

# SSMC Response

## OVQ & ETQ Responses

6 March 2024



**Scottish & Southern  
Electricity Networks**

TRANSMISSION

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## Overview Questions

### Future of Gas

OVQ1 Do you agree with our proposal for how RIIO-3 should interact with the Hydrogen Transport Business Model?

While we agree that costs relating to infrastructure and transport, funded through the Hydrogen Transport Business Model (HPBM), should be out of scope of RIIO-T3, there remains several uncertainties pertaining to hydrogen development.

Due to the scale of investment required in hydrogen within a short space of time to achieve Net Zero. It is in all parties' interests to provide regulatory certainty and sufficient options to enable key net zero activities. It is not clear whether this outcome will be achieved through the HTBM on its own.

We believe that, as the HTBM is in the very early stages of development, activities that could have significant impact on the electricity transmission network in the north of Scotland could be left unfunded. As such, RIIO-T3 should look to ensure that all aspects and activities are covered.

It is also important that production activities are accounted for, as these could have an equally significant impact on the transmission network, and it is unclear whether all net zero-enabling activities can be achieved through the HPBM. These activities also have considerable uncertainty and as such, RIIO-T3 should – as well as ensuring all aspects are covered off, consider the role of the NESO and all co-ordinated activities with transmission operators.

OVQ2 Are there any additional activities relating to the development of hydrogen transport infrastructure, or repurposing of natural gas assets, that you think should be funded through RIIO-3, and if so, why do you think this is justified?

Due to the uncertainties around elements of hydrogen production, demand infrastructure and storage, we believe the uncertainties could pose significant impacts to the electricity network. There is merit in RIIO-T3 funding activities that may not be covered in the Hydrogen Transport Business Model, or indeed other relevant business models (similar to OVQ1, we believe activities that may not be covered in the production business model need to be examined in greater detail).

It should be stressed that co-ordination and guidance on this should be provided by the FSO, especially co-ordination with TOs as part of the wider Centralised Strategic Network Plan (CSNP).

Additionally, consideration should be given to the potential of an export market in Scotland and the effect that may have on capacity and connections to the network that may not be eligible for business model support. As noted in OVQ1, a tried and trusted mechanism such as RIIO is best placed to ensure all aspects and activities are covered off.



## Role of Scenarios and Planning Pathways

OVQ7 Do you agree with the proposal to use the FES framework for selecting the RIIO-3 scenarios?

We broadly agree with using the FES framework for selecting RIIO-T3 scenarios to allow for planning assumptions to be included within the delivery plans. However, we would make the following points:

SSEN Transmission would look to use our Likely Outturn Assessment (LOA) to sense check against the FES scenario for our RIIO-T3 portfolio of projects. We would propose the LOA is used as the basis for RIIO-T3 financial projections and not the sole basis of how the network will be planned. We show how our LOA compares to the FES Framework scenarios in Figure 1.

Only load related schemes with a high level of need certainty will be included within our ex-ante request. Our RIIO-T3 delivery plan will utilise the uncertainty mechanism framework to progress projects as need certainty increases. Therefore, we need an agile and flexible uncertainty mechanism package.

We would also highlight that as we progress through the RIIO-T3 price control, the scenarios will evolve to transition into the Centralised Strategic Network Plans (CSNP) which will be published in late 2026. As part of this, the FSO will publish the Strategic Spatial Energy Plan (SSEP) in late 2025. The SSEP will aim to spatially disaggregate renewable energy targets.

Therefore, the FES scenarios will transition to, and be replaced by, the SSEP and our Area System Plan proposal for regional planning from 2025 onwards. Our understanding is that the FES scenarios will exist in parallel with the transformation to spatial planning i.e., ASP, SSEP and CSNP. The FES scenarios will become 'pathways' and will become increasingly more prescriptive than descriptive, this aligns with the move towards strategic planning.

Therefore, the energy sector's move from scenario-based planning to strategic spatial planning aligns with and supports SSEN Transmission's Area System Plan. Target-led, strategic spatial planning will be the basis for a substantial proportion of our network growth investments across the RIIO-T3 price control rather than the use of the FES framework for planning assumptions.



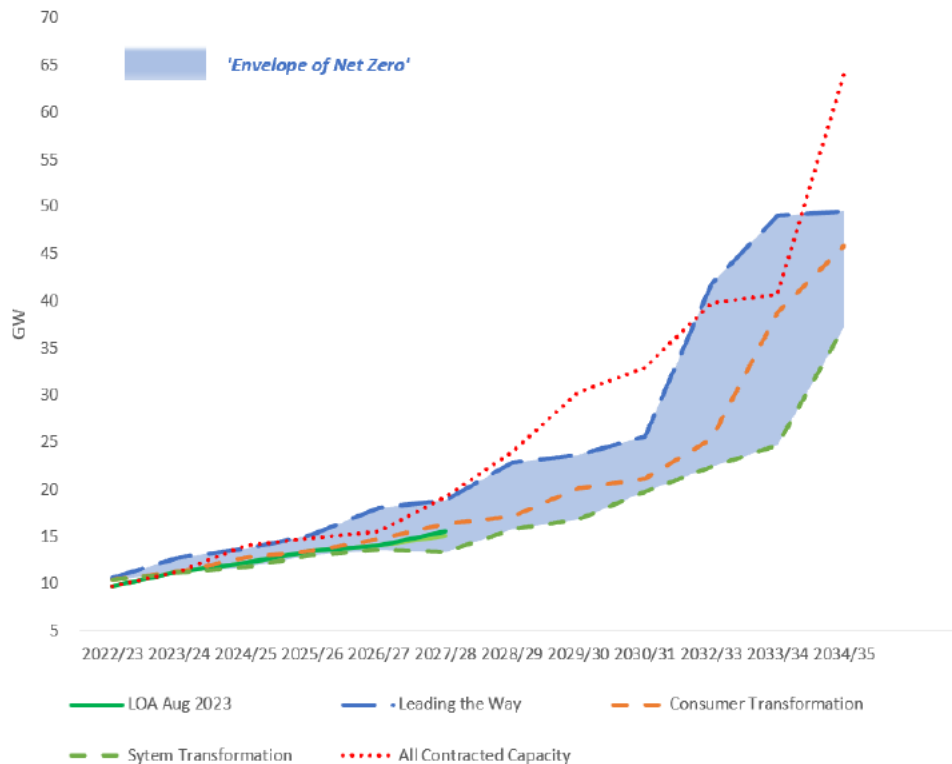


Figure 1 - Envelope of Net Zero and LOA

OVQ8 Do you agree with the proposal to use FES Leading the Way as the planning scenario for ET in RIIO-3?

Yes, we agree with using the FES framework for selecting RIIO-T3 scenarios but would make the following points:

- We would look to use our Likely Outturn Assessment (LOA) to sense check against the FES scenario.
- We would propose the LOA is used as the basis for RIIO-T3 financial projections.
- Only load related schemes with a high level of need certainty will be included within our ex-ante request.
- The basis for network planning will evolve from scenarios-based planning to centralised strategic planning -informed by the CSNP, SSEP & our ASP from 2025 onwards.

OVQ11 Is it feasible for all network companies to initially plan against FES 2023 before updating business plans in line with FES 2024, as proposed?

Yes, we don't foresee an issue to initially plan against the FES 2023 and updating the plans to align with the FES 2024. It is important to note that we consider there may be a significant increase in generation capacity for our network area in FES 2024 compared to the current FES 2023 projections, with the biggest step change occurring post 2030.

Our RIIO-T3 baseline investment plans for load will be projects with strong levels of certainty, with several of our load related investments being progressed via the uncertainty mechanism framework. Therefore, updating our business plan from FES 2023 to FES 2024 scenarios should have a limited impact in terms of changes to our plan.

## Outputs and Incentives

### OVQ12 Do you agree with our proposed approach on the role, scope and format of PCDs?

We largely agree with Ofgem's proposed revisions to the PCD framework and welcome Ofgem's view on increasing the flexibility of the PCD framework. The existing PCD framework has been shown to be inflexible and cannot be easily adjusted when the initial rationale for investment is superseded by external events. The framework only allows for the downward adjustment of allowances, with no mechanism to adjust allowances upwards even if companies can demonstrate an increase in scope is justified, economic and efficient.

#### PCD Materiality

We agree that it is appropriate to set a materiality threshold for assigning PCDs to projects and that PCDs should only be applied to larger, discrete projects where consumer detriment caused by delay or non-delivery is material. In our view the materiality threshold should be consistent with that used for the wider RIIO-3 price control.

We agree that companies should not benefit from a delay in delivery or non-delivery of PCDs, but view that Ofgem should be flexible in its approach to assessing delayed PCDs. There are many potential causes of a delay outside of the control of a TO, for example availability of outages from the SO or supply chain issues, and this should be reflected in any penalties Ofgem sets for late delivery of PCDs.

#### PCD Framework Flexibility

In terms of increasing the flexibility of the PCD framework, we support the principle of shifting the focus of PCDs to the overall outcome they achieve for consumers, rather than a granular list of outputs that need to be delivered.

In our view, if there is a clear signal for an increase in scope (e.g. increased capacity request from a customer, signal for greater boundary transfer capability from the SO), any additional spend over the original project allowance should be fully funded by the consumer as these drivers are out with the TOs' control. We are concerned that if TOs were required to fund scope changes outside of their control, it could create a perverse incentive not to ignore potential increases in project scope until after the PCD delivery date and then to seek additional funding for the increase in scope - this approach is not in the interest of consumer value. We are concerned that if TOs were required to fund scope changes outside of their control, it could create a perverse incentive to ignore potential increases in project scope until after the PCD delivery date and then to seek additional funding for the increase in scope - this approach is not in the interest of consumer value.

This should be achieved through a streamlined process under the PCD framework where funding adjustments should be automatically scaled where possible or adjusted through administrative

reporting. This approach will ultimately provide significantly greater overall value for consumers compared with re-visiting projects after completion to try and increase scope.

### **Cyber specific PCDs**

Through RIIO-T2 we have seen the impact of the CROT PCDs on the delivery team and would seek not to repeat the same structure. Evaluative PCDs are more applicable to the investments that we would be proposing under the Non-Operational or Operational IT capex programmes. PCDs for IT investment that focus on the strategic outcome or the capability that is being delivered to the business/customer would be more appropriate than individual deliverables within an investment.

We have the following comments to make on different themes:

### **IT/OT/Cyber PCDs and materiality thresholds**

We would need a separate level of materiality for Non-Operational IT and Operational IT PCDs than that used for other types of engineering projects (lest none of our proposed PCD's reach the level of materiality.) This needs to be considered carefully. More specifically we need to be selective on which proposed projects are delivering outputs that qualify under the conditions set out in paragraph 6.39 of the SSMC Overview Document.

### **IT/OT/Cyber PCDs and delays to delivery**

We agree that companies should not benefit from a delay in delivery or non-delivery of PCDs and the premise set out in paragraph 6.46 (of the SSMC Overview Document) that network companies should not be penalised for delays that are outside of their control. If PCDs were focussed on the right strategic outcome for the RIIO-T3 period (i.e. rather than a specific deliverable at a specific point in time) then organisations would have increased freedom to deliver the outcome in the way that was most applicable and relevant and drive the right fundamental behaviours as opposed to the situation set out in paragraph 6.35 of the SSMC Overview Document.

**OVQ13 Do you agree with our proposed framework for setting financial incentives? Are there any additional considerations that we should take into account?**

We broadly agree with Ofgem's proposed framework for setting financial incentives (ODI-Fs). We support the need for well-designed incentives that drive positive outcomes for consumers and set a high benchmark for performance that transitions into business as usual for future price controls.

For the RIIO-T3 ODI-F framework, it is important to build upon the significant progress that has been made under the RIIO framework and has delivered significant benefits to consumers that has successfully aligned network incentive returns with operational improvements in the areas of value that matter most to consumers.

Our key ask is that the incentive package is calibrated appropriately across the various incentive components (BPI, TIM, ODIs) to reflect the role the companies are playing in meeting net zero and the scale of investment required within RIIO-T3 that will make delivering a service beyond business as usual significantly more challenging. This needs to be reflected within the incentive regime. The detailed review of the existing ODI-Fs which includes target setting, strength and calibration will be covered within the specific incentive questions We have provided our views on each of the ODI framework below:



## **Target setting**

We agree with Ofgem that incentive targets should be stretching to deliver the best outcome for consumers but would highlight that historic performance may not reflect the new challenges facing networks where maintaining current targets will naturally become harder. For example, under the ENS incentive our current performance against a target of 102MWh will become more difficult to maintain and deliver as we are quadrupling the size of our network. This will mean more outages will be required and greatly increases the risk of an ENS event. If this target is tightened it unduly increases the risk of this incentive becoming penalty only. Therefore, Ofgem need to carefully consider the use of historic performance when setting targets.

## **Strength of incentives**

As noted above and as Ofgem note within the consultation, the strength of the incentive package needs to be considered in the round and against the wider financial parameters. We are currently modelling this as part of our wider financial modelling and will engage with Ofgem following the conclusion of this work on the strength of incentives across the framework (BPI, ODI-Fs and TIM).

## **Rewards and Penalties**

We agree with Ofgem's framework on applying rewards and penalties. Our key issue with is the balance and asymmetric nature of the reward and penalty within the RIIO-T2 framework that was heavily weighted towards penalty with minimal reward. We believe the calibration of the incentive framework needs to have a more balance reward and penalty regime.

## **Calibrating ODI-F incentive rates, caps, and collars across networks**

We don't disagree with Ofgem's move to representing ODI-F values in terms of RoRE in line with the RIIO-ED2 approach. However, careful consideration of how incentives are calibrated with existing methodologies updated to reflect the change in approach.

We are keen to work with Ofgem to develop how the incentive framework, as a whole is calibrated, in terms of 'sized' rewards/penalties and the setting of caps and collars. The full detail of how this will be derived has not been fully specified, so further engagement is needed with Ofgem as part of the ongoing incentive and finance workstreams to ensure that a move away from the current approach is appropriate for the Electricity Transmission.

**OVQ14 Do you agree with our approach to setting reputational incentives? Are there any additional considerations that we should take into account?**

We agree with Ofgem's approach to setting reputational incentives (ODI-Rs).

We see benefit in continuing with reputational incentives to encourage networks to improve performance in areas where it is difficult to develop a quantifiable output parameter. However, to ensure we minimise the regulatory burden in RIIO-3 the introduction of additional reputational should be carefully considered where considerable consumer value in providing information on performance can be demonstrated. We don't currently have any reputational ODIs we propose to introduce for RIIO-T3, and an evolution of the current incentives remains appropriate. However, we don't believe Ofgem should restrict ODI-Rs being proposed as part of Business Plan submissions.

The success of the ODI-R within the environmental space in RIIO-T2 has provided stakeholders with valuable outputs on a range of activities through the Annual Environmental Report (AER). We believe that any reputational incentive should be developed with industry to ensure that the reputational incentive outputs deliver visible and transparent performance data to both Ofgem and wider stakeholders.

**OVQ15 Do you agree with our proposals for bespoke outputs? Are there any additional considerations that we should take into account?**

We understand Ofgem's view on limiting the number of bespoke outputs and financial incentives proposed by networks and support the position to allow networks to propose bespoke outputs where unique geographical and stakeholder needs can be evidenced. We are keen to work with Ofgem on clearly setting the criteria for proposing bespoke outputs through the Business Plan Guidance development process.

Our key ask is that Ofgem do not foreclose our ability to propose bespoke outputs, particularly Output Delivery Incentives (ODIs), where consumer value can be demonstrated following business plan submissions and where these could be potentially made common across the sector. For example, the SO:TO incentive in electricity transmission has delivered significant value to consumers through the reduction in constraint costs. This was a bespoke incentive proposed by Scottish Power Transmission and implemented across the sector. We are continuing to collaborate when developing our RIIO-T3 plans to share best practice and incentivise activities which deliver consumer benefit.

**OVQ16 Do you agree with our proposal to retain the EAPs and AERs in RIIO-3? Please provide reasonings for your position.**

We agree with maintaining a requirement for transparent planning and reporting on environmental targets and actions. We would however highlight increasing expectations from stakeholders to find reports encompassing material Environmental, Social and Governance (ESG) matters.

Our RIIO-T2 Sustainability Action Plan met the Ofgem requirements for the Environmental Action Plan (EAP), however included broader actions on socio-economic sustainability as requested by our stakeholders. We have maintained this approach to reporting through our subsequent Annual Sustainability Reports. These reports fulfil our obligation to prepare and publish an Annual Environmental Report (AER), compliant with the RIIO-2 Environmental Reporting Guidance, whilst continuing to provide comprehensive updates on our progress in fulfilling our sustainability commitments.

An annual report that captures environmental, economic, and social sustainability commitments provides greater clarity to stakeholders and streamlines the reporting process and format. This would also address concerns regarding resource implications by avoiding the requirement for several reports suited for various stakeholders.

In RIIO-3, we therefore propose that the scope of the Environmental Action Plan and the Annual Environmental Report be broadened to encompass sustainability, establishing a requirement for licensees to produce a Sustainability Action Plan and Annual Sustainability Reports.

We would highlight that this process and associated suite of documents should incorporate flexibility to reflect the evolving nature of the reporting landscape. We would highlight concerns over setting a detailed sustainability action plan at the start of the price control. An action planning framework that recognises these challenges could utilise annual or mid-period reviews to ensure plans are suitably representative of each network's operating environment. We do however recognise the importance of transparency, whereby any changes to an action plan would need to be sufficiently justified through materiality reviews.

#### OVQ17 What are your views on the new proposed AER format with Commentary and KPIs?

We recognise the importance of reporting format as for a reputational incentive to be effective, the reporting format needs to be designed to allow external stakeholder scrutiny. On that basis, we are in favour of a reporting format that is accessible and relevant to our whole stakeholder audience, including Ofgem and many other audiences. We are willing to work with Ofgem to discuss how exactly they intend to scrutinise our reporting and to tailor our reporting framework to make that as easy as possible.

Our stakeholders expect environmental sustainability to be considered alongside other aspects of sustainability and we will need to publish an annual sustainability report regardless of our regulatory obligations. The associated reporting burden would be lightened if this annual sustainability report could also fulfil our regulatory reporting obligations. This is the way we currently report in RIIO-T2.

We appreciate the flexibility of the current reporting requirements to ensure we provide stakeholders with material, transparent and detailed reports that are compliant with global standards. The RIIO-2 reporting structure provides opportunity for commentary in relation to performance whilst allowing licensees the agency to provide commentary in a structure that supports their thematic areas.

However, we would highlight the current overlap between some information reported in the AER and the Regulatory Reporting Pack (RRP), e.g. business carbon footprint, IIG leakage. To avoid regulatory burden and streamline reporting we would prefer to avoid reporting the same information twice with two different deadlines (July for RRP, October for AER), unless there is a clear justification and purpose to include the same information in both formats.

In addition to the AER and RRP, in RIIO-T2 we are also obliged to produce an annual performance report (APR). This includes significant sustainability content and creates duplicate reporting channels. The reporting landscape in RIIO-T3 would benefit from avoiding unnecessary overlap between the RRP, the RRP commentary, the AER, a potential AER KPI table, the APR, and our wider sustainability reporting efforts.

Global sustainability reporting standards continue to align with one another and are increasingly aligned with legal reporting requirements such as the European Sustainability Reporting Standard (ESRS) enacted by the Corporate Sustainability Reporting Directive (CSRD).

As part of SSE Group, SEN Transmission will need to contribute to ESRS-aligned sustainability reporting within the next few years, and certainly within the RIIO-T3 period. This will require us to monitor, measure and report on our sustainability impacts in line with the ESRS. If Ofgem were to set reporting requirements that were significantly different from ESRS, it could introduce inefficiencies and create undue burden.



The direction of travel for both voluntary and mandatory global sustainability reporting, including the ESRS, is for reporting to be informed by double materiality assessments. This includes an annual materiality assessments of sustainability topics, with in-depth assessments carried out every 2-3 years.

We undertook a double materiality assessment, informed by global best practice guidance and supported by SSE Group's Chief Sustainability Officer, between August and November 2023. The assessment is providing a valuable basis for strategy development and, in line with best practice and stakeholder expectations, the assessment is intended to inform priority topics for future sustainability reporting.

As highlighted in our response to OVQ16, we propose that the scope of the Environmental Action Plan and the Annual Environmental Report be broadened to encompass sustainability, establishing a requirement for licensees to produce a Sustainability Action Plan and Annual Sustainability Reports. We would appreciate further clarity regarding Ofgem's focus on Environment, rather than including broader factors such as Social and Governance.

We would caution against Ofgem pre-determining the KPIs that we are required to report on throughout the RIIO-3 period. Doing so would contradict global reporting best practice and create undue administrative, resource and cost burden. Whilst we understand the desire for greater comparability between companies, we are concerned that a prescriptive approach may pre-determine the focus of our sustainability reporting. We do however recognise the concerns raised regarding information sharing and we are open to exploring alternative approaches to reporting.

In addition, we would benefit from a greater understanding of what Ofgem deem as material and comparable KPIs. For example, we would highlight specific KPIs requested in RIIO-T2 are not material for all network companies and have therefore been modified in practice in order to present more meaningful performance metrics.

Ofgem shared example KPIs for RIIO-T3 at the Environment Working Group on 24<sup>th</sup> January and indicated that comments on these would be welcome. Given the proposal to alter AER format to consist of commentary and a standardised KPI table, we view the opportunity to respond to these suggested KPIs as particularly important.

Further detail on the materiality of several suggested KPIs is noted below, however we are open to further engagement on this matter.

### **Embodied carbon**

We are still in the "development and embedding" phase for this type of reporting, however we are improving year-on-year. Earlier design stages carbon estimates will be easier to provide as they are within our direct responsibility. Final design and as built carbon estimates will need to be sourced from contractors, where consistency and data availability is still an issue. We would see benefit in some lead in time to secure accurate and consistent data from contractors.

tCO<sub>2</sub>e/£m is a useful measure to normalise embodied carbon figures. However, the cost side of the equation is subject to inflationary pressures that could significantly distort trends over time. We would appreciate further engagement to agree a method to compensate for this.

### **Biodiversity**

We would highlight that some of the language in the suggested biodiversity KPIs is unclear. For example, it is not clear if the intention is for biodiversity reporting on every development project that

requires planning (a very broad scope) or just large capital projects. Similarly, we would appreciate further clarity on the intention to report on the metrics for each project or for total overall biodiversity units in any given period.

In addition, we would question how the extended timescales (30+ years) of some biodiversity projects may be accounted for in reporting. There is some tension between the focus on projects receiving planning in any given year and reporting on baseline and post-intervention assessments. It is likely that post intervention assessments could be much later than a year after planning permission is granted. This area is an example of how clearer, more specific language may be beneficial to increase consistency across companies reports.

#### **Sustainable resource use and waste**

Although this is a material KPI, we would highlight that it is not highly material for our business. We would note the challenges faced in waste reporting across all companies. Therefore, it may be more suitable for Ofgem to seek greater quality waste reporting for waste within our direct control. For example alignment with global reporting standards, such as GRI, could support transparent and consistent reporting across companies.

As contractor waste reporting is an area for improvement across companies, we would suggest keeping reporting requirements simple and incentivising innovation in this space.

Waste data is currently classified in accordance with European Waste Catalogue (EWC) codes. Reporting non-hazardous/non-special and hazardous/special data is acceptable, however we would see benefit from clearer definitions in any reporting guidance. For example, clearer guidance on whether the expectation is to categorise our waste based on its nature and origin, including types such as construction waste, demolition, excavation, and site facilities. These could then further be classified into the main destinations: non-hazardous/non-special and hazardous/special.

Finally, we would highlight that recycling and reuse are different metrics and therefore have different datasets that should be reported separately.

#### **Sulphur hexafluoride (SF6) & other IIGs**

This is a highly material area for our business and would highlight that good quality top-up data is available (although real-time leak monitoring is still aspirational and will not be ready in time for RIIO-T3 start). We recognise comments made from across industry regarding increasing transparency in reporting and we will look to continue to develop an improved framework.

