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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 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

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☒ No – I am happy for my response to be available publicly

Section 1 – Policy

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**

Innova believes the Clean Power 2030 provides a clear direction, and that aligning the connections process to the Clean Power 2030 Action Plan will provide clarity for the Network Owners when considering how to plan the networks and manage connections.

Gate 2 to Whole Queue reordering (section 5) is a one-off. Although this creates significant uncertainty, we agree the process is needed to reorder the connection queue to ensure that projects ready to be delivered by 2030 are not delayed by projects that can only be delivered after 2030.

Innova is concerned that NESO's current proposal will result in uncompetitive Contract for Difference (CfD) auctions. CfD prices will clear at the price cap and the capacity targets will not be met due to restrictive prequalification criteria that do not align with the Clean Power 2030 Action Plan:

- Only projects with a connection date within the Delivery Years of the auction will be eligible to participate.
- For instance, the auction covering 2028-2030 (AR8) will only allow projects with a confirmed connection date of 2030 or earlier to qualify.
- The CfD auction is expected to target the capacity outlined in the Clean Power 2030 Plan pathway.
- If NESO restricts pre-2030 connection dates solely to projects within its pathway, even without any project attrition, the auction is likely to clear at the price cap due to the volume of projects.
- Attrition and project delays, such as postponed planning decisions, will further reduce the number of projects eligible for the auction, exacerbating this issue and leading to the CFD auctions not meeting their quotas.
- Government will then require a significant volume of renewable projects to connect without a CfD contract which Innova believes is a major risk to the successful delivery of Clean Power 2030.

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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 are supportive of the Overall Design 2 and agree projects in Phase 1 (pre-2031) should be prioritised based on planning status, as it better aligns with readiness and enhances the prioritisation of viable projects. However, the exemption rules include a wider range of projects to ensure fairness in the reordering process. Specifically, projects with a connection date of 2028 that have already submitted planning applications should remain "safe" from being reordered.

Consideration should be given to the long lead times for transmission-connected projects, as it is crucial to protect the progress of those with advanced readiness. Developers need to secure Final Investment Decisions (FID) without the risk of queue reordering disrupting their timelines. In this context, it is expected that Transmission Owners will also delay its own investment decisions until NESO confirms the certainty of those connections. This uncertainty impacts investment in both onshore renewable generation and storage, as developers may pause decisions to avoid the risk of being excluded from missing regional quotas. The potential for developers to have to write off significant development expenditure (DEVEX) would severely hinder further investment in the sector. Transmission-connected projects recently awarded a Contract for Difference (CfD), or Capacity Market (CM) agreements are particularly vulnerable, and any cancellation of these projects would undermine the confidence of investors.

For projects participating in Allocation Rounds (AR), clarity on connection and construction timelines is critical:

- **AR6 (2024)**: Connection by April 2028, with construction starting no earlier than October 2024.
- **AR7 (2025)**: Connection by April 2029, with construction starting no earlier than October 2025.
- **AR8 (2026)**: Connection by April 2030, with construction starting no earlier than October 2026.

The key concern is that projects in AR7, with auctions in 2025, are not adequately protected, making it unlikely, under current proposals, for many projects to apply and then be judged to have met the criteria for entry to AR7.

Innova believes the use of counter signature dates to determine the relative queue position is inappropriate and is not how the current connection process determines the relative queue

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position. The queue is critical for fairness, Innova recommends using the clock start date of the original application, which is currently used in the existing connections process, to maintain transparency and consistency in project prioritisation.

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**

Innova agrees there is limited benefit to 'all ready projects' (overall design 3) being given a Gate 2 offer. In practical terms, a 2035+ date will have little benefit to developers, and it is unlikely the Transmission Owner will assign any resources to the project unless there is a very specific reason for the new substation or substation extension to be built. Innova assumes a 2035+ project would require significant work at the local substation or new connection node. Innova would support waiting until the SSEP is completed in 2026, and a spatial plan is available, before 2035+ and Gate 2 offers are provided to Users with any confidence.

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**

Yes, it is inappropriate to only look up to 2030. Transmission Owners must take at least a 10-year view when planning the Network due to the time it takes to deliver infrastructure projects, by both the Transmission Owners and Project Developers.

However, Innova believes using Phase 2 to manage project attrition and project delays is inappropriate. Innova has proposed the use of Attrition Weighting Factors, the proposal is detailed in Question 8.

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?

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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**

Variable 1 – Innova agrees with NESO’s option. See response to Question 4.

Variable 2 – Innova agrees with NESO’s option. See response to Question 3.

