibility of achieving a 4-6x increase in transmission capex delivery over the next 5 years, namely:

1. Supply chain
2. Labour shortages
3. Churn in TO delivery plans and scheduling
4. System access
5. Statutory planning (both community resistance and capacity of planning authorities to process applications)
6. Cost of capital / TO balance sheets ability to finance
7. Customer bills and ability to pay

Without proper assessment of these risks to delivery of CP30, there is a material risk that connection customers are offered an accelerated date on the assumption that enabling

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transmission capacity is delivered 'on time', before being pushed back again as transmission delays crystallise. NESO impact assessment does not discuss the impact of this delivery risk to CP30 or the reformed queue. Market participants would benefit from a clear assessment of what transmission capacity is feasible to deliver, how this will impact connection dates, and whether/how dates will be protected in the event of 'whiplash' caused by transmission capacity related delays moving connection dates out further again.

This risk is accentuated by the requirement on NESO/TO to restudy all the winder/enabling works once the new queue is formed. Significant acceleration of connection dates could drive a compression in schedules for network reinforcement. Delivery constraints may mean that securities required from project developers may also increase sharply.

2. Do you agree with our proposal for overall design 2 (that the reformed connections queue should be limited to and prioritised to only include ready projects that align with Government's Clean Power 2030 Action Plan, NESO Designated Projects, and directly connected demand projects outside the scope of Government Clean Power 2030 Action Plan)?

You can find the relevant information in **Section 5 – Our overall preferred connections reform design**

We support NESO proposed overall design 2.

3. Do you think all 'ready' projects should be included in the reformed connections queue (overall design 3)? If so, how would you propose that we mitigate risks to consumers or developers of material misalignment to the SSEP?

You can find the relevant information in **Section 6 – Assessment of alternative design for connections reform**

No, if we are to move to a centrally planned approach to allocation of transmission capacity then projects which are deemed to not be 'needed' should not be given firm connection offers. Including all 'ready' projects would result in a queue length of c.500GW, with only c.380GW required by 2050 (FES24 HT). It's not clear that there is customer value to be gained in giving long-dated, firm connection offers to the excess c.120GW of projects (with eventual corresponding investment in land/planning/development milestones required to remain in the queue, at cost to developers).

However, forward certainty on connection dates and capacity is beneficial to the development business model. Once volumes required and transmission capacity available post 2035 is defined by future plans (e.g. SSEP), NESO should proceed to allocate that capacity to developers as soon as practicable. NESO should also take more steps to allow developers to receive a firm connection offer by entering the 2025–2030 or 2031–2035 buckets under the

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current reform. One option to achieve this is allowing new projects to fill in capacity created by attrition in the 2031-35 bucket. Another option would be to create more flexibility/adaptability between technologies or regions to fill undersupply if the same resources can be delivered to the system. For example, substituting in more onshore wind if offshore wind fails to deliver required volumes, or accepting 'firmed' capacity delivered by renewables plus storage as a substitute for low carbon dispatchable power provisioned for under the plan. Introducing this flexibility creates more scope for innovation to meet system needs and promotes creative solutions from market participants to deliver CP30.

4. 4. Do you agree that the reformed connections queue should initially focus on the 2035 time horizon?

You can find the relevant information in **Section 4 – Key building blocks for aligning connections to strategic energy plans**

Both 2035 and 2030 are relevant time horizons given government policy objectives of delivering clean power by 2030. Pushing the time horizon later than 2035 is likely to introduce greater risk as uncertainty grows between the FES24 HT volumes and what might ultimately be required (and where) under a future SSEP/CSNP study.

2035 is beyond the development timescale for most assets in the queue today (connection delays notwithstanding), but developers benefit from planning ahead and over time more projects will require visibility on volumes post-2035. We therefore welcome NESO plans to iterate connection volumes available for firm offers once future strategic plans are published.

