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Dear Colleagues,

**SSEN Transmission Response to the RIIO-3 Sector Specific Methodology for the Gas Distribution, Gas Transmission and Electricity Transmission Sectors.**

Thank you for the opportunity to share our views on the RIIO-3 Sector Specific Methodology Consultation (SSMC). We welcome ongoing engagement and we're committed to contributing to the future stages of the development of the price control framework via the working groups and future consultations.

SSEN Transmission is responsible for the electricity transmission network in the North of Scotland. We are responsible for the maintenance and investment in the high voltage 132kV, 220kV, 275kV, and 400kV electricity transmission network. Our extensive network consists of overhead lines, substations, underground and High Voltage Direct Current (HVDC) subsea cables.

To deliver Net Zero, we are investing over £20bn to upgrade the network infrastructure across the north of Scotland between now and the early 2030s as the region plays a leading role in the clean energy transition. We have a strong track record for delivery and as we continue to deliver a network for net zero emissions in the north of Scotland, we have made excellent progress in building the strategic reinforcements to the transmission system required to support the forecast growth in renewable electricity generation across the region.

The majority of our current transmission project expenditure is competitively procured, with over 80% of our project expenditure being procured through the market. Our procurement strategy allows us to utilise several procurement approaches on a project-by-project basis with our trusted contracting partners to deliver the best value for consumers. Early certainty of need confirming delivery by SSEN Transmission, and the deployment of our procurement strategy avoids the cost to consumers of failing to secure the supply chain, delays to delivery and consequential impacts on constraints, carbon costs and network security.

In the SSMC Ofgem has been clear, it wants transmission companies to deliver infrastructure at pace to enable the transition to net zero. It wants to ensure electricity supplies remain resilient to physical,

financial, climate and cyber shocks while consumers and network users receive a high quality and reliable service at an efficient cost. To meet these goals, in our view a successful RIIO framework will deliver:

- **A package of activity that is not only financeable but investable.** Ofgem will need to ensure that the cost of capital is globally competitive, reflective of the macro-economic environment, the scale of the delivery challenge, as well as the fundamentally altered balance of risk and return.
- **Funding for a resilient and efficient network.** The RIIO-T3 price control settlement must continue to prioritise energy and network security, alongside commitments to health, safety, and wellbeing. A resilient network and workforce are essential for our ability to deliver the services that customers expect over the longer term.
- **A Major Projects Regime (MPR) that builds on the success of the ASTI (Accelerated Strategic Transmission Investment) framework.** We welcome the development of the MPR to facilitate the delivery of infrastructure projects. In our view automatic confirmation of pre and early construction funding is the essential step to allow companies to engage and secure the supply chain required for delivery.
- **Support for regional investments.** Regional investment in shared- and sole-use infrastructure are critical to timely connections. Net zero pathways agree on the urgent need for the connection of over 10GW of onshore generation in the North of Scotland. As such, there is a strong case for inclusion of these works within the MPR. This would allow Ofgem to establish common processes for pre and early construction funding, de-risking delivery and allowing early supply chain engagement. This would allow alignment between national and regional investment in terms of delivery timescales and incentives.
- **Mechanisms for managing uncertainty.** In RIIO-T3 uncertainty mechanisms will have a key role to play in managing cost and timing uncertainty during the price control operation. The aggregated impact of the ASTI/MPR projects will have a significant impact on our indirects, estate costs, business support costs, information and operational technology costs that must be recovered through the T3 period and will require appropriate uncertainty mechanisms.
- **Incentivisation for delivery, quality standards and efficiency.** There remains a need for an appropriate incentive regime that reflects the scale of the delivery challenge in the RIIO-T3 period. The incentive regime should focus on net zero delivery. However, all incentives need to reflect the step change in investment required in the RIIO-T3 period and be scaled appropriately to minimise the risk of windfall gains and losses.
- **A digital and innovation framework that focuses on delivery.** There is a clear pathway on the delivery of proposed shared data infrastructure and new deployment routes are available, for recently proven innovative solutions, developed and delivered by other parties or networks.
- **Benefits for the communities we serve.** The framework must recognise the vital role that communities play by hosting critical national infrastructure, and that they can benefit from the delivery of net zero projects.

## **RIIO-T3 Framework Challenges**

In our response to the SSMC we have identified four key challenges to solve in the RIIO-T3 framework, supply chain constraints, allowance setting, the balance of risk between consumers and companies and investability. We have developed proposals as part of our response, but we will seek to work constructively with Ofgem to achieve resolutions on these areas.

### **Supply Chain Constraints**

The RIIO-T3 Plan and the associated price control framework is critical as it will set the foundation for all investment in the period and the financial framework to deliver these investments. However, our plans must be delivered in an environment where costs are volatile and supply chains are stretched. We continue to observe shortages of raw materials, components, and labour, resulting in rising costs and longer lead-times for the supply of some energy infrastructure. Our supply chain intelligence shows that these constraints will persist through the T3 period and can only be mitigated by early engagement and commitment to the supply chain to secure capacity early as global demand continues to outstrip supply for resource, key primary plant and equipment.

Our approach to the supply chain will be to implement lessons learned from T2 to secure key equipment and contractor capacity to deliver the T3 project portfolio in a stable and controlled manner. We will utilise existing contracts, previously competitively tendered frameworks and contracting models which have proved successful for ASTI. As lead times for critical path primary plant are trending above three years in some instances, it is essential that early orders are made well ahead of when would have been required in previous control periods.

In our view, supply chain capacity is available if we act quickly to secure it for the investments, we know we need to make in RIIO-T3. This will reduce delivery risk, lower costs and attract jobs and investments. We are ready to advance RIIO3 procurement, to purchase equipment at scale and we seek support from Ofgem to allow us to make the commitments required to the supply chain for RIIO-T3 and beyond.