Variable 3 – Innova agrees with NESO’s option. It would not be appropriate to limit demand as that in effect is limiting the economic growth of the UK. However, it should be noted that an increase in demand will require an increase in supply (generation) to ensure a competitive market.

Variable 4 – Innova agrees with NESO’s option, although the Methodologies can be improved to manage some of the risks associated with the Option chosen for Variable 4. Innova’s recommendations to manage the risk against Variable 4 are detailed in Questions 7,10,11, and 12.

Variable 5 – Innova agrees with NESO’s option. Innova would support the use of substitution to meet under-supply before the use of reservation powers to reserve bays and capacity. The NESO must acknowledge that the Clean Power 2030 Action Plan, by nature, does not sufficiently take other constraints such as planning and land price constraints into account. The Developer market, to date, will have been able to consider that already, especially as all projects in the queue will now have the minimum required land options to progress.

Variable 6 – Innova does not agree with NESO’s option, upfront attrition should be built into the process. Please see Innova’s response to question 8 for more details.

Variable 7 – Innova agrees that any option to limit the size or type of connections on specific voltages or substations should not be retrospective. Innova believes renewable energy projects have relatively small margins and therefore projects which are inappropriately sized for the connection they have will be unlikely to pass an investment appraisal and the Market will naturally determine what is appropriate. However, Innova believes the NESO and Network Owners could do more to educate industry participants on the cost and technical risks which may make a particular type of connection unsuitable for a particular project.

Variable 8 – Innova agrees with NESO’s option. Innova strongly supports the principle that ‘The SSEP pathway will not be applied retrospectively to amend existing agreements.’ Another reordering of the queue would provide significant uncertainty until the SSEP process is complete (2027). There would be very little benefit to this once the initial Gate 2 to Whole Queue process is complete.

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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**

Yes, the methodologies outlined in the document deliver NESO's preferred options against each of the variables. However, the variables are presented at a high level, leaving much of the detail open to interpretation. The true challenges will arise as NESO and the industry work to operationalise the processes required to implement each of the options. The success in key areas such as queue management, project prioritisation, and alignment with strategic pathways will depend on how effectively these methodologies are translated into practical, actionable steps. This operational phase will determine whether the Methodologies truly meet expectations and address the complexities of connection reform.

Innova has discussed these operational risks and provided some proposed improvements in Questions 7-12. In particular, Innova has proposed the addition of a ninth Variable to consider project delays.

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**

Innova is concerned the NESO has not appropriately considered how project delays will be managed, and a further variable should be added to consider this.

The existing connections process uses Appendix J milestones to understand the risk of a project not meeting the contractual connection date. Innova understands it is the responsibility of the Transmission Owners to request a revision to the milestones when they can no longer be met. This is completed in two ways (i) the User submits a Modification Application, or (ii) the Transmission Owner issues an Agreement to Vary (AtV). In both cases, the Transmission owner must consider the User's progress against the required milestones and how that aligns with the milestones the Transmission Owner has the responsibility to complete, together they will agree on the earliest feasible connection date. The Transmission Owner will then consider other works they are contracted to complete i.e. other contracted connections, as well as the existing outage plan to determine the connection date the User will be delayed to.

The Transmission Owners and Project Developers, held accountable by NESO, are currently not managing the Appendix J milestones to a high enough standard. The Transmission Entry Capacity (TEC) register, as of 26th November 2024, details the following:

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- **12.22 GW (121 projects)** of unbuilt capacity (based on project status, column I) with Effective Connection Dates **in the past**.
 - One of which goes as far back as 2019.
 - One of which is a 1.2GW offshore wind farm and therefore has a significant impact on other parties.
- **13.46GW (90 projects)** of unbuilt capacity with Effective Connection Dates **in 2025** have not started construction/ commissioning.
- **16.80GW (78 projects)** of unbuilt capacity with Effective Connection dates **in 2026** that do not have consents approved and therefore can be assumed not to have taken an FID.
- **15.08GW (85 projects)** of unbuilt capacity with Effective Connection dates **in 2027** that are in Scoping, and therefore can be assumed to have not submitted planning.

The above is a total of 57.56GW out of a possible 72.63GW of unbuilt capacity, equivalent to 79.3% of capacity not being appropriately delayed when they are not meeting their Appendix J milestones, assuming projects need 12 months of construction, at least 24 months to go from planning consent to connection date, and 12 months to achieve planning consents once planning is submitted.