#### **Supply chain management**

It is not clear what is meant by “supply chain management” as this is a very broad topic therefore, we would question what information is required by Ofgem and for what purpose.

#### **Business Carbon Footprint**

This is a highly material area for our business, and we have commented on the approach to reporting through Overview Question 19.

#### **Electricity transmission losses**

As the second-largest portion of our Scope 3 footprint (after capital carbon), we would highlight that this is a material area for our business. However, we would note that actions to address losses are essentially BAU, rather than related to specific programs of action. We would also suggest that

transmission losses are much more material from a network performance and consumer value perspective than from a purely environmental perspective. If transmission losses are retained in the EAP, this would be another argument in favour of broadening its remit to become a wider Sustainability Action Plan.

**OVQ18 Do you agree with our minded-to position of retaining the reputational incentive on TOs and GDNs for reducing their BCF?**

We broadly agree with the benefits listed in the consultation, in particular; strengthened brand reputation and credibility, increased investor confidence, future proofing and regulatory resilience. We would highlight that the ambition associated with a 1.5°-aligned SBT should be considered a stretch target; the reputational incentive should recognise this ambition.

However, we would highlight the challenges associated with reducing our Scope 1 & 2 emissions to the extent mandated by a 1.5°-aligned SBT. These challenges will continue to evolve throughout RIIO-3, and beyond, as we experience rapid network growth.

It should be noted that the base year for our science-based target (financial year 2018/19) happened to be a year of particularly good SF6 leakage performance. Over that year, our leakage was 0.22% of the SF6 on the network on 1<sup>st</sup> April. This makes our science-based target trajectory even more ambitious as we must improve upon our best ever year. We strongly argue that we should not be unfairly penalised for this strong performance and the ambition of our targets.

Despite these challenges, we recognise that the Science Based Targets initiative (SBTi) sets the gold standard for GHG emissions reduction targets and ensures that we are held accountable for our carbon reduction commitments. It also ensures that our actions are measurable; helping to build trust with stakeholders, customers, and our communities.

As part of the SBTi revalidation process, we are required to review our science-based targets by July 2025 and submit them for revalidation. Therefore, a reputational incentive will need to be flexible enough to account for potential changes or evolution within the SBTi's target-setting framework.

**OVQ19 Are there any other suggestions you would like to make regarding reporting standards?**

We would highlight the importance of consistency and alignment in BCF calculation methodologies where possible, however continuing to recognise the data challenges faced by networks.

To aid with further consistency, naming conventions should be agreed such that emissions categories are named consistently between the AER and the RRP, and across all three TOs. It is our view that the primary reported numbers in this section should be Scope 1, Scope 2, and Scope 3 emissions, broken down into appropriate emissions categories.

We would also highlight that we have voluntarily undertaken independent third-party verification of our GHG inventory. This has increased our confidence in the accuracy of our reported figures as well as providing a clear audit cycle within which we can work to improve our BCF reporting year-on-year.



OVQ20 Do you agree with our minded-to position to withdraw the Environmental Scorecard and incentivise improvements in environmental impacts through the Annual Environmental Report (AER)? Please explain your reasoning.

We agree with Ofgem's minded-to position to remove the Environmental Scorecard however we are keen to explore alternative incentives across material sustainability topics.

We recognise the reputational incentive associated with the Annual Environmental Report however would highlight that for a reputational incentive to be effective, sustainability performance should be reported in a format that meets our stakeholder's expectations.

OVQ21 Do you consider that there are other areas which require financial incentives which cannot be captured by the AER? Please explain your reasoning.

We are currently exploring topics across sustainability that may benefit from incentivisation and look forward to further engagement on this matter. We would highlight that ambition across material areas of sustainability should be appropriately recognised and we would appreciate ongoing engagement to continue to develop thinking in this area.

OVQ22 Do you have any views on our proposals for the NARM framework?

The NARM was developed to allow Ofgem to quantify the benefit to consumers of the companies' asset management activities. In RIIO-2, it was used to hold the companies accountable for their investment decisions and outputs were set by calculating the relative long-term monetised risk reduction delivered by interventions associated with the baseline funding allowance.

In our view NARM has evolved and no longer meets its stated purpose as set out in the transmission licence. The methodology is not transparent and logical, it does not help explain nor justify investment plans for managing risk, and it does not enable the comparative analysis between assets, companies, and sectors.

We believe that aspects of NARM require a substantial overhaul (rather than evolutionary updates) as there are fundamental flaws. We are disappointed that the SSMC does not appear to address the feedback that the TOs have provided to date on the current framework. We have raised significant concerns with Ofgem, as in our view the current framework is not fit for purpose as a Non-Load Output Mechanism.

The main issues and flaws with the current NARM framework are:

- The assumed of correlation between the project costs (and therefore funding) and Long-Term Risk Benefit (LTRB) is not supported by the evidence. We have provided Ofgem with evidence that for SSER Transmission there is no direct relationship between costs and outputs, meaning that the methodology used for calculating the Funding Adjustment and Penalty Mechanism is not fit for purpose. This is supported by the findings of Ofgem's own consultants (WSP, presented at NARM WG3 26/02/2024). The current methodology creates risks of significant windfall gains and losses and impedes sound investment decision making.

- Although Ofgem identified in its Final Determination the need for a way of addressing Clearly Identifiable Under/Over Delivery ('Clearly Identifiable') it has yet to define the thresholds for this. We believe that 22 out of the 25 Projects (88%) included in our submitted RIIO-T2 Business Plan "should" be considered Clearly Identifiable in the event of any changes from baseline. This is a clear indication that **the primary method of assessment does not properly accommodate the real-world scenarios that we face delivering projects.**
- NARM creates an artificial 'cliff edge' at the end of the Price Control and does not allow for necessary changes in schedules. This is particularly problematic given ongoing supply chain issues (e.g. significant increases in lead times for key equipment) and increased pressure on outage availability. **Network companies should not be penalised for delays or non-delivery of NARM Outputs caused by circumstances outside of their control.**
- Over the RIIO-T2 Price Control Period we have seen projects costs escalate much faster than the real price effects adjustments built into the licence. This means that many of our projects will over-spend to deliver the outputs set out in the NARM Workbook. **There needs to be a method to adjust allowances fairly in line with external factors.**
- The acceleration to reach net zero has meant a significant increase in Load-Related Asset Investment funded through other mechanisms. Where these projects interact with non-load projects (e.g. undergrounding a section of the network where towers were due to be replaced) **we are exposed to inappropriate risk (the Funding Adjustment and Penalty Mechanism to remove the elements which no longer need funding through NARM).**
- Where we need to intervene on a non-NARM asset (e.g. current transformer), **there is no mechanism to recover costs for justified over-delivery where the intervention was not included in the Baseline Business Plan.**
- The lack of certainty around the detail of the mechanism (gaps in the handbook, no clear threshold for Clearly Identified etc) and inconsistencies in the complex calculations gives rise to **unnecessary burdens and risks for companies.**

Further detail on these concerns (and the proposals set out below) is provided in Addendum 1: Additional detail on NARM.

Considering these issues (and the limited time available to develop a better approach for RIIO-T3) we recommend:

- Automatically ring fencing all schemes where the scheme Unit Cost of Risk (UCR) falls outside the clearly identifiable threshold at price control setting.
- A pragmatic approach needs to be agreed for projects that span price controls. We think this should include a 'grace period' (similar to the approach for RIIO-T1 COVID delayed schemes) where projects delivered early in the next control period are classed as 'fully delivered'. For more significant delays or material changes to what will be delivered, a close out mechanism should be established up front.
- A complete handbook (containing a complete set of rules and guidance) should be in place by the start of the Control Period in order to set realistic expectations for TOs. This should include the mechanisms for dealing with the interaction of NARM with other funding mechanisms.
- A mechanism should be put in place to allow the recovery of interventions on non-NARM assets not included in the Baseline Business Plan.
- The LTRB calculation should be simplified and a consistent approach adopted across companies.
- The reporting arrangements should be proportionate and take into account wider reporting requirements.

We recognise **Ofgem's ambition to expand the coverage of the NARM Methodology**. However, the time taken to collect new relevant data, develop the models and undertake calibration testing and validation means that it is near practically impossible to have anything ready for either a draft submission of the NARM BPDTs in July 2024 or the final submission in December 2024.

We also have concerns about the lack of historical engagement and the lack of resource in the Asset Risk and Resilience Team at Ofgem to make the improvements necessary to NARM in the time available to TOs and the Regulator. **There are a significant number of outstanding actions** (including approvals on documents) that need to be progressed as a matter of urgency. Further details are provided in Addendum 1: Additional detail on NARM.

OVQ23 Do you have any views on our proposed long-term approach to embedding climate resilience, including the principles for embedding climate resilience?

We support the proposed long-term approach to embedding climate resilience into the existing investment methodology. We are pleased that HILP (high impact, low probability) events are also to be included. We hope to continue engagement on whether Ofgem propose a new investment category for resilience factors and whether such investments will be included within the proposed resilience re-opener or should resilience factors be included within existing load and non-load mechanisms. It may also be necessary to consider the impact of the resilience metric on the existing NARMs Methodology.

OVQ24 Are there any early learnings we should be aware of/incorporate to make progress on this in RIIO-3 or beyond?

No, there are no early learnings, however we look forward to engaging with Ofgem during working groups and if there are any other learners from other stakeholders.

OVQ25 Do you agree with our suggested approach for embedding climate resilience into RIIO3, namely: introducing resilience strategies; developing forward-looking resilience metrics; and introducing climate resilience working groups?

We largely agree with the suggested approach for embedding climate resilience into RIIO-3. Whilst we already have a Climate Resilience Strategy within SSEN Transmission, we agree it is important that this is consistent across sectors. We also agree with the use of forward-looking metrics but believe that consideration should be given to development of a consistent methodology for the quantification of these metrics.

We would question whether it is appropriate that all TOs have the same metrics given the diversity of the networks and the different risk exposure each network is faced with.

We look forward to developing these metrics and sharing best practice through sector specific working groups. We do however recognise the importance of collaboration across network companies and would see benefit in additional working groups to support this. However, we would



continue to highlight the diversity of the networks and note that any resilience framework should continue to recognise these differences.

#### OVQ26 Do you agree with the proposals that we have set out around the resilience metric?

We largely agree with the proposals set out around the resilience metric but, as per our response to OVQ25, consideration should be given to a consistent methodology to quantify metrics and whether it is appropriate that all TOs have the same metrics given the diversity of the networks and the different risk exposure each network is faced with. Whilst we appreciate Ofgem's proposal to implement the resilience metric in the next price control, we would also suggest metric flexibility to allow the inclusion of best available data.

#### OVQ27 Do you agree with our proposals on workforce resilience?

Yes, we agree with the proposals on workforce resilience. Our people are at the heart of our business and are our passionate driving force to deliver for our customers. There is however a need for more direction, support and collaboration across industry and the supply chain to support the network companies and help with alignment of transferrable skills and tackling our industry wide skills shortage.

We agree that companies should have the flexibility to take the steps that are necessary and appropriate for their situation and their workforce and do not see any value in setting targets in this area for now.

We would seek to support Ofgem through the relevant working groups to improve, transparency and reporting of workforce resilience metrics, we think there could be value in network companies working with relevant industry bodies to establish a consistent format for public reporting on an agreed set of key metrics.

## Truth Telling and Efficiency Incentives

#### OVQ28 Do you agree with our proposed key objectives for truth telling and efficiency incentives?

We agree with the proposed objectives for truth telling and efficiency incentives but have concerns regarding the use of ambition as a qualifier, it is ambiguous. We think costs should be well justified either through provision of evidence of competitive procurement or comparative benchmarking tools. In our view a business plan quality incentive should support the provision of:

- business plan information that enables Ofgem to set the price control effectively;
- well justified cost forecasts and evidence of supply chain engagement; and
- output proposals that are aligned with stakeholder needs which go beyond baseline expectations.

Where costs have been market tested via a competitive procurement process, licences should not be penalised via a benchmarking and modelling exercise underpinned by historic data that does not reflect the current supply chain constraints. In our view output proposals should be aligned to stakeholder needs and wherever possible common outputs should be agreed across the sectors.

We broadly agree with the proposed key objectives of an efficiency incentive:

- incentivising efficient delivery of outputs in period; and
- sharing benefits/risks from out/underperformance in a way that contributes to addressing information asymmetry.

We consider that an efficiency incentive must reflect the volume of work proposed as part of the RIIO-T3 period and consider mechanisms to protect against windfall gains and losses such as the cap and collar mechanism developed as part of the ASTI regime.

#### OVQ29 What are your thoughts on our proposals relating to minimum requirements under an evolved BPI approach?

We support the evolution of the minimum requirements and focus on increasing the transparency of requirements. We would support the evolution of the minimum requirements in the following areas:

- Asset Resilience including network asset health data;
- Climate Resilience Strategies;
- Cost Information;
- Business Plan Data Templates;
- Cost Benefit Analysis;
- Engineering Justification Papers;
- Real Price Effects;
- Ongoing Efficiency; and
- Financial information.

We do not think there is a need for minimum requirements to be set in any other areas to meet the objective of providing business plan information that enables Ofgem to set the price control effectively.

Where licence conditions have been developed and are now in place with requirements or obligations to publish strategies and regular updates there should be no obligation to submit duplicative information in the business plan. This would cover areas such as Data and Digital Strategies and Whole System Coordination etc.

One additional area where Ofgem may wish to introduce a new set of minimum requirements is around commercial and procurement strategy. Managing supply chain constraints will be a key focus area in RIIO-3 and Ofgem should seek information from licensees on their approach to securing value for money in a volatile cost environment.

OVQ30 What are your thoughts on an 'in the round' assessment of cost forecasts as opposed to a high/lower confidence breakdown and assessment?

Companies should be challenged to provide well justified costs and the submission of efficient cost forecasts. We would support the move to a limited "in the round" assessment of cost forecasts, supported by econometric modelling and applied where costs can be robustly benchmarked.

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 are and this should be supported by econometric modelling where robust benchmarks can be established. We provide details on how the BPI could evolve in our response to OVQ33.

In our view the allocation of high/lower confidence across all cost categories in RIIO-T3 will be problematic, in RIIO-T2 certain costs could be estimated, evaluated for confidence, and benchmarked using historic data. This will not be possible in RIIO-T3 due to supply chain volatility, and other macro-economic factors. This differs significantly from the RIIO-T2 approach where >50% of the cost data utilised to set our ex-ante allowances was based on historical data.

Transmission projects may comprise a mixture of drivers (i.e. load and/or non-load), in conjunction with future proofing and being delivered as part of an optimisation strategy. This bespoke nature of projects presents challenges for cost assessment – although asset level costs might be able to be efficiency tested, bespoke elements (i.e. civils/ground conditions, site access, associated indirects) are much harder to test for confidence.

OVQ31 What are your thoughts on an 'in the round' assessment of business plan ambition as opposed to requiring and assessing CVPs?

We think Consumer Value Propositions are confusing for stakeholders and companies and may result in a postcode lottery with regards to outcomes offered. An "in the round" assessment of plan quality, would meet the principles set out for the BPI mechanism and give confidence to consumers that company plans are robust.

We would support the move to a qualitative in the round assessment of business plans, on the provision that criteria are determined and set out in the business plan guidance. The Ofwat PR24 approach sets out areas where the business plan will be assessed for quality/ambition. The areas include data, information and assurance, delivery strategy, costs, outcomes and risk and return. In our view Ofgem should be able to set the areas to be assessed for quality we provide indicative areas in our response to OVQ33.



### OVQ32 What are your thoughts on the size and strength of any truth telling incentive?

We consider that the incentive strength for the BPI has been diluted as the RIIO program of price controls has proceeded. It is our view that the size and strength of the BPI should be maintained. In RIIO-T2 the business plan incentive was defined with a range of +/- 2% Totex. This was to scale the reward and penalty to network size and investment plan size.

However, given the substantial increase in forecast totex in RIIO-T3 we think a BPI with a similar financial strength would be appropriate, but the overall cap and collar should be defined in monetary terms rather than Totex. We think an incentive cap and collar with a range of +£50m /-£25m would meet the objectives set out for the BPI. But in our view the overall application of the mechanism must be designed such that all companies can earn reward where appropriate, we expand on this in OVQ33.

Finally, Ofgem must consider the overall incentive package in the round for financeability and investability considerations before the weighting of individual incentives is fixed.

### OVQ33 What are your thoughts on any alternative approaches that could be used instead of an evolved BPI?

We propose that the BPI is evolved to allow the assessment of quality and ambition, more in line with Ofwat's approach for PR24. We propose the following two-stage process (see Figure 2)<sup>1</sup>:

**Stage One is the Completeness Assessment.** This will ensure companies meet the Minimum Requirements on a pass/fail assessment basis. If failing, a penalty will be imposed, and the company will be excluded from the Ambitious Plan Assessment.

**Stage Two is the Ambitious Plan Assessment,** which is split into two tracks. First, the assessment of cost strategy. This will take a view on the robustness of our procurement strategy and combine this with the results of econometric benchmarking on limited cost areas (Directs, CAI and BSC). Second, the Ambition Plan – our Fit for the Future Scorecard. This will be a subjective assessment of ambition of the plan in defined areas, which are not linked to infrastructure delivery.

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<sup>1</sup> Reward & Penalty values set out within this figure are for illustrative purposes with actual values to be set as part of the wider incentive framework.

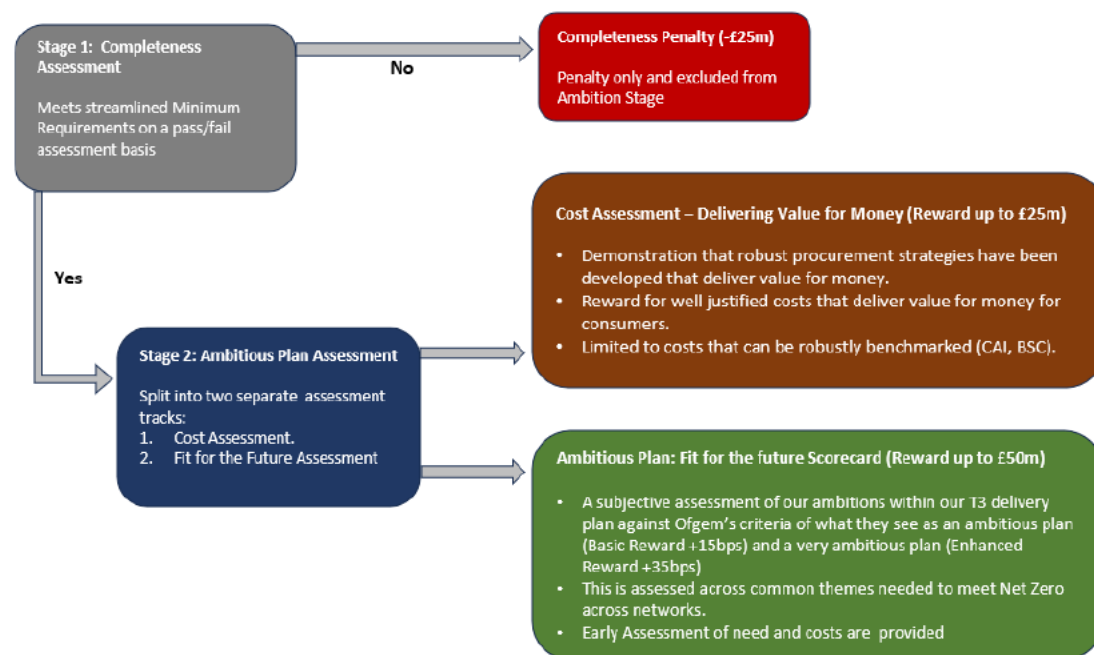


Figure 2 - BPI Process Diagram

Our Fit for the Future scorecard should allow companies to map the outcomes from their business plan to a scorecard which features common areas across the transmission sector. We propose this simple scorecard informed by our stakeholders to recognise the areas which are important to the delivery of net zero but are not delivered by capital investment.

	Minimum Requirements	Ambitions T3 Delivery Plan Reward	
Business Plan Area	Business as Usual	Ambition for T3 +£25m Reward	Stretch for T3 £50m Reward
Digitalisation			
Network Planning & Collaboration			
Securing the Supply Chain			
Environment/Sustainability			
Resilience			

Figure 3 - Fit for the Future scorecard

Each company will populate the table in Figure 3, in accordance with their business plan’s ambition and stretching targets. Ofgem will then take a view in the round with regards to ambition. The outcome from this assessment will be for Ofgem to decide if a reward on the business plan is merited.

Learning from RIIO-2, Ofgem lacks the means to reward high quality business plans. We propose that Ofgem is given significant freedom to decide on the level of reward. We do not think detailed methodologies or weightings are required, and therefore, we would not support mechanistic processes in the ambition assessment. A more subjective approach such as this provides companies more opportunity to work with creative, flexible, and expansive targets.

We note that Ofgem may prefer an approach of commonality for the BPI framework, rather than the sector-specific model we have proposed. However, it is our position that a cross-sector model would no longer function effectively. Considering the unique challenges faced by the Transmission sector in the upcoming price control period, we believe that this model will be the most appropriate way to encourage ambition.

Figure 4 demonstrates the main strengths of our Fit for the Future scorecard:

T2 Framework	Ofwat QAA	T3 Proposal
× <b>Complex</b>	✓ <b>Simplified</b>	✓ <b>Simplified</b>
× <b>Penalty stifles ambition</b>	× <b>Penalty stifles ambition</b>	✓ <b>No penalty = ambition is rewarded</b>
× <b>Resource intensive and burdensome</b>	✓ <b>Less resource intensive</b>	✓ <b>Less resource intensive</b>

*Figure 4 – Comparison: RIIO-T2 BPI, QAA, and RIIO-T3 BPI proposal*

OVQ34 What are your thoughts on the options for calculating the sharing factors and do you see strong reasons for changing the overall strength of the sharing factors relative to RIIO-2?

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. But we think that the TIM rate should be set separately and independently from the BPI process.

The RIIO-T3 Business Plan will set the foundation for all investment in the period but a considerable number of the investments and therefore costs will be set via other mechanisms like ASTI and the new MPR. These costs will not be assessed via the BPI, but these projects will expose consumers and companies to risks. We are therefore of the view that in setting TIM rates Ofgem should adopt a qualitative approach based on wider company risks and overall spend in the RIIO-T3 period. We will complete analysis to quantify the increase in risk to companies in the RIIO-T3 period and we set out this out in our business plan submission.

We think that Ofgem should set company specific TIM rates, with a view to minimise the risk of windfall gains and losses considering the step change in volume of investment required. Ofgem have previously used higher powered incentives to incentivise efficient behaviour. In the 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 pot in monetary terms that would be sufficient to drive the correct behaviours, and where we underspend a much larger proportion of underspend is returned to consumers.

A higher sharing factor for consumers, 90%, will mean a much larger proportion of 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 and provides the correct balance of risk between consumers and companies.

We do not consider that a Confidence Dependent Incentive Rate, is an effective mechanism to set TIM rates due to the bespoke nature of the transmission project costs as outlined in OVQ29. 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 costs submitted as part of the business plan. This methodology assumed that all costs could be easily assessed, this was not the case, and the assessment of cost categories was subjective with broad assumptions across specific cost categories. This meant that the Confidence Dependent Incentive Rate is not transparent, and subjective and Ofgem would be better taking a view in the round.

We do not support the reintroduction of the IQI, we believe that reputational and financial rewards for high quality plans have the potential to drive down costs and deliver benefits to consumers. The IQI was a complex mechanism that lacked transparency to wider stakeholders. We think that reform of the BPI and an independently set TIM are the correct approach and we would encourage Ofgem to consider, financial, procedural, and reputational outcomes from the BPI assessment.

## Managing Uncertainty

OVQ35 Do you agree with our proposal to retain the Net Zero Re-opener with its current scope and parameters for RII0-3?

We agree that the Net Zero Reopener (NZR) should be retained for the RII0-3. However, we believe that the scope and application need to be evolved to accelerate net zero projects, that emerge during the price control, such that they can be progressed while minimising the regulatory burden associated with the current approach.