### **Allowance Setting**

The key challenge for Ofgem is to develop an appropriate cost assessment process that sets efficient allowances but considers wider market challenges. Ofgem must recognise the step change in delivery requirements as a result of ASTI and the constraints in the market. Previous price controls have seen the extension of economic modelling and regression analysis using historical observed data to inform allowances across most cost categories. In our view historic data is a wholly inappropriate predictor of future market costs and Ofgem should limit the use of economic benchmarking to the areas of the price control where costs are under the control of companies.

The allowances set by Ofgem must reflect market rates for equipment and labour and allow companies to be competitive in the international market. We propose that transparent costs tendered by the supply chain should form the basis of the cost assessment supported by wider value for money assessments. To allow Ofgem to set market-based allowances, where justified by companies, and continue to protect consumers we will be seeking a higher sharing factor for consumers, such that a much larger proportion,

90% of the potential underspend, is returned to consumers. We think this is a pragmatic solution that minimises the need to set detailed disaggregated allowances for each cost category.

As part of our T3 Plan we will develop proposals for alternative indexation approaches, to give a more cost reflective set of in period adjustment mechanisms. However, this must be considered in conjunction with the econometric tools used to establish baseline unit costs. We think that a package of market-based allowances, higher sharing factors and better indexation will help to mitigate the market constraints we see at present.

### **Risk and Reward**

There remains a need for an appropriate incentive regime that reflects the scale of the delivery challenge in the RIIO-T3 period. We are of the view that the incentive regime needs to be rebalanced to reflect the incentives applied for load related MPR and ASTI projects and Ofgem should recognise the unique challenges faced by the transmission industry and develop bespoke incentives and processes. The incentive regime should focus on net zero delivery.

Through engagement in the workgroups, we are aware that Ofgem is considering powerful output incentives with asymmetric regimes and stronger penalty mechanisms. The incentive regime for T3 must consider the aggregate impacts of project level incentives and the impact on financial investability by compounding the company exposure to penalties. Throughout the T3 development period we urge Ofgem to ensure that incentive proposals are considered in the round and achieve the appropriate balance of risk and return between consumers and companies.

### **Financeable and Investable**

We believe setting the right financial framework is critical to delivering Net Zero and Ofgem must prioritise attracting and retaining the financial capital required from investors. It is of critical importance that energy networks are investable which means attracting and retaining significant equity investment and supporting debt financing. Ofgem have not defined the term Investable and as such we believe it should reflect the following criteria:

- Strong Investment Grade Credit Rating (i.e. BBB+/Baa1)
- Equity Returns reflective of Market Evidence
- Risk Adjusted Equity Returns and Return on Regulatory Equity (RoRE) Ranges
- Efficient and Fully Financed Debt Costs (including transaction costs)
- Appropriately Funded Costs of Issuing Equity
- Long-term Stable and Predictable Regulatory Framework
- A Financial Framework Reflective of Macro-economic Factors

We have viewed the financial parameters from this perspective with respect to the forthcoming investment and changing risk profile of electricity transmission and the macro-economic environment. Given these circumstances and evidence, we believe the Cost of Equity (CoE) methodology Ofgem deployed in RIIO-2 set a CoE which was too low and the increase in interest rates has further demonstrated that the methodology for RIIO-2 was incorrect.

We have presented evidence working alongside the Energy Networks Association (ENA) that illustrates that Ofgem should not simply roll-forward the RIIO-2 CoE for RIIO-3. When considering the market evidence including the range of cross checks, the CoE should be increased significantly from RIIO-2 levels thereby correcting for Ofgem errors and reflecting the macro-economic environment. Ofgem need to also ensure there is adequate direct and indirect cost allowances for issuing new equity given the scale of equity requirements in RIIO-3.

There is a material change in the business context whereby the scale and complexity of investment alongside a substantial increase in risk profile. Our response includes a review of the circumstances around the change in risks moving from RIIO-2 to RIIO-3 including considering totex to RAV ratios, RoRE ranges, and quantifiable changes in risk. There is an increase in the absolute risk to equity holders and this evidence further supports an increase in returns due to shareholders.

Our financial capital requirements must cover debt as well as equity and the financial framework must ensure we can fully finance our debt on an efficient basis. Ofgem should seek to avoid making changes to the stability of the regulatory framework covering the calibration of the cost of debt mechanism and the treatment of inflation. We believe that Ofgem should be cautious making significant changes to the treatment of inflation or adjusting the definition of the notional company particularly around index linked debt without detailed justification and analysis.

Other financial parameters could be set for RIIO-3 that are reasonable and consistent with policy intent of previous price controls. We have set out our views that regulatory depreciation profiles for new assets should be reduced from 45 years to around 30-35 years. Similarly, for capitalisation rates (or fast-slow money), Ofgem have previously preferred to opt for a rate that is lower than the natural rate for Electricity Transmission. We believe Ofgem should consider both of these aspects given the scale of investment, balancing charges over current and future consumers, and reflecting the need to support some cash requirements.

## Conclusions

This price control will be developed and delivered against a backdrop of industry reforms including significant reforms to the connections process. Several reforms have been proposed, but it is too early to determine the impact of the reforms on our business plans. Whilst we are committed to delivering the actions outlined in the Connections Action Plan, care must be taken to ensure that tactical short- and medium-term solutions do not create unintended consequences and realistic expectations are set. We will continue to work with Ofgem and industry stakeholders to develop and implement the reforms required to meet Governments goals.