With a reformed grid connections queue, the connection date of each project will have been optimised to deliver a greatly increased capacity and significantly more projects than at the rate the renewables industry is currently delivering. Therefore, there is less flexibility to move connection dates and any delays to a connection date will require a much more complex process to determine the next available connection date. In addition, any delays will have a significant impact on the UK's ability to meet the Clean Power 2030 Action Plan. Innova believes NESO should define a clear methodology for managing delays including:

1. What happens when a project is delayed from Phase 1 (pre-2031) to Phase 2 (2031-2035)?
2. How will project delays interact with the Outage Planning Process?
3. How will delays to Appendix J milestones be treated?
4. How will Project Delays interact with Project Advancement?
5. How will Project Delays interact with the Reallocation process?
6. Will delaying projects with an earlier relative queue position have a detrimental impact (i.e. delay) on the signed contractual position and connection date of other projects with a later relative queue position?

From the evidence, assuming the TEC register is accurate, it is clear the existing process to manage project delays is not working. Innova strongly recommends NESO consider how this can be addressed within the Further Variables discussed in Section 7 of the Great Britain's Connections Reform: Overview Document and within the Connections Network Design Methodology (CNDM).

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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**

No, Innova does not agree with the suggested approach. We believe NESO need to apply an attrition Project Success Weightings to project Transmission Entry Capacity (TEC) or Developer Capacity when calculating their contribution to the Clean Power 2030 Action Plan for 2030 and the Holistic Transition Future Energy Scenario for 2035.

Once projects are given a 2031+ connection date, or even removed from the queue, Developers will then stop or slow down investment in a project. This investment is needed to progress planning, cable route easements, design, procurement etc, all of which are required to be completed sequentially as part of the development process. Each part of the development process reduces the risk of project failure and therefore allows the developer to invest more time and money into the project. The value of a project is typically calculated based on the forecast discounted (at a risk adjusted rate) cash flows of the project which is dependent on the grid connection date. Therefore, the earlier the connection date the more valuable the project and the more time and money a developer may be able to invest in a project in the present moment.

Typically, a Developer will not delay connection dates or terminate a connection offer until all options to avoid the delay/termination have been explored. A project will be delayed after it has missed the deadline to complete a milestone, e.g. planning, FID etc, and even then, the contract may not be updated for a long time as detailed in our response to Question 7. Once Project A has been delayed it will take time for Project B to be advanced (possibly a 6-month application window), and then it is unlikely that Project B will have invested ahead of the need i.e. an earlier connection date. For example, it is very unlikely Project B will apply for planning unless they believe there is a chance of a connection date within 5 years, or Project B will not be able to take FID until the earlier connection date has been confirmed and they have been through an extensive due diligence process. The process to FID may require months of surveys, design work, or agreeing terms for financing. This means the current proposed solution to manage project attrition will not work as projects are unable to advance without enough notice, and therefore this adds significant risk to delivering the Clean Power 2030 Plan.

As stated in Innova's response to Question 1, a lack of an Attrition Factor will likely mean CfD auctions are uncompetitive.

To reduce the risk of not meeting the Clean Power 2030 Action Plan, Innova recommends NESO apply a weighted probability of success to the TEC or Developer Capacity and then use this weighted capacity to determine the number of projects needed to meet the Technology Capacity Pot limit defined by the Clean Power 2030 Action Plan. Most Developers use Project

