

Ofgem's consultation on the connections end-to-end review

National Grid Electricity Transmission response

13 January 2025

This is National Grid Electricity Transmission plc's response to Question 8 of Ofgem's consultation on the connections end-to-end review of the regulatory framework dated 8 November 2024. We appreciate the extension of the deadline to respond to Questions 1 to 7 related to obligations. We will respond by the revised deadline of 12 February.

We fully support the ongoing programme to reform the connections process. We are actively supporting the process, and we are committed to helping the Government achieve its target of Clean Power by 2030 and to support the wider economy to decarbonise and reach net zero emissions by 2050. This provides a good opportunity to review the current package of incentives and obligations related to connections to ensure they remain fit for purpose and targeted at what will support us deliver a high quality and timely service to our customers and wider stakeholders. Incentives and obligations must be aligned to roles and responsibilities that will endure post reform of the connections process currently underway.

We welcome Ofgem consulting at this stage of development of its proposals for new incentives related to connections for the RIIO-T3 period. It is important, as Ofgem is doing, to consider incentives, obligations and other requirements, e.g. through the codes, as a package to avoid a situation where a network company can face duplicate financial penalties through a combination of incentive penalty, licence breach and customer compensation. We consider that incentives can more effectively drive the desired outcome from the Connections Action Plan rather than additional obligations as are being considered through the wider consultation related to the end-to-end review. In summary, in developing the proposals further we consider there is a need to focus on the following key points:

- A good incentive should meet some core requirements: drive consumer value; be additive to and distinct from other regulatory requirements; the performance outcome desired must be measurable; the incentivised party should be able to control the outcome through the actions it takes (with suitable exceptions where this is not the case); and there should be a reasonable probability of a reward if positive actions are taken. We consider there are alternatives to the proposals put forward by Ofgem that can better meet these requirements.
- We favour a capacity creation incentive that would build on the proposal from Ofgem to incentivise creation of supergrid transformer (SGT) capacity. Focusing on SGTs limits the relevance of the incentive to supporting transmission connections as only some connection designs require these assets. A broader recognition of the assets that facilitate connections is required. It could also incentivise the wrong behaviour by driving a focus on providing a capex solution for embedded generation rather than, in some cases, a more efficient opex solution.
- A financial (penalty and reward) incentive on creating connections capacity (delivered through the provision of a range of connections assets which provide a capacity benefit that could be measured in MW/MVA) could be designed to support timely and faster connections and create ambitious volumes of connections capacity in line with a net zero pathway. Key to the development of a powerful but fair incentive will be how the benchmark for the volume of capacity needed is set.
- Ofgem should reconsider removing the Quality of Connections Satisfaction Survey and work with transmission owners (TOs) and other stakeholders to instead reform the survey. We agree that the survey, in its current form, will not be fit for purpose once the connections process reforms are embedded but continue to consider that a customer satisfaction incentive is an important part of the regulatory framework. For customers, it remains a valuable formal tool by which they can provide feedback on the service they receive. The survey should assess the parts of the process within TOs' control (and NESO's where the incentive is extended to it).
- The TOs are committed to working together and alongside Ofgem to develop a package of incentives that will drive consumer value over the RIIO-T3 period.

Answers to the questions posed are in Appendix A.

Appendix A: Response to Questions 8 on RIIO T3 Electricity Transmission Network Incentivisation

8a. What are your thoughts on each of the three ideas we have presented? In your response, please identify positives and negatives you see in each of the proposals, and if you have a favoured option and why that is.

We support a review of the connections incentives on transmission owners (TOs) that will exist over the RIIO-T3 period. Incentives in this area can be better targeted to support the outcome of timely and high quality service and existing incentives will need to be revised to ensure alignment with roles and responsibilities that will endure post reform of the connections process.

The table below provides a summary of our views on the positives and negatives of the three ideas put forward by Ofgem. We consider that none of the ideas meet the requirements of a good incentive design. We discuss these requirements and our position on more suitable alternatives in response to Question 8b.