We are committed to seeking and considering the views of our stakeholders in the development of our plans. The value added by our independent User Group (UG) in the development of our RIIO-T2 Business Plan was so great, that we have continued to utilise this group throughout RIIO-T2. We encourage Ofgem to provide guidance in relation to the establishment and terms of reference for Independent Stakeholder Groups (ISG) within the RIIO-3 Enhanced Engagement framework, including consideration for a more enduring role for ISGs after the price control setting process. The guidance is required as soon as possible, as is the wider Business Plan Guidance.

We welcome and support Ofgem's position on the RIIO-3 settlement being to realise a safe and resilient zero carbon electricity system by 2035, in line with the GB national ambition. This, we believe, is eminently achievable and we share Ofgem's commitment to make it happen. The RIIO-3 settlement can build upon the strong track record of GB electricity networks and the widespread support for the ASTI mechanism.

The key attributes of RIIO-3 are investability, certainty of need, enabling supply chain commitment and maintaining system resilience. This SSMC consultation rightly identifies these attributes and we look forward to working with Ofgem and wider stakeholders to design a regulatory framework that enhances GB's reputation as an international net zero leader.

We have summarised our response to the consultation questions in an executive summary included as Appendix 1. We would welcome the opportunity to meet with Ofgem, to further discuss any of the issues raised in this response.

Yours sincerely,

Lois Paton  
**Head of Regulation**

Sara McGonigle  
**Head of T3**

## Appendix 1 SSMC Response Executive Summary

### Introduction

The period to 2031 will be transformative for SSEN Transmission, and the RIIO-T3 price control settlement is a crucial piece in the transition to a secure a zero-carbon electricity system by 2035. The government expects this price control to be more ambitious and forward-leaning than previous price controls, building on the strategic anticipatory investment Ofgem has allowed over the last few years to support the projects on the critical path to the energy transition<sup>1</sup>.

Ofgem's Net Zero duty is now in effect, and this provides Ofgem with a clear mandate to protect consumers by building a low-carbon, low-cost energy system, scaling up long-term investment and stabilising prices with clean energy. Networks are at the heart of facilitating the efficient delivery of domestic clean renewable energy to end consumers, and the Government's net zero ambitions.

In the SSMC, Ofgem has been clear, it wants transmission companies to deliver infrastructure at pace to enable the transition to net zero. Ensuring electricity supplies remain resilient to physical, financial, climate and cyber shocks while consumers and network users receive a high quality and reliable service at an efficient cost.

We are aligned with Ofgem's goals and the need to secure a zero-carbon electricity system by 2035. In our response we present our views, on the changes to the RIIO framework to deliver for consumers. In RIIO-T3 we will seek to continue our sector leading performance established in RIIO-T2 which commenced in 2021. Our Annual Performance Report details our performance up to October 2023<sup>2</sup>. We have delivered.

- £3.5 billion of investment to grow and maintain the North of Scotland transmission network.
- 10.5 GW of generation connected, and this includes growth of 1.3GW in 2022/23.
- All connection offers made on time, with an average of 8.0 in stakeholder satisfaction survey scores.
- Outstanding transmission system reliability and maximum performance in the Energy Not Supplied Incentive.
- Capacity Reservation Agreements (CRA) for all sections of the supply chain that are critical to our offshore ASTI projects.

We are investing over £20bn to upgrade the network infrastructure across the north of Scotland between now and 2030 as the region plays a leading role in the clean energy transition. We have a strong track record for delivery and as we continue to deliver a network for net zero emissions in the north of Scotland, we have made excellent progress in building the strategic reinforcements to the transmission system required to support the forecast growth in renewable electricity generation across the region.

We currently have over 60GW of generation capacity contracted to connect to our network. We expect the total installed generation capacity in the north of Scotland to increase to around 14GW by the end of

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<sup>1</sup> [Electricity networks: transmission acceleration action plan - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/91444/electricity-networks-transmission-acceleration-action-plan-2021-2023.pdf)

<sup>2</sup> <https://www.ssen-transmission.co.uk/globalassets/information-centre-media/financial-information/annual-performance-reports/annual-performance-report-202223>

RIIO-T2, with up to 13GW of this from renewable sources. This would increase the number of homes our network could power from renewable electricity to around 13m homes, exceeding our RIIO-T2 goal, of 10m homes.

Over the initial years of RIIO-T2 we have delivered a resilient network, with a sector leading measure for Energy Not Supplied (ENS). With climate change and the increasing complexity of network operation this performance will be hard to maintain. This year there have been ten named storms including Storm Isha, where parts of the UK experienced their strongest winds in more than a decade. The impact of storms on our network has been minimal. This performance is achieved by delivery of our T2 asset management strategy, resilience enhancing activities, such as additional tree cutting, leveraging our supply chain to provide replacements for repairs and the deployment of our 150+ operational staff to mitigate storm impacts. As a result of our resilience enhancing activities, under our internal enhanced resilience measure, less than 10% of our 132kV spans are at risk to falling trees, with less than 5% of the 400kV network at risk.

### **RIIO-T3 Price Control Framework Outcomes**

In support of Ofgem's goals and the delivery of a secure a zero-carbon electricity system by 2035 we have developed a series of targeted outcomes for the RIIO-T3 Price Control. In our view a successful RIIO framework must provide **eight** outcomes:.

1. A package of activity that is not only financeable but investable;
2. Funding for a resilient and efficient network;
3. A Major Projects Regime (MPR) that builds on the success of the ASTI framework;
4. Support for regional investments;
5. Mechanisms for managing uncertainty;
6. Incentivisation for delivery, quality standards and efficiency;
7. A digital and innovation framework that focuses on delivery; and
8. Benefits for the communities we serve.

#### **1. A package of activity that is not only financeable but investable.**

In our response we have set out extensive evidence in support of the development of the financial parameters for RIIO-3. The financial parameters extend beyond the totex and business plan for RIIO-3 and include the uncertainty mechanisms including the expenditure on ASTI and LOTI schemes. As a result, our view of the financial framework required for RIIO-3 is considerate of the scale and complexity of investment, the changing risk profile, and the macro-economic environment.