Implementation Questions

You can find the relevant information in the **Great Britain's Connections Reform: Overview Document**

5. Do NESO's preferred options against each of the variables discussed in the Overview Document best deliver efficient alignment to Government CP30 Plan?

You can find the relevant information in **Section 5 – Our overall preferred connections reform design** and **Section 7 – Further variables and options to align connections reform with strategic energy planning**

We provide the following comments on NESO's proposed options on the design variables:

3. Approach for demand projects – despite demand and generation having to be balanced at all times, NESO's CP30 plan predominantly plans only generation and storage assets. Most transmission connected demand siting will continue to be driven by the market, regardless of system impact. This creates a risk that NESO's planned generation/transmission siting does not optimally match the locations of new demand. It also creates a risk that NESO becomes reliant

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on project designation to progress demand sites that provide system value (e.g. the 10GW of 'strategic demand' in Scotland identified as required in NESO Beyond 2030 publication). It is not clear how demand will retain/lose positions in the queue as other generation projects are excluded on the basis of CP30 quotas; purported 'flexibility and adaptability' (Overview document p.57) appears to be afforded to demand but not generation. This inconsistency risks perceptions of a twin-track connection process between two classes of system user (large demand vs generation).

4. Approach to oversupply – When calculating oversupply vs quotas, projects seeking advancement should not be prioritised ahead of projects with existing connection dates within the quota timescale. Current proposals in the CNDM suggest that a project with a 2031–2035 connection date could lose its offer as other projects request advancement to 2030 or before but are not in planning and don't make the 2030 quota. This may be rare in practice, we are unable to assess without detailed data on the full queue and quota sizing.

5.7.1 Following the [application of the Gate 2 Readiness Criteria](#), the below process will be used to align the remaining projects to the CP30 pathways:



Figure 8: Aligning the queue to the CP30 pathways

In this example projects 10 and 12 have lost their connection offer as a result of not requesting advancement to 2030 or earlier. Projects 11 and 14 have jumped the queue. This creates a strong incentive to request advancement even if projects are happy with later dates. The result will be more churn in the pipeline and transmission works required. A solution could be reordering the Phase 2 queue based on the original relative queue positions, as is done with the Phase 1 queue in step 7 above.

5. Approach to undersupply – As discussed in question 3, introducing more flexibility and substitutability between buckets in the CP30 plan could promote use of innovative solutions to meet system needs. Where the current project pipeline cannot deliver volumes required under the CP30 plan, NESO/DNOs should specify the system requirements (e.g. carbon intensity, import/export profile, power quality etc.) and allow the market to propose solutions to meet this. This type of more technology agnostic specification would promote innovation such as

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use of private/microgrid networks to crowd on more generation, storage and demand behind a single metered connection. By encouraging creative solutions to meet system needs, NESO will de-risk delivery of CP30 by leveraging the potential of the market to propose solutions.

7. Optimal use of the network – Not making a recommendation due to further work being required is a missed opportunity to optimise network capacity. Critical network constraints mean GB must pull every lever available to maximise green GW connected in pursuit of the CP30 target. We urge NESO to revisit this given the current momentum for change and opportunity to drive more efficient sizing of projects into substation bays as part of the full queue reorganisation in 2025.

8. Transition to SSEPI – NESO should allow projects to fill 2031-35 attrition to keep the pipeline progressing. This is discussed in Q8 below.

6. Do the methodologies deliver our preferred options against each of the variables?

You can find the relevant information in **Section 3 – Overview of framework of codes and methodologies for connections reform**

We support the use of methodologies to operationalise connection reform in conjunction with TMO4+, with the caveats of responses offered in more detailed questions.

7. Are there key policy areas that are not covered by our preferred options against each of the variables or that would not be delivered by the methodologies?

