

Alasdair MacMillan

By email: Connections@ofgem.gov.uk

13th January 2025

Dear Alasdair

Connections end-to-end review – RIIO-T3 Incentives

This response is prepared on behalf of SSEN Transmission, part of the SSE Group, responsible for the electricity transmission network in the north of Scotland. We acknowledge that the end-to-end connection review consultation submission deadline has been extended, with the exception of RIIO-T3 Incentive part of the consultation, as Ofgem has stated that this will be developed on a different timeline.

We welcome the Ofgem proposals for the connection incentive and we have provided feedback on these, however, the proposals still need a significant amount of collaborative development before the question of what to incentivise can be fully answered. As outlined in our recently submitted RIIO-T3 Business Plan¹, our fundamental goal is to deliver a network for net zero and the delivery of customer connections plays a critical role in achieving this goal. This has also been acknowledged by government and wider industry.

The ongoing Connections Reform will implement a process that will fundamentally alter how we plan for and deliver customer connections from 2025 onwards. The Government's Clean Power 2030 Action Plan and then the first Strategic Spatial Energy Plan will shape the mix of clean energy sources being connected to the electricity network and therefore being delivered in RIIO-T3 to align with strategic clean power pathways. We are supportive of the process.

Although we recognise that incentives play a key role in the regulatory framework, there is a risk that introducing new financial incentives at a time the industry is going through significant and unprecedented reform and investment could result in the wrong incentive driving perverse or unintended behaviours or outcomes. There needs to be further clarity about how the new connection process will work in practice and the challenges it will address. We have categorised the implementation of an incentive framework for connections into two phases.

Phase 1 - Transitional Period – 2030 targets: We are in a period of unprecedented industry reform and investment, while also setting the next RIIO-T3 price control. The scale of the infrastructure delivery

¹ [SSEN Transmission - RIIO-T3 Business Plan](#)

challenge for 2030 is yet to be confirmed by the reformed connection process, while simultaneously the delivery window is rapidly closing. Therefore, it is not the time to be introducing a new strong incentive for connections. It is more pragmatic to allow time for TMO4+ to bed in and to use this early period as an opportunity to gather data and information on the process to inform the enduring process in RIIO-T4. We propose that the existing Quality of Connection Survey (QoCS) is evolved to provide a reward/penalty incentive, with a reputational delivery incentive to capture delivery data through enhanced reporting.

Phase 2 - Enduring Process: Once the TMO4+ process is established a new Output Delivery Incentive (ODI) regulatory framework for connections could then be developed for RIIO-T4 onwards with incentivised targets based on process milestones, connection delivery in practice as part of the reformed process. This information would be collected as part of the reputational incentive within the RIIO-T3 period to inform the enduring process.

This approach allows an incremental implementation for an incentive framework that is understood, aligns with the process and delivers value. The development of the end-to-end connection obligations and incentive needs to be done in parallel. Until the new connections obligations regime is fully developed and understood, along with its alignment with the new TMO4+ process, it is difficult to commit to a substantive output delivery incentive. It is important that through the development of the TMO4+ does not have a disproportionately negative impact on the parties; networks, National Energy System Operator (NESO) and developers as we move through the transitional period in RIIO-T3.

Next Steps

We are committed to working collaboratively with Ofgem and the other TOs to develop a solution that could be tested against the new enduring process with a view to implementing a firm solution when appropriate ensuring the outcome of the policy development on the obligations as part of the new enduring process are settled.

We look forward to collaborating with the other TOs and Ofgem to develop the appropriate incentive framework to support connections ahead of Business Plan Determinations. We have provided a detailed response to Ofgem's proposals on Output Delivery Incentive (ODI) and our initial thinking on how the incentive for connections could be structured.

Yours sincerely

Bryan O'Neill

Senior Regulation Manager

Appendix 1

QUESTION 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.

In our view, incentivising connections should only be introduced once industry-wide changes are fully integrated into processes and workflows. Setting incentives too early risks rewarding or penalising the wrong companies or encouraging low-value activities that do not add value to consumers or stakeholders.