Our views for RIIO-3 with regards to the financial framework cover all core elements and we will continue to refine and develop our views accordingly. It is of critical importance that energy networks are investable which means attracting and retaining significant equity investment and supporting debt financing. Ofgem have not defined the term Investable and as such we believe it should reflect the following criteria:

- Strong Investment Grade Credit Rating (i.e. BBB+/Baa1)
- Equity Returns reflective of Market Evidence



- Risk Adjusted Equity Returns and Return on Regulatory Equity (RoRE) Ranges
- Efficient and Fully Financed Debt Costs (including transaction costs)
- Appropriately Funded Costs of Issuing Equity
- Long-term Stable and Predictable Regulatory Framework
- A Financial Framework Reflective of Macro-economic Factors

If this is the lens in which investability is viewed, it will ensure that we will be able to raise the necessary capital at a critical time of investment, at the right time, and at efficient levels. We have outlined our view on each of these elements above with respect to the forthcoming investment and changing risk profile of electricity transmission and the macro-economic environment.

The change in the macro-economic environment has significantly changed the financial outlook for RIIO-3 and the second part of RIIO-2. With the significant increase in interest rates since 2022, there has been a corresponding increase in the baseline equity returns required by investors and debt financing costs. The Cost of Equity (CoE) methodology Ofgem deployed in RIIO-2 set a CoE which was too low and the increase in interest rates has further demonstrated that the methodology for RIIO-2 was incorrect. We have presented evidence working alongside the Energy Networks Association (ENA) that illustrates that Ofgem should not simply roll-forward the RIIO-2 CoE for RIIO-3. When considering the market evidence including range of cross checks, the CoE should be increased significantly from RIIO-2 levels thereby correcting for Ofgem errors and reflecting the macro-economic environment.

There is a material change in the business context with the scale and complexity of investment alongside a substantial increase in risk profile. The investability criteria and associated analysis supports the need to consider these changes when setting the financial parameters. Our response includes a review of the circumstances around the change in risks moving from RIIO-2 to RIIO-3 including considering totex to RAV ratios, RoRE ranges, and quantifiable changes in risk. This analysis utilises detailed information to quantify the risk from the large capital programme to determine the absolute risk during the price control. We compare the absolute risk to our equity to quantify the impact on equity risk and associated returns required to equity holders. This evidence further supports an increase in returns due to shareholders.

Our financial capital requirements must cover debt as well as equity and the financial framework must ensure we can fully finance our debt on an efficient basis. Ofgem should seek to avoid making changes to the stability of the regulatory framework covering the calibration of the cost of debt mechanism and the treatment of inflation. We believe that Ofgem should be cautious making significant changes to the treatment of inflation or adjusting the definition of the notional company particularly around index linked debt without detailed justification and analysis. At this stage, we do not see a need for a change in the current treatment of inflation from RIIO-2 into RIIO-3 and would welcome further discussions on the options. We set out our provisional views in this response on the Cost of Debt and treatment of inflation.

We believe there are some financial parameters which could be set for RIIO-3 that are reasonable and consistent with the policy intent of previous price controls. For example, setting the regulatory depreciation profile for new and existing assets should reflect the intergenerational aspects of regulatory depreciation. We have reviewed the expected economic and technical asset lives for RIIO-3 for new assets and believe that this should be reduced to around 30-35 years instead of 45 years. Similarly, for

capitalisation rates (or fast-slow money), Ofgem have previously preferred to opt for a rate that is lower than the natural rate for Electricity Transmission. We believe Ofgem should continue with that policy particularly given the scale of investment, balancing charges over current and future consumers, and reflecting the need to support some cash requirements. In RIIO-T2 the ex-ante capitalisation rate was set at 77% with the uncertainty mechanism rate set at 85%. We would be supportive of a single rate for RIIO-3 towards the lower end of that range.

We also firmly believe that existing regulatory measures on financial resilience have been successful in guaranteeing a resilient industry. Existing financial resilience related measures include the following:

- Ultimate Controller Undertaking
- Disposals and Charges
- Cross-subsidies
- Restriction on Activity and Financial Ring Fence
- Availability of Resources
- Indebtedness
- Reporting under Regulatory Instructions and Guidance (RIGs).

These measures are extensive and have been effective in ensuring network operators do not have financial stability issues. We therefore believe that these measures will continue to provide effective early warnings in case of a financial distress despite the ongoing expansions to fund net zero targets and that any further measures and disclosures would be excessive.

There has not been the opportunity for the engagement on methodology and evidence like RIIO-2 where there was both a Framework Consultation and then a Sector Specific Consultation over a prolonged period of time. The compressed timescales between FSNR and SSMC and associated Decision as well as the complexity of setting a financial framework means extensive engagement is required over the coming months. The restrictive timescales mean there is a need to fully engage with the broad range of evidence and options with stakeholders and network companies to ensure the financial framework for RIIO-3 underpins the unprecedented levels of investment and risk profile rather than undermining that investment.

## **2. Funding for a resilient and efficient network.**

The RIIO-T3 price control settlement must continue to prioritise network reliability and resilience. A resilient network and workforce are essential for our ability to deliver the services that customers expect over the longer term. In line with our goals and targets, in RIIO-T3 SSEN Transmission will

- Maintain sector leading reliability – aiming for 100% Energy Not Supplied (ENS), building on our exceptional performance in the RIIO-T2 of no incentivised ENS events.