We see the Net Zero reopener providing a funding mechanism for unique projects that do not fit into other uncertainty mechanisms, where there is clear consumer benefit, and they are required to meet Net Zero. Our fundamental ask is that this reopener is specified with broad eligibility criteria aligned with Ofgem's net zero duty and allows for submissions that contribute to net zero or meeting the UK carbon budget targets.

In our view prescriptive eligibility criteria and project definitions are not required as part of the reopener, this would be detrimental, potentially excluding projects from progressing that are needed to deliver net zero. They can also create increased regulatory burden through extensive deliberation on how the project meets these criteria to allow Ofgem to trigger the reopener. We think Ofgem, companies and consumers will benefit from this regulatory flexibility.

Our proposed approach for this reopener is as follows:

- i. The Net Zero reopener follows the traditional reopener approach with options on the assessment track (e.g. scope and cost or cost only).
- ii. Ahead of the reopener companies would set out the high-level need for the project and how it meets both our and Ofgem's net zero duty. This could include an ask for Pre-construction to allow the project to be developed for a detailed scope and cost submission.

We acknowledge that these projects may be low in number, as the wider uncertainty mechanism framework provides funding routes for projects that may arise during RIIO-T3, but the opportunity lost by an inability to progress these net zero projects could materially impact the push towards meeting net zero targets.

From a project development perspective, the alternative would be that the current NZARD UIOLI pot continues to be used as development funding. However, the value of the pot would need to be increased to reflect the cost of developing projects and the project cap removed. We provide more detail in OVQ36 on our view about the NZARD within RIIO-T3, but we believe this UIOLI pot needs to increase with the removal of the cap on funding per project. This could be achieved through greater governance and monitoring.

We would also highlight that the current process around the Net Zero reopener is unclear and moving towards a common approach with the other reopeners would provide that process clarity and expectations.

An example of this is our project to explore the integration of HVDC systems through multi-terminal and multi-vendor interoperability which will be required in order to meet net zero. It is currently looking to progress under the RIIO-T2 Net Zero reopener but is experiencing challenges under the current process:

- The scope of the NZR appears to be suitable for use by the network operators however we have been unable to successfully trigger NZR for a project as of yet.
- The current parameters of the NZR mean that network operators must accept the burden of costs up to project assessment (Gate 3). The risks until this stage, are therefore entirely owned by the network operators.
- The ethos and scope of the RIIO-T2 NZR are in line with the goals of the networks, however, the parameters and approval process should be amended to ensure confidence of funding and reduced spend at risk for the network operators.
- A phased approach to cost submission and recovery could be beneficial to ensure a robust needs case is in place to maintain Ofgem assurance but with reduction in spend at risk for the network operator.

We see value in broadening the scope of the Net Zero reopener to enhance the flexibility of the UM framework to reflect the significant pace of technology development and design of new and innovative solutions or projects, which will be needed to unlock net zero opportunities, but given the uniqueness don't have a clear funding mechanism under the wider framework. There is also a need to adopt the common reopener process being used for other RIIO-T3 reopeners with the ambition of streamlining the process as much as possible.

We will continue to work with Ofgem on the wider UM proposals, including the Net Zero reopener.

OVQ36 What are your views on our proposal, in principle, to retain the Net Zero and Re-opener Development Fund UIOLI for RIIO-3? What are your views on the types of projects it could fund and how it would interact with other sector specific price control mechanisms?

We support retaining the Net Zero and Reopener Development (NZARD) UIOLI funding mechanism for the RIIO-T3 price control. However, the current parameters make it difficult to fund the

development of larger scale Transmission projects to a point of providing a full project assessment submission. Our ask for the NZARD UIOLI pot is:

- i. The pot should focus solely on the development and advancement of Net Zero reopener projects, as these will likely be more innovative with potentially higher development risk.
- ii. The NZARD does not need to cover other reopeners. Under our current reopener thinking is that pre-construction funding would be provided as part of each reopener. For example, the Load Related Reopener would have its own PCF funding route mechanism.
- iii. Propose that the pot value is increased to reflect the scale of projects being progressed and the spend per project cap is removed or significantly increased. An example of is this our DCSS project (Project Aquilia) which has used the full £2m cap but that is insufficient to get to sufficient cost certainty to submit a full project assessment under the Net Zero Reopener.
- iv. Our view would be a £50m pot with a £10-£15m per project cap. This would allow projects of different scales to progress at pace. We would propose that Ofgem would use the Demonstrable Inefficient or Wasteful Expenditure (DIWE) principals and claw back any inefficient or wasteful expenditure following an ex-post review.

An alternative proposal would base the NZARD on the principals used under the current RIIO-T2 VISTA approach. Networks would apply for PCF as part of agreed NZ reopener projects under the pre-defined NZARD UIOLI fund. This could be based on Ofgem approval of the eligibility to apply submission and would remain a specified UIOLI allowance. This would provide Ofgem greater oversight of spend, but this must not act as a barrier to pace of development that is achieved under the NZARD proposal above. We will continue to work with Ofgem on developing the role of the NZARD in conjunction with the Net Zero reopener and wider uncertainty mechanism framework.

OVQ37 Do you think we should retain the NZASP for GD and GT? What should its scope be and what kind of projects would you expect to be funded through this re-opener in RIIO-3?

This question relates to the gas sectors and therefore don't have a specific view. However, we believe that funding mechanisms to progress net zero driven projects should be retained across all sectors.

OVQ38 Do you have any views on consolidating the net zero related re-openers and the UIOLI allowance?

This question relates to the gas sectors, and therefore don't have a specific view.

OVQ39 Do you agree with our proposed position to retain the Coordinated Adjustment Mechanism for RIIO-3? If it were to be retained, what design and incentive considerations could we implement to enhance the utilisation and value of this mechanism?

We agree with Ofgem that the Coordinated Adjustment Mechanism should be kept as a re-opener for RIIO-T3. But we also note that this mechanism is useful only in very rare cases. The CAM mechanism is meant for situations when baseline allowances have been set and then there is a need to transfer between two regulated businesses. However, we consider the whole system in all our



development activities. This means that the outputs in our RIIO-T2 plan have already taken into account some degree of Whole System thinking.

The two main elements of capex in baseline allowances (Load and non-load related expenditure) follow the same governance framework and those parties must show evidence of Whole System evaluation (across T and D at Gate 0). Therefore, there is limited scope of finding WS working solutions, following Ofgem approval.

In the RIIO-T2 period we have seen that cases where we can deliver value to consumers, through WS working across network boundaries, usually involve other UMs and commercial arrangements. For example, on our Craig Murrail/Port Ann project we found a Transmission need to move a GSP which would require SHEPD investment and for us to gain approval through LOTI. That approval would be needed before the CAM could be applied for to transfer the output and allowance. This adds regulatory process and time, meaning the energisation dates would be later.

In this case the most optimal solution was to treat this as a diversion with SSEN Transmission going to the distribution network operator with a request to divert the work. We were able to give SHEPD the scope of the work and they gave us a cost which was passed to cost assessment. SHEPD were then able to charge us for the work they did. This approach reduced the administrative work that would have been associated with the CAM while delivering the same consumer benefit.

We do recognise however that there is value in keeping the CAM and that we should not exclude the possibility that an option to use this mechanism could come up during the RIIO-T3 period, as there may not be the scope to use other framework mechanisms to deliver whole system benefit to consumers.

Given the uncertainties that all parties face in the coming years from proposals for re-design of the electricity market and increased focus on disruptive technologies such as hydrogen. Keeping the ability to exchange outputs and allowances makes sense and could be helpful given the different timescales that transmission and distribution price controls operate as well as the growing potential for interaction between electricity and gas networks. There are also a number of hurdles associated with the CAM that need to be recognised in order to be addressed for RIIO-T3:

- Requires material levels of proactive effort to uncover the opportunities. This includes data and network analysis.
- Increased risk given the reduction in return on investment from reduction in Regulatory Asset Value (RAV) through transfer of output to another licensee.

Therefore, to identify these opportunities and ensure that the CAM mechanism provides the framework necessary to drive and deliver a sustained approach to above BAU whole system, we think that the CAM would be better supported with an incentive framework in the RIIO-T3 period. We are currently working with the other TOs on a proposal which we have set out below. The key components of the incentives are set out in Table 1.

Table 1 - CAM Incentive Proposal

CAM Incentive	Description/Rationale
Incentive Overview	<ul style="list-style-type: none"> <li>The overall structure of the CAM incentive would be similar to the SO:TO Optimisation incentive under RIIO-T2.</li> <li>Discretionary reward only incentive to encourage the delivery of whole system outcomes which are above BaU through our WS licence.</li> <li>The incentive is driven by the consumer benefit created through constraint savings, avoided carbon etc through the transferring of outputs between network companies.</li> </ul>
Incentive Value & Measuring Performance	<ul style="list-style-type: none"> <li>We propose that a similar sharing factor value to the SO:TO and propose a range of between 10%-20% after adjustment of the ex-post costs of the licensee's outputs or project which is responsible for delivering the transferred outputs or project.</li> <li>This sharing factor value is shared equally between the two parties (e.g. DNO and TO)</li> <li>The basis of the incentive value is the forecast savings based on the relevant cost-benefit analysis and adjusted for the ex-post costs of the licensee delivering the transferred outputs or project.</li> <li>The proposed incentive strength reflects the risks associated with the CAM from a transferring of outputs and potentially increased operational risk.</li> </ul>
Applicable projects	<ul style="list-style-type: none"> <li>Baseline projects where a whole system solution has been identified which could not have been identified at the time of setting the baseline.</li> </ul>
Incentive Operation	<ul style="list-style-type: none"> <li>We propose that the incentive is run as a trial for the first two years of RIIO-T3.</li> <li>Ofgem approve any incentive submission under the CAM incentive.</li> </ul>

OVQ40 Do you agree with our proposal to allow physical security costs to be submitted through a broader resilience re-opener?

We agree with the proposal for physical security costs to be submitted through a broader resilience re-opener which minimises the need for multiple individual reopeners within the price control. This would continue to allow us to manage the evolving needs of our network driven by the Critical National Infrastructure requirements set out by DESNZ.

It is important to note that the Physical Site Security Reopener within RIIO-2 had a materiality threshold of zero as these costs were driven by requirements outside of the network companies control and are required to be delivered in a timely fashion. Therefore, we strongly believe that the new consolidated resilience reopener maintains this approach.

OVQ41 Do you agree with our proposed approach to introduce a resilience reopener?

We agree with your proposed approach to introduce a resilience reopener to allow networks to adjust allowances in response to resilience driven work that could not be foreseen at the time of delivery plan submission for RIIO-T3.

We broadly agree with the criteria set out within the consultation for the scope of works that would trigger the reopener and are keen to develop these further with Ofgem following this consultation.

However, we disagree that it would need to be only at the instruction of DESNZ or the FSO for those activities included in the National Risk Register.

The reopener should also be able to be triggered by the networks based on resilience information, as we are the experts in operating our network with the ability to quickly identify specific resilience risks in real time.

The triggering of the reopener would be supported by the appropriate authority, such as SEPA for flooding in Scotland or evidence of changes associated with engineering or resilience standards. We agree that for areas such as Physical site security that these would continue to be progressed following instruction from DESNZ under the Critical National Infrastructure guidance.

We strongly believe this reopener should not have a materiality threshold attached to it given the importance of progressing resilience projects at pace to ensure network security and resilience is maintained for consumers. There also needs to be flexibility with regards to when the reopener can be triggered and will continue to work with Ofgem ahead of the SSMD publication on the design of the reopener framework.

OVQ42 Do you have any views on whether the opex escalator should be retained and if so, how we could evolve the opex escalator for RIIO-3?

Based on our experience from RIIO-T2, the Opex Escalator (OE) is not fit for purpose and should not be used within the regulatory framework for RIIO-T3. The OE cannot be robustly calibrated to provide a single percentage uplift for all projects. Continued use poses a real risk of material underfunding for reopener applications if it continues to be applied during RIIO-T3. It is not in the interest of consumers for companies to be materially underfunded for delivery of their licence commitments.

The unsuitability of the OE is due to three main drivers:

- Changes in the RIGs and definitions around the treatment of contractor indirects mean that the OE cannot be calibrated correctly due to a lack of consistent data. The reported data set has changed from RIIO-T1 to RIIO-T2 and during RIIO-T2. Therefore, historic data captured by TO's cannot be mapped to new data categories in the most recent submissions. As a result, calibration is difficult.
- The significant change in market conditions is impacting indirect costs, as a result of the rush to decarbonise the grid globally. The structural break that can be witnessed within the latest data, means that the data used to calibrate the OE can no longer be used as a reliable predictor of future costs.
- The varying types of projects we deliver means that a single Opex Escalator will not provide reflective allowances. The OE was calibrated with a small number of homogeneous projects and a limited data set. In the RIIO-T2 the incremental projects have differed in scale, delivery methods and contracting approaches. This means that a one size fits all approach is not suitable.

Therefore, we ask that the Opex Escalator is removed for RIIO-T3. The indirect costs for uncertainty mechanism reopeners should be assessed via bottom-up assessment as part of reopener cost assessment. It is important that the volume driver enables us to automatically recover both direct and indirect costs. As such indirect costs would need to be incorporated into the calibration of unit rates.



### **The assumed relationship between direct and indirect costs is not accurate**

The indirect modelling used to calibrate the OE is no longer fit for purpose for establishing a relationship between direct and indirect costs. It assumes that the indirect costs of Transmission Owners are proportional to their direct costs, and that the indirect cost drivers are in-fact the same as the direct cost drivers. This does not reflect a true or accurate relationship between indirect and direct costs, as indirect costs may depend on other factors such as delivery model, procurement and contractual arrangements and the type of project being delivered.

For example, traditional asset delivery type projects will require a certain level of indirects to deliver these projects. However, the level of indirects required will vary due to a number of reasons:

- The contractual arrangements for a project e.g. EPC vs multi-contract, regardless of project value.
- The level of indirects required is partly driven by the type of project being delivered and the overall project delivery model. Some projects may require a higher level of upfront development and design work (i.e. indirects) relative to simpler or established projects.
- Another example a more innovative project which does not follow the traditional asset delivery process and be of lower capex value but may require a similar level of indirects to manage.

The OE is inflexible and does not account for these differences between projects and therefore it is not appropriate to apply a fixed percentage uplift to opex across all projects, without introducing the risk of material underfunding or overfunding.

The significant change in market conditions with above-inflation cost increases can also be seen in indirects. The structural break that can be witnessed within the data set, as a result of the rush to decarbonise the grid globally, means that the data used to calibrate the OE can no longer be used as a reliable predictor of future costs. The relationship between direct capex and indirects is no longer as stable as the relationship established using data from the RIIO-T1 price control. The breakdown in relationship between capex and indirects therefore means it is **no longer possible to establish a robust correlation between direct capex and indirect costs, as a percentage uplift opex escalator.**

### **The impact of changing definitions**

In addition, reporting changes being proposed by Ofgem around contractor indirects, as consulted on through the 22/23 RIGS consultation, means that the data set is further distorted and cannot be used for establishing a relationship between indirect costs and direct costs. The reality is that historical reporting practices were significantly different to those being proposed by Ofgem, meaning that the data is no longer appropriate for establishing the relationship necessary to calibrate the OE.

We are undertaking further analysis with external consultants that will demonstrate that the OE relationship established in RIIO-T2 is no longer fit for purpose and will share this with Ofgem when ready.

### **Companies require flexibility**

The indirect modelling does not account for the uncertainty and volatility for the indirect costs TOs experience throughout the price control, this may vary significantly depending on actual project delivery methods. A fixed indirect cost ratio is applied to baseline and uncertainty mechanism allowances regardless of timing and outcome of the projects. This isn't realistic as indirect costs change over time due to factors such as inflation, market conditions, regulatory changes, unforeseen or exceptional events. This is specifically important as we change the nature of the energy system and facilitate decarbonisation on the way to net zero.

OVQ43 Do you have any views on how we should effectively monitor the delivery of UMs?

We understand and support Ofgem's desire for increased data and submission consistency, as this will ultimately allow for a more efficient assessment process. However, we would also highlight licensees strive to provide clear and consistent data to Ofgem with consumer interest driving decision making that are subject to robust internal governance and sign off processes in line with our licence obligations.

In order to address Ofgem's concerns around consistency in submissions we believe this needs to be achieved by the provision of clearer guidance that explicitly sets out what Ofgem require as a minimum, in order to carry out their assessment. We propose that within any updated reopener or uncertainty mechanism guidance, Ofgem provide clear minimum requirements, similarly to the Business Plan Guidance, under each of the submission sections that they need to have in order to fully assess the submission. If the submission does not meet this then it is not reviewed and in extreme cases may have to be resubmitted at a later date.

In terms of consistency in cost submissions, again all Companies strive to provide clear, consistent data to Ofgem as part of our reopener submissions. It is worth highlighting that RIGs definitions were being updated in RIIO-T2 and we believe that insufficient guidance for submitted costs alongside the UMs was provided by Ofgem. For example, within the current RIIO-T2 framework Ofgem provided the Companies with a UM cost template but not published guidance on how it should be populated. As we move into RIIO-T3 we are keen to work with Ofgem and the other Companies to develop consistent cost reporting templates with clear and transparent guidance.

Ofgem raise a specific concern with how networks are allocating costs to use it or lose it allowances, particularly around the Cyber Resilience UIOLI allowance. We have not been made aware of this issue during our extensive engagement with Ofgem on our Cyber Reopener submission. We would also note that our governance processes ensure that any allowance requests submitted, are allowances that we have not asked for under any other mechanism within the price control. We believe that where companies are regularly providing inconsistent data then Ofgem should have the power to claw back those allowances if it meets a pre-agreed DIWE criterion.

We are keen to work with Ofgem to reduce the regulatory burden associated with monitoring price control delivery.

## Cost of Service

OVQ44 Do you have any views on whether to evolve the RIIO-2 methodologies for RPEs and ongoing efficiency for RIIO-3, and if so how?

We support Ofgem's intention to evolve and develop the Real Price Effects (RPEs) and Ongoing Efficiency (OE) methodologies for RIIO-T3. We are committed to engaging with Ofgem and developing appropriate indices to manage this risk appropriately for RIIO-T3.

### Real Price Effects (RPEs)

Ofgem's intention to evolve RPEs to reduce the risks faced by TOs, such as Price Adjustment Mechanisms and adjusting Pass-Through costs to reflect the input price pressures faced by the supply chain and TOs is well received. As part of our RIIO-T3 business plan we will develop proposals for alternative indexation approaches to a more cost reflective mechanism. We will seek to engage with Ofgem via workgroups as our proposals develop.

In RIIO-T2, even with an RPE mechanism in place, we believe all TOs were and are still exposed to significant cost pressures that are largely not in their control. This includes macro commodity and inflationary pressure, supply chain constraints and general demand for equipment across the EU. For example, some assets costs have more than doubled and indexation is one element of this. An evolved indexation approach should be structured to protect Customers and TOs where cost increases and decreases are shared; be reflective of current economic environment; and consider the limited availability of key skills / contractors.

A poorly structured indexation approach raises risks in deliverability and could affect financeability at a time where investments are being accelerated to meet the net zero targets set by the UK government. If an indexation approach is poorly structured, network companies may not be able to recover their efficient costs or earn a fair return on investment which would impact financeability and investability.

An indexation approach can have implications for ongoing efficiency assumptions that are applied to company costs. As such we believe a targeted ongoing efficiency approach can be fairer and more realistic for network companies, it would better reflect the actual productivity and cost performance for each company and market.

### Ongoing Efficiency (OE)

We support Ofgem's intention to discuss cost areas where OE should not apply in RIIO-T3. Given the significant uptake of outsourcing of work to facilitate net zero targets, the efficiency potential for TOs will be severely limited.

RIIO-T3 will play a key part in reaching the target of net zero. However, given the current climate in relation to macro-economic impacts and the Government's drive for accelerated infrastructure delivery the OE is not reflective of limited potential for cost reductions in the sector, in the context of rising input costs. This is especially true in the energy sector where there is a high capital, low elasticity of demand and limited scope for substitution. OE also varies depending on the specific characteristics and challenges of each company and market.



A targeted OE approach would avoid imposing unrealistic or excessive cost reductions on network companies and would ensure consumers continue to benefit from efficiency savings in areas where there isn't significant energisation date drivers whilst mitigating against underfunding network companies. Furthermore, OE may compound on top of the impact of RPEs on company costs resulting in underfunding or underinvestment.

**OVQ45 Do you have any views on the potential application of RPEs and ongoing efficiency to re-opener applications?**

We support the application of RPEs for re-opener applications but do not believe applying an ongoing efficiency challenge is suitable or justified for re-openers.

#### **Real Price Effects (RPEs)**

As set out in OVQ44, we believe the RPE mechanism in RIIO-T2 did not protect TOs from increasing input price costs and improvements are required. However, we also believe if a revised indexation approach was adopted for RIIO-T3, this could provide benefits to consumers and network companies. As part of our RIIO-T3 business plan we will develop proposals for alternative indexation approaches to a more cost reflective set. We will seek to engage with Ofgem via workgroups as our proposal develops.

#### **Ongoing Efficiency**

Given the unique challenges facing the Transmission industry, there is significant pressure on TOs to deliver a high volume of large-scale projects urgently. Most of the large projects will fall into the re-opener category, which as detailed throughout our response to SSMC will be more bespoke, one-of-a-kind type projects which lack comparability, moreover we may have limited experience operating these novel technologies.

In addition, Ofgem have emphasised how paramount the speed of delivery is to enable the country to meet decarbonisation targets, however, to ensure the volume of work can be completed in time, an increase in outsourcing of work will severely limit TOs efficiency potential. This evidence suggests that applying an ongoing efficiency challenge to activities which are not regular or repeatable, where lessons learned cannot be put into practise would materially impact TOs in their ability to receive a fair return on the significant investment.

We know Ofgem are aware of the 'see-saw' effect in relation to speedy delivery & efficient costs. If TOs are being pushed to deliver projects in expedited timescales, there is significantly less ability and merit in applying an ongoing efficiency challenge.

In conclusion, we support the application of the development of an indexation approach to RPEs however not ongoing efficiency for re-opener submissions.

## Cyber Security

### OVQ46 Do you agree with our proposed approach to cyber resilience in RIIO-3?

SSEN Transmission is responsible for significant elements of the UK's Critical National Infrastructure. As such, as a business, we seek to ensure that our systems, assets, and people are safe and secure, and that our customers are not put at risk. Our Operational and Information Technology is at the core of our business, and in delivering essential services to citizens of the UK we seek to identify and mitigate the cyber risks to these systems. We treat our obligations to manage the cyber security risks posed to our industry very seriously. We welcome the paramount importance that Ofgem also places on these activities and recognise the moves made by Ofgem in the SSMC to improve the framework in place to ensure this vital work is funded.

We agree broadly with Ofgem's proposed approach to cyber resilience in RIIO-3. However, we have a number of comments to make on specific aspects of the framework:

**Consolidation of Guidance:** We welcome any move by the regulator to decrease regulatory burden and mitigate the risks of regulatory arbitrage. However, any consolidation of guidance must be done in a manner which makes sense, and which does not compromise the aims of the individual documents being consolidated. In paragraph 11.22 of the SSMC Overview Document Ofgem state that they propose to 'consolidate the Cyber Resilience Re-Opener Guidance with the NIS Supplementary Guidance.' No further detail is included on what this will mean in practice. We note that the NIS Supplementary Guidance is intended to provide "DGE sector-specific guidance to OES... [to] assist them to achieve and demonstrate the security outcomes in the NCSC's Cyber Assessment Framework (CAF)." Whereas the purpose of the 'Cyber Resilience Re-opener Guidance' is to; (i) set out Ofgem's assessment methodologies for relevant re-opener applications; and (ii) outline how these applications should be prepared (including style and structure.) The main purpose of the two documents would appear to be at odds: one is focussed on providing guidance on compliance; and the other focussed on providing guidance on making a competent regulatory submission. Any consolidation needs to be done sensitively so as not to undermine these competing purposes.