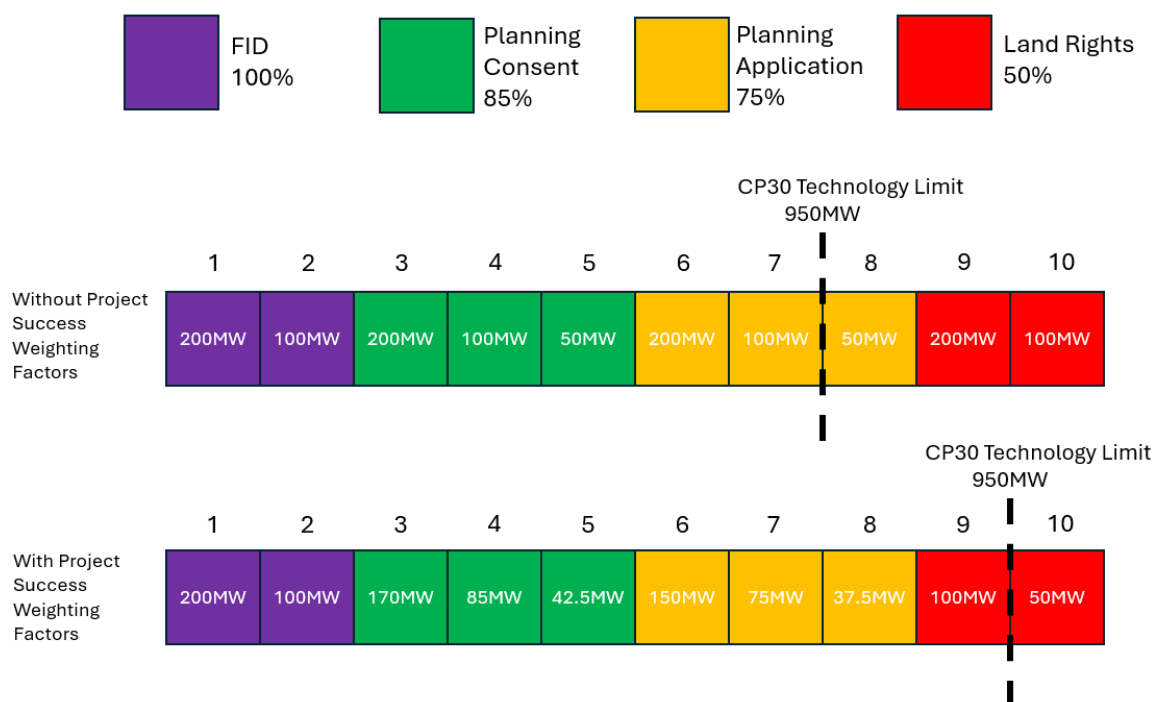
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Success Weighting Factors when assessing the value of their portfolio and therefore it seems an appropriate way for NESO to manage project attrition. Innova has recommended the weightings for NESO to consider based on our experience of project success. Innova has provided an example to illustrate how the Project Success Weightings would be applied.

Indicative Project Success Weightings

- FID Complete: 100%
- Planning Consent Achieved: 85%
- Planning Application Submitted: 75%
- Land Rights only: 50%.

Example



Innova is not proposing to add FID as another readiness criteria, and it is only used as an additional category for the Project Success Weightings mechanism.

Innova acknowledges the use of Project Success Weightings potentially increases the risk of the Network, in the short-term, being designed and built for a lower capacity than the generation capacity could connect by 2030. NESO must consider the risk of this and decide whether: projects will be delayed; reinforcement will be accelerated; or if NESO will accept increased balancing costs in the event an oversupply scenario occurs. Innova believes Users should be compensated when NESO, the Transmission Owner or the Distribution Owner delays a project that has met all its development milestones and is progressing as required.

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To help provide evidence for the Project Success Weightings Innova has completed an analysis of the Renewable Energy Planning Database (REPD) Q3 2024. Note, that planning is just one factor for success and the probability of success is a multiplication of the uncertainty applied to each success factor e.g. if the probability of planning is 85% and the probability of achieving FID is 90% then the overall probability of success for a project that needs to achieve planning and FID is $90\% \times 85\% = 76.5\%$.

Batteries

Time period	2016 to Q3 2024.	GW
Planning permission granted, planning permission expired, operational and appeal granted:	357 (90%)	31.0
Planning permission refused; appeal refused:	35 (10%)	2.6

Solar PV

Time period	Q1 2016 to Q3 2024.	GW
Planning permission granted, planning permission expired, operational, in construction and appeal granted:	660 (84%)	20.3
Planning permission refused; appeal refused:	106 (16%)	2.9

The above analysis:

- (i) does not account for abandoned projects, so assumes everything that was consented was built;
- (ii) only accounts for projects that have planning or been refused planning, doesn't account for projects still in a planning process or did not apply;
- (iii) only considers projects >10MW declared capacity in the REPD; and
- (iv) does not consider temporal correlations – e.g. is the last five years better/worse/, are smaller projects more successful than larger projects, etc.

Based on our experience of the current planning climate and all of the above, Innova would estimate that somewhere in the region 80% of projects that reach Gate 2 will get planning consent.

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According to the analysis completed by Innova and detailed in our response to Question 7, nearly 80% of projects will not meet their contracted connection date and will need to delay their connection date or be terminated. Some of these projects will delay until after 2030 although it is difficult to know what % of projects would do this. Innova recommend NESO undertake further analysis to arrive at sensible Project Success Weightings.

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?

Innova agrees with the approach to align the existing queue to the gate 2 readiness criteria (Gate 2 to Whole Queue process). We are supportive of aligning the existing queue to the Clean Power 2030 Action Plan capacity targets during the initial application window (Gate 2 to Whole Queue process), and during future application windows. However, Innova believe a Project Success Weighting Factor should be applied to TEC or Developer Capacity when determining the projects needed to meet the Clean Power 2030 Plan. Please see our response to Question 1 and Question 8 for more details.