- Maintain sector leading cost performance – maintain our upper quartile position on the ITOMs benchmarking survey<sup>3</sup>, showing our exceptional cost and operational performance relative to a group of global transmission companies.
- Maximise availability of our network – reduce unplanned outages per km of network and ensuring our network is available to use for generators.
- Level-up network performance – ensuring our network can withstand the significant increase in electrical loads required to deliver Net Zero

Achieving the above, requires appropriate allowances that recognise the changing nature of our network; we are installing increasingly complex infrastructure at scale. These complex onshore and offshore HVDC and ancillary assets such as stat coms and synchronous condensers, mean that we will have to adapt to new operational and maintenance challenges, impacting on our operational costs.

As this equipment is deployed simply maintaining our current performance will become increasingly challenging and will require proportionate investment in our inspection and maintenance regimes, alongside investment in our workforce and capabilities. We will seek to deliver enhanced training and professional development for our existing employees and establish the facilities we need to train new employees.

Our plans must be delivered in an environment where costs are volatile and supply chains are stretched. We continue to observe shortages of raw materials, components, and labour, resulting in rising costs and longer lead-times for the supply of some energy infrastructure. Our supply chain intelligence shows that these constraints will persist through the T3 period and can only be mitigated by early engagement with the supply chain to secure capacity early as global demand continues to outstrip supply for resource, key primary plant and equipment.

In our view the allowances set by Ofgem must reflect market rates for equipment and labour and allow companies to be competitive in the international market. Changes are required to the Ofgem cost assessment process to consider the significant growth in the network and investment required to meet net zero, resulting in supply chain constraints. Ofgem needs to consider cost assessment principles, we think transparent costs tendered by the supply chain should form the basis of the assessment supported by wider value for money assessments.

Value for money is not just about lowest cost for the consumer, but also ensuring that the required infrastructure is there at the right time to the required quality. This approach to cost assessment would be based on a qualitative assessment of our operational, delivery, procurement and contracting strategies and Ofgem would verify whether the unit rates used in building our plan are in line with market rates and expectations. This approach means that there will be less emphasis on benchmarking and more focus on expert judgement and review of supplementary evidence provided by companies.

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<sup>3</sup> The ITOMS program is a closed confidential forum where more than 31 companies representing 25% of electricity transmitted across the globe share information, practices, policies, processes and plans to compare efficiency, system performance and operational costs.

### **3. A Major Projects Regime that builds on the success of ASTI.**

We welcome the development of the Major Projects Regime (MPR) to facilitate the delivery of infrastructure projects identified by the Centralised Strategic Network Plan (CSNP) but consider it important to extend the scope of the MPR to all strategic load projects (including non-CSNP) that pass a risk and materiality threshold. The MPR should be coupled with a single load reopener for projects that fall below that threshold, for both strategic and regional investment.

We welcome Ofgem's intent to provide certainty of need and to maintain the automatic confirmation of pre and early construction funding for projects coming out of the CSNP. This step change in funding approach through ASTI has been pivotal in enabling us to engage and secure the supply chain required for 2030 delivery. We encourage Ofgem to accept that this approach is no longer solely required for acceleration but is fundamentally the only way to operate within the current market conditions. We therefore think this funding should be available to all projects, regardless of materiality or its route through the price control framework.

We are supportive of the proposed Independent Technical Advisor (ITA), if it is targeted, accelerates decision making, minimises regulatory submissions and has clearly defined roles and responsibilities. We are of the view that Ofgem should not derogate decision-making capabilities to the ITA, and these should remain with Ofgem with the role of the ITA to provide advice to Ofgem.

As noted in the SSMC, RIIO-ET3 and future ET price controls will have a quite different scale of totex spend compared to previous price controls due to the step change in investments required. Similarly, the projects required will have vastly different risk profiles, with some investments having significant complexity and others being first-of-a-kind deployments in the UK. In our view the role of the proposed ITA should reflect the differing materiality and risks associated with projects. We think that the ITA should be selectively targeted at the most complex projects and first-of-a-kind deployments, recognising the limited availability of ITAs to support projects.

In our view the ITA should not be considered an engineering or technical assessor (as such, it might be worth considering renaming the ITA to not include the term 'technical'). The complex nature of our equipment - for example, HVDC plants - has required in-house expertise to establish specifications and standards for the equipment, which is then tendered. Our experts then evaluate technical submissions prior to agreeing to procure. The criteria for that technical evaluation are highly defined, ensuring a robust process that is undertaken by experienced engineers. An ITA would lack the specific competence of the discrete nature of various elements of HVDC plant and equipment. Adding an ITA to this part of the process would likely cause unnecessary confusion and add to the uncertainty of outcome.

### **4. Support for Regional Investments**

Ofgem has acknowledged that TOs will need to plan for local reinforcement needs outside the Centralised Strategic Network Plan (CSNP). This planning needs to be holistic, recognising the shared load and non-load drivers present on the networks. The CSNP recommends investments that enable the bulk transfer of power. The CSNP does not address connections - either the connection assets or the regional

infrastructure between a user and the strategic transmission system. This infrastructure can be significant, as we have set out during RIIO-T2 for Skye<sup>4</sup>, Argyll<sup>5</sup> and Orkney<sup>6</sup>.

As we describe above the MPR is welcome, but only a part of a network for net zero. Regional investment must progress in parallel and be co-ordinated with strategic investment. Without this, we run the risk of unfulfilled connections and underutilised strategic infrastructure. We think Ofgem should be ambitious and the need for strategic regional investment should be considered as part of the MPR. This would allow Ofgem to establish processes for pre and early construction funding, de-risking the delivery and allowing early supply chain engagement. It would also allow alignment between national and regional investment in terms of delivery timescales and incentives. Regional investments are essential to unlock the connection queue for small to medium sized generators.