The NIS Supplementary Guidance is a 339-page document. The Cyber Resilience Re-opener Guidance is only 23 pages long (albeit supported by example project costing templates.) It is not clear whether Ofgem intend to delete the re-opener guidance document and simply transpose the content from its current 23 pages into the NIS Supplementary Guidance. If this is the intent, we would question the utility in burying this information within this much larger document. The alternative may be to weave the content from the current re-opener guidance throughout the current 339-page NIS Supplementary Guidance. This might lead to further inconsistencies in interpretation by network companies when submitting their reopener applications – as it may lead to requirements being missed within the morass of other competing information within the NIS Supplementary Guidance. We would appreciate further detail on the approach Ofgem are proposing to take here.

We also note that CAF Enhanced Profile compliance is required by end-2027. There is a potential for dislocation of the price control periods and increasing CAF requirements (and compliance dates.) We would expect updated NIS compliance guidance to be issued following elapse of the CAF compliance date in 2027. Any update to the guidance must be cognisant of this and Ofgem need to be mindful of the potential for consultation fatigue.

## **Triggered Risk**

There is no commentary within the SSMC on the “triggered risk pot” mechanism which Ofgem has made available to network companies within RIIO-2. We think this is a worthwhile mechanism which should be carried over into the RIIO-3 settlement. We note however that the concept of “triggered risk” emerged late into the RIIO-2 price control and was not set out within any official documentation from Ofgem on cyber resilience or other reopener mechanisms. We would appreciate it if Ofgem could formalise the concept within RIIO-3 by writing it into their guidance documents. This will make expectations clearer for network companies when seeking to include requests for triggered risk funding in their business plans and reopener applications. Ofgem should articulate the framework governing this concept, setting out clearly: what is a triggered risk; notification requirements; and the process for accessing funding.

## **RIIO-T4 Planning**

The SSMD guidance should make it clear that (as we approach the end of the price control) there will be an opportunity for network companies to submit a reopener funding request for RIIO-T4 preparation activity. There has been an inconsistent approach within Ofgem in relation to RIIO-T3 planning – where funding requests for preparation activity have been welcomed in some areas and rejected in others. We are not able to reliably predict the future shape of the network at the point in time when RIIO-T4 starts to become relevant. However, it is not inconceivable that significant changes will have occurred which may not have been reasonably foreseen at this point in time. There needs to be flexibility in the regulatory framework to allow network companies to request seed funding to support RIIO-T4 preparation activity at the point when this becomes imperative.

## **PCDs and PCD Reporting**

Please refer to our response to OVQ12, which includes some further commentary on our general thoughts on proposed changes to the PCD framework.

We welcome Ofgem’s proposal to reduce the number of PCDs that will be sit within the price control and agree with the proposal that only material projects (that directly deliver CAF outcomes) should be covered by PCDs. We support any measure that leads to reduction of PCDs and associated reporting overhead. We would appreciate some further clarity around Ofgem’s expectations on how network companies will evidence that the PCDs are progressing and/or closed. It is not clear whether network companies will continue to need to submit annual PCD reports. It may be more prudent (and consistent with the aims of the price control to reduce regulatory burden) for updates on PCD progress to be handled within the annual BAU NIS Self-Assessment reporting. Ofgem will need to consider whether this is appropriate, including whether the NIS Self-Assessment reporting provides sufficient granularity for their oversight purposes.

We support the alignment of PCDs to CAF Principles so that the maximum reportable number of PCDs would be 16. Even at this level of reporting, it would place a heavy burden on the programmes.

At the SSMC Cyber Working Group (on 24<sup>th</sup> January 2024), Ofgem suggested that PCD reporting could be moved to a monthly cadence. We would like to restate our strong disapproval of the suggestion that reporting be provided to Ofgem on a monthly basis. Annual reporting on PCDs is our strong preference. We are open to holding more regular meetings with the advisory team to provide verbal updates on the status of work if that is required. Evidence has shown that anything above this level puts an extreme management overhead on resources even at the annual cadence of reporting. Full



reporting cadence should be retained at annual. Intermediate updates could be supplied on limited / basic project deliver attributes such as RAG status of Scope, Schedule, Financials and Quality.

It is not clear from the SSMC how Ofgem would expect network companies to report upon projects which span more than one CAF outcome. For example, it is unclear if companies should look to indicate the outcome that the project has the highest impact on. At the Cyber Resilience Working Group (on 24<sup>th</sup> January 2024) Ofgem stated that the highest impact outcome should be reported against. This should be clearly articulated in the guidance.

## **UIOLI**

We are very keen for Use It Or Lose It (UIOLI) to continue to apply to cyber resilience OT funding in RIIO-3. We believe this mechanism is appropriate given the industry's relative level of maturity in the space to which it is being applied. UIOLI provides more flexibility on timing of spend— if companies are incentivised to spend money in one year this could engender perverse behaviours which are not appropriate in this space. This mechanism means that network companies ensure the money is being spent at the right time on the right things to reduce risks and protect consumers.

## **Resilience Reopener**

We strongly disagree both to cyber resilience being captured under the general resilience re-opener and the proposal to have the first pre-agreed reopener being at the midpoint. It is strongly recommended that Ofgem have a re-opener at the opening of RIIO to allow for the sharpening of projects after the initial requirements and full scoping have been completed. A broader resilience re-opener could dilute the focus upon any cyber re-opener. We fully support the need for authority-led re-opener windows to be retained. We would also like RIIO-T3 framework to retain the ability for network companies to request that Ofgem trigger non-authority-led re-opener windows.

If Ofgem does establish a broader resilience re-opener for RIIO-3, we caution that Ofgem must ensure that the cyber resilience aspects of any network company submission are handled by suitably skilled cyber resilience-aware SMEs. We have invested lots of time over the course of RIIO-2 to establish good working relationships with the various Ofgem cyber resilience SMEs and we would not like to see this investment undermined. The nature of the topic means that it is highly specialised and investment needs must be reviewed by suitably skilled individuals (i.e. not regulatory generalists.)

## **Benchmarking**

In paragraph 11.26 of the SSMC Overview Document, Ofgem state that they intend to use the cost data (for delivering IT and OT activities) gathered during RIIO-2 to 'benchmark costs submitted to [them] through BPDs.' This is sensible in theory but comes with a number of potential pitfalls which must be recognised and mitigated. We do not believe it will be practically possible to meaningfully benchmark one network companies' costs against another. For example, the various network companies have wildly differing customer bases, geographic distributions, maturity levels, assets under management etc all of which make like-for-like comparison difficult if-not impossible.

## **IT & OT Plans**

It was suggested by Ofgem at the SSMC Cyber Working Group (on 24<sup>th</sup> January 2024) that a single plan could be produced that differentiate items into those covered by NIS and those outside of NIS. This was driven by the ongoing blurring of the boundaries between OT and IT. These categories had

previously been clearly delineated couple with cyber needing to be a combined journey for both categories. We are highly supportive of this proposal.

We note, however, that not all projects/activities which could be included within network companies' cyber resilience IT or OT plans would necessarily relate to improving CAF outcomes and achieving NIS compliance. Any update to the NIS Supplementary Guidance to include guidance on the re-opener content must make clear that there is scope for network companies to include requests for funding for cyber resilience activities which do not directly contribute to NIS/CAF.

Ofgem should be explicit in their SSMD that the re-openers for IT and OT can also be used to request Opex funding. Ofgem cannot expect operational expenditure costs to be static over a price control period. Drivers like ASTI have shown that growth in our network will absolutely lead to growth in IT and OT operational costs. We either need to agree an internal escalator to add to our costs or agree coverage within planned re-openers.

## Templates

In the Cyber Resilience Working Group (on 24<sup>th</sup> January 2024) Ofgem suggested that the use of templates for reopener applications may facilitate timelier decision-making. We are not averse to the use of templates in principle. We agree with Ofgem's general intent to reduce the level of paperwork involved in re-openers i.e. to enable faster submission and therefore faster determinations. However, if they insist on introducing templates, we would caution that Ofgem must guard against the trap of including sections for every single requirement that they can think of rather than the minimum necessary. Any templates should be focussed on the core components key to Ofgem's decision-making (e.g. project overview, need, timelines, relationship to risk, costs.) Any templates must be made available as soon as practicable – it is not acceptable e.g. to receive templates in July on the expectation that these be used to format the submissions expected in September.

## Innovation

OVQ47 Do you have any views on our proposal to retain a flexible allowance, providing evidence for why you think that it should, or should not be, retained?

We support retaining a flexible allowance. We would like to direct Ofgem's attention to the collaborative efforts of the networks through the Energy Networks Association (ENA), which have produced collective evidence<sup>2</sup> advocating for the value of maintaining a flexible funding allowance. We do not perceive significant duplication between the existing Network Innovation Allowance (NIA) and Strategic Innovation Fund (SIF).

Further to the concerns laid out in the SSMC document, we do not use NIA or SIF for work that should be covered as BAU. Our approach typically involves identifying problems requiring solutions and sourcing ideas both internally and externally to address them. High-risk, transformative, and long-duration projects are typically directed to SIF, while projects with a higher likelihood of integration into BAU in the short to medium term are directed to NIA.

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<sup>2</sup> [ENA Annual Innovation Summary Report 2023](#)

Additionally, it is important to note that not all network challenges are eligible for SIF funding, depending on the specific innovation challenges outlined for a particular round. We invite the Ofgem to review the SSEN Transmission Annual Innovation Report<sup>3</sup> for a summary of our SIF and NIA projects. This report provides an overview of the complete portfolio of innovation projects currently being delivered by SSEN Transmission, including those projects that have benefited from flexible funding through the NIA.

Examples of projects that have benefited from a flexible allowance can be found in Addendum 2: Innovation Supporting Information.

The NIA has the following features that facilitate a deeper culture of innovation in the business:

- Agility and flexibility, in that innovation can flex to problems as they emerge, projects can be started quickly and are unconstrained by the long cycle operating rhythm of other innovation funding mechanisms that need to wait for application windows to open.
- The process of self-governance enhances the agility and flexibility, as it harmonises with internal processes, and allows projects to be prioritised that are addressing the right network challenges.
- The RIIO-2 NIA eligibility criteria, specifically requirement 1 that focuses on the energy system transition, has allowed funding to reach a broader set of challenges within SSEN Transmission. As a result, a balanced portfolio of projects has been established, with potential to realise lifetime benefits of up to £74m from the RIIO-2 allowance of £8m.
- Demonstrated collaboration between networks<sup>4</sup>.
- Enabled funding for low Technology Readiness Level (TRL) projects that cannot be funded by the business and are not eligible for other funding mechanisms like the SIF but will deliver long term value if proven successful.
- Demonstrated collaboration between funding sources for projects.
- Enables iterative and dynamic solutions.

The ENA reports identify a number of advantages delivered by the NIA funding mechanism:

- NIA self-governance enables networks to manage a rapidly evolving landscape and give customers support at times when they need it the most. This level of flexibility is not achievable through other funding sources currently available.
- The non-competitive framework and requirement to share learnings provided by NIA funding encourages networks to work together to deliver better results and learn from one another in a constructive and open way. This also avoids duplication by providing a forum for open discussions about innovation projects that address common issues between networks.
- Due to NIA funding being noncompetitive and driven by network priorities rather than achieving specific impacts, NIA funding is fulfilling a unique role in enabling trials of innovative but untested solutions to key goals, a critical step in the development of new technologies and approaches.
- NIA-funded projects can lay the groundwork for follow-up projects funded through other mechanisms and can be used to fund larger projects alongside other funding sources. This is due to the ability of NIA-funded projects to support low TRL solutions and because the outputs are not required to be quantified in terms of certain impacts. Because of this, the benefits of NIA funding are not limited to projects solely funded through the NIA but also extend to supporting projects funded by other mechanisms.

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<sup>3</sup> [SSEN Transmission Annual Innovation Report 2022/23](#)

<sup>4</sup> [TOTEM | Smarter Networks Portal](#)



- As NIA funding is self-governed by Networks and can apply to relatively small projects, it allows for a different approach to innovation than longer, single projects, allowing rapid dissemination of ideas and enabling the quick development of solutions. This incremental approach means that although related projects may appear similar, they build on previous work and enhance shared networks' understanding.
- The accessibility and flexibility of NIA funding has helped grow and maintain a culture of innovation in our business by allowing the innovation team to respond to challenges and opportunities.

We also agree with statements from the Energy Innovation Centre that NIA has significant benefits when compared with the SIF – in particular, that its accessibility allows licensees to better plan for the resourcing of their innovation teams, and that its flexibility and continuous nature has enabled third parties to get involved in network innovation. Networks have also fed back that it allows them to explore innovations that do not need a large demonstrator, so would not be relevant to the SIF.

OVQ48 Do you have any views on our proposal to retain a competitive network innovation funding pot, that continues to focus on key challenges facing the energy sector, with phases to de-risk the pot?

We support retaining a competitive network innovation funding mechanism and have engaged fully with it. We have made 16 submissions as lead licensee for various stages of the different projects and have a 100% success rate. We are strongly in favour of phasing projects, with distinct stage gates and quality assurance since this is considered best-practice project management and promotes agile project development. We also believe that a competitive network innovation funding mechanism promotes high-quality innovation projects. Evidence of this can be seen in the successful progression of two of our round 1 innovation projects to the first Beta round of the programme, more information on these projects can be found in Addendum 2: Innovation Supporting Information.

We agree that it is useful for the regulator to send market signals concerning the strategic whole-system challenges. These signals encourage deeper collaboration between networks to address the problems of whole-system integration and system interoperability, which are necessary to achieve the medium to long-term objectives of decarbonising the energy system. However, we have found that changing the Strategic Innovation Fund (SIF) challenge statements on an annual basis has somewhat detracted from longer-term strategic thinking. To solve net zero problems, the challenge statements should be more consistent from year to year to facilitate continued long-term investment in solving the most challenging problems. Furthermore, we highlight the importance of challenge statements being balanced to ensure that all networks, whether gas or electricity transmission or distribution can innovate on the challenges that matter the most.

The challenge-setting process can feel isolated from real network-specific challenges relevant to the needs of our transmission network in the north of Scotland. We welcome Ofgem's initiative to openly share their challenge-setting process and consult networks as key stakeholders via the UKRI.

However, there is a perception that the challenge-setting process is strongly influenced by government and policy. This perception has translated into SIF challenges that may be geared towards solving energy policy issues, which often fall outside of our sphere of influence as network owners. The challenges do not always address the specific delivery problems that are challenging the networks in a regional context. We believe there needs to be more clarity in understanding why certain challenges are selected over others, and if there is a role for competitive innovation funding

to plug the gap to reflect network-specific challenges, or whether wider reform to competitive funding is required.

In consultation with other networks, we would also make some comments and recommendations for consideration:

- Provide reasonable flexibility to both SIF project start dates and SIF project stage length.
- The application process for early phases, Discovery in particular, is disproportionately onerous relative to budget and risk and we believe this could be improved or reviewed, either by making it a true discovery phase or by removing the phase.
- While application windows for the next phase open during the previous one, we find that resourcing constraints confuse the completion of the project with an evaluation of whether or not the project should proceed. Timelines are challenging and this may detract from the quality of the application for the subsequent phase. This situation contrasts with the much longer period of time given to make decisions around what to fund – we feel the balance could be shifted and adjusted here.
- Partner requirements can be onerous, and networks often cannot support all requested projects. We have had good projects that we have not been able to take forward because we cannot meet the partner requirements and we can spend a lot of time trying to find partners to ‘tick boxes’ rather than because they add value, which is a practice we strongly oppose. Our Nimbus project had to be delayed from Alpha Round 1 to Alpha Round 2 causing a year long delay, due to finding partners following findings in the Discovery phase.
- We believe the oversight provided by UKRI for SIF often results in the SIF process being micromanaged by UKRI. We believe this is leading to inefficient use of our resources and would propose change or reform here.
- There is no incentive for efficiency savings in the delivery of projects. The focus of assurance by UKRI is whether or not funds have been spent, rather than if the deliverables have been met. Some quirks of the accountancy reporting lead to networks being penalised for efficient delivery. One particular issue is that where a collaborating partner 100% funds the work (i.e. requesting no SIF-funded contribution to the work being conducted), then if there is any underspend, the remaining budget is returned to the consumer. For example, if a partner contributes £10,000 of labour, with a 100% contribution (and no SIF grant), if the work is liquidated using only £8,000 of labour costs, then the partner must return £2,000 to the project (and the consumer). This quirk of accounting disincentivises networks from making a minor contribution to a project at 100% partner contribution. Generally, accounting rules are not transparent to collaborating partners.
- We have experienced delays in receiving funding, often long after the project has started. This can place financial stress through cash flow on smaller collaborating partners potentially leading to them disengaging in the programme. We have previously paid them in advance but cannot sustain that practice.
- The approach to the calculation and reporting of SIF benefits are not consistent across other funding streams. Greater alignment is needed here to ensure that an accurate representation of innovation benefits is presented.
- Finally, in the same way as the Network Innovation Allowance (NIA), the greatest value from our projects lies within the rollout. However, unlike the NIA, the potential cost of rolling out a Beta project, like Network DC, far outweighs the costs of a typical NIA project. With the suggestion of an Innovation Rollout Mechanism (IRM) in RII0-3, consideration is needed around the feasibility of SIF projects using an IRM; considering that rollout costs could be far greater than of a typical NIA project. With these types of projects yielding the greatest benefit to the consumer, there is a

real risk that these benefits may never be realised without a means to fund their timely deployment.

OVQ49 Do you have any views on how the structure of the price control innovation funding could be adapted to better focus on whole systems problems, and ensure strategic alignment with other public sector initiatives?

The Strategic Innovation Fund (SIF) competitive funding mechanism has successfully facilitated whole system innovation. For example, our SIF REACT project<sup>5</sup> is focused on the integration of open data that facilitates whole system planning and provides developers with information relevant to planning the best location for energy projects and services. This project is a collaboration between TOs, DNOs and the gas networks with relevant stakeholders involved in the design and testing of the tools.

However, developing a strategy for whole-system innovation requires long-term thinking beyond the price control period and this requires incentivisation beyond any single price control period. It also requires a value assessment that is broader than pure regulated CBA practice, instead stretching into socio-economic benefits to ensure that true whole system value is identified.

With respect to the Network Innovation Allowance (NIA), we feel that focusing on whole-system problems may be more challenging. The price control periods across Distribution and Transmission are not aligned, meaning the transmission networks are operating from a different set of eligibility requirements to that of the distribution networks. This approach makes it difficult for both parties to work together on whole-system challenges, as requirements differ. In addition, as NIA funding cannot currently carry over to the next price control, any possibilities of a collaborative whole system project are curtailed by the need to deliver them within the price control window. For these reasons it is desirable for NIA projects to extend beyond the price control period, as it was for RIIO-T2 with the NIA carry over mechanism, and for eligibility requirement to fit broadly across overlapping price control periods.

With the potential for the NIA to act as a mechanism to initiate whole-system innovation, it is important to consider that some NIA projects may progress on to the Alpha or Beta rounds of the SIF. The requirements across both funding streams need to align to ensure that there are no conflicts that would otherwise prevent the progress of these projects, such as IP or partner requirements.

More thought should be given to how innovation funding could incentivise increased collaboration with energy developers beyond simply transacting network connections. Encouraging broader discussion of whole-system planning between networks, developers, government, local authorities, communities, and other interested stakeholders may elucidate innovations in system design and commercial arrangements that could better enable a net zero system that delivers better value to the customer. While SIF goes some way to addressing this issue, the complexity of the application process may be a barrier to some stakeholders becoming involved in SIF projects. Furthermore, whole system solutions may not directly deliver benefit back to all parties involved, so this may disincentivise collaboration. For example, our INCENTIVE SIF project delivers value back to consumers and offshore developers but has minimal benefits to us as a TO.

The Future Regulatory Sandbox (FRS) could be a route to facilitate broader collaboration on innovative whole-system commercial/policy/regulatory solutions that can be tested outside of the

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<sup>5</sup> [REACT | Smarter Networks Portal](#)



current regulatory regime. This may help link current whole-system challenges with wider industry reform.

OVQ50 Do you agree with our proposal to continue with a similar level of innovation funding, and if not, could you provide evidence for why a different amount is required, including consumer research you are aware of into their willingness to pay for network innovation?

We believe that innovation funding in RIIO-3 should be at least of similar levels but propose it should increase in support of wider government targets. It is well understood that there has been a significant shift in the pace required to build and connect the large volumes of renewable energy expected over the coming years. Delivering more, faster, will require increased levels of innovation. This shift presents a strong case for greater alignment with network innovation funding and net zero targets.

In RIIO-2, we were allocated an £8m allowance under the Network Innovation Allowance (NIA), of which 80% of this funding has been allocated to innovation projects to date. The remaining allowance is on track to be allocated by the end of this calendar year (2024), and early indications estimate that the existing portfolio has the potential to deliver up to £74m of potential lifetime benefit savings.

However, at the time of estimating our RIIO-2 NIA requirements, our strategic priorities were quite different from what they are today. We have a strategic role to play in supporting the delivery of the UK's net zero target. We are already a mass exporter of renewable energy, with around two thirds of power generated in our network area exported to the south. By 2050, the north of Scotland is expected to need around 40GW of renewable energy capacity to support net zero delivery, which could contribute around one third of the GB (Great Britain) total. For context, we have around 9GW of renewable energy connected today.

This will be achieved by delivering substantial work programmes such as the 'Pathway to 2030'<sup>6</sup> and ASTI. For these reasons we need to ensure that we secure the right levels of funding to conduct effective research and innovation that can support this growth. Our priority is to target innovation that will deliver in the short term, supporting building the network faster, but we have set strategic direction on innovation that requires development over the medium to long-term. Our funding requirements for the next price control are reflected in the following points:

- A flexible and agile fund such as the NIA or similar is needed to respond to the needs of the network as it grows. Focused on high-risk research and innovation that would otherwise not be undertaken, this fund will form the basis of our innovation portfolio that can help address some of the short-term challenges we face and provide the knowledge for creating longer term strategic solutions. Our overall focus will be to identify opportunities that can deliver the greatest value to the energy consumer.
- For our medium to long-term strategic priorities, a mechanism like the Strategic Innovation Fund (SIF) or similar, that can fund larger, more transformation innovations that align with broader network challenges.
- It is widely recognised that the true value from innovation is within the practical application of new products, services, or processes. However, within the structure of the existing network

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<sup>6</sup> [Pathway to 2030 – Delivering 2030 Government targets and the transition to net zero](#)

funding mechanisms, there are no allowances that can effectively facilitate this critical stage. For RIIO-3, we seek an agile system that will allow proven innovations, whether large or small, to be rolled out, where they demonstrate value to the consumer but still hold an element of TO risk. For example, if we were to roll out the SIF Network DC project outputs to drive use of DC Circuit Breakers, they would be a first deployment outside China. If this were to happen as part of an ASTI project, it would add risk to that project through new procurement and technical requirements and on-site testing, affecting us, OEMs, and the overall programme. ASTI projects have stiff license conditions on hitting energisation dates through Output Delivery Incentives. Thus, increased risk of late delivery could affect TO regulatory performance and creates a disincentive. A suitably sized roll out mechanism would resolve this, unlocking huge consumer benefit.

- Successfully demonstrated innovations deliver benefits within the same price control. For example, a new pole design could be applied to existing approved funding projects from the same price control. The outperformance against the agreed allowance would then be shared with consumers through the Totex Incentive Mechanism. Thus, an innovation project delivered within RIIO-T3 would have the remainder of the RIIO-T3 price control mechanism to deliver benefits. The later an innovation project starts in the price control period, the less chance there is to apply the innovation and get the benefit, effectively a disincentive to innovation in the later stages of the regulatory period. We propose that some form of mechanism is developed that addresses this disincentive and ensures that a consistent period of time is applied to all innovations that are rolled out into business as usual. This could take the form of some form of shadow allowance, or a specific allowance awarded each time the innovation is reused in a certain period of time. This would be supported by specific benefits monitoring and reporting that includes reporting on actual deployments.