You can find the relevant information in **Section 5 – Our overall preferred connections reform design** and **Section 7 – Further variables and options to align connections reform with strategic energy planning**

The approach for embedded/distribution connected projects should be covered in more detail for developers to understand the implications. We recognise that some of this is covered in the TMO4+ code reform consultations, but developers (and NESO) need to fully assess the different incentives arising for transmission and distribution connections as a result of:

- Different calculation methodologies for CP30 quota volumes (if this is the case, as limited transparency is provided on NESO modelling assumptions feeding into CP30 for transmission and distribution connections)
- Different data flows and customer service processes for the Gate 2 assessment to be completed
- Different queue management milestones, contractual implementation and ongoing land/planning compliance variations
- Different scope of TMO4+ application, with some (small) generators and all demand at distribution level not being covered by the new process but still needing to connect at a time and place relative to the main queue being governed by TMO4+/CP30

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8. Do you agree with our approach to managing project attrition between 2025–2030, and 2031–2035, whilst ensuring that the SSEP can deliver maximum benefits to GB consumers?

You can find the relevant information at **Section 7 – Further variables and options to align connections reform with strategic energy planning**

For projects exiting the 2031–2035 queue, it is not clear how NESO will ascertain whether they have exited due to the project being ‘unviable or uneconomic at its particular location’. There are many reasons a developer may cancel a project and another developer may well be able to execute a successful project in the same quota/technology. Instead of waiting for the SSEP to refill the quota in response to this attrition, NESO should allow the market to bring forward replacement projects to accelerate delivery of 2035/2040/2050 targets. This would provide developers originating projects with a route to a connection offer and help the early stage development market keep moving despite the disruption created by these reforms.

We do not see a downside to this, unless there is a risk that the FES24 HT volumes used to determine 2031–35 quota sizes are an overestimate, including projects that ‘would not enable an economic and efficient transition towards net zero’ (overview p.65), or that are otherwise misaligned to the SSEP. This risk is not discussed by NESO and we assume that FES24 volumes are roughly aligned with the level of generation growth required under a future SSEP to align with 2050 Net Zero.

Connections Network Design Methodology

You can find the relevant information in the **Connections Network Design Methodology – Detailed Document**

9. Do you agree with the approach to applying the Gate 2 Readiness Criteria and the Gate 2 Strategic Alignment Criteria to the existing queue and future Gate 2 Tranches?

Yes, we agree with applying to both the existing queue and future tranches.

Given the highly ambitious timescales and volumes involved in delivering CP30 it is critical that NESO prioritises the projects which are most ready to connect for the 2025–2030 Phase 1 queue. NESO has taken the step to sequence projects before ‘slicing’ the queue based on planning status, as well as land rights. We have several comments on this approach:

1. Categorising projects simply based on ‘planning submitted’ (vs ‘land rights’ and ‘planning approved’) and by reference to a validation number risks creating a perverse incentive for developers to submit a low quality planning application to secure the reference number needed to demonstrate submission in this process. Other developers may have expended significant resources to submit a high quality application. Our recommendation is to amend the definition of submitted planning application to:

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“Evidence that a competent planning application is submitted to the LPA alongside evidence of payment of the planning application fee”

A ‘competent’ application would include all required technical reports such as Planning Statement, Design and Access Statement, Environmental Statement for EIA development, Landscape and Visual Assessment, Ecological Impact Assessment, Flood Risk Assessment, Heritage Statement along with site layout plans and infrastructure elevations.

An additional requirement could be subsequent confirmation of validation to NESO when it is received (noting however this may be some time after submission). We believe this would be a fairer evidence basis, and avoid submitted projects being penalised by uncontrolled LPA delays.

2. Given the urgency and challenging nature of the 2030 target, it is crucial that we prioritise connections for those projects that are most likely to be successfully delivered. To achieve this, NESO should consider including more criteria in the sequencing of the queue before the CP30 bucket ‘cut off’ is applied (Step 5 in the methodology outlined on CNDM p.29). Doing this would reduce the risk of excessive attrition in the pre-2030 queue that puts targets at risk. Important development milestones that should be used to prioritise highly ready and deliverable projects could be:
 - a. Downpayments made on major supply chain expenditures (e.g. GSU transformers)
 - b. Holding a revenue support agreement such as a CfD or capacity market contract, which substantially de-risks project development

We agree with retaining relative queue position for Phase 1 projects after this point (step 7 on p.29) and propose this should be done for Phase 2 projects too.