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

There is a lack of clarity over the process outlined in section 7 as to whether it will be used to manage advancement requests for the Gate 2 to Whole Queue process and the enduring process. Clause 7.17.6 suggests it will apply to all application windows including the initial Gate 2 to Whole Queue process.

If a project requests an advancement from 2031–35 to 2027–2030 then it must accept this advancement and cannot subsequently get a re-offer to go back to its original date. Innova agrees with the process only if it is active for the enduring process and not active for the one-off Gate 2 to Whole Queue Process.

NESO need to be explicit about the evidence required to be considered for advancement. Innova believes that there needs to be a high bar to show you can deliver for the date you are requesting advancement to. NESO should require the Developer to engage with the Transmission Owner who should provide evidence to NESO that the advancement is feasible, although the ability to advance should not be solely based on the evidence provided by the

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Transmission Owner. NESO needs to provide clarity on Project Advancement criteria and evidence as part of the final Methodologies.

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

Innova believes it is vital the reservation of Connection Points is considered only after all options to resolve the undersupply via project advancements and zonal substitutions have been explored. Innova believes Zonal Substitution should include the ability to substitute capacity between transmission and distribution, however, we appreciate that would require the agreement of the Transmission or Distribution owner who would be accepting the increased capacity as it would likely require a change to their network investment.

Innova believes managing undersupply should follow a process where NESO (i) try to resolve the undersupply using project advancements within the relevant zone (Original Zone), (ii) try to resolve the undersupply from the oversupply in an adjacent zones, where a distribution zone in the same geographical area is considered adjacent, (iii) try to resolve the undersupply from the oversupply in Zones that are two removed from the Original Zone, (iv) try to resolve the undersupply from the oversupply in Zones that are three removed from the Original Zone. Any change to the Zonal substitution process should be clearly detailed in the final CNDM.

Innova is very concerned that the locational modelling completed by NESO is currently not able to accurately capture the existing pipeline of projects, and the other constraints that drive the development of onshore renewables in certain parts of the country (e.g. availability of suitable land or distribution network curtailment). The ability to substitute capacity between transmission and distribution, and between adjacent zones, would help manage the risk of under delivery caused by inaccuracies in the locational modelling provided as part of the Clean Power 2030 Action Plan.

It is worth noting that an undersupply may be caused by the application of Project Success Weightings, detailed in Question 8, and the NESO should consider how they would manage an undersupply in that scenario.

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

Innova strongly supports the principle that “No contractual changes will be made to any other projects as a result of capacity reallocation” unless the affected party has consented to a connection date advancement, as this will provide certainty to investors and the industry.

There is a lack of clarity over how project delays will be managed when a project requests a delay to their connection. See the response to Question 7 for more details.

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It is also not clear what NESO mean by “exit the queue”. For example, will a delay from pre-31st December 2030 to post-31st December 2030 be classed as exiting the ‘Phase 1’ (pre-2031) queue and entering the ‘Phase 2’ (2031-2035) queue? If so, how would a project moving from the Phase 1 queue to the Phase 2 queue be treated – will it go to the back of the Phase 2 queue? This is an important clarification and has a significant impact on the proposed reforms.

Innova proposes that a project moving from Phase 1 to Phase 2 should be given the earliest connection date possible without changing another Users connection date, except where a project would like to be considered for advancement. This may mean a project is able to ‘swap’* with a phase 2 project or it may mean it is able to fill unallocated capacity or otherwise it might mean the delayed project goes to the back of the Phase 2 queue.

Innova supports the intention of NESO to keep a live register of projects’ ability and willingness to advance, Innova believes this can be achieved by NESO improving their contract data management systems ensuring they are engaging with all holders of Connection Agreements. This would require NESO to keep up-to-date data on milestone evidence, milestone progression, commercial health, track record etc of Users. This data repository should be easy to access and easy to use by all Contract Managers.

It is unclear whether phase 1 (pre-2030) and phase 2 (2031-2035) will be considered as separate queues. This must be clarified by NESO as it makes a huge difference to the impact of these reforms as well as the sustainable management of the queue in the future. Reallocation would be a fundamentally different process if Phase 1 and Phase 2 are considered separate queues. Innova believes Phase 1 and Phase 2 should be treated as one continuous queue.

*In practice a swap would be an interactive process, where one project is requesting a delay and another project is requesting an advancement, and although separate the completion of each process would only be able to happen if the other process is completed.

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)

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Please insert your answer here for a).

The Land Readiness criteria are largely derived from the Original Red Line Boundary rules set out in CMP427 and further refined in CMP434. Innova agrees with the requirements and processes set out in section 4 of the Gate 2 Criteria Methodology.