OVQ51 Do you agree there is a need to expand the scope of innovation funding to be more inclusive of third parties?

We are fully in support of working with third parties and we are actively seeking to increasing our engagement with them. To date, we have a good track record of working with Subject Matter Expert (SMEs) and third parties in both Strategic Innovation Fund (SIF) and Network Innovation Allowance (NIA) funded projects. However, we do not feel that expanding the scope of innovation funding to be more inclusive of third parties will address the challenge. We have expanded on more points below:

- Third party innovators do not demonstrate a clear understanding of the challenges faced by the transmission networks.
- Proposals from third parties, a lot of the time, can be in the form of a solution looking for a problem.
- We are eager to engage with third party innovators, but our resources are limited and cannot be applied effectively if we are working on undeveloped ideas that have no clear alignment with our strategic challenges.
- More desirably, we seek informed ideas that demonstrate a relevance to our strategic challenges, that can enable us to prioritise good ideas to be fast tracked into projects, and where possible, limit the impact on our resources.
- Without the input of network expertise, allowing for third parties to work in isolation on innovation would be a huge waste of time and consumers money.

Examples of effective third-party engagement is through the Energy Networks Association's (ENA's) BaseCamp. We have successfully progressed our REACT project to SIF Alpha, and we are currently collaborating with two small enterprises, Olsight and MapStand. Working with the ENA, we set challenge statements at the BaseCamp and invite third-party innovators to pitch ideas. We provide all innovators with feedback and suggestions for improving their ideas and have actively developed relationships with some of them. Third-party innovators, particularly SMEs, must take responsibility for:

1. understanding the network challenges, business model, and regulatory environment; and
2. conducting sufficient research to demonstrate why their innovation idea is not a duplication of what is already being done by other innovators or already implemented by the network themselves.

It is the case that networks already spend too much time reviewing poor-quality pitches for innovation funding that are often duplications of work funded elsewhere.

#### OVQ52 What are your views on us establishing an accelerator to support early-stage innovators?

We support establishing an accelerator, but we are concerned that we will be unable to resource the review of a large number of requests. We would like to understand how this will be administered and how ideas will be triaged and how any triage process will be resourced. There is a risk we will spend a lot of time reviewing speculative and inappropriate ideas. We believe that serious consideration should be given to how much risk consumers should be taking in supporting high-risk start-ups and Subject Matter Expert (SME). We also recognise there are already government and institutional innovation incubators, and perhaps we could consider creating better links with established incubators and accelerators.

We do find that contracting with startups, particularly SMEs, can be difficult due to certain current Network Innovation Allowance (NIA) contractual terms and conditions such as IP and indemnity clauses. For this reason, we are supportive of an accelerator as a different mechanism to engage with SMEs. Where third parties might lead innovation projects via this accelerator, network input and collaboration must be maintained, for example, networks can support with an assessment of benefits, whether similar work has been undertaken before, feasibility of implementation etc.

While we are generally supportive of this idea, we are wary of a regulated network using consumer money to act as a venture capital fund. Regulated networks are not set up to manage intellectual property and recover the investment made by consumers is risky or immature ideas and startup businesses. We would question whether or not acting in a way that capitalizes certain small-medium enterprises (on a risk-reward basis) will distort a competitive market and be in conflict with operating as a regulated natural monopoly. In effect favouring one solution provider over another (through accelerator funding) may reduce competition in the market and increase costs for the consumer.

A further complication is that the general principle of the NIA and Strategic Innovation Fund (SIF) funding is the sharing and dissemination of knowledge including rules on how intellectual property is managed. There is also a requirement that value created from the development of intellectual property will be shared with the consumer who are ultimately funding the innovation project. We foresee that the general principle of knowledge dissemination and sharing of intellectual property could be a barrier for SMEs taking part in an accelerator and a poorer option compared to accessing



funds through more established channels such as private equity or venture capital. There is a risk that the best quality ideas will seek funding through these conventional channels, and this proposed accelerator will only attract riskier or more speculative projects that will not return value to the networks or the consumer.

We are concerned that the accelerator will by default be administered by the UKRI, creating overheads and inefficiencies similar to those that have been created in the SIF programme. If the UKRI are to administer such a scheme, we would also like to see a lean and agile approach taken and a significant improvement in the quality of service from the UKRI.

In conclusion, we support the idea of finding more ways to support emergent ideas and companies, such that the best ideas can be adopted by networks. However, we would like to understand how this could work to understand both the opportunities and risks. We would also like to see the consideration of a wide range of alternative ways to solve this problem. We would like to understand how we can mitigate the risk of an abuse of market power by acting as a venture capital fund for SMEs.

**OVQ53 What are your views on our proposal for this to be a smaller part of a future challenge fund and to be sponsored by networks?**

We support the proposal and welcome the opportunity to work with Ofgem further to develop this. We believe that these funds should be in addition to the current Network Innovation Allowance (NIA). We also question how much risk consumers should be taking in funding high-risk Subject Matter Expert (SMEs) and startup companies. We would want to understand why this is a better option compared to private venture capital funding where the consumer takes no risk and projects are not subject to complicated IPR arrangements. As stated in our response to OVQ52, it should be noted that networks are not set up to manage IPR accrued in innovation projects, and this may be a conflict of interest with our regulated duties to protect value for the consumer.

**OVQ54 Do you have evidence of potential innovation projects that have not been implemented or sought funding due to the five-year structure of the price control? How could this issue be addressed?**

Successfully demonstrated innovations deliver benefits within the same price control. For example, a new pole design could be applied to existing approved funding projects from the same price control. The outperformance against the agreed allowance would then be shared with consumers through the Totex Incentive Mechanism (TIM). Thus, an innovation project delivered within RIIO-T3 would have the remainder of the RIIO-T3 price control mechanism to deliver benefits. The later an innovation project starts in the price control period, the less chance there is to apply the innovation and get the benefit, effectively a disincentive to innovate in the later stages of the regulatory period.

For example, our Low-Profile Pole NIA project started in 2022 and will complete this year, having taken 2 years. It will then be applied to suitable projects that have already received approved funding, either through volume driver or other mechanisms. The improvement/cost reduction on the already gained allowance will be reallocated between the consumer and us via the TIM. Had the project started later in the price control there would be fewer or no projects to apply it to as an improvement on the approved design. Applying it to future yet to be approved future projects will

mean that the design submitted for regulatory approval would already have the innovation applied and thus would not recognise the innovation benefit.

We propose that some form of mechanism is developed that addresses this disincentive and ensures that a consistent period of time is applied to all innovations that are rolled out into BAU. This could take the form of some form of shadow allowance, or a specific allowance awarded each time the innovation is reused in a certain period of time. This would be supported by specific benefits monitoring and reporting that includes reporting on actual deployments.

Additionally, we are in a period of significant growth, meaning our priorities have shifted to building our network faster, driving the need for innovations that can overcome these challenges. With that in mind, our innovation funding requirements in the next price control will be greater, meaning the removal of a five-year structure will come with greater flexibility for us to select innovation projects that are aligned with our strategic challenges and mitigate against selecting projects based on their delivery time. If we find too many opportunities early in the price control and allocate all our NIA allowance, then typical opportunities we would develop under NIA would need to wait for the next price control, introducing delays and lowering consumer benefit.

OVQ55 Do you agree with our proposal to run FRS trials with an explicit focus on informing changes to the rules governing energy network activities – incentivised through SIF or other price control mechanisms?

We have responded to the proposal to introduce the Future Regulation Sandbox (FRS) in a letter to Ofgem dated 19<sup>th</sup> of January 2024, elements of which are repeated herein.

We broadly support the exploration of new approaches to regulation and agree with the potential use of the FRS as an additional means of embracing innovation underway within the energy industry and evolving the regulatory framework. We agree that innovation funding should be extended to enable and incentivise regulatory change that could help in the implementation of innovations, new technologies, process, or methods that can facilitate a net-zero energy network.

However, it is important that the process underpinning the FRS is fair and robust, and that the FRS is used appropriately. In particular:

- The FRS should not slow down wider regulatory reform programmes by becoming another stage necessary in implementing any new regulatory reforms. It should just be an additional tool at Ofgem's disposal in the policy-making process— only used where it will add value and there is a clear need for a sandbox.
- There needs to be a fair and robust process to identify and prioritise focus areas for the FRS. This could be done by establishing a consultative or governance process for engaging with innovators, existing market participants, academics, and consumer groups to identify where trials may be needed.
- Appropriate resourcing and a clear governance structure is needed to run and monitor the trials. To make trials a worthy exercise, there is also a need to monitor the progress of a trial against an appropriate counterfactual and test how such a solution would be scaled within wider market. Additionally, there should be a wider (potentially independent) governance process to appropriately involve wider industry within the monitoring and evaluation of the trial, to ensure

any evaluation is robust and prevent trial participants getting an unfair competitive advantage in the market.

- From the outset of a trial, there needs to be a clear plan to action the outcomes of trials. Participation in trials is likely to be timely and costly, so there needs to be commitment to act upon the results of the trial to ensure the innovation doesn't sit on a shelf.
- The FRS should not be a means of circumventing wider processes for updating licence and code requirements or imposing new requirements on actors in industry without a proper consultative process.

The utility of the FRS will also be limited without the provision of funding for participating in trials. Funding should be provided to support those entities running trials as part of the FRS, possibly with the joined-up operation of the FRS alongside Ofgem, DESNZ or Innovate UK innovation funding programmes. Without funding, participation will likely be limited, especially where Ofgem is seeking to test activities not already underway in the industry.

Separately, we strongly believe that Ofgem could do more to help innovators navigate the existing regulatory frameworks by proactively publishing guidance or insight papers clarifying how different business models can navigate the regulatory framework as is. We believe such an action would prove to be helpful and help provide increased regulatory certainty to many innovators currently developing new innovative propositions within the energy market.

There are many aspects that need to be considered in the design of the processes that deliver the FRS. For example, we believe the following questions may need to be considered:

- Will the submission of innovator ideas be an ongoing process throughout the year, or will there be windows for submission? We would encourage Ofgem to learn from the process used as part of Ofgem's Strategic Innovation Fund when engaging with innovators and identifying focus areas for innovation funding.
- What is the process to identify where Ofgem use sandboxes, and how will they warm up the market ahead of the announcement of these sandboxes? Ofgem should engage with industry to decide whether it is worth using this on specific issues, or if it is more beneficial just to make a decision (perhaps when the evidence for a change is already clear-cut).
- Should industry governance be set up to oversee sandboxes from start to end?
- Existing licensees should be able to participate equally with other market participants. Although there may be perception that innovation may come from new market entrants, the process should not display any bias towards new entrants.
- How will Ofgem evaluate and publish outcomes from sandboxes? It will be key to have a transparent and robust process for publishing what is learned from innovation, to ensure the wider market can learn from these trials.
- Ofgem teams undertaking this need to be appropriately resourced so that they can support the trials and the innovators themselves as a policy-led sandbox has the potential to become a very large operation, with multiple trials being designed, launched, and monitored simultaneously.
- The process being Ofgem-led makes sense if the goal is to introduce enduring changes to regulation – as long as there is a channel for innovators to put forward proposals, and those proposals are considered clearly. As such, the internal governance structure should be clear, objective, and transparent. Stakeholders should be able to see why certain ideas are taken forward whilst others are not.
- There needs to be clarity how outcomes will be transferred into new rules and codes after the trial is completed. Currently transferring innovation into BAU that involve code changes allows



another crack at the whip for stakeholders who don't support the outcome. All this means that the process takes longer.

- However, we recognise it will be challenging to design an over-arching process that works for all FRS. Therefore, we believe it may be best to consider what is necessary in the specific process after the topic area is identified.

#### OVQ56 What topics could FRS trials usefully focus on and why?

As we stated in OVQ55, we believe a fair and robust process involving industry is needed to identify where a Future Regulation Sandbox (FRS) is most appropriate. Therefore, at this stage, it is difficult to give a fully formed view as to what topics may best be taken forward with a FRS.

At this initial stage we believe that the FRS could be used to explore areas where various innovative ideas are already being taken forward in industry. It could help Ofgem and industry work together to consider the best regulatory option. Illustrative examples of such topics include multi-purpose bootstraps; data sharing between energy market participants; energy storage regulatory framework; the OFTO regime; future charging reforms; securities & liabilities; strategic network planning (area system plans, regional energy strategic plans and centralised strategic network plan); operation of Active Network Management by TOs; and connections queue management. However, these are just examples at this stage, and we encourage Ofgem to lead fuller public discussion on potential topics which may be suitable.

Additional examples are provided below:

- Moving towards an area system planning strategy requires changes in the codes (CUSC, STC and grid code). It would be useful to trial code changes as part of a sandbox.
- Another possibility is connections reform – to trial different connection management policies in part of the network, but we recognise there are barriers in terms of fairness of managing connections.
- Security for small developers in terms of connection management. How can we support small developers to manage large securities, particularly where reinforcement is already approved – reducing the financial barriers for small developers to connect to the network.

#### OVQ57 Do you have any feedback on the view that not enough network innovation funded projects have been rolled out, and can you share any evidence you have to support your position?

We have some empathy with this view, and by inspection, the Energy Networks Association (ENA) project register may not demonstrate that a number of individual projects have transferred to BAU. There is also evidence that there is duplication between certain project topics. However, we would argue that the information is not presented in a way that reflects the true benefits accrued from innovation projects. Enhancements to the ENA's Smarter Networks portal could help evidence this value better, and wider enhancements to the methods around reporting of network benefits could provide greater clarity.

We have created a robust system internally where the process we use around the development and delivery of innovation requires detailed Cost Benefits Analysis to be conducted prior to any project

approval and registration. The development of our innovation is contained within in an agile and iterative gate process, that aims to fully inform our approach, with one of the key deliverables being a detailed deployment plan.

We provide an example in Addendum 2: Innovation Supporting Information.

Our comments on the assessment of innovation projects are:

- This view takes far too a linear view of how innovation projects work. Successful innovation requires a survival of the fittest project approach. If we consider innovation as a hopper – then we might expect a high failure rate of early phase projects and fewer projects in the later stage of the hopper that have a higher chance of success. We believe that the value of innovation should be taken as the net risked net present value of the entire hopper.
- It should be also recognised that successful innovation may be through the amalgamation of several projects that eventually combine to create a more integrated solution, as detailed in the project examples above. Often roll-out is in the form of accumulation of knowledge which is then incorporated into business practices indirectly through subsequent projects that have built on the learnings from previous projects. We refer Ofgem to the evidence set out in the ENA's Innovation funding research report.
- Inspection of the Innovation Measurements Framework (IMF) and ENA project register can be misleading, and we direct Ofgem to the ENA Reports: Annual Innovation Report and Innovation Funding Research Report.

We would consider the introduction of some form of roll-out deployment report, to be submitted 12 months after the close down report.

#### OVQ58 What are your views on the design of potential new mechanisms to address this?

We strongly support the idea of a distinct funding mechanism to facilitate the rollout of innovation projects. Our existing RIIO-2 innovation portfolio has not yet reached the maturity to provide specific examples, however we recognise that the rollout of an innovation project is the most critical phase, and dedicating funding to achieve this has significant benefits. We also recognise that rolling out innovations within large capital projects, like ASTI schemes, falls foul of a regulatory disincentive. Adding innovation rollout, essentially risk, to projects with punitive Output Delivery Incentives (ODIs) creates disincentive to apply new things as they could impact on programme delivery dates. Existing tried and tested methods are easier and less costly to manage for that individual project, resulting in less risk to ODIs.

Additionally, we know that successfully demonstrated innovations deliver benefits within the same price control. For example, a new pole design could be applied to existing approved funding projects from the same price control. The outperformance against the agreed allowance would then be shared with consumers through the Totex Incentive Mechanism (TIM). Thus, an innovation project delivered within RIIO-T3 would have the remainder of the RIIO-T3 price control mechanism to deliver benefits. The later an innovation project starts in the price control period, the less chance there is to apply the innovation and get the benefit, effectively a disincentive to innovate in the later stages of the regulatory period.

We provide an example project to illustrate this point in Addendum 2: Innovation Supporting Information.

We propose that some form of mechanism is developed that addresses this disincentive and ensures that a consistent period of time is applied to all innovations that are rolled out into BAU. This could take the form of some form of shadow allowance, or a specific allowance awarded each time the innovation is reused in a certain period of time. This would be supported by specific benefits monitoring and reporting that includes reporting on actual deployments.

We acknowledge Ofgem's position in relation to penalties, and the potential claw back of funding should successful rollout not be demonstrated. We understand and broadly support the rationale behind this, as networks need to ensure that innovation is de-risked through the early phase mechanisms like NIA and SIF. However, it needs to be considered that not all risk can be eradicated, and that an element of pragmatism is required when assessing the successful rollout of any project, and request that this be considered when designing any penalty clauses. Additionally, not all projects result in a linear rollout. One project may not lead to a single specific rollout but may provide learning which can be combined with other successful innovations to provide a single rollout.

Our internal processes have been designed against a robust stage gate process. From the very earliest point, we develop an Innovation Deployment Plan. This plan ensures that there is clear purpose and destination for all projects, as without it, there is a greater chance of failure. As the rollout is the most critical stage, it would be said that this stage is an individual project within itself, and without adequate funding, we cannot guarantee a quality outcome. We have provided more detail on our proposed position relating to innovation funding in OVQ50.

## Data and digitalisation

### OVQ59 Do you have any views on the timelines for modernising regulatory reporting?

We largely agree with Ofgem's proposed timelines for modernising regulatory reporting. Ofgem have stated that it is their ambition to remove the reliance on excel-based exchange and submission of regulatory data and to implement new reporting systems to improve data quality and enable more efficient and effective monitoring.

We echo the points outlined within Ofgem's Decision for Frameworks for Future Systems and Network Regulation (FSNR) that better use of data can enable any regulator to do a better job. Data and digitalisation are a fundamental enabler of a lowest true cost accelerated transition to net zero and climate resilience. Data enables transparency, accountability, and innovation. We would also agree with the point that all organisations are at a different stage in their digital journey, travelling from a non-digital paper-based state to full digital transformation and that these differences need to be accounted for in the overall implementation timeline.

We note that Ofgem is proposing a digital change workstream with broad milestones addressing Ofgem internal development (early 2024), idea sharing (late 2024), and engagement with industry (beginning 2025). We welcome this broad outline timeline but note there is a material lack of detail on the anticipated timelines for implementation of modernised regulatory reporting. (We also note that the scope appears to be narrowly focussed on data sharing when in reality the SSMC needs to consider the wider benefits of digitalisation.) The timelines set out within the RIIO-3 Overview Document solely cover the initial milestone activities up to initial sharing of ideas, feedback on the development of business plan data templates and external engagement and commencing working



groups. The timelines for implementation of modernising regulatory reporting will need to be cognisant of other related workstreams and decisions which will act as enablers for modernising reporting. This will include the development of a data sharing infrastructure as outlined within the FSNR decision as a means to facilitate the secure, trusted, and efficient exchange of data. We look forward to engaging in earnest with the Ofgem consultations on digitalisation anticipated in 2024, including to provide our strong views on the timeline we believe Ofgem, and industry should be working to.

As detail emerges, there may be significant business process transformation and digitalisation required to enable us to submit regulatory information on a more regular basis. We would also seek clarity on the approach and timeline for how the modernisation of regulatory reporting will be rolled out. For example, will there be a gradual “modernisation” of elements of the regulatory reporting scope over an extended period of time, or a “big bang” cutover? Each would have trade-offs in terms of the benefits and challenges, worthy of discussion and understanding the time impact in more detail.

The roadmap and recommendations outlined within the “Decision for Frameworks for Future Systems and Network Regulation Workstream 5: Digitalisation and its role in unlocking smart regulation: A roadmap to an energy data sharing infrastructure by 2028” will need to be taken account of in the implementation timelines for modernising regulatory reporting. These include investment in additional data and digital skills and capabilities, production of a shared vision for developing the data sharing infrastructure for energy, setting up a taskforce and formal appointment of an energy digitalisation body to oversee the implementation of a data sharing infrastructure including appointments to develop and maintain this infrastructure.

These are not insignificant elements of work and will require a real drive in the energy industry to progress and cannot progress at the pace of the slowest player.

We note that the SSMC includes very minimal content in relation to Ofgem’s plans for funding work on data and digitalisation. This is a crucial business initiative for us and a key strategic enabler underpinning delivery of future work plan (including ASTI.) We will require investment to increase its capacity and capability to exploit faster data transfer and greater data availability. This will support the initiatives in relation to modernisation of regulatory reporting.

**OVQ60 Do you have any initial views on opportunities for improving efficiency in providing the data that Ofgem receives as part of regulatory instructions and guidance?**

We agree with Ofgem setting an ambition to remove the reliance on excel-based transmission of regulatory data and implement new reporting systems to improve the efficiency of the regulatory reporting process. Modernisation of RRP could prioritise more efficient sharing of asset information, asset and network risk, network performance, network capability, future energy scenario and projects information. These use cases align with our stakeholder needs for open data and shared datasets.

The area of carbon accounting, we believe should be prioritised to provide stakeholder and regulatory reporting benefit and this aligns with the Energy Digitalisation Taskforce recommendation.

Our view is that there is additional complexity around more efficient data sharing of financial information including the definition of common standards which provide the required granularity and the sensitivity of commercial information provided by our framework partners.

Investment will generally be required around the industry on existing systems and/or non-digitalised business processes which do not align, automate, or provide the required granularity of reporting.

The Energy Digitalisation Taskforce report highlighted that “Digitalisation is not valued or understood in all parts of the energy sector, with not enough skills or value given to digital assets and activities”.

Investment will continue to be required to enable data and digitalisation as a core component of transformation to enable efficiency in the area of data preparation and sharing. This will need investment in data and digitalisation skills, to change the culture and behaviours around data including data ownership, data stewarding, accurate data entry, end to end lifecycle management of data, processes which are automated, workflow and information being held in systems and removing a reliance on manual intervention.

It is worth Ofgem giving consideration to whether the current Data Assurance Guidance would be fit for purpose under a proposed modernisation of regulatory reporting. The current guidance asks for risk assessment of each submission – this may not be feasible or practical with a more automated and frequent submission of regulatory information. A future approach which assesses and assures the end-to-end process (from data capture to submission) that produces the regulatory information, testing the accuracy, robustness, repeatability, and reliability of the process could be considered.

The FSNR decision pointed out “a lack of digital skills across Ofgem and industry. This is no different to any other sector of the economy, but due to the net zero imperative needs to be addressed urgently as it is holding the energy sector back from realising the full benefits of data and digitalisation.” This accentuates the need for investment by network companies in digital skills which will be a key enabler of improving efficiency in providing the data that Ofgem receives as part of regulatory instructions and guidance.

We echo the need outlined within the FSNR decision for governance required to establish clear roles and responsibilities in developing a data sharing infrastructure. Governance will be required to develop and maintain a data sharing approval process and publishing of regulatory instruction and guidance data. Currently this is a relatively manual process to ensure the correct checks and balances are in place and a mechanism would require to be developed to enable a self-serving data sharing arrangement.

Governance and process will require investment by the industry to set up and maintain but will be a key enabler of improving efficiency in providing the data that Ofgem receives as part of regulatory instructions and guidance.

#### OVQ61 Are there areas of regulatory reporting that would be most beneficial to start with in the modernising project?

We believe that it would be beneficial to start with modernising the sharing of asset information, asset and network risk, network performance, network capability, future energy scenario and projects information. These use cases align with our stakeholder needs for open data and shared datasets. The area of carbon accounting is another area which we believe should be prioritised to

provide stakeholder and regulatory reporting benefit. This aligns with the Energy Digitalisation Taskforce recommendation.

Our view is that there is additional complexity around more efficient data sharing of financial information including the definition of common standards which provide the required granularity and the sensitivity of commercial information provided by our framework partners and the area of financial expenditure reporting should be viewed as a longer-term objective.

We agree that access to up-to-date asset information can enable a more streamlined RIIO process and provide Ofgem with the best possible data to inform its actions and we recognise the inclusion of this data domain as part of the proposed Data Sharing Infrastructure MVP.