In addition to 2. above we would also support a widening of the 2026 exemptions for projects under construction to the queue reorder to mitigate against potential investment hiatus and any delays to the queue review for projects that are ready to connect in 2027. A widening of the exemption criteria to projects that can demonstrate FID and downpayments or revenue support contracts would incentivise continued progress towards CP30 and delivery of nearer term projects that are ready to be progressed into construction.

Re-ordering of ‘zonal sub-queues’ adversely affecting DNO projects

It is not clear how ‘zonal sub-queues’ will be integrated into the ‘GB-wide queue’ as discussed in CNDC p.26 paragraph 5.4.6. It is also not clear how this process should work for distribution level queues. Given this could have a material impact on final connection timescales, understanding the process would be helpful for developers considering devex allocation decisions / considering project rights transactions.

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The relative ordering of projects in the current 'input' queue to the CNDM process is an important consideration, given that this will impact likelihood of reaching Gate 2 and connection date post Gate 2. The most equitable approach to this will be ordering projects based on the date by which they signed connection offers with the TO/DNOs they applied to. However, we understand that, from a transmission works perspective, the queue is ordered for embedded projects based on date at which project progression outcomes were issued from the TO. This risks disadvantaging projects based on the time it took for DNOs to submit transmission impact assessment requests to the TOs, which has been highly variable across the industry.

We recommend NESO follow the more equitable approach when assessing the relative ordering of projects in the combined transmission/distribution queue, but recognise this might be more administratively complex. NESO should assess the trade off here and provide a transparent process to market participants.

DNO performance

The DNOs are each required to perform a key role under the CP30 queue reordering. Based on historic performance we have significant concerns around the relative levels of performance as between DNOs and the potential for delays to DNO queue projects as well as the overall process this could cause. There should be through the ENA or otherwise a party which retains specified responsibility for overall DNO performance. There should also be clear legal obligations on the delivery requirements for DNO's to review and carry out the actions required of them. We note the differing levels of potential obligation threshold as being consulted on under the Ofgem connections end to end review where we will also be supportive on absolute obligations for the DNOs under these reforms.

Transmission Impact Assessments

We are supportive of the current Ofgem reported increase in the Transmission Impact Assessments (TIAs) from 1 MW to 5 MW in England and Wales. In our view this would be supportive of the CP30 reforms and save valuable time and resource on carrying out and review of the impact assessments.

10. Do you agree with the approach to managing advancement requests?

We raise a concern/query on incentives to make advancement requests to minimise risk of being pushed out of the back of the 2031-2035 queue in our response to question 5.

11. Do you agree with the approach to reserving Connection Points and Capacity at Gate 1?

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Yes – and NESO/TOs should ensure that projects filling these reserved bays are sized appropriately to make best use of network capacity.

12. Do you agree with the approaches to reallocating capacity when 2030 pathway projects and 2035 pathway projects exit the queue?

Overall we agree that the 2031–35 Phase 2 queue is given first opportunity to accelerate and fill capacity created from attrition in the 2025–2030 Phase 1 queue. We also agree that new projects can then enter 2031–35 to backfill that capacity.

We also propose that new connection offers can also be issued to fill volumes in the 2031–2035 Phase 2 queue as a result of project attrition, as discussed in our response to question 8. This will help the GB development pipeline to continue to grow and help de-risk longer term decarbonisation targets.