The onus would be on the TOs to demonstrate that a proposed regional investment was strategic and therefore suitable for the MPR, and the associated mechanisms. We will work with Ofgem to develop guidance as to what constitutes strategic regional investment, for example this could include provision of a certain amount of network capacity, facilitation of connections and urgency of need, and develop mechanisms to give assurance of need for regional investments.

Unlike projects derived from the CSNP, there is no mechanism to automatically approve the certainty of need for regional investments. However, the National Energy System Operator (NESO), has a duty when established to provide independent technical analysis to support decision-making, to regulators and Government. Ofgem will be able to request and draw on specific, targeted advice from the NESO to ensure any decisions made are robust and based on full available evidence. We think that Ofgem should seek a view on the need's cases associated with any strategic regional investments, such that all load investment proposals face similar scrutiny. This would potentially establish a mechanism to confirm needs certainty and automatically provide pre and early construction funding for regional investments.

We recognise the challenge of holistic planning and, in response we have developed our Area System Planning (ASP) approach. Our ASP approach:

- Creates investment plans for regions that allow stakeholders to meet their net zero ambitions.
- Provides a more coherent, holistic, and cost-effective planning output from the TOs' area to input into the CSNP, and is coordinated with distribution network development plans.
- Builds on HND and HND FUE, where considerable progress has been made in the last 18 months. The target led approach has given project certainty, allowing TOs to secure the supply chain early and focus on delivery.
- Considers interactions with the existing network – including any linkage with asset management activities allowing TO's to develop a coherent approach to managing load and network risk.

Our proposed ASP approach is complimentary to the CSNP process and will provide the NESO with the information required to make a judgement on need, for strategic regional investments. We are currently

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<sup>4</sup> [Isle of Skye project - Final Needs Case decision | Ofgem](#)

<sup>5</sup> [Argyll and Kintyre project – Final Needs Case decision | Ofgem](#)

<sup>6</sup> [Orkney Transmission Project Decision on the Final Needs Case | Ofgem](#)

piloting this approach in Caithness, as shown in Figure 2 and our intention is to roll out this approach as it matures and leverage the outputs from the ASP approach to inform our in period regulatory submissions.

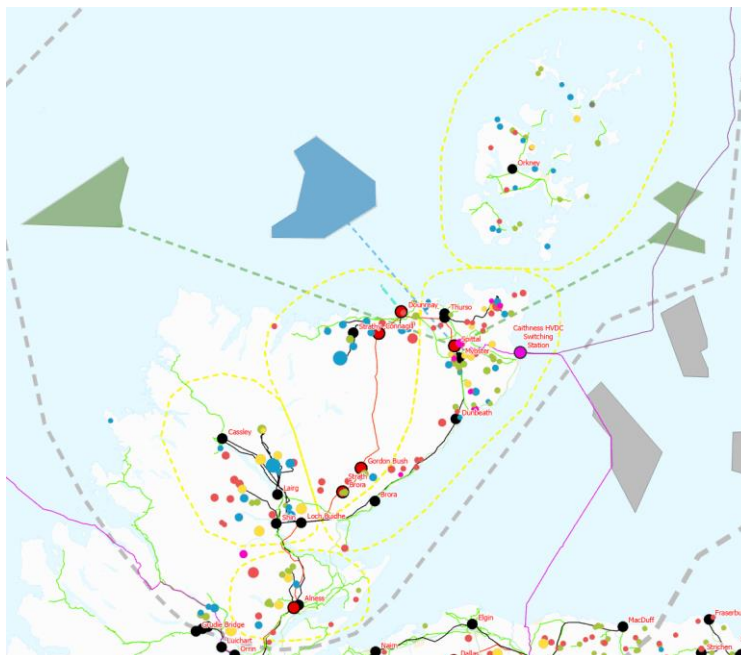


Figure 2: ASP Pilot Area

We will continue to work with Ofgem and other TO's to refine our approach and reach a common understanding of the needs of regional areas where possible.

## 5. Mechanisms for Managing Uncertainty

In RIIO-T3 uncertainty mechanisms will have a key role to play in managing scope, cost and timing uncertainty during the price control operation. In RIIO-T3 we will aim to establish the need and cost for all known investment ex ante, so far as we can at the time of submission of the T3 plan. In some cases we will only be able to establish the need, and will submit cost during the price control, in others need will arise during the price control.

Figure 3 provides an overview of how we think the uncertainty mechanism framework should evolve. We expand on our proposals for uncertainty mechanisms in our response to the Electricity Transmission Question set and explain all mechanism in Figure 3, but our key asks are.

- Provide a strong, simple, and flexible uncertainty mechanism framework to ensure consumer and stakeholder needs can be met as needs materialise during the price control period.
- Develop cost only assessment pathways, for investments, where the needs have been demonstrated by the business plan submissions or another part of the regulatory framework. We think each uncertainty mechanism should have a series of assessment pathways (need, scope, cost) which can be applied as required on a project-by-project basis. This will streamline and expediate the reopener process while reducing regulatory burden.

- Set appropriate materiality threshold values for triggering uncertainty mechanisms with a view of the wider business risk, financial parameters, and consumer protection mechanisms. For any reopener related to network resilience or security, the materiality threshold should be set at zero.