Innova believes the land option should have a minimum three-year period from the date the Option is signed and not the date the Gate 2 application is submitted. We believe this is NESOs intention but the first bullet point in section 4.9 contradicts this statement and suggests the Option length must be >3 years at the date the Gate 2 Application is submitted.

Please insert your answer here for b).

Yes, Innova agrees that projects that can evidence sufficient land options or land ownership (including DCOs) should not be required to submit planning as part of the Gate 2 Criteria.

However, in section 5.2 it is not clear if DCO projects must provide evidence that the Red Line Boundary submitted as part of the DCO planning application meets the Minimum Land Density table. Innova believes it should, although acknowledges a DCO project may change its Red Line Boundary as part of the community, and therefore the limit of an additional 50% of installed capacity outside of the Original Red Line Boundary should not apply to DCO projects.

Please insert your answer here for c).

For each embedded project seeking advancement, Innova is concerned that DNOs will need to complete an exercise to confirm if the distribution reinforcement works will be completed before the requested date.

Innova believes all embedded projects have submitted an Original Red Line Boundary as part of their distribution application and will have submitted the Installed Capacity within Part 3 Section 1 of the ENA G99 Connection Application form.

However, Innova is concerned Transmission projects will be providing the Installed Capacity for the first time as part of the Declaration form. NESO should work with DNOs to ensure they allow Embedded projects to reconfirm or change their Installed Capacity, as per the ENA G99 form, to align with the Land Option they have. The land option for embedded projects will still need to comply with the Minimum Land Density table detailed in CMP427.

Innova is very concerned this process will be too complicated for DNO connection teams to understand and would recommend that NESO provide adequate training to all DNO connection teams before the implementation date. It would be helpful to set up a queries hotline for DNOs during the application window, to ensure all queries are answered within 1-2 business days.

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Section 8.6 and Section 8.9 Innova is concerned the initial checks do not go far enough. Innova believes the initial checks should include a check that the Acreage in the Land Option meets the Minimum Energy Density requirement as per the Energy Density Table and the verification of Directors who have signed the Readiness Declaration letter. There are a lot of complex rules for companies to follow and mistakes are likely to be a common occurrence, minimum acreage and director checks are simple lookup exercises that can be completed as part of the initial checks.

In Section 8.7 NESO should make it clear that embedded demand will not be required to go through a Transmission Impact Assessment and therefore will not be required to comply with the Gate 2 criteria.

Section 8.8 does not align with the Connections Network Design Methodology. During the first application window, it will not be possible for NESO to confirm if a project has met the Gate 2 Strategic Alignment Criteria until the Whole Queue to Gate 2 reordering process has been completed, which will be sometime after the Gate 2 Application window closes.

In Section 8.15 NESO must clarify how the capacity will be reallocated in the event a project fails the detailed Gate 2 Criteria evidence checks. A project could fail the checks after the network design process has been completed but before the Gate 2 Offers are issued to Users, in this scenario will NESO reallocate the capacity to projects within that design window and therefore update or re-issue Gate 2 offers, or will the capacity be reallocated within the next design window i.e. 6 months later.

Please insert your answer here for d).

Innova strongly recommends that NESO include an option for projects to request a later connection date than the date they have in their existing agreement. As per Innova's response to Question 7, there is a significant percentage of projects in the TEC register we believe will need to delay their connection date and therefore it is vital there is a mechanism for them to do this as part of the Whole Queue to Gate 2 process. NESO could allow the TOs to assess each project and realign the Appendix J milestones for each project. However, Innova believes it would be more efficient if Users could request the date they believe they can deliver the project, whether that requires a connection date advancement or a connection date delay.

Innova recommend the wording for the Director Statement is improved. For the land duplication director statement, the Director must state to the best of their knowledge if a developer, or another developer (including the landowner themselves), is applying for any other connection using the same land, including a connection at transmission or distribution.

Innova believes the Readiness Declaration letter for CMP434 and CMP435 are missing the declaration of the Installed Capacity that will be associated with each Technology within the Existing Agreement. This will be a new parameter that the Developer should declare for the first

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time and will be used to check minimum land requirements, whether the project has too much TEC/ Developer Capacity, and for compliance with ongoing land requirements.

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?

Yes, Innova agrees 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.

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?

Yes, Innova agrees that projects should be designated based on the following criteria:

- Critical to Security of Supply
- Critical to System Operation
- Materially reduce system and/or network constraints
- New technologies and / or highly innovative projects
- Very Long Lead Items.