Connection Reform will fundamentally alter how we plan for and deliver customer connections from 2025 onwards. We have recently submitted our RIIO-T3 Business Plan which sets out how the Government's Clean Power 2030 Action Plan will shape the connections being delivered in RIIO-T3 to align with strategic clean power pathways. Both connections and strategic planning will continue to evolve and change over the coming year, moving towards a target driven model. This means that our commitments on how best to incentivise connections cannot be firm until the wider industry change is confirmed.

Ofgem note that it has “decided to develop a new incentive structure to drive faster connections times and a more effective overall connections process, which would replace the two existing connections ODI-Fs.” We would argue that the changes introduced by the connection reform process and the CPP2030 will address many if not most of these issues of connections timeliness and represent a more overall effective process.

- *Delivery:* We understand that the new connection offer will have binding connection dates that will hold us to account on delivery of the connection works.
- *Capacity:* The CPP2030 ambition will provide the basis of the capacity required to meet the requirements of the network to connect clean power to the network.

However, we still believe that the experience of customers connecting to our network through the full connection process is paramount, specifically at a time where reform is driving change in the process for the industry.

Network Background & Interaction with NESO/DNO

We think that Ofgem should recognise that the target driven model that will result from the planning reforms will naturally lead to creation of the required capacity and network access at the desired date. The NESO Strategic Spatial Energy Plan (SSEP) will assess the optimal locations, quantities and types of energy infrastructure required to meet our future energy demand, helping enable the clean, affordable

and secure supply we need. In our view a broad capacity delivery reward mechanism is not consistent with the target driven future planning regime. Any incentive should not encourage the creation of more capacity than has already been deemed optimal.

Another key factor that needs to be considered when developing any connection incentives is how consistent the connections environment is across GB. This is particularly important in relation to capacity creation (Option 3) where the different network configuration and types of network upgrades required to connect generation and demand to the network vary very considerably across the country. Notwithstanding the lack of need for a capacity incentive in a post connections reform / SSEP context, any incentive would first have to overcome the GB wide variation in network connections and enabling infrastructure. These include the following.

- Ofgem note that it considers that there is a clear link between SGT capacity and customer connections. We know in the north of Scotland that this approach does not capture the additional works required to create capacity on the network to enable customer connections. The SGT solution is more applicable to the network configuration in England, not the north of Scotland.
- This also applies to the types of connections we deliver which are varied in scope depending on location within our network and technology type. The interaction with the NESO and DNO is also a key consideration when establishing an incentive within the connections space given that performance of other parties within the process may impact our ability to deliver the connection in line with customer expectations.

We welcome Ofgem focus on how best to encourage the right outcomes in a post connections reform world. We have provided feedback on these below. However, the proposals are either not aligned with the required outcome, or still need a significant amount of development. We would like to continue to engage with Ofgem to ensure these are reflected within the incentive development process.

Option 1: Post Price Control Performance Review

We agree there is merit in retaining a customer focused incentive which evaluates wider performance across different metrics and focuses on customer engagement and learning. However, as Ofgem highlight as a risk within the consultation, the subjectivity and ex post nature proposed in the consultation does not align with the principles of an ODI, where a metric should be set up front.

The annualised reporting under the ODI framework allows for companies to address incentive performance quickly to the benefit of customers and stakeholders during the price control. If this was

only assessed at the end of the period, there may only be changes to behaviours or processes for the next price control. We do not believe that this is in the best interest of customers or consumers.

Ofgem note that using a customer survey score as the basis of financial incentives is an established way of measuring performance in price controls across the energy and water sectors and we fully support the continued use of this approach in RIIO-T3 as the key component of the connection incentive. We believe that the QoCS incentive is effectively fulfilling its purpose of enhancing the quality of service delivered to both current and future connection customers. We use the survey to drive our own quality improvement and make adjustments to processes according to feedback. This sends a strong signal to customers that we value their input, we record feedback on their experience and apply lessons learned. There is a clear need for the continuation of an incentivised customer service mechanism, particularly during and following a period of significant change.

Aligned with the findings from the End-to-End Review regarding quality elements and behaviours, this mechanism would allow for valuable insights to be provided and give opportunities to identify areas of success as well as those that would benefit from improvement. We don't believe that an ex post price control review is appropriate as an incentive approach and that the QoCS incentive will deliver the continued performance in the connections area. We provide further information on this proposal in Q8B below.