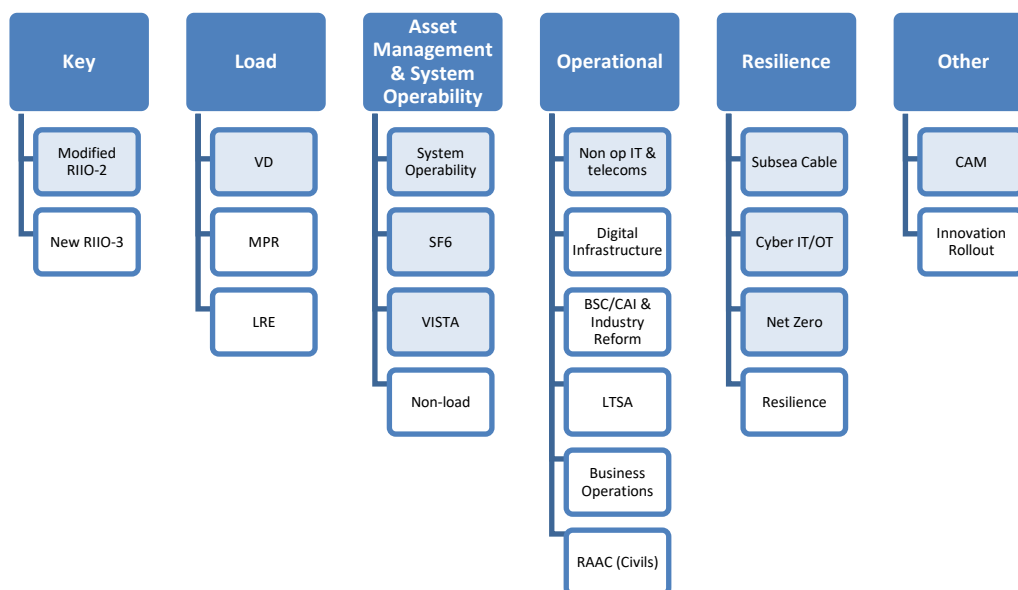


Figure 3: UM Framework

In our view the MPR and work ongoing on the load reopener will create mechanisms to handle load uncertainty. However more work is required to develop uncertainty mechanisms to allow the companies to respond to the business impacts of the ASTI and CSNP projects.

The aggregated impact of the ASTI projects will have a significant impact on our indirect costs, estate costs, business support costs, information and operational technology costs that must be accounted for and cannot be done easily at a project level. These projects will create drivers for new facilities, training centres and depots and impact our business support costs and overheads beyond projects. We propose the creation of a Business Operations reopener and BSC/CAI & Industry Reform reopener to process these needs which derive from multiple ASTI/CSNP investments.

In addition, we are proposing that the non-load components of the current MSIP reopener are disaggregated into separate mechanisms and reintroducing the Innovation Roll Out reopener. We think these changes will make the purpose of reopeners easier to understand and process.

## 6. Incentivisation for delivery, quality standards and efficiency

There remains a need for an appropriate incentive regime that reflects the scale of the delivery challenge in the RIIO-T3 period. We are of the view that the incentive regime needs to be rebalanced to reflect the incentives applied for load related MPR and ASTI projects. Ofgem should recognise the unique challenges



faced by the transmission industry and develop bespoke incentives and processes and the incentive regime should focus on net zero delivery.

For MPR/CSNP derived projects we support the evolution of the ASTI timely delivery incentive with rewards and penalties for early or late delivery against a target date, however, we are of the view the methodology for calculating constraint costs needs to be updated and be more transparent. We would support the application of a timely delivery incentive for other load projects where appropriate including investments derived from our ASP process.

We consider that the ODI current incentive rates are correctly calibrated for the ASTI projects but that the incentive regime for T3 must consider the aggregate impact of ASTI and MPR projects, powerful incentives or asymmetric regimes with a stronger penalty mechanisms have the potential to impact financial investability by compounding the company risk exposure. We will work with Ofgem to determine if the ODI timely delivery incentive methodology can be improved and achieve the appropriate balance of risk and return between consumers and companies.

With regards to the NARM output, we are of the view that calculation of Long-Term Risk Benefit, and subsequently setting it as an output is not fit for purpose. NARM as currently calibrated creates a perverse incentive to invest in a limited number of circuits. Our link to Skye is a single OHL circuit and it generates >50% of our entire monetised risk on our network. If NARM was used alone to form the basis of intervention, then we would continually intervene on the Skye OHL. NARM should be modified to de-link risk output from intervention costs and ensure that funding adjustment does not result in windfall gains and losses. We will work with Ofgem to develop practical solutions to these issues, and this should be a priority area to resolve.

For the Business Plan Incentives, we consider that companies should be challenged to provide well justified costs and the submission of efficient cost forecasts. We would support the move to an “in the round” assessment of cost forecasts, supported by limited econometric modelling. We support the general position established in T2, that costs determined independently through econometric modelling are high-confidence costs and therefore should be benchmarked, but as noted above, these are limited for RIIO-T3. In our view the in the round assessment should consider the procurement and commercial strategies of each company to make a judgement on how well justified cost and allowances are.

On efficiency incentives we support the retention of the Totex Incentive Mechanism (TIM), this provides a risk sharing mechanism between consumers and companies and drives efficiency. In the previous price control Ofgem set the TIM rate using a Confidence Dependent methodology, with the rate being a function of the high and low confidence cost submitted as part of the business plan. In this price control this is not appropriate as the majority of costs will be set before or after the price control commences via ASTI/CSNP project assessments. We are of the view that Ofgem should set a sector wide TIM rate, with a view to minimise the risk of windfall gains and losses considering the volume of investment required, noting the compelling evidence of cost volatility.

Ofgem have previously used high powered incentives to incentivise efficient behaviour. In the particular circumstances of this price control, with a step change in investment volumes, and uncertainty about costs driven by factors outside our control, it is more appropriate to use a lower powered incentive rate aimed at incentivising efficiency but not excessively penalising or rewarding spend which deviates from



allowances. In our view a 10% incentive rate would strike the correct balance to incentivise efficient behaviour without exposing companies to windfall gains and losses. A 10% incentive rate would still provide a large incentive that would be sufficient to drive the correct behaviours, and where we underspend a much larger proportion of underspend is returned to consumers.