Idea	Positives	Negatives
Post price control performance review	<ul style="list-style-type: none"> Could retain a link to customers' views if a survey element is retained. We support retention of a customer survey (see response to Question 8b). 	<ul style="list-style-type: none"> Performance (at least in part) would be based on Ofgem's views, which are likely to be subjective, rather than based on measurable results. Unclear if respective roles of TOs, NESO and DNOs could be separated adequately in perceiving positive or poor performance. It would require considerable work to set baselines for the range of metrics suggested and availability of data to do so would pose challenges. Driving consumer value through incentives means acting on the signals the incentive provides but those signals would be very weak if the results are not known until some time after the price control period. Surveying stakeholders only at the end of the period would likely skew the results to views at that point in time rather than represent performance over the course of the period.
Connection timeframes	<ul style="list-style-type: none"> Performance is measurable. Meets the requirement to deliver consumer value because there is a link between delivering on time/early and driving value for the connecting customer and the wider consumer base if it supports decarbonisation and energy security. 	<ul style="list-style-type: none"> Practicality of development constrained by the fact that there is no standard project length on which to set a benchmark timeline. There are many variables determining project length, some within and some outside TO's control. Categorisation of connection types would not resolve this given the variables at play and TO's level of control over those variables on a project-by-project basis, e.g. customers' timelines, planning and consenting, access to supply chain. Separate assessments would likely therefore be needed for all projects which would create regulatory burden for TOs and Ofgem.

Idea	Positives	Negatives
Supergrid transformer (SGT) capacity	<ul style="list-style-type: none"> Performance is measurable. 	<ul style="list-style-type: none"> The incentive does not target the connection of transmission level generation or demand that will support objectives for Clean Power 2030 and low carbon economic growth. SGTs are generally not installed for transmission connections, rather they support connection of embedded (DNO connected) generation. Creates an incentive to favour a capex solution to connecting embedded generation in cases when alternative opex solutions exist which can reduce the time and cost of the connection for the consumer. Rewarding deploying more capacity than outlined in plans could be perceived as rewarding TOs for deploying more assets than is necessary to deliver their plans with the cost of the investment and the incentive value recouped through bills.

8b. With reference to our Future Considerations, do you have any further ideas on how TOs could be incentivised through a financial penalty and reward model, to deliver faster connections times, a more effective overall connections process in RIIO-T3 and drive behaviours that have a positive long-term impact on the network?

We have additional ideas for connections incentives that could apply over the RIIO-T3 period. Both ideas need further development and need to evolve alongside the connections reform programme to ensure they support the enduring connections regime. We are committed to working with other TOs, interested stakeholders and Ofgem to develop these ideas further. In summary the ideas are:


























- **Customer survey:** The existing Quality of Connections Satisfaction Survey should be reformed rather than removed in RIIO-T3 as currently proposed by Ofgem. The survey should assess the parts of the processes within TOs' control (and NESO's were the incentive to extend to it).
- **Connections capacity creation:** Supporting TOs to provide a capacity rich network in time or ahead of need through rewarding delivery early and penalising late delivery. But unlike Ofgem's connection timeframe incentive idea it would not need to be linked to specific projects allowing TOs to manage work more efficiently.

Both incentives can be designed to meet Ofgem's requirements, namely they: have financial impact; offer opportunity for penalty and reward; drive long-term benefits by encouraging timely connection of new low carbon generation; and require actions (to lesser and greater extents) that are within TO's control.

In addition to Ofgem's requirements for good incentive design, we consider the following criteria equally important:

- Actions taken because of the incentive **drive consumer value** by aligning TOs' priorities with those of consumers.
- The incentive is **additive to and distinct** from other regulatory requirements.
- The performance outcome desired must be capable of being **measurable**.
- The incentivised party should be able to **control the outcome** through the actions it takes (with suitable exceptions where this is not the case).
- There should be a **reasonable probability of a reward** if positive actions are taken.

The ideas we present provide greater likelihood to meet these criteria than the ideas presented in the consultation. The table below summarises our view on how each would perform against these criteria with red indicating it would perform poorly and green indicating it would perform well.

Incentive idea	Consumer value	Distinct	Measurable	Controllable	Deliverable*
Ofgem: Post price control performance review					
Ofgem: Connection timeframes					
Ofgem: SGT capacity					
NGET: Customer survey					
NGET: Connections capacity creation					

*Deliverability is dependent on how the baseline is set and whether there is a realistic opportunity to outperform.

Customer survey

The existing Quality of Connections Satisfaction Survey should be reformed for RIIO-T3 rather than removed as currently proposed by Ofgem. Ofgem's reasoning for its removal is not clear. There is scope for improvement in the customer service TOs provide and it is challenging to set standards on service because 'quality' is hard to quantify. Therefore, we see benefit of retaining an incentive linked to a survey of customers' views on our performance.