A Post Price Control Performance Review	
Benefits	Drawbacks
<ul style="list-style-type: none"> • Merit in retaining customer focused incentive – explore how to evolve the existing QoCS as the basis of a quantitative and qualitative quality of service review. • Support Balanced Scorecard approach capturing key metrics for quality of service. 	<ul style="list-style-type: none"> • Subjectivity and Ex Post nature does not align with the principles of an ODI where a metric should be set up front. • For reflective and accurate feedback, the TO's role in the connection process needs to be fully realised by customers (avoid skewed results via interaction with other parties)

Option 2: Connection Timeframes

We have significant concerns with this proposal as a financial ODI for RIIO-T3. Our primary concern is the interaction with obligations set out within connection reform may create a double jeopardy scenario where the TOs may be penalised through our obligation and also via the ODI. However, until we have worked through the full connection end to end development process it is unclear if this scenario would arise.

Uncontrollable events: We also believe there would be implementation complexities with this proposal due to the number of factors outside TO control. These include developer delays, planning delays, outage requirements driven by NESO, and relevant work to be undertaken by the consumer before connection. Being able to create a financial ODI with clearly defined targets that apply solely to the TO and not impacted by other parties would be extremely challenging to implement and deliver during the price control, without significant regulatory burden being created.

The initial Clean Power Plan produced by the NESO confirms the strategic infrastructure required to move the new additional Clean Power cross boundary by 2030. However, it also acknowledges it does not identify the local connections investment or the enabling infrastructure necessary to connect the new Clean Power sources to the strategic grid. Delivery of that significant additional infrastructure will be required by 2030, and the industry has yet to see the final shape and volume of that work package. It is therefore impossible to know whether it is physically possible to deliver all 2030 connections by the required date. This is a conclusion which cannot be reached until later in 2025/26 and which is also likely to require significant accelerated delivery by networks if it is to be achieved.

The Government's CP2030 response acknowledges that fundamental changes are needed to accelerate the planning process and facilitate the swift construction of critical infrastructure, including reducing the time required for grid connections. Without these planning reforms, connection timelines will be impacted by factors beyond our control.

As we move through this first phase of connections reform, given the significant volume of unknown programme information it is wholly inappropriate to create a financial incentive regime.

Case Study: Whistlefield-Dunoon circuit - Illustration of external factors driving connection and energisation dates.

We proposed replacing the Whistlefield-Dunoon circuit during the RIIO-T2 period. However, a delay in consenting means that this project will no longer be delivered within RIIO-T2 and will instead move into the RIIO-T3 plan.

At the start of RIIO-T2, we initiated the stakeholder consultation and route selection processes. The legislation governing the consenting of overhead line (OHL) projects in Scotland is the Electricity Act 1989. Applications for consent to construct and operate new overhead lines are made under Section 37 of this Act, referred to as "Section 37 Consents." These applications are submitted to the Energy Consents Unit (ECU) of the Scottish Government for determination by Scottish Ministers. The Section 37 consent application was submitted in February 2022, with the expectation that it would be reviewed and approved by ECU within 12 months.

However, the project has faced significant delays in receiving Section 37 consents from the ECU, resulting in a delay of at least 14 months. As a result, the project will now be delivered in the RIIO-T3 period, with a delay of over two years.

Defining a typical connection: There is also the challenge of having a benchmarked timescale, as no project is 'typical' under this proposal. Projects could move between Typical and Atypical over the course of the connection journey.

- Different projects may have different requirements leading to different timescales and project may jump from one timescale to another.
- Benchmarking would require mapping out all activities required for a project from receipt of application till energisation and remove the days for those activities which are not within the control of TO.
- To avoid jumping of project from one timescale to another, TOs can determine days required close to when the project contract or activities required for connection are finalised to have accurate timescales.
- It's possible it would be more appropriate to have a breakdown of days activities wise and voltage wise instead of having an entire period defined. Also, a range of days to be given rather than a definitive figure.

Connection Timeframes	
Benefits	Drawbacks
<ul style="list-style-type: none"> • Provides end to end view of drivers for change in connection delivery date. 	<ul style="list-style-type: none"> • Implementation complexity due to the number of factors outside our control: Developer Delays, Planning delays, Outage requirements driven by NESO. • Benchmarking Connection Delivery: There is also the challenge of having a benchmarked timescale, as no project is 'typical' and under this proposal. Projects may move between the two categories.