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

There are many different solutions to manage system operations, security of supply, and constraint costs, the criteria for designation is very broad and appears to allow NESO a lot of flexibility and discretion when choosing projects to designate. Due to the controversial nature of designation, the material benefit to designated projects, and the potentially detrimental impact on other projects, Innova believes the criteria for designation should be more specific and transparent to the industry.

If NESO believed the criteria did not allow a project to be designated that is clearly a benefit to the system, then they could request approval from Ofgem to designate that project or to update the Designation Criteria to include that project and projects like it.

Innova proposes that NESO link the criteria to existing or proposed competitive tenders such as the Capacity Market, Contract for Difference (CFD), stability markets, and innovative constraint

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markets. Innova believes these tenders provide sufficient rigour, fairness, and competitiveness for projects to be designated and are not aware of a reason, outside of these tenders, where a project would be critical to the security of supply, critical to system operation, or materially reduce system/ network constraints. If NESO are intending to designate projects with these types of contracts that should be made expressly clear in the final Project Designation Methodology.

NESO must be very careful with the application of Designation, as a designation of one Project will potentially create a legal precedent for similar projects to be designated which may not be in the best interest of the electricity industry.

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

It is unclear if NESO will designate any projects in the Gate 2 to Whole Queue process. Innova believes NESO should not designate any projects based on the Security of Supply and System Operation criteria during the Gate 2 to Whole Queue process. If NESO has specific projects they believe will meet the Project Designation criteria, such as projects which have been successful in the Contracts for Difference (CfD) or Capacity Market (CM) then they should signal that to the industry as part of the Final Methodologies published in January.

These criteria are inherently complex and subject to interpretation. For example, what constitutes a "material risk" to security or system operation may vary depending on evolving market conditions, making it difficult for developers to plan effectively.

The designation process for these categories appears to require detailed modelling and data analysis, which is typically available only after a project's impact on the network has been evaluated during the CNDM. This raises *process* concerns about whether designations can be made transparently and fairly before the Connections Network Designing process is complete.

Innova strongly supports the requirement for NESO to publish any decisions on Project Designations. If projects are designated without clear and consistent rationale, it could lead to perceived or actual bias/favouritism, harming trust in NESO's governance of the connections process.

Additional Questions

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

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Benefits of Multi-Technology (Co-located) Projects Not Recognised

Multi-technology projects play a crucial role in enhancing the efficiency and cost-effectiveness of the electricity network and the benefits of co-location should be recognised by NESO. By contributing to multiple technology pots, multi-technology projects provide significant flexibility and maximise the value/usage of limited connection capacity. Co-located sites offer substantial benefits, such as efficiently utilising connections, reducing connection costs, and minimising the need for additional network infrastructure.

However, NESO's proposed Methodologies fail to account for these advantages, treating each technology within a multi-technology project as separate. This approach undermines the potential of multi-technology projects to support the development of the most economical and efficient network. A more holistic perspective is essential to fully leverage the benefits of co-located sites.

Innova advocates for co-located projects to be given priority within the connection reform process. If one technology within a project is given a Gate 2 Offer then the other co-located technologies (assuming they have met the Gate 2 Criteria) would be given a free pass (potentially through designation) to ensure they are given a Gate 2 Offer with the same connection date or a later connection date, if required. This would align with the overarching objective of building an efficient, future-ready network.

The secondary technology can be 'dragged along' only if the additional technology does not require additional transmission network reinforcement i.e. it would not require an increase in TEC. Innova has provided the following examples to illustrate how this may work:

Example 1

Connection TEC: 400MW

Primary Technology: Energy Storage

Installed Capacity of Primary Technology: 500MW

Revised TEC: 400MW

Secondary Technology: Solar PV

Installed Capacity of Secondary Technology: 50MW

Amount of Secondary Technology 'dragged along': 50MW of Solar PV (assuming no increase in TEC)

Example 2

Connection TEC: 400MW

Primary Technology: Solar PV

Installed Capacity of Primary Technology: 50MW

Revised TEC: 50MW (assumed TEC cannot be higher than installed capacity)

Secondary Technology: Energy Storage

Installed Capacity of Secondary Technology: 500MW

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Amount of Secondary Technology 'dragged along': 50MW of Energy Storage (Assuming no increase in TEC)

No Methodology and Lack of Clear Data

Innova is deeply concerned that NESO has failed to publish critical data, such as technology-specific capacity allocations (Pots) for each zone, in a usable format like Excel. The only way to access this information is by deriving the information from graphs in the 'Draft – NESO Connections Reform Data Impact Assessment'.