As part of the activities that are undertaken this year, or the wider scoping of the modernisation of regulatory reporting, we would encourage the regulator, in conjunction with the network operators, to assess and confirm the value of each data item that is reported through the RIGs currently. Across the industry there are likely to be measurements reported that may not have current or future value to the regulator or consumer, removing these from scope would be sensible at this juncture. As part of this exercise the frequency of reporting could be assessed, as well as any change to the granularity in reporting level. This exercise would be important to establish the baseline future scope of regulatory reporting, and the prioritisation of different areas of reporting.



## ET Annex Questions

### Delivery of major new projects

ETQ1 What are your views on the materiality threshold that should be set to determine which projects fall into or out of our proposed major projects regime?

We welcome the development of the Major Projects Regime (MPR) to facilitate the delivery of infrastructure projects identified by the CSNP but consider it important to extend the scope of the MPR to all strategic load projects (including non-CSNP). The MPR should be coupled with a single load reopener for load projects that are not strategic, irrespective of investment driver.

Our key asks are:

- The MPR should be applied to all strategic projects and not only those derived from the CSNP, regardless of route through the price control framework. The need for early Pre-construction Funding (PCF) and Early-construction Funding (ECF) to secure the supply chain is fundamentally the only way to operate within the current market conditions.
- The threshold should not determine which CSNP projects fall into the MPR regime. The threshold should be for determining the application of the ITA and this threshold should be extended to non-financial measures such as delivery risk, technology type and complexity.
- 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.
- Given the delivery challenges to meet net zero targets, in our view the accelerated cost assessment process, as developed for the ASTI framework is the most appropriate process to use all strategic load projects. This should be supported by open book transparency of direct costs tendered by the supply chain.

We think Ofgem should be ambitious and the need for regional investment should be considered as part of the Major Projects Regime. This would allow Ofgem to establish processes for early preconstruction funding, de-risking the delivery and allowing early supply chain engagement. It would allow alignment between national and regional investment in terms of delivery timescales and incentives.

The onus would be on the companies to demonstrate that a proposed regional investment was strategic and therefore suitable for the MPR, and the associated mechanisms. We will seek to work with Ofgem to develop guidance as to what constitutes strategic investment, for example provision of a certain amount of network capacity, facilitation of connections and urgency of completion, and develop mechanisms to give assurance of need for regional investments, see ETQ8.

As noted in the SSMC, RIIO-T3 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 the 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. We expand on this in ETQ3.

If Ofgem does not accept our view that the MPR should be used for all strategic projects, and the ITA should be used selectively, we would propose a threshold much higher than the £100m, to limit the use of the ITA. The rationale behind this increase is fourfold:

- There are inflationary factors affecting the global supply chain – as outlined in ET Annex paragraph 1.18 – with increasing pressure on the supply chain costs have increased. A project that was considered ‘under’ the threshold in RIIO-T2 will be within it in RIIO-T3, leading to increased regulatory burden and potentially more ‘piecemeal’ network development.
- There is an increasing scale of ‘major projects’ required to facilitate the multi-GW low carbon generation, onshore and offshore, likely to be required by the SSEP and outlined in the CSNP. The size of the projects required to facilitate strategic network investment is growing in our area, with the result that fewer projects will fall under the £100m threshold.
- The need for early and planned supply chain engagement is of paramount importance. As Ofgem identifies, early engagement with the supply chain is essential to ensure cost effective and timely delivery of the network. Disaggregating ‘projects’ into smaller contributions/component parts, as would be done using too low a threshold, will not facilitate planned supply chain engagement.

Looking at the current projected costs of our nine tCSNP2 options, if we were to use a threshold of £100m, then seven of the nine projects would breach this threshold and automatically lead to increased regulatory scrutiny (and/or the use of an ITA). However, many of these seven options cover onshore reconductoring works, or other work which we consider as business as usual with low technical and delivery risk. In such projects, there would be little value in additional regulatory scrutiny afforded by breaching a monetary threshold.

Increasing this threshold to, as an example, £750m would lead to four options being over the threshold. These projects, including the construction of HVDC links and double circuits, are strategically and financially higher risk and as such would benefit from the additional regulatory scrutiny and potential use of an ITA for assurance.

However, given the current inflationary financial climate, we believe it would be more sensible to decide an appropriate threshold amount nearer the time of RIIO-T3 implementation.

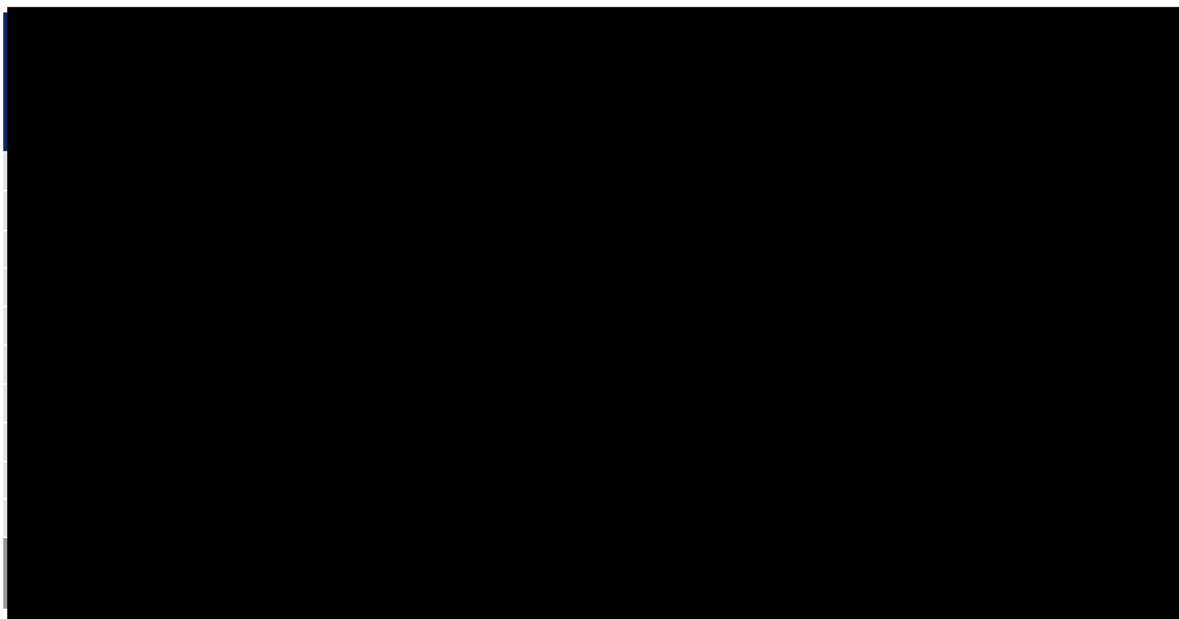
**ETQ2** What are your views on our proposed approach to setting PCF and ECF, the scope of PCF and ECF and continuing the 'operational aspects' introduced under ASTI?

We welcome Ofgem’s recognition that Pre-construction Funding (PCF) and Early-construction Funding (ECF) are essential to enable the TOs to progress major projects quickly from an early stage through to beginning construction, but we have suggestions for improvement on Ofgem’s current approach to setting PCF and ECF, their scope, and their operational aspects.

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.

The current cap of 2.5% totex based on LOTI projects, is considered too low for PCF funding, and should be recalibrated based on more recent experience of ASTI projects. Based on current estimates of activities which we scope under PCF for ASTI, we will breach the 2.5% PCF cap later this year, before reaching full design maturity. We think a PCF cap of 5% would better reflect project development costs. This initial view is based on our current experience with the ASTI projects that are currently progressing through the development phase. There are several projects forecast to spend materially more than the 2.5% cap, which will result in a PCF reopener. We seek to reduce the regulatory burden by minimising the need for additional reopeners within the process and believe a 5% PCF threshold strikes the right balance. We are developing our ASTI PCF reopener submission and will share with Ofgem the latest details of the PCF allowances needed once this work is complete.

Similarly, the current cap of 20% for ECF should be revised to an increased cap. We propose an automatic allocation of 20% funding and up to 40% totex where need and cost are agreed with Ofgem. As explained on page 11 of our December Delivery Plan and in Figure 5 below, the ECF requirement is expected to breach the 20% cap on individual projects in the ASTI portfolio, driven by strategic land purchase and capacity reservation agreements. We propose that where strategic land is required, the initial cap on ECF is revised to reflect these additional costs. ECF activities are subject to market conditions and as such will remain uncertain until the ITT process is complete.



*Figure 5 – ECF allowances (ASTI December Delivery Plans)*

We would also be welcoming of any alternative, streamlined approaches to the submission of ECF. For example, if the ITA was used to provide assurance of activities' benefit, this work could be leveraged to reduce the detail of the ECF submission.

**ETQ3** What are your views on options for how the ITA could be implemented for major new ET3 investments, and what are your views on its role and scope?

We are supportive of the 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.

We do not think the ITA should be applied to all projects. In our view the role of the ITA should reflect the differing materiality and risks associated with MPR type projects. We think the use of ITAs should be targeted, due to an expected market limited availability of ITAs, at complex and first-of-a-kind deployments in the UK market. We will work with Ofgem to establish non-financial parameters for the deployment and targeting of an ITA.

We believe that the following areas would benefit from the use of an ITA:

#### **Pre-Project Assessment**

- **Procurement Strategy:** Like the approach taken on the ASTI framework, an ITA could review our procurement strategy at a portfolio level, providing Ofgem with reassurance that the supply chain procurement has been conducted efficiently and in light of best practice. This would provide assurance that we have taken the right approach to ensuring maximum competition and best value for consumers in our procurement process, given current volatility in market conditions. An ITA would be able to benchmark objectively against industry standards and validate our decision rationales, however the cost efficiency would still be determined by Ofgem at Project Assessment.
- **Risk Identification:** An ITA could provide risk benchmarking and assurance of risk quantification. Additionally, the ITA could validate our risk calculation, management, and mitigation strategies. This could, in turn, streamline the Project Assessment process, where agreement and financialization of risk is a key activity.

#### **Post-Project Assessment**

- **COAE assessment:** We believe there is benefit in using an ITA in this instance to ensure that the scope change is justified. COAE criteria are well established within ASTI guidelines, and it should be attainable for the ITA to provide independent assurance.
- **Efficient spend:** ITA could be used to provide assurance that the overrun efficiency spend is valid. This is subject to Ofgem establishing demonstrably wasteful and inefficient expenditure criteria it should be attainable for the ITA to provide independent assurance.
- **ODI Delay Events:** ITA could be used to provide assurance to Ofgem that the delay event was outside of our control. Delay events criteria are well established within ASTI guidelines, and it should be attainable for the ITA to provide independent assurance.

However, we would be mindful that:

- The ITA could provide assurance that the project scope meets CSNP needs, and that there are no deviations away from the CSNP requirements. This could, however, lead to overlap in responsibility with NESO's CSNP role. The NESO should sign off on our strategic network approach (i.e. **development**), whereas the role of an ITA would be to focus on effective delivery on specific project detail.
- 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 process would likely cause unnecessary confusion and add to the uncertainty of outcome.

- The ITA should **not establish or validate EISDs**. These should be established as part of the CSNP process, in collaboration with companies and the supply chain.
- Ofgem should not derogate decision-making capabilities to the ITA. The role of the ITA is therefore to provide **assurance** to Ofgem that the TOs are executing their role correctly. It should function as an **independent, objective reporting function**, and avoid the generation of subjective opinion which may impede project delivery.
- The ITA should have a **well-defined ToR** which keeps consumer value as its priority.
- TOs should have the option to retain **flexibility in our use of ITAs to ensure assurance is delivered commensurate to the project requirement**. There may be specific work we would deem appropriate to use an ITA as an assurance measure, whilst not necessarily recommending an ITA across the broader scope of work.
- The ITA should **not impede project delivery**. It is imperative to avoid duplication across projects – thus the ITA would preferably operate at portfolio level (i.e. one ITA for ASTI, one for tCSNP2 etc). It would also be most efficient for the ITA to work in parallel with our procurement strategy such that we had real-time validation of our decisions without implementing bottlenecks in delivery. Project-level work would most likely be inefficient use of ITA resourcing through potential duplication in workload.

We are flexible with regards to the contractual setup of the ITA (i.e. where the duty of care lies) but re-emphasise the need for a clear scope of the ITA workload to first be agreed.

We would encourage Ofgem to roll out the implementation of an ITA process on a trial basis initially, preferably using one of the tCSNP2 projects for this trial, with a view to evaluating the benefit of the ITA before implementing across all regimes.

Additionally, there would need to be high-level principles for ITA implementation, particularly concerning data sharing, data access and confidentiality. These would have to be established and agreed ahead of any work commencing.

**ETQ4 What are your views on introducing a delivery incentive into RIIO-ET3 for major projects that is broadly similar to the ASTI ODI-F? Do you consider that delivery should be more strongly incentivised than under ASTI, and if so how?**

We accept Ofgem's proposal to introduce a delivery incentive through into the MPR that is broadly similar to the ASTI ODI-F. It is our view, however, that further work needs to be undertaken to review how such MPR ODI-F is calibrated in terms of target delivery dates and the setting of incentive/penalty rates.

Via engagement in the workgroups, we are aware that Ofgem is considering powerful output incentives with asymmetric regimes and stronger penalty mechanisms. We are of the view that the incentive regime for RIIO-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 RIIO-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.

## The policy intent of the ASTI ODI

The policy intent of the ASTI ODI was to incentivise the accelerated delivery of ASTI projects to meet Government's 2030 ambitions. During the development of that mechanism there was significant joint-TO engagement with Ofgem on the strength of that mechanism, whether it was truly balanced in terms of reward/penalty, and whether it was appropriate to couple the ODI with a PCD and licence obligation. We think these detailed discussions need re-opening in the context of the MPR.

The ASTI ODI was developed with a very specific Government objective in mind. Whilst we cannot slow down when it comes to future network investment, it is important to remember that the MPR will not necessarily be pinned to such a specific point in time. It is also important to recognise that as the network continues to evolve, project interaction will only increase, creating additional uncertainty on project timelines.

Furthermore, the ASTI ODI was calibrated based solely on constraints; the methodology for calculating constraint costs needs to be updated and more transparent. It is our view, therefore, that it is not appropriate to maintain the same ODI strength as per ASTI at a whole portfolio level, but instead this should be calibrated on a project-by-project basis and should remain flexible.

It is also our view that the ODI should not necessarily be set and calibrated at the point of project inception. During the scoping stage, and into development, project timelines remain uncertain and subject to change depending on interaction with future projects and importantly the capability of the supply chain. Only once we get to project assessment with the supply chain on board are we able to have a high level of certainty on delivery dates. We suggest, therefore, that Ofgem remain open to amendments to the ODI throughout the pre-construction phase of project delivery.

### ETQ5 What are your views on our proposed cost assessment approach for major new RIIO-ET3 projects?

We agree with Ofgem's proposed cost assessment approach for major new projects during RIIO-T3. We agree with Ofgem's proposals to use a similar approach to the ASTI cost assessment process for the Major Projects Regime. It is critical for the achievement of government net zero targets that the regulatory cost assessment process does not become critical path and lead to delays in the delivery of projects.

We are therefore supportive of Ofgem's implementation of an accelerated cost assessment process, as being rolled out for Project Assessment for the ASTI framework. We agree that the lessons learnt from the new ASTI cost assessment should be used when designing the major project regime cost assessment process for RIIO-T3.

We agree that there is a role for Ofgem, with support from an ITA, to assess whether TOs' procurement processes are efficient and delivering value for money for the consumer. Once assessed as efficient, we agree that Ofgem should accept that direct costs have been set by the market and allowances set based on this. The unit rates set as part of a tender process should be used for allowance setting.

Any benchmarking of direct costs should only be used as a guide. Ofgem's assessment should then focus on areas outside of prior expectations. This risk-based assessment approach should allow material areas of potential inefficiency to be identified and assessed. The outcome of this



benchmarking is one piece of evidence, but it should not be used as the answer for setting allowances.

On indirect costs, we agree that, in principle, these costs are more benchmarkable than direct costs, however Ofgem must consider the different contracting and delivery model arrangements that may be used by TOs. The reality is new models are required to maintain delivery timelines for capital projects, and control cost for consumers. This may require higher levels of indirect costs to manage contracts and control cost, including in verifying costs through an open-book process with the supply chain. These contracting arrangements will differ from project to project and therefore the overall level of indirects must be assessed within the wider context of the project's delivery and contracting model.

Therefore, while benchmarking of indirects may help to identify potential inefficiency, it should not be the sole piece of evidence when setting allowances for projects. On risk, we understand the need for top-down benchmarking of risk pots, but Ofgem should also only use this as a guide, as differing project complexity and contracting risk, including the balance of risk between the contractor and the TO, will impact on the required risk pot.

#### ETQ6 What are your views on our proposed treatment of sub-£100m schemes identified by the CSNP?

As we have set out in the introduction to this subset of questions, we do not consider the need for a strong distinction in treatment between large CSNP driven schemes and sub £100m schemes. We are not supportive of having a separate cost assessment process, Ofgem should adopt the same accelerated cost assessment process, as being rolled out for Project Assessment for the ASTI framework for all CSNP derived projects that proceed.

### Load related expenditure outside of the CSNP

#### ETQ7 What are your views on our proposal for load-related expenditure outside of the CSNP, how these mechanisms can be improved and streamlined, and the appropriate thresholds for the mechanisms?

Noting our views on the use of the MPR for all strategic load related projects, we welcome Ofgem's proposal for load-related expenditure outside of the CSNP/MPR. We see a need for the continuation ex ante funding, a streamlined re-opener mechanism, the volume driver and the In-period re-opener covering both needs case and cost assessment. We provide our comments on the volume driver in ETQ9.

In our view the streamlined re-opener mechanism, should be used for projects where the needs case can be robustly evidenced in the RIIO-T3 Business Plan, but there is cost uncertainty, and for atypical volume driver projects resulting from connection agreements. In both cases projects should be subject to a re-opener mechanism that only assesses the efficiency of the costs once they reach a pre-agreed maturity threshold.

With regards to proposed re-opener covering both needs case and cost assessment, we are of the view that this should be applied to non-strategic load only, i.e. LRE projects where companies cannot make the case that they are strategic or linked to CSNP derived projects.

**ETQ8** What are your views on our proposal for shared drivers projects, how TOs need to evidence investment requirements and how they can be held to account for delivery?

We recognise the challenge of holistic planning and, in response we have developed our Area System Planning (ASP) approach. Our proposed Area System Planning approach is complimentary to the CSNP process. The key difference will be that we are planning within boundary strategic reinforcements in our network with a clearer understanding of all the 'needs' placed upon it – encapsulated in the spatial plan. In our view our ASP will evidence investment requirements our approach:

- Creates investment plans for regions that allow stakeholder 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 coordinated with distribution network development plans, pragmatically enabling the FSO's cross vector co-ordinating role, planning the strategic network.
- 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.

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 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.

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

To account for delivery of regional investment we consider that TO's should publish progress against the proposed delivery plans such they are open to scrutiny. We would support the application of a timely delivery incentive for other load projects where appropriate including investments derived from our ASP process.

ETQ9 What are your views on our proposal that there is a need for generation and demand connections volume drivers in RIIO-ET3, and how, if at all, they should change relative to those used in RIIO-ET2?

We agree with Ofgem's proposal that there needs to be a continuation for the need for a volume driver mechanism to deliver generation projects in RIIO-T3. The volume driver has been integral in delivering renewable generation in the north of Scotland. We see the continued volume driver being based on the overarching principal of the existing mechanism, with significant evolution of the unit rates, voltages and activities captured under the volume driver mechanism. We are keen to continue to work with Ofgem and the other TO's in developing the volume driver mechanism.

Our key proposals are set out below:

- Retain the overall approach from the RIIO-T2 Volume Driver for the RIIO-T3 Volume Driver - the existing overarching disaggregated volume driver formula (£/MW or £/MVA Electrical Output + £/km Linear Assets).
- Appropriate reform of the unit rate cost calculations and disaggregation of assets, voltages, and substation activities to ensure that the allowances reflect the assets delivered.
- The continued use of an evolved reopener to deal with atypical connection projects – this process needs to be streamlined to allow the accelerated assessment of these. There needs to be a more logical threshold criteria set for defining atypical projects and not based solely on mathematical outcome through regression analysis.
- Propose the use of an ex-post cap and collar or True up review similar to that proposed under the ASTI framework to protect both consumers and networks from windfall gains and losses. This will also provide Ofgem more confidence in setting ex ante unit rates. This would be carried out as a true up as part of the close out process.

It is important to note that SSEN Transmission did not have a demand volume driver within RIIO-T2 due to the limited delivery of demand connections and we believe that these projects need to be progressed through an alternative load related reopener mechanism.

#### **Evolution of the Volume Mechanism**

The key lesson from the RIIO-T2 is the lack of cost reflectivity of the unit rates, specifically the single overhead line. This caused under-recovery and with more projects being subject to the atypical reopener process which has added additional regulatory burden. We have provided an initial view on changes that should be explored as part of the volume driver development process below. It is important to note that these are initial thinking and will be subject to change.

Our thinking in this space is very much in the infancy but we wanted to raise some of the key changes we see being required. We will continue to develop and refine these proposals during the RIIO-T3 delivery plan.

- **Electrical Output:** We believe there should be an evolution of the £/MW/£MVA to different activities we deliver as a TO to reflect the work delivered. We are currently progressing our analysis in this space and will propose our approach as part of the business plan submission.
- **OHL (Linear Assets):** The single unit rate for OHL has not worked in RIIO-T2 and therefore we believe there is the need to explore the introduction of unit rates that reflect voltage (132/275/400kV) and asset type (Tower vs Pole). There is a significant cost difference from



delivering a wood pole and steel tower solution and the volume driver mechanism needs to reflect that.

We acknowledge that this will create a more complex volume but the greater cost reflectivity to the activities being delivered will outweigh this complexity. We are also continuing to develop our thinking in this space and look forward to working with Ofgem on developing this further.

### **Atypical Volume Driver Projects**

While we think changes to the volume driver will minimise the need for an atypical volume driver mechanism there is still a role for a reopener mechanism for Atypical Volume Driver projects within RIIO-T3 which are genuinely outliers. The threshold needs to be set at an appropriate level and we will work with Ofgem through the volume driver development to calibrate this.

### **Ex Post Cost Review**

Given the challenges on supply chain and setting unit rates for the volume driver ex-ante we believe that there is a requirement for an ex-post review on outturn costs against allowances. This approach would allow Ofgem to set unit rates for each component of the volume driver with confidence. We propose following a similar approach to the cap and collar mechanism as proposed as part of the ASTI framework to ensure the efficient outturn costs are recoverable, or allowances are returned to consumers, while maintaining sufficient efficiency incentives and ensuring that the windfall gain/loss exposure to both consumers and TOs acceptable.

The cap and collar 'mechanism' alongside an appropriate TIM rate, provides strong protection for both networks and consumers, while maintaining a volume driver mechanism that allows the delivery of connection projects at pace with minimal regulatory burden during the price control. However, it is worth noting that this does not replace the need for an atypical volume driver mechanism where the cost of a project is outwith the current volume driver allowance cap and collar and is funded through the Load Related Reopener mechanism and not the Volume Driver.

We are keen to work with the Ofgem team and other TOs on evolving the existing volume driver mechanisms, based on the proposed changes above, to make it more cost reflective while continuing to deliver low carbon generation connections at pace.

## **Minimising networks impact on the environment**

**ETQ10** What are your views on our minded-to proposal of retaining the IIG ODI-F during RIIO-ET3, and our additional commentary around the incentive and its associated reporting requirements?

We support the retention of the IIG ODI-F for RIIO-T3 and that there is a need for a continued and strengthened focus on reducing leakage of SF6 in RIIO-T3. This is due to the government priority to deliver the strategic ASTI/tCSNP projects needed for net zero, which is likely to see a continued and increasing use of SF6 assets as the network grows.