Connections reform will fundamentally change the process and respective responsibilities of NESO, TOs, DNOs and customers. This must be accounted for in re-designing the survey. It is essential that the survey design isolates the views of customers on our performance as a TO separately from the performance of NESO as the party that holds the connection contract with the customer. It will also need to be updated to address any changes in milestones in the connections process under the enduring regime. Additionally, we see value in considering if the views of DNOs or customers connecting to the distribution network that trigger transmission reinforcement could be captured through a reformed survey.

As there is a process of change ongoing, we consider that initially, for year one as a minimum, the survey should be reputational only. This would create data to support setting a baseline for future years in RIIO-T3 and beyond.

Connections capacity creation

We support an incentive linked to creating capacity on our network that speeds up connections. This builds on the ideas from Ofgem for incentives on connection timeframes and creation of SGT capacity. Our proposal, while requiring more development, does not come with some of the challenges these ideas presented.

A financial (penalty and reward) incentive on connections capacity creation could be designed to support timely and faster connections and create ambitious volumes of connections capacity in line with a net zero pathway. This ultimately benefits consumers/society through increased low carbon generation which delivers carbon benefits and domestic energy resilience. An incentive could be linked to delivery of more (reward) or less (penalty) capacity in comparison to a benchmark. Capacity is delivered through the provision of a range of assets that deliver increases in generation and/ or demand capacity, for example available and energised circuit breakers and/ or transformers that will allow a customer to connect. A MW or MVA capacity benefit is delivered by these assets and could be used as the performance measure.

The assets required to connect customers vary depending on the type of customer connecting. Unlike the SGT capacity incentive idea, encouraging capacity creation using a suitable range of assets would not limit the types of connections that are incentivised. Neither would it result in the perverse incentive to install a specific asset if a more efficient or appropriate opex solution is available. For example, networks have developed initiatives such as the gris supply point (GSP) technical limits to allow connection to the distribution network ahead of the completion of required transmission reinforcement works, under the condition that the DNOs limit the power flow across the GSP to their agreed limit.

Arguably there would still be an incentive to deliver more than is required with a risk of stranded assets. We consider this risk very low. This is because the scale of connections in the pipeline mean it is reasonable to assume growth for many years to come and there are practical challenges to delivering an already ambitious baseline. A cap and collar on the financial impact of this incentive would additionally control any perverse incentive to over-build to seek to maximise

financial reward under the incentive and protect TOs against unanticipated decline in the demand for connections, respectively.

Key to the development of a powerful but fair incentive will be how the benchmark for the volume of capacity needed is set and how it may need to evolve over time. It should be based on a regional view of generation connection capacity needed to deliver decarbonisation ambition. Clean Power 2030 may deliver this with updates available through future Strategic Spatial Energy Plans. Alternatively, TO views, as outlined in their plans, could be used. The incentive should be supported by efficient routes to funding connections infrastructure, in particular generation and demand volume drivers that fund TOs to deliver connections and options for connections in anticipation of likely customer needs.

Key features of this incentive are outlined in the table below. We are committed to working with TOs, interested stakeholders and Ofgem to develop this further.

Feature	Detail
Consumer value case	Delivering on time/in advance of need would support connecting customers and offer value to wider consumers by allowing connection of low carbon generation quicker than would otherwise be the case.
Incentive type	Penalty and reward.
Performance measure	Capacity created through delivery of energised substation assets, which could be represented in MW/ MVA.
Performance target	Regional view of connection capacity needed to deliver decarbonisation ambition. Clean Power 2030 may deliver this as currently not available through Future Energy Scenarios (FES). Alternatively, TO views (in plans) could be used.
Incentive value	Options are a) a carbon price (carbon saved/emitted from connecting generation sooner/later than benchmark), b) regulated equity at risk (as used in the water sector), c) use a 'time value of money' concept (as used in price control deliverable calculations).
Financial cap and collar	Beneficial for aligning rewards with consumer value generated and managing TO risk, e.g. 0.5% RoRE.
Exceptions and exclusions	Where delays to capacity delivery can be evidenced as outside of a TO's control, e.g. due to planning and consenting delays or material constraints within the supply chain.