Option 3: Supergrid Transformer Capacity

We acknowledge that creating network capacity is a key enabler for connecting customers to the network. However, as noted above we see limited potential or driver to deliver additional capacity beyond that capacity target which has been set out within the CPP2030 envelope. It would be challenging and could be inefficient to deliver additional capacity beyond this. We also believe setting an

appropriate capacity baseline which the incentive can be clearly measured against is extremely challenging given the complexity of our network.

We do not agree with Ofgem's position within the consultation that there is a clear link between installed SGT capacity and rate of customer connections. This simplification ignores the need to reinforce other parts of the network, especially with a number of Grid Supply Points in the north of Scotland being connected to the 132kV network. The key issues of the proposal to use installed SGT capacity as a measure are as follows.

- The approach does not fully consider the different network configuration and reinforcement requirements across the TOs – we believe this application would be limited to England and Wales (e.g. 275kV/400kV network).
- The ability of any TO to deliver additional capacity above RIIO-T3 baseline, Uncertainty Mechanism pipeline and CPP2030 is limited.
- The approach is too narrow with the full network or a 'capacity region' would need to be considered not just a single asset type.
- Capacity increase is not targeted to the area where connection is required, this measure can be easily manipulated by increasing capacity in any area.
- Existence of a capacity target (CPP2030 or SSEP/CSNP) negates the value in creating additional capacity beyond that without extenuating circumstances.
- Any incentive mechanism would have to be calibrated to the marginal cost of creating additional capacity. This would conflict with the Load Related Reopener mechanism in RIIO T3. Furthermore, because of the variability in network configuration, it would require a complex and bespoke incentive value across the GB networks to fund the capacity creation solution.

Therefore, the works required on the network to create capacity goes beyond installing larger SGTs to connect customers at lower voltages e.g. Distribution connected customers. We have provided a case study below that shows the types of network reinforcements we have to undertake to create capacity.

Case Study: Strathy Cluster – Illustration of investment requirements necessary to create capacity above and beyond SGTs

Our RIIO-T3 project to develop the Strathy Cluster is a clear example of the infrastructure works that are necessary to create capacity on our network for new connections that is above and beyond simply installing SGTs. Within our RIIO-T3 Business Plan submission we set out the need to upgrade the capacity of our existing network to deliver the Strathy Cluster Strategy to connect onshore renewable generation. This is a phased approach to consider the potential pipeline of 605.7MW of generation across 5 generators.

The Strathy Cluster scheme will deliver the following outputs:

- Connection of the two wind farms;
- Installation of a 480MVA 275/132kV SGT at Connagill; and
- A 275kV double circuit OHL on L8 Steel Lattice towers between the existing Connagill Substation and the proposed new Strathy switching station using Rubus with two conductors per phase. This will be initially energised at 132kV with each circuit rated at 554MVA and when further generation emerges will transition to 275kV enabling each circuits rating to increase to 1157MVA.

This project illustrates the common connection conditions in the north of Scotland. Creating capacity on the network to connect new generation goes beyond installing larger SGTs. Full details of the project can be found with EJP-052 submitted as part of the RIIO-T3 Business Plan.

Supergrid Transformer Capacity	
Benefits	Drawbacks
<ul style="list-style-type: none"> • Capacity is a key enabler of delivering on time/early for connecting customers • Increasing capacity is within TO's control 	<ul style="list-style-type: none"> • Focus on SGTs is too narrow, the full network or a 'capacity region' would need to be considered not just a single asset type. • Doesn't capture the innovative solutions available to increase capacity – focus on traditional reinforcement. • CPP2030/SSEP/CSNP Capacity targets delivered through other regulatory mechanisms and not by incentive.

QUESTION 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-ET3 and drive behaviours that have a positive long-term impact on the network?

As noted in Q8A, we are unable to propose a detailed incentive package for connections until the wider industry change is further developed and confirmed. The RIIO-T3 period represents a transitional time for the connection process and delivery, our proposal is to ensure that we are financially incentivised to deliver increased levels of service on the areas within our control and ensure that we capture data, insights and learnings via reputational incentivisation.