For the incentive, we agree with its intended goals: reducing total leakage, improving asset management, and reducing inventories. However, we would highlight that the IIG incentive cannot provide the funding of significant investment needed to drive inventory reduction. The RIIO-T3 price control will need to provide the baseline funding and appropriate uncertainty mechanisms (e.g. SF6

reopener) to fund the key investments to reduce and replace SF6 at pace, with the incentive continuing to focus on the operational management of leakage rates.

We are exploring and developing the IIG Incentive in more detail through cross-TO engagement and look forward to further engagement with Ofgem in line with the ongoing RIIO-3 development. Initial comments on the incentive are laid out below:

- **Incentive Design:** We agree that fugitive emissions of SF6 are the biggest single component of our BCF within our operational control. Therefore, we would suggest that the IIG incentive should be designed in tandem with the BCF incentive in order to function appropriately. In practice, this would mean agreeing a TO-specific IIG emissions trajectory over the course of RIIO-T3 that is aligned with each TO's science-based targets. We would note that for SSEN Transmission such a 1.5°C-aligned trajectory might entail an increase in SF6 emissions against our 2018/19 base year, within an overall envelope of decreasing Scope 1 and 2 emissions.
- **Incentive Strength:** The IIG incentive must strive to reflect the marginal costs of leakage rate reduction for companies at the frontier of performance. The incentive should not penalise TOs for sector-leading performance. We have world-leading leakage rates, any further improvements are the result of exploiting small margins. UK Green Book values for the non-traded price of carbon are appropriate to reward/penalise SF6 leak performance but are not necessarily high enough to drive leakage reduction at the frontier. The incentive calibration should reflect the increased level of effort at the frontier to deliver leakage reduction needed to meet SBTs.
- **Incentive Dead band:** We are not supportive of the introduction of a dead band within the incentive for IIG. We believe that a dead band will dampen the incentive strengthen by acting as a disincentive for small scale interventions that may not attract a reward or penalty. Therefore, the incentive should continue to incentivise the cumulative performance in delivering leakage reduction.
- **Exceptional Events:** We believe that the current exceptional events definition and process for the IIG incentive remains appropriate, and where an incident is beyond the reasonable control of a licensee that it should be excluded from the incentive. However, there is value in further work between Ofgem and the TOs to provide further clarity on what it defines an excluded event to ensure that truly exceptional event claims are submitted.

In terms of reporting, the comprehensive information proposed for inclusion in the AER Commentary is a good starting point, however we look forward to continued engagement to ensure a good balance between usefulness, relevance, and data availability. As a good example of striking this balance, we acknowledge that there is a debate about whether "top up"-based IIG leak reporting is the best method.

We are building our capacity to report leaks in real time through the installation of monitoring systems in RIIO-T2, as well as planning further installations in RIIO-T3, but we argue that moving away from "top up"-based reporting is a longer-term ambition and would be difficult to deliver in the first years of RIIO-T3. Finally, we would highlight that reporting forecasts externally is particularly sensitive and should not be put in the same category as reporting on actual events.

As a final point on reporting, we note that the IPCC's working group 1 have published the final version of the Supplementary Material<sup>7</sup> to Chapter 7 of the Sixth Assessment Report which includes a new 100-year GWP of 24,300 for SF6. We are open to using this in reporting and incentive design as it reflects the latest climate science.

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<sup>7</sup> [7SM The Earth's Energy Budget, Climate Feedbacks and Climate Sensitivity Supplementary Material](#)

We are keen to continue the development of the IIG incentive, in particular the detailed calibration, through the framework development and business plan submission.

**ETQ11 What are your views on retaining funding to support mitigation projects that reduce the visual impacts of existing infrastructure in designated areas?**

We acknowledge that there is an opportunity retaining funding to support mitigation and to extend the scope of the scheme to include designated sites of more local importance. However, given the potentially reduced benefits this may achieve and challenges surrounding supply chain, network and outage planning, resource availability and extensive upgrade programme with confirmed need agreed out to 2030 and beyond, we believe that priority must be given to the delivery of projects directly delivering net zero outcomes.

Our approach in RIIO-T2 has been coordinated through our Visual Impacts of Scottish Transmission Assets (VISTA) initiative. Through extensive stakeholder engagement, we promoted schemes with the greatest potential to reduce the visual impacts of existing infrastructure in some of Scotland's most sensitive National Parks and National Scenic Areas. However, the mechanism in RIIO-T2 is not fit for purpose due to the application of the Opex Escalator. For our view on the Opex Escalator, please see our response to question OVQ42.

In considering the need for the mechanism going forward, we have concluded the following:

**There is reduced scope to deliver further projects**

We have identified and prioritised those projects that offer most value to consumers and local stakeholders, taking into account the strict requirements of the special licence condition and our agreed implementation policy<sup>8</sup>.

A key stipulation within our existing scope is to exclude assets that were either consented post adoption of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000, or assets which are subject to planned major upgrade works which may ultimately lead to the replacement or removal. Due to the significant increase in network upgrades required to our existing asset base as part of our 2030 portfolio of works and beyond, the extent of opportunity is expected to be reduced.

**There are opportunities to extend the scope beyond the current parameters**

For example, consideration could be given extending the scope of VISTA beyond the national designations of National Parks and National Scenic Areas, to more local designations (e.g. Local Landscape Areas). However, given these designations are not afforded the same level of protection it would be more challenging to demonstrate visual amenity benefits based on potential cost to implement.

**There are resource and material challenges**

Given the scale of new infrastructure proposed across our network, the visual impacts of such schemes will be a critical consideration during project optioneering and development. All new

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<sup>8</sup> [Visual Impact of Scottish Transmission Assets \(VISTA\) RIIO-T2](#)



infrastructure requiring consent will undergo assessment against the applicable planning regime, including evaluations of landscape and visual impacts.

- In procurement, our supply chain is facing significant strain due to our Accelerating Strategic Transmission Investment framework (ASTI/2030), connections projects portfolio, and broader global resource pressures. Given these pressures, it is essential to carefully prioritise our needs.
- Regarding outage Management, the extensive network upgrades planned up to 2030 and beyond are increasing pressure to allocate outages for commissioning new assets and refurbishing and maintaining existing ones.
- In terms of personnel and resource, recruitment within the sector remains a challenge from both an SSEN Transmission and consultant perspective. Further assessments, prioritisation, consultations, design work, consenting, and construction activities will divert resources from other projects aimed at delivering grid capacity enhancements.

#### ETQ12 Do you agree with our assessment of the bespoke outputs described in Table 7?

We did not have any bespoke environmental outputs in RIIO-T2, but agree that these outputs should be made common across all TOs for RIIO-T3, subject to the lessons learned from RIIO-T2 and future requirements for RIIO-T3. We have set out our initial thinking on the bespoke environmental outputs below:

**Maximising benefit from non-operation land ODI-R:** Opportunities for community benefit are more limited in our remote locations, and biodiversity enhancements may be more difficult with higher baselines compared to locations in more densely populated parts of the country. However, we recognise the benefits associated with this incentive and support its inclusion in the AER, or wider sustainability reporting requirements, in RIIO-T3.

**Enhanced environmental requirements UIOLI:** In RIIO-T2, we committed to no net loss of biodiversity from 2021/22 and biodiversity net gain from 2023/24. We would be open to engaging with the other TOs on this topic and considering the approaches available to meet these goals.

**Net Zero Fund UIOLI:** We see this type of fund as a potential opportunity to deliver Beyond Value Chain Mitigation (BVCM, i.e. carbon offsetting) and are interested to understand more about how SPT have used the fund and whether it could support our own net zero strategy.

**SF6 Asset Intervention PCD and re-opener:** We are considering SF6 asset interventions in order to meet our 2030 science-based target. It is essential for the regulatory framework to support our efforts in this area. The regulatory framework needs to be considered as a whole, with the following mechanisms working smoothly together:

- the BCF ODI-R;
- the IIG ODI-F;
- Funding for SF6 baseline works; and
- Funding via a potential SF6-focused re-opener.

**Net Zero Carbon Construction UIOLI:** We are still developing our approach to meeting our net zero targets. However, funding will likely be required to support our approach. We will work with NGET to see what we can learn from their experience with this UIOLI mechanism and how a similar mechanism in RIIO-T3 could support our own ambitions.

**Reducing carbon emissions from operational transport PCD:** Aside from SF6, we see transport as a key opportunity to reduce our GHG emissions and positively impact our BCF. We would be keen to utilise learnings from NGET's application of this PCD to influence whether a similar mechanism could support our own fleet decarbonisation efforts in RIIO-T3.

## Compliance with safety legislation

**ETQ13** Do you agree that we should retain the RIIO-ET2 approach to safety, or do you consider there is anything more we could do?

Yes, we agree that we should retain the RIIO-T2 approach to safety. We have mature systems and governance to manage safety, that are best maintained outside the price control framework.

We currently demonstrate compliance with legislative requirements through our safety, health, and wellbeing management system framework. Our management system is aligned to SSE group and applies to all SSEN Transmission employees, Contingent works and people contracted through third parties. This management system is aligned to the Group SHE Management system, and based on the following corporate structure:

- Plant – how we operate and maintain our assets;
- Process – how we risk assess and develop systems of work;
- People – how we ensure competent people are in position; and
- Performance – how we review and learn from mistakes to continually improve.

To ensure the safety management system keeps up to date with legislative changes, we utilise The Compliance People Legislation Update Service (LUS) to ensure effective monitoring of the applicable legislation. The LUS identifies applicable legislation to all SSE Group businesses, including SSEN Transmission highlighting any amendments, such amendments are communicated, and respective elements of the safety management system updated accordingly.

With regards to governance, the Safety, Health, and Environment Committee (SHEC) operate at Group Level and are responsible to Group Executive Committee. The SHEC develops and recommends SHE policy and operates to a term of reference. SSEN is represented at the SHEC by Senior Management.

The SSEN Transmission Business also undertakes appropriate company level Safety Health and Wellbeing Assurance Activities across the SSEN Transmission business in line with our SHW Assurance Procedure. SHW Governance is provided through the Transmission SHE Sub-Committee. This forum is chaired by the SSEN Transmission Managing Director with senior management representation across the business.

Detailed assurance activity is undertaken at various levels by different members of the Scottish and Southern Energy (SSE) workforce, including the Transmission SHW Team and the SSE Group which reviews compliance against management system requirements.

## Network Access Policy (NAP) LO

ETQ14 Do you agree with our proposal to retain the NAP for RIIO-ET3, and do you have any views on if and how it should be updated?

We fully support retention of the NAP for RIIO-T3 as it facilitates essential collaboration between the NGESO and the GB Transmission Owners (TOs) in relation to outage planning and operational management of the GB transmission network. It also gives guidance on how the three TOs plan their network access through the formal processes with the NGESO, to ensure consumer value whilst considering the impact of the TOs' work on stakeholders connected to the transmission network.

A key aspect of the NAP is to achieve above and beyond baseline levels of outage planning, customer service, and operation of the GB transmission system. Baseline levels are as specified in the STCP procedures (STCPs), specifically STCP-11 on Outage Planning. The NAP enhancements are designed to assist NGESO in reducing operating costs to deliver added value for consumers.

Prior to the start of RIIO-T2, the NAP underwent significant review by the three GB TOs to consolidate their outage planning procedures into a single GB-wide NAP. This included customer and stakeholder engagement to identify process enhancements, to clarify roles and responsibilities in respect of third-party engagement, and to introduce key performance indicators (KPIs) to monitor TO performance and demonstrate consumer benefits. The KPIs are issued annually for public consumption.

RIIO-T3 will bring increased outage planning activity to deliver the GB transmission network to meet the longer-term net zero targets. It is important the TOs, NGESO, and Ofgem continue to work collaboratively through the quarterly NAP forums to identify further NAP process improvements and continue to add updates with agreement from the parties. We also recommend further rounds of stakeholder engagement to allow User feedback to inform further enhancements to the NAP procedures and guidance and drive ongoing planning efficiencies and operational cost reductions through the RIIO-T3 programme.

## Energy Not Supplied (ENS) ODI-F

ETQ15 Should we retain the ENS incentive as an ODI-F and strengthen performance targets, or transition to a minimum obligation standard?

We are generally supportive of Ofgem's proposal to transition the ENS incentive from an ODI-F, however, rather than a Licence Obligation, we consider it should become a reputational ODI.

Throughout RIIO-T1 and RIIO-T2 price control periods, we have demonstrated a commitment to managing reliability as a top priority and have implemented comprehensive policies to minimise interruptions to supply. This will remain a priority regardless of the incentive mechanism used and our approach will ultimately benefit the customer by ensuring a safe and reliable network.

The level of performance delivered over the previous price controls is now embedded within our business and this level of service can largely be maintained through a reputational ODI and baseline



funding. However, in order for a reputational incentive to be workable there should be a small baseline use it or lose it (UIOLI) pot to fund activities above BAU.

If the ENS incentive is continued as an ODI-F in its current form with strengthened performance targets, it is important that the incentive has a much more symmetrical reward/penalty outcome. The current incentive is heavily weighted towards a penalty regime which would need to be addressed through the wider incentive calibration. We acknowledge that the ENS as an ODI-F offers a clear incentive for TOs to maintain a high level of service while also allowing for flexibility in addressing evolving demands and challenges on the network.

For completeness we have answered the remaining questions on ENS on the basis of the ODI-F being retained.

**ETQ16 Are either a rolling baseline target or the addition of an improvement factor appropriate changes to the incentive target calculation methodology given the increases in target outperformance?**

If the ENS incentive is retained as an ODI-F, we do not support a move to a rolling baseline target or the inclusion of an improvement factor. In our view these could undermine the incentive to drive genuine enhancements in ENS performance. In particular, a rolling baseline has potential to drive mitigation costs beyond the value of returns or to attribute improvements in low-incidence incidents purely to chance.

As transmission owners, we integrate ENS considerations into our network design and operational procedures, expecting continual improvement as the benefits of upgrades and changes become evident. As our asset values increase, incentive rewards become a diminishing proportion while penalties grow larger. While monetary incentives are important, they are not the sole drivers for Companies. Core business impacts, customer satisfaction, reliability standards, and our reputation equally influence decision-making.

The risk of faults affecting ENS values may be low in volume, but it is crucial to acknowledge the complexities involved in predicting and preventing ENS events. While a rolling baseline target could be seen as a positive step due to heightened network risks from increased outage activities and forecasted demand growth, our ENS performance surpasses that of other GB TOs. Employing a common GB baseline adjusted to account for workload, network terrain, weather conditions, and other factors could be appropriate, with rewards and penalties structured accordingly.

While a rolling baseline and improvement factor could be appropriate under certain circumstances, implementation and alignment would need to be carefully managed taking into account the broader objectives of enhancing ENS performance.

Our preferred approach is to maintain a fixed target for ENS performance across the price control period, given the complexities involved in adjusting targets mid-period, especially within the transmission sector. This fixed target aligns well with the transition of price controls, which would enable faster adjustments in future periods. These baseline targets need to be appropriately constructed based on comprehensive data that reflects current network performance levels while allowing room for future growth and improvement.

ETQ17 Would a change in the estimate of the VoLL impact TOs investment decisions, and should the incentive value methodology be updated if the VoLL is changed?

If the ENS incentive is retained as an ODI-F, we believe that a change in the estimate of the Value of Lost Load (VoLL) is necessary, particularly given the increasing significance of heightened electricity demand resulting from advancements such as travel and home electrification.

Reliability remains of paramount importance to our customers, and network resilience is a top priority for SSEN Transmission. We proactively manage reliability, understanding that any outage on the system exposes us (and customers) to significant risk. We have implemented a comprehensive policy aimed at minimising interruptions and will continue to adapt and improve this moving forward.

Regarding the potential need to update the incentive value methodology following changes in VoLL, we advocate for retaining the current methodology. Introducing a new methodology would take time to ensure accuracy and robustness. Given the importance of minimising interruptions, which ultimately benefits the customer, a comprehensive approach is crucial. Retaining the current scope could effectively address these challenges without requiring immediate updates to the methodology.

ETQ18 Are the current definitions for excluded and exceptional events sufficient, or should they be changed for RIIO-ET3?

While the current definitions have provided a foundation for managing supply disruption, there is scope for refinement to address emerging challenges and ensure a robust framework for RIIO-T3.

The existing definition of excluded and exceptional events has provided a level of confidence in ensuring that customer choice and economically unviable connections, which pose a higher risk of supply loss, are appropriately accounted for. Any proposed amendments for RIIO-T3 would need to allow sufficient lead time for network configuration and process changes to be implemented effectively.

An emerging concern is the growing challenge of measuring masked demand due to embedded generation connections, as we are unable to assess our risk/exposure accurately. The unpredictability of energy supply volumes through the network, particularly with intermittent embedded generation, underscores the need for robust definitions to accurately assess performance.

The definition of exceptional events has been crucial in managing instances of significant supply disruption caused by weather events. However, there is room for refinement, particularly in addressing one-off localised storm events that are beyond our control. These can include instances where access permissions are limited, such as the absence of critical tree cutting due to access constraints when the trees are situated on private land. Even in emergency situations, this can be an issue that is beyond our control. Additionally, extreme weather conditions may lead to infrastructure damage or unsecured positions due to accepted connections or planned outage conditions that are impractical to secure at appropriate risk levels.

Any adjustments to definitions should be made with a thorough understanding of their implications and alignment with the overarching goals of RIIO-T3.

#### ETQ19 Should Ofgem add a materiality threshold for exceptional events?

The exceptional event criteria ensure fairness within the ENS incentive that prevents Transmission Owner (TOs) being penalised for extreme events that are outside of their control (e.g. third-party damage or extreme weather). We agree with Ofgem that the resource and regulatory burden associated with submitting and assessing a claim event will mean that the cost (to both the TOs & Ofgem) sometimes outweighs the value of the claim.

A new approach to dealing with lower value claim events is required, while not penalising the TOs for events outside of their control. We have legitimate concerns that the cumulative effect of individually immaterial exceptional events could significantly penalise TOs for performance they have no control over. It is important to note that if Ofgem were to implement a MWh materiality threshold the ENS target would have to increase to reflect the impact of small materiality events on the baseline target. Therefore, we believe a financial materiality threshold might be more appropriate.

We believe a more suitable approach to maintain fairness within the incentive and focus on what the TOs can control is to implement a self-reporting process for low-value exceptional events, for example a defined 5% of the financial Incentive (to be calibrated alongside the other incentive parameters). This self-reporting process would allow low value exceptional events to be processed automatically and be embedded as part of the annual Regulatory Reporting process. Ofgem would continue to have oversight by conducting an annual or end-of-period review through sample testing or Supplementary Question process. We would continue to investigate the ENS event and gather the evidence required as justification of why it qualifies as an exceptional event, providing Ofgem with this information if required.

We believe this approach reduces the regulatory and resource burden associated with the claim event process while providing adequate oversight from Ofgem to assess these claim events.

#### ETQ20 What are your views on our proposed change to the ENS reporting requirements?

We believe that no change is necessary. The measure of reliability and good performance in the context of Energy Not Supplied (ENS) needs to be approached with a nuanced understanding.

Any changes to ENS reporting requirements should reflect the multifaceted nature of network reliability and ensure that performance metrics align with the broader goals of maintaining a resilient and efficient electricity transmission system.

It is imperative to consider the reasons for out-of-service equipment, ensuring that good performance is synonymous with producing the lowest overall cost or impact on constraint, supply, or transfer capability.

Efficiency in outage windows is essential to minimise the effects on system users, allowing for flexibility to capitalise on opportunities at minimal cost. Timeliness and adherence to budget constraints are also crucial factors, ensuring that agreed outages are completed on schedule and within budget.

Maintenance-related outages are primarily controllable, while unplanned faults are largely chance occurrences. However, it is important to acknowledge that user and system construction requirements are increasingly dominating Transmission Owners (TOs) work programs and are



essential to meet network build demands. Outage placement is driven by connection requirements, with TOs having little influence on outages for construction or user connection.

A clear definition of circuit or component is paramount for accurate reporting, although this process may require significant time and resources, having the potential to be disproportionate to the value of the reward.

Given the complexities involved in maintaining network reliability amidst maintenance, construction, and weather-related faults, it is essential for Ofgem to have a comprehensive understanding of what constitutes good performance. This understanding should encompass the necessity of outages for maintenance and construction purposes, as well as the predominantly weather-related nature of faults.

If Ofgem does wish to implement changes, we would require more detailed information regarding the proposed changes than what was outlined in the consultation.

**ETQ21 Are there alternative modifications to the ENS incentive that will more effectively improve visibility of circuit availability across the grid?**

The existing ENS framework incentivises us to maintain visibility of circuit availability across the grid. Implementing further modifications could introduce unnecessary complexity and potentially diminish the effectiveness of the incentive structure. The current system already encourages us to uphold visibility standards, and additional layers of modification may not yield significant improvements in this regard. Therefore, if the ENS incentive is retained as an ODI-F, maintaining the current incentive framework is advisable, as it has already proven to be effective in promoting the desired outcomes.

## Connections incentives

**ETQ22 What are your views on the extent to which fundamental reform of the ET connections incentives is required, and how would you approach that reform?**

We believe that the current stage of connections reform makes it difficult at present to determine the extent of change required for the Electricity Transmission connections incentives. We are aware that Ofgem is conducting its review of connections obligations and incentives as part of the Connections Action Plan, and that more clarity on the detail and mechanics of the ESO's new enduring connections process is expected over the coming months. Both of these areas are vital in informing our understanding of the evolving connections landscape and will therefore impact our views on opportunities in reforming incentives to ensure they are fit for purpose for the new connections process.

We therefore believe that this issue should be considered post-June once further progress has been made on these two points. In advance of this, we would encourage Ofgem to have early and open dialogue with TOs in its current review of the existing obligations and incentives as part of the Connections Action Plan. This will ensure that proposals are workable, drive benefits for customers

and that TOs are best prepared to deliver them and can use this insight to continue our thinking towards proposals for RIIO-T3.

In terms of our views on the existing incentives, we believe that these should continue into the RIIO-T3 period, with comparable strength to their current nature.

**ETQ23 Do you have views on how the Timely Connections incentive can be reformed, or replaced, to better capture the efficient coordination of network offers?**

We believe the Timely Connections incentive should be continued as is within RIIO-T3. It is important that connection offers continue to be issued within licensed timescales and this incentive allows all TO's the opportunity to report on their annual performance.

Not only is this a good metric for TO performance relating to the timely issuing of connection offers, but it also ensures our end customer receives their agreement on time, helping them to accept the offer in line with licensed timescales and advance their projects forward. The efficiency behind the connection offers process also ensures that the development and construction programmes we create during the offer process, are still achievable by the time the customer accepts their Transmission Owner Construction Offer (TOCO).

It is likely, through connections reform, that the reporting of Timely Connections may need to re-align with connection offer windows, however, this should not lead to any changes with regard to issuing the connection offer back to National Grid ESO in line with agreed timescales.

**ETQ24 Do you have views on how the QoCS incentive can be reformed, or replaced, to better capture the service that connections customers receive?**

We support the Quality of Connections survey being retained as a customer satisfaction mechanism and incentive within the industry. We believe that the incentive brings numerous positive benefits to customers and should continue to be an integral part of our operations. We do not support the introduction of dynamic or relative target setting; however, we agree with the current baseline target setting, whereby all Transmission Owners have a common baseline target which allows for strong performance to be recognised and rewarded.

Consideration should be given to how the survey measures and reflects the service provided by the Transmission Owner only, and bring greater distinction from other parties that may impact and influence the customer experience and performance, such as the ESO. With the current changes to the connections landscape, we also believe amendments will be required to ensure the survey reflects the Connections Reform process and would welcome collaborative engagement with Ofgem on its views on this.