Gate 2 Criteria Methodology

You can find the relevant information in the [Gate 2 Criteria Methodology– Detailed Document](#)

13. Do you agree with the following elements of this Gate 2 Criteria Methodology?

- a. Gate 2 Readiness Criteria – Land (Chapter 4)
- b. Gate 2 Readiness Criteria – Planning (Chapter 5)
- c. Gate 2 Criteria Evidence assessment (Chapter 8)
- d. Self-Declaration Templates (Chapter 9)

Please insert your answer here for a). Yes

Please insert your answer here for b). Yes

Please insert your answer here for c).

As set out above our recommendation is to amend the definition of submitted planning application to:

- Evidence that a competent planning application is submitted to the LPA alongside evidence of payment of the planning application fee
- A competent application would include all required technical reports such as Planning Statement, Environmental Statement for EIA development, Landscape and

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Visual Assessment, Ecological Impact Assessment, Flood Risk Assessment, Heritage Statement along with site layout plans and infrastructure elevations.

- An additional requirement could be subsequent confirmation of validation to NESO (however this may be some time after submission).

We believe this would be a fairer evidence basis, and avoid submitted projects being penalised for LPA delays.

Please insert your answer here for d). Yes

14. Do you agree that the alternative route of meeting the Gate 2 Readiness Criteria should be only limited to projects that seek planning consent through the Development Consent Order route?

We are concerned about the capacity of local planning authorities to properly assess projects if a high volume of (potentially low quality) applications are submitted for developers to be eligible for Gate 2. As such, we agree that this route be only open to DCO projects.

Project Designation Methodology

You can find the relevant information in the **[Project Designation Methodology - Detailed Document](#)**

15. Do you agree that the categories of projects that we have identified are the appropriate ones to potentially be designated?

We agree with the categories of projects proposed and accept that NESO needs some flexibility to bring forward innovative/long lead time/important projects that might not otherwise fit within the core connections process.

NESO should consider providing clarity on under what circumstances demand projects can be designated.

16. Do you agree with the proposed criteria for assessing Designated Projects?

In practice, these categories can be broadly defined and interpreted. We welcome the transparency from NESO in applying these categories in practice in the process set out on p.28

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17. Do you agree with the indicative process NESO will follow for designating projects?

NESO should consider whether it has enough information to pro-actively identify projects that should be designated at Gate 1 (or before), particularly given that some projects won't apply to Gate 1 and other key datapoints (e.g. storage duration) will not be provided as part of a regular application.

P.31 of the CNDM outlines the nuances of how designated projects will be integrated into the post-TMO4+ queue. It is not clear why NESO does not simply put designated projects wherever they need to be in the queue to provide the system benefits required. Whilst we appreciate arguments on fairness and consistency, the designation process is already affording NESO discretion on projects to prioritise.

NESO should also consider whether regular queue management milestones and readiness criteria in Gate 2, which are generally one size fits all, must be applied to all designated projects.

Additional Questions

18. Do you have any other comments (including whether there was anything else you were expecting to be covered in these documents)?

Transparency and consistency of network/system data continues to be a pain point for developers wishing to connect to the GB grid. Introducing CP30 quotas and additional complex requirements to entering and remaining in the connection queue will only increase the need for visibility and clarity for developers. Data on network conditions, queue, NESO plans and status of projects passing through the connections process are all important, yet current data provision is inconsistent and low quality. NESO should pursue stronger guidance and mandates for all networks to share data in line with the Energy Data Taskforce recommendations.

There is a risk that other markets are impacted by a loss in competition between developers as some retain connection offers pre-2030 and others lose out. A fixed supply of connecting projects will reduce competitive tension in CfD and capacity market allocations, as well as potentially impacting bargaining powers of developers vis-a-vis supply chain, land or other input providers. The potential impact of this has not been assessed in the documents.

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We are also concerned about the deliverability of the full queue assessment and reform process by Q2 2025. Whilst it is important to move quickly on this reform, expectations should be managed to avoid forcing developers to take decisions at a quicker pace than necessary, as deadlines ultimately slip (as has been seen at several prior stages in the connection reform journey).