We do see key components being further progressed on a customer focussed incentive that expands on the current QoC survey and drives quality and improved experiences for customers throughout the connections process. Our proposed approach to incentivising connections is across two areas.

1. Evolved Quality of Connection Survey: Financial ODI (Reward/Penalty)
2. Connection Delivery: Reputational ODI

We provide further detail on each of these proposed components of the incentive below.

Financial Incentive: Evolved QoCS

Based on our RIIO-T2 experience, we strongly believe that the Quality of Connections Survey (QoCS) incentive is successfully achieving its intended purpose of enhancing the quality of service delivered to both current and future connection customers. It plays a vital role in driving positive customer outcomes and the QoCS incentive has proven effective in amplifying the voice of the customer and providing a consistent service measurement for benchmarking.

We have earned the incentive reward based on delivering improvements in customer satisfaction scores, which are a direct result of our efforts. The incentive has driven positive changes, playing a key role in improving customer satisfaction, particularly during challenging periods. Although the transmission connections queue is at historically high levels, our improved satisfaction scores show our commitment to addressing customer needs and improving the customer experience. We have delivered tangible improvements in service quality, which the QoCS initiative has facilitated. The insights captured through the surveys have been instrumental in guiding continuous service enhancements. The key areas of value added through the current QoCS are set out below, which will remain key as we transition into the new connection process during RIIO-T3.

- **Improved Customer Satisfaction:** Our efforts, guided by survey feedback, have directly contributed to improvements in satisfaction scores, reflecting the positive impact of the QoCS on service quality.
- **Deeper Understanding of Customer Needs:** Surveys have been tailored for each MTM, offering unique and valuable insights beyond satisfaction scores, providing a deeper understanding of the customer needs and experience.
- **Customer-Focused Leadership:** We have appointed senior leads for each MTM, ensuring accountability and clear responsibility for acting on and responding to customer feedback.
- **Customer Insights Team:** The creation of a dedicated Customer Insights Team has enabled us to capture, analyse, and apply customer feedback effectively. Regular collaboration between the Insights Team and senior leads ensures the Voice of the Customer remains a central focus, driving meaningful improvements.
- **Effective Use of Customer Feedback:** The Insights Team provide tailored insights for each MTM, delivering bespoke reports that give deeper understandings from the insights captured through the surveys.

- **Responsive Feedback Loop:** We've established a swift and effective process for closing the loop. For scores below a certain threshold, we quickly address and resolve concerns directly with customers. This has helped to keep customers engaged and motivated to participate in our surveys.
- **Enhanced Employee Engagement:** Employees have become more engaged in the experience customers have due to the company's improved visibility of insight, and the focus on customer feedback and continuous improvement.

Therefore, for RIIO-T3, we believe an evolution of the existing incentive that aligns with the new connection regime will continue to play an important role in the delivery of enhanced customer satisfaction across the full process. The interaction with the wider connection reform development process means that similar to the RIIO-T2 incentive there would be merit in running a trial period in the first year of RIIO-T3 to ensure appropriate calibration of the incentive, with the opportunity to refine baseline targets and milestones, for example.

We are committed to collaborating with the other TOs and Ofgem to refine and improve the existing QoCS, and develop an evolved service quality mechanism which obtains reflective and accurate feedback of the service provided by the TO (minimising the potential impact of compromised results reflective of customer interaction with other parties).

Reputational Incentive: Connection Delivery

In addition to the evolved QoCS we would propose a reputational incentive on our connection performance, provided through enhanced reporting. A reputational incentive would be a powerful incentive as it would enhance transparency and accountability, making company actions more visible to Ofgem, connecting customers and wider stakeholders. This increased visibility can lead to greater scrutiny and pressure to ensure strong performance.

This approach would allow data and narrative to be provided on the key drivers that may delay connection delivery, both inside and outside of our control, e.g. planning delays, customer choice, NESO and DNO interaction. This will allow improvements to be made during the short-term timeframes and help inform the enduring connection process while ensuring that Ofgem has the ability to take enforcement action, where performance is significantly poorer than expected levels. We also believe that as part of the transitional period of TM04+ implementation, consideration needs to be given to appropriate transitional rules, particularly around the proposed financial commitments under the process.