This lack of accessibility significantly hinders stakeholders' ability to analyse and engage with the information effectively. Furthermore, the absence of a transparent and detailed methodology explaining how these capacity figures were determined raises serious questions about the robustness and fairness of the process. Without transparency on the assumptions, modelling, and criteria underpinning these allocations, the industry can't assess whether the decisions align with key strategic objectives such as net zero, cost efficiency, and equitable access. NESO's approach undermines stakeholder confidence and risks creating the perception of arbitrary decision-making, which is unacceptable for a process of this importance. We urge NESO to address these shortcomings immediately by providing the data in a practical format and publishing a clear, detailed methodology.

Proposal for Development Expenditure Compensation Process

To address the impact of removing grid connection agreements, Innova proposes establishing a compensation claims process for affected Users, particularly those already in the planning stage or with planning permission secured. Such a process would ensure fairness and minimise the financial loss developers face when grid offers are withdrawn due to retrospective changes in the connections process. Key considerations for this process include:

- **Eligibility Criteria:** Compensation should be available to projects with demonstrated commitment, such as submitted or approved planning applications, secured land rights, or significant DEVEX expenditure;
- **Application Requirements:** Developers should provide evidence for each claim, including proof of connection ownership and project progress; and
- **Compensation Value:** For simplicity this could be a fixed amount based on the size of the project (MW), project delay (if required), planning route, and project development milestones completed e.g. a project that has achieved planning consent would be entitled to more compensation than a project with land rights only.

Innova would recommend a specific consultation by NESO or Ofgem to agree the compensation available for delayed or terminated grid connections.

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It is important that a compensation scheme is set up as industry has made investment based on rules which are now being retrospectively changed. Incorrectly allocating damages for market participants will damage investor confidence and increase the cost of capital for investing in the UK, increasing future costs to consumers for delivering UK energy infrastructure.

Increase the Capacity for Transmission Connected Solar

We strongly support the expansion of the Capacity for solar PV projects connecting at the transmission level, aligning with the government's decision to review the Nationally Significant Infrastructure Project (NSIP) threshold for solar, which may result in it being increased from 50MW AC to 100MW AC or 150 MW AC. This proposed policy change reflects the growing maturity of the solar PV market and the increasing appetite for larger projects. Larger-scale solar installations are significantly more cost-effective, offering lower costs to consumers while maximising the efficiency of the connection infrastructure.

The anticipated increase in the NSIP threshold will reduce barriers to entry for transmission-connected solar, enabling more streamlined development pathways. However, NESO's current stance increases barriers to this evolving market trend and the appetite for larger solar projects. This disconnect could stall investment decisions in transmission-connected solar PV as developers wait for clarity on meeting regional quotas. The risk of developers writing off significant DEVEX due to delayed progress would severely hamper future investment in the sector.

2.7 GW of transmission-connected DCO solar projects have received planning consent: Cleve Hill (350 MW); Longfield (500 MW); Gate Burton (500 MW); Cottam (600 MW); Mallard Pass (240 MW); and Sunnica (500 MW). These projects could connect by 2030, meeting ~7% of the identified need for additional solar by 2030 (~35 GW). However, under NESO's Clean Power 2030 Advice, all but one of these DCO solar projects would likely be delayed to post-2030.

Innova is not aware of a system constraint that would stop the connection of consented DCOs or other DCOs in the pipeline, it also contradicts the Government's strong support for the large-scale solar sector as many of these projects have been recently granted a DCO by the Secretary of State Ed Miliband. Unintended consequences such as this, caused by the NESO advice to the Government, would seriously harm investor confidence in the UK's energy sector.

NESO has identified a need for some transmission-connected solar projects by 2030 in areas such as South Scotland and Southwest England. However, few projects are proposed in these areas due to low irradiation (Scotland) or lack of suitable land (Southwest England). This raises serious questions about the locational capabilities of NESO's model and the robustness of its output.

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Furthermore, prioritising fewer, larger solar projects reduces pressure on the Engineering and Procurement Contractor (EPC) supply chain as they have fewer projects to manage and can make more efficient use of resources. When paired with co-location opportunities, these projects can optimise the use of existing or planned infrastructure, enhancing network efficiency while minimising additional infrastructure requirements. We urge NESO to integrate these considerations into its Clean Power Plan 2030 advice, ensuring Solar's critical role in the energy transition is fully realised.

Delay Charges for Transmission Owners

Innova believe Reciprocal Liquidated Damages (LDs) are to be paid by the Transmission Owner or Distribution Owner to project developers if they delay a project that has met all its development milestones and is progressing as required.