We believe a change in approach for Ongoing Efficiency (OE) is warranted, supported by the reduction in our TIM sharing factor. We are still incentivised to deliver work efficiently, but considering the volume and scale of work, the OE is not reflective of the limited potential for cost reduction in the sector. We are of the view that OE should be removed but for RIIO-T3, as a minimum Ofgem should consider a modification on the OE assumptions such that OE is targeted to specific areas of our business. We believe the targeted OE approach should be applied to the regular and stable activities of the business only. We are in the process of developing proposals for OE and we will submit these as part of our business plans.

We support the evolution of the existing RIIO-T2 Output Delivery Incentives associated with Connections and Energy Not Supplied and SO TO Optimisation. We recognise the need for simplification, but stakeholder needs should be accounted for in the process and the SSMD should continue to allow companies to propose new incentives where there are long term benefits to consumers. Noting the ongoing connections reform work, we think the connections incentives will have to be reset and recalibrated on the completion of reform works.

## **7. A Digital and Innovation Framework that focuses on delivery.**

We are supportive of the progress to improve the digital capabilities that will allow enhanced data sharing to increase the co-ordination across the sector and reduce regulatory burden. We are of the view that the current approach to funding is not conducive to the delivery of a digitalised and modern energy system, as noted in the “Delivering a Digitalised Energy System” report from Energy Digitalisation Taskforce<sup>7</sup>. Timeframes for feedback on plans and re-openers are significant. The plans being submitted create significant workload for Ofgem to review and create uncertainty for companies. In addition, the method for establishing needs and costs, derived from engineering investment practices, will not function effectively as we move towards a more Agile/Product aligned development and the prominence of Cloud services.

True digital transformation will be delivered incrementally and iteratively, with the flexibility in funding and scope to be able to respond to business and consumer needs in an agile way rather than being beholden to a strategy that was written up to 7 years previously. Technology and organisations evolve much faster than even 5 years ago, for example the explosion and evolution of Artificial Intelligence (AI) over the last 18 months. AI has been growing at an exponential rate and as a result does not feature significantly on any RIIO-T2 investment plan, however AI could be exploited to address several industry challenges and drive efficiency.

Taking this into consideration we would challenge Ofgem to consider different funding cycles and allowance windows that deliver the balance between cost certainty, agility, and the ability to innovate

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<sup>7</sup> [Energy Digitalisation Taskforce report: joint response by BEIS, Ofgem and Innovate UK - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/674441/energy-digitalisation-taskforce-report-joint-response-by-beis-ofgem-and-innovate-uk.pdf)

and trial ideas. We would suggest that IT&T funding needs to transform and be made up of a combination of five-year allowances and a series of 18–24-month allowances. The short-term allowances would be requested, evaluated, and determined within a matter of weeks and not months – meaning there would be a move to a low friction and high throughput approach. This could be achieved by a series of Use It or Lose It annual pots, where spend is agreed and prioritised with Ofgem.

The RIIO-T2 innovation regime has delivered significant benefits through the RIIO-T2 as we have a number of Network Innovation Allowance and Strategic Innovation Fund projects progressing through those mechanisms and looking to deliver value to consumers by the end of the RIIO-T2 period. While both the current Network Innovation Allowance and Strategic Innovation Fund have provided the opportunity to develop and deliver both small scale and strategic innovation projects during RIIO-T2, there are lessons to be learned which inform our proposals for innovation in RIIO-T3. These focus on the flexibility of the innovation regime, ensuring the eligibility criteria is appropriate and there is a deployment path for recently proven innovative solutions, developed and delivered by other parties or networks.

The rollout of new solutions requires separate investment outside of the innovation stimulus, and based on existing options, there is no clear route to do this. For example, within the RIIO-T2 period our Dynamic Line Rating (DLR) project has been progressed through the Medium Sized Investment Project (MSIP) reopener, this reopener mechanism was not designed to do this. We propose that an Innovation Roll-out Mechanism is reintroduced for the RIIO-T3 regulatory framework to streamline the implementation of innovative solutions. We will develop proposals for innovation roll out mechanism including selection criteria, funding routes and outcomes as part of our business plan submission.

In addition, it is our view there a number of technologies that are likely to mature during the price control period including artificial intelligence (AI) and High Voltage Direct Current (HVDC) technologies and Ofgem should develop bespoke mechanism to accelerate these technologies including considering specific taskforces to aid industry adoption.

## **8. Benefit for the communities we serve.**

In July 2023 we launched a consultation on plans for our first ever community benefit fund<sup>8</sup>, which will see SSEN Transmission working with communities across the north of Scotland to channel funds into vital local projects. The north of Scotland transmission network is set to provide over 15% of the UK's total carbon reduction required to deliver 2050 net zero targets and we believe new funds should recognise the vital role that local communities in the area will play in hosting the transmission infrastructure required to power the UK's future energy needs and make net zero a reality.

Subject to the UK Government's recommendations, we intend to formally launch our Community Benefit Fund in 2024. Once it is up and running, the fund will enable over £10m to be spent on delivering a sustainable and positive legacy for the communities that are hosting large net zero infrastructure assets in the Highlands, Aberdeenshire, Orkney, Shetland, Angus, and Argyll. This will be funded by transmission

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<sup>8</sup> [Community Benefit Fund - SSEN Transmission \(ssen-transmission.co.uk\)](https://www.ssen-transmission.co.uk/community-benefit-fund)

infrastructure projects which have been approved by Ofgem, have an investment value of £100m or more and for which construction has already commenced or will commence between now and 2026.

As part of our T3 Plan development will continue to develop our proposal for community benefit funds and seek to develop an enduring regime. We look forward to engaging with Ofgem once the Government publishes its minded to position on community benefits<sup>9</sup>.

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<sup>9</sup> Community Benefits for Electricity Transmission Network Infrastructure