Throughout the RIIO-T2 period, we have demonstrated a strong and improved year on year satisfaction score, along with an increase in survey response volumes being achieved. By actively seeking feedback through surveys, we have gained a deeper understanding of customer satisfaction at various stages of the connection journey. By surveying customers at key Moments that Matter, we are able to identify areas where we can enhance the customer experience, address any concerns or

issues promptly, and implement necessary changes. The key benefits of the Quality of Connections survey incentive are wide-ranging and include:

- Gaining valuable customer insights to improve the customer experience;
- Providing a consistent measure of customer satisfaction across the Moments that Matter;
- Identifying both the strengths and opportunities for improvement;
- Allowing a robust and confidential route for customers to provide feedback;
- Closing the loop on low scoring surveys where the customer has identified themselves, demonstrating that we are actively listening and using the survey as intended;
- Informing ongoing review and development of the Customer Experience Strategy and initiatives;
- Collaboration and sharing of best practice across the TOs; and
- Increased employee engagement in listening to the Voice of the Customer.

In summary, the Quality of Connections survey mechanism is valuable and brings numerous positive benefits to customers. It provides valuable insights, encourages ongoing improvement, amplifies the customer voice, and contributes to transparency and accountability internally and across the TOs. We strongly support retaining this mechanism within the industry and see it as a tool which can continue to be used to deliver positive customer experiences.

#### ETQ25 What activities should be considered business as usual under the SO:TO incentive?

As well as looking at the scope of business as usual (BAU) activities in SO:TO incentive mechanism, the scope of activities included overall should be reviewed to ensure that the mechanism remains fit for purpose. The scope of activities included under the SO:TO incentive have the potential to reduce operational constraint scenarios resulting from essential planned outages.

Constraint costs can arise due to network outage configurations, changing background generation and demand, and during network faults. In some instances, TOs can provide solutions and/or services to mitigate these onerous conditions but are not funded for them under the Price Control. These solutions will generally be temporary in nature and provide enhancements to mitigate system constraints triggered by operational conditions and/or construction activities, and not to influence or impact long term market competition. These are sometimes unique and bespoke solutions.

We agree that there should be a process for transferring certain solutions proposed under STCP 11-4 to BAU as part of the SO:TO incentive in RIIO-T3. This should be a phased process. Incentivisation remains critical to drive these schemes, which can make huge consumer savings, but would not be incentivised sufficiently if only included in the incentive once. The installation of an 'off the shelf' solution does not always mean that bespoke risks or issues don't exist, given the nature of the Transmission network and wider impacts on project delivery.

Therefore, we propose that there is a phased transition to business as usual with a step down in incentive sharing factor from 90:10 in the short term, followed by a lower sharing factor rate in the medium term 95:5, before no sharing factor is required once a solution is BAU.

The solutions that transition to BAU should be focussed on schemes that are repeatable, have very low repeat costs, and have no significant asset health or wider negative impacts. Projects such as Dynamic Line Rating (DLR) and temporary by-pass circuits are potential solution types that could transition to business as usual. This approach allows for a glide path to BAU through building up



increased knowledge on delivery and associated risks while continuing to deliver significant consumer savings.

In summary, we agree there is scope to transition certain solution within the SO:TO incentive to business as usual, using a phased approach. We are keen to work with Ofgem and the other TOs on developing a methodology to ensure the transition of eligible solutions into Business as Usual.

**ETQ26** What are your views on our proposal to retain the blended constraint cost savings, the 90:10 sharing factor, and the current windfall gain protection mechanism?

We are in favour of the current blended constraint cost saving mechanism, offering up to 10% cost sharing with the TOs based on 50% of the NGESO's forecast constraint savings plus 50% of the actual outturn constraint savings. This approach will continue to provide the TOs with an adequate incentive to bring forward schemes under STCP 11-4 whilst delivering significant consumer benefits.

To progress schemes under STCP 11-4 we consider the 'opportunity cost' and 'risk cost' of diverting resources from other investment works. We make decisions on the resources needed to identify and develop potential STCP 11-4 schemes based on the NGESO's forecast of the potential forecast cost benefit. If we were unable to guarantee an outturn constraint saving, we would be reluctant to pull resources from priority work where the incentive to do so is not strong enough.

A significant portion of the energy generated on our network is from renewable sources such as wind. The intermittence of wind generation means when the NGESO calculates the outturn constraints, the intensity of the wind, and other factors, determines the level of energy constraint. Too high a weighting on outturn constraints would mean agreeing to deliver schemes at risk, with the higher possibility of not achieving a reward that reflects the time and resources required to develop and deliver the enhanced service. Furthermore, it would create the unintended consequence of incentivising TOs to progress schemes they believe the NGESO will be more likely to use to ensure certainty of an incentive reward, while not progressing projects that may have less certainty of being required but if delivered may achieve very high consumer benefit.

**ETQ27** We welcome your feedback on the SO:TO incentive scheme, and how we can ensure that it aligns with the long-term CSNP network planning and investments.

We believe continuation of the SO:TO optimisation scheme is essential to incentivise delivery of a sufficient range of services and solutions to reduce the NGESO's operational costs. Extending the scheme timescales is also important to enable delivery of solutions. This will allow adequate time for analysis and scheme development, followed by agreement and approval between the TO and NGESO, and then the TO's detailed design, equipment procurement, and final installation and commissioning.

The later years of RIIO-T2, and the whole RIIO-T3 period, will experience significant outage and construction activity necessary to modernise and upgrade the network to contribute to GB's longer term net zero targets. This will include major works on the East Coast network, across the critical B02 boundary circuits, and the B04 cross-border circuits with SPT, where major constraints are incurred. This will bring significant challenges to the NGESO when balancing the GB network, particularly with

the added impact of reduced baseload (stable) generation in Scotland, and greater reliance of intermittent (less stable) renewable generation. The SO:TO incentive scheme will encourage and promote wider application of enhanced services and solutions provided by TOs to support the NGESO's in balancing the GB network, managing complex and extended outage events, and reducing constraint costs down to acceptable levels.

The long-term CSNP network planning and investments should bring earlier NGESO input to the TOs long-term outage planning. This would allow the NGESO to advise on the overall system benefits of different build approaches, which may require more expensive project builds but deliver lower whole system costs when constraints are considered. This will give visibility of outage costs to the TOs when planning project delivery and give the NGESO visibility of the project costs for different outage arrangements. This earlier engagement between NGESO and TOs should help to identify SO:TO optimisation (STCP 11-4) type solutions as part of the TOs' optimal project solutions.

New methodologies for evaluating projects costs may need to be considered to distinguish between baseline delivery costs and enhanced services costs, and a modified SO:TO optimization applied to ensure the TOs are still pro-active in finding solutions which continue to assist the NGESO in reducing operational constraint costs.

## New Infrastructure Stakeholder Engagement Survey ODI-R

ETQ28 What are your views on whether and how TO customer service performance should be incentivised or enforced during RIIO-ET3, over and above the incentives and obligations described elsewhere in this chapter?

We believe that the current incentives and obligations in place are driving positive customer service, and that any new obligations should be carefully considered to ensure they deliver benefits beyond the already high levels of satisfaction we see from customers connecting to our network, as well as wider stakeholders.

As noted in Q22-24, the ongoing focus on connections reform means that there may be opportunities to adapt the current incentives to ensure they remain fit for purpose as industry moves towards a new connections process. We expect further clarity on this by summer 2024 which may impact our views on additional measures that could drive TO customer service performance in RIIO-T3 beyond the incentives that are currently in place.

## CSNP Coordination

ETQ29 What is the most effective way of ensuring collaboration between the FSO and the TOs, to ensure the delivery of high-level design of CSNP options?

We believe that value can be found from greater collaboration between TOs and the FSO during the option design phase. Current arrangements can be somewhat transactional, where a range of options and their technical capabilities are provided by TOs, and their benefits calculated by the ESO.

This approach can miss opportunities to add value through simple modifications to the initial option designs or overlook the interaction an option has with other system requirements such as facilitating connections, asset condition intervention, or operational performance.

The stability pathfinder solutions in the north of Scotland are an instance where we believe the opportunity for further consideration of wider system developments may have resulted in different overall designs emerging. In future, this could be improved by giving careful regard to how much detail is necessary with respect to system problems and how they may be solved. For example, being overly prescriptive regarding connection points for specific solutions may, in some instances, risk suboptimal solutions.

We believe further value can be realised by the appointed delivery TO undertaking a suitable level of environmental assessment, taking advantage of their field-based experience and knowledge. This will help better inform the practicability of solution options before bigger, strategic consideration lying with the FSO are accounted for.

The introduction of short term and long-term planning horizons within the CSNP is positive, however, in order to ensure delivery of successful high level design options, there will need to be an ability to iterate the overall solution in order to take any significant change of need into account.

The FSO will need to be mindful of potential barriers to collaborative working that may arise due to competition. The development of the HND co-ordinated solution has shown the risk of this where there has been some reticence among various offshore developers regarding sharing details of their projects and design intentions. As the GB system becomes even more interconnected, the FSO will also need to work in an increasingly multi-lateral manner across all players in order to facilitate the coordination of CSNP schemes between TOs, CATOs and OFTOs where applicable.

**ETQ30 Do you agree that there should be a licence obligation on the TOs to engage and collaborate effectively with the FSO to ensure the delivery of the CSNP?**

No, we do not believe a specific licence obligation is necessary. The CSNP Governance document could set out the collaboration process between the TOs and the FSO. We have collaborated effectively with the ESO over many years regarding the existing NOA process set out in C.27 of the system operator's licence. This has been achieved without the requirement for a specific/targeted collaboration requirement within the transmission owners licence conditions. The collaborative and supportive efforts of the TOs have recently been acknowledged by the ESO<sup>9</sup>.

The requirements with respect to wider network planning are included within Part D: Planning and Co-ordination of the System Operator - Transmission Owner Code (STC). Once the respective roles and responsibilities of the FSO and TOs under the new energy system planning arrangements are clearly set out, the provisions within the STC can provide a sound basis for any further development of the measures necessary to ensure effective and collaborative engagement with the FSO.

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<sup>9</sup> [Section 7 of the TCSNP Governance Committee meeting minutes – 08/06/2023](#)



## Evolving the RIIO-ET2 approach to cost assessment for RIIO-ET3

ETQ31 Do you have any views on how the cost assessment methods used in RIIO-ET2 for load and non-load capex could be improved and/or simplified for RIIO-ET3? Do you think we should consider alternative and/or supplementary approaches to the assessment? If so, which?

We strongly encourage Ofgem to amend the RIIO-T3 cost assessment process to reflect the changing macro environment and the unique nature of the Electricity Transmission sector in terms of cost assessment. We think that where establishing efficient costs is difficult Ofgem should be open to alternatives such as direct cost pass through, coupled with an automatic within period adjustments.

Our preferred approach to cost assessment would be based on a qualitative assessment of our operational, delivery, procurement and contracting strategies. We think transparent costs tendered by the supply chain should form the basis of the cost assessment supported by wider value for money assessments. 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.

We believe the RIIO-T2 cost assessment approach for load and non-load capex used is no longer applicable due to the following reasons:

- i. Above inflation cost increases observed in RIIO-T2 which are likely to persist in RIIO-T3, with supply chain pressures expected to continue into future years. This makes data from previous price controls increasingly unsuitable and not reflective of the current market environment.
- ii. Difficulty in benchmarking within the Electricity Transmission sector, transmission investment is project driven, these projects are bespoke and not compatible with benchmarking and alternatives to traditional benchmarking need to be considered.
- iii. The step change in delivery requirements because of ASTI<sup>10</sup> and non-UK wider drivers for transmission investment further exacerbating supply chain volatility.

Previous price controls have seen the extension of economic modelling and regression analysis using historical observed data to inform allowances across most costs categories. In our view, historic data is not a good 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.

As an example of the cost volatility experienced in RIIO-T2, we have mapped the cost increases observed, including indexation to our general inflation measure CPIH, and Real Price Effects (RPEs) for several asset classes and project costs. For some assets costs have doubled, and indexation will not account for the increase observed and can only be explained by market constraints.

[REDACTED]

<sup>10</sup> [Decision on accelerating onshore electricity transmission investment | Ofgem](#). Regulatory approval and funding framework for onshore transmission projects required to deliver the Government's 2030 NZ ambitions, which will be known as ASTI projects, applies to an initial 26 projects.

<sup>11</sup> It is important to note that the definitions used to define the costs presented within analysis do not align with Ofgem's definitions under the RIGs/BDPT. This approach was used to ensure the greatest level of comparability of cost across projects. We will share this with Ofgem when completed.

[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED]

The three examples above clearly demonstrate the cost volatility seen by all network companies and we believe Ofgem needs to:

- i. reconsider cost assessment principles to reflect the macro-economic environment (Please refer to ETQ44 for our comments on RPE); and
- ii. include transparent costs tendered by the supply chain to form the basis of the assessment and supported by wider value for money assessments.

### **Cost Assessment Methodology**

We set out our key points on how the RIIO-T3 cost assessment methodology should evolve. In our view Ofgem should:

#### **1. Assess Procurement & Commercial Strategies**

Assessment and sign off from Ofgem of our Procurement & Commercial Strategy will show that we have taken all reasonable actions to demonstrate frontier value for money and efficient delivery within our capex plan. The capex cost assessment needs to consider value for money holistically and not focus on individual asset or activity benchmarking.

#### **2. Allow Evidence on Market Tested Costs and Rates**

We propose that the latest market unit rates and supply chain costs are used to set allowances for the RIIO-T3 price control. Costs have increased above inflation and current RPE's and regressions can't be used to set unit rates. Therefore, use market tested rates. Our justification papers and submissions will provide Ofgem these market evidenced costs where available, supported by our overarching cost book and procurement strategy.



### 3. Develop Cost Adjustment Mechanisms

Ofgem must allow appropriate within period cost adjustment mechanisms (upward/downward) to re-baseline these allowances once project costs are firm, if the cost change breaches a defined materiality threshold. This would be achieved through an automatic reopener, with an evolved Real Price Effects (RPEs) indexation mechanism adjusting for any further cost changes. This will minimise the potential detriment to consumers where a cost has been set inappropriately.

### 4. Informed benchmarking

Ofgem must limit benchmarking to cost categories and costs that have robust data sets– the starting point for any assessment should be whether the dataset is statistically robust and directly comparable across companies. In order to demonstrate how this cost assessment approach could work in reality, we have provided illustrative examples below across three scenarios.

#### Cost Assessment Methodology Worked Examples

For the purpose of the examples, we have assumed for the 'Cost Adjustment Mechanism' a cap and collar threshold of 5% in cost change to trigger the automatic reopener. It is also important to note that unit costs are for illustrative purposes only.

*Example 1 – 10km Underground cable (UGC) project*

Cost Assessment Stage	Example
Assess Procurement & Commercial Strategies	Ofgem review and approve Procurement & Commercial Strategy to ensure we have taken all reasonable actions to demonstrate frontier value for money and efficient delivery.
Allow Evidence on Market Tested Costs and Rates	The market evidenced cost for Underground Cable is £4m/km. Therefore, the installation of 10km of UGC costs £40m.
Develop Cost Adjustment Approaches – Automatic Reopener	<p>When the project is fully costed the actual cost of delivering the project is £34m.</p> <p>Given this cost change is outwith the materiality threshold of 5%, the automatic reopener <b>would be triggered</b> and adjusts allowances to £34m.</p> <p>TOs would evidence the cost change through provision of final contract costs etc via a streamlined approach. £34m would become the new baseline allowance.</p>
Develop Cost Adjustment Approaches – Evolved RPEs	<p>The price of input materials &amp; labour increases above inflation which is reflected in the evolved RPE Mechanism. This provides an additional £1.5m of allowances.</p> <p>The total cost of the UGC is £34m (plus £1.5m RPE allowance)</p>

*Example 2 – New build 275kV Substation*

Cost Assessment Stage	Example
<b>Assess Procurement &amp; Commercial Strategies</b>	Ofgem review and approve Procurement & Commercial Strategy to ensure we have taken all reasonable actions to demonstrate frontier value for money and efficient delivery.
<b>Allow Evidence on Market Tested Costs and Rates</b>	At cost assessment the market evidenced cost for a new 275kV substation is £50m.
<b>Develop Cost Adjustment Approaches – Automatic Reopener</b>	<p>When the project is fully costed, the actual cost of delivering the project is £52m.</p> <p>Given this cost change is within the materiality threshold of 5% of capex, the automatic reopener <b>would not be triggered</b>, with the Totex Incentive Mechanism sharing the overspend between the network and consumers.</p> <p>This baseline allowance remains at £50m as set through cost assessment.</p>
<b>Develop Cost Adjustment Approaches – Evolved RPEs</b>	<p>The price of steel increases which is reflected in the evolved RPE/Price Adjustment Mechanism and provides an additional £3m of allowances.</p> <p>The total cost of the substation is £52m (plus £3m RPE allowance)</p>

*Example 3 – 20km 400kV Overhead Line new build project*

Cost Assessment Stage	Example
<b>Assess Procurement &amp; Commercial Strategies</b>	Ofgem review and approve Procurement & Commercial Strategy to ensure we have taken all reasonable actions to demonstrate frontier value for money and efficient delivery.
<b>Allow Evidence on Market Tested Costs and Rates</b>	The market evidenced cost for OHL is £3m/km. Therefore, the installation of 20km of UGC costs £60m.
<b>Develop Cost Adjustment Approaches – Automatic Reopener</b>	<p>When the project is fully costed the actual cost of delivering the project is £68m.</p> <p>Given this cost change is outwith the materiality threshold of 5%, the automatic reopener <b>would be triggered</b> and adjusts allowances to £68m.</p> <p>TOs would evidence the cost change through provision of final contract costs etc via a streamlined approach. £68m would become the new baseline allowance.</p>
<b>Develop Cost Adjustment Approaches – Evolved RPEs</b>	<p>The price of input materials &amp; labour increases above inflation which is reflected in the evolved RPE/Price Adjustment Mechanism. This provides an additional £2m of allowances.</p> <p>The total cost of the OHL project is £68m (plus £2m RPE allowance)</p>

It is clear from the evidence set out above on cost volatility, that a significant change to the current cost assessment approach is required. Our proposed cost assessment approach will protect TOs and customers from the material costs movements, while allowing Ofgem to set costs ex ante with confidence.

## **Market Tested Costs**

To allow Ofgem to set allowances based on the most recent market costs with confidence, we will provide significant and robust evidence of how these costs have been derived. This will be provided across a number of submissions.

1. **Procurement and Commercial Strategy:** As noted above, this will set out how we have taken all reasonable actions to demonstrate frontier Value for Money and efficient delivery within our investment programs.
2. **Cost Books:** We will provide robust and detailed cost books with current framework rates, recently tendered equipment, civil labour costs to evidence how our costs have been built up and the source data for that cost.
3. **EJP and project submissions with site/project specific costs:** Transmission projects are by their very nature bespoke, with each project or site having bespoke or unique challenges based on complexity, access, or ground conditions. Within our individual submissions we will provide robust justification and evidence of these costs to allow Ofgem to set allowances.
4. **Regional Factors Assumptions:** Given the varying topography of our network area and the impact that this can have on costs. We will provide evidence of overarching regional cost drivers through our cost book and submissions.

## **Project Assessment Model**

We are concerned that Ofgem are continuing to evolve the RIIO-T2 approach, focusing attention on refining the Project Assessment Model (PAM), when a new approach to cost assessment is needed for RIIO-T3. As described above, the unit costs cannot be used as the benchmark for efficiency given the significant increase in costs experienced over the last few years due to inflation in the transmission sector, commodity markets and supply chain constraints means that the output from the PAM will be limited and inappropriate.

## **Alternative Approaches Considered**

**Cost Pass Through of Unit Costs:** Rather than consideration of potential efficiency, unit cost benchmarking and engineering review. Unit costs would be treated as passthrough in the price control. This approach has the advantage of regulatory simplicity, but it is not compatible with ex ante allowance setting and the efficiency incentive.

However, in our view the option for cost pass through should be retained as a pragmatic option to be applied where cost variances cannot be adequately defined or addressed via RPE and in period cost adjustment mechanisms.

In summary, we are keen to work with Ofgem and the other TOs through the Cost Assessment Working Groups (CAWG) and bilaterally to develop a cost assessment approach that is appropriate for the Electricity Transmission sector and encourage flexibility rather than a one size fits all cost assessment approach.



ETQ32 Linked to ETQ30, do you have any views on how the cost assessment process could be adapted to capture multiple drivers and address the needs of evolving cost categories for 'shared drivers' schemes?

We do not believe there should be a separate cost assessment approach for schemes which have shared drivers.

Schemes with shared drivers (load and non-load) should follow the same cost assessment approach to schemes that are only load or non-load. We see no reason why schemes with multiple drivers need to be assessed in a different way. The proposed approach to cost assessment for capex, set out in response to ETQ31 would be able to be applied to schemes with multiple drivers.

In our view, regardless of the driver or need for the project, the cost assessment process should be consistent. A pound spent on a load driver project should be assessed in the same way as a pound spent on a non-load project. We therefore see no reason why alternative approaches should be taken to account for these different drivers.

ETQ33 Do you have any views on how the cost assessment methods used in RIIO-ET2 for non-operational capex could be improved and/or simplified for RIIO-ET3? Do you think we should consider alternative and/or supplementary approaches to the assessment? If so, which?

We agree with the cost assessment approach used during RIIO-ET2 for non-operational capex, however we would like to highlight some suggestions below which could enhance the process.

We cover each category of non-operational capex in turn.

#### **Property**

We agree with the cost assessment approach used at RIIO-T2. We feel the main assessment approach should be a review of the justification paper to understand whether the need and costs are mature enough, at the point of RIIO-T3 plan submission, for allowances to be set. However, any historical rate analysis should be used as a guide only.

#### **Small Tools and equipment**

This cost category is tied to operational activity so we feel that the cost assessment approach should mirror that being suggested for NOCs (see response to ETQ34). This would rely on expert review of the submission and triage of TO's submissions to understand variances. We would also suggest that a proportionate cost assessment approach is considered given that this cost category is small.

#### **Vehicles and Transport**

We agree with the cost assessment approach used at RIIO-T2. Where TO's are purchasing vehicles, a historical trend analysis and volume assessment would be appropriate.

#### **IT&T**

We agree with the cost assessment approach used at RIIO-T2. However, we would ask that Ofgem provide guidance on the assessment criteria and scope of the expert review, alongside the Business Plan Guidance.

In conclusion, we largely agree with the cost assessment approach used at RIIO-T2 for non-operational capex but have suggested a few minor clarifications and tweaks to improve the process.

ETQ34 Do you have any views on how the cost assessment methods used in RIIO-ET2 for network operating costs could be improved and/or simplified for RIIO-ET3? Do you think we should consider alternative and/or supplementary approaches to the assessment? If so, which?

We are currently achieving 100% network reliability in the RIIO-T2 period and delivering value for money for consumers via our drive for efficiency. In 2022/23 we delivered security of supply for consumers via our NOCs regime for 3.62% of our Totex - Ofgem's RIIO-T3 assessment should reflect the value for money this represents.

Continuing to achieve network reliability and meeting customer needs, requires appropriate allowances that recognise the changing nature of our network; we are installing increasingly complex infrastructure at scale. Through our programme of works for RIIO-T2 and future works in our ASTI, LOTI and RIIO-T3 programmes, our network is set to change fundamentally in terms of size, complexity and increasing levels of north to south power transfer.

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. Therefore, we believe a new approach to cost assessment for Network Operating Costs (NOCs) is required to reflect the challenges we will face in the new piece control.

RIIO-T2 assessment consisted of a historical unit cost approach and we believe this will not be appropriate for assessing our RIIO-T3 costs, due to the following reasons:

- With all the work programmes required to help deliver net zero, our network will grow significantly in size and complexity, which will provide many different challenges from ones seen in previous price controls. We believe using historic data to assess RIIO-T3 would not reflect these challenges.
  - In many instances, the assets we are installing are larger and more complex, which will require expertise (see LTSA comments below) and additional resources in a competitive pan-European market to ensure they are operating efficiently, therefore resulting in higher costs – **Unit Cost Impact**
  - In addition, as our asset base increases, the volume of inspections, maintenance and repairs are likely to increase proportionally to the numbers of assets – **Volume Impact**
- The NOCs data gathered during the RIIO-T1 period is no longer an appropriate comparator given the levels of above-inflation increases in costs since the start of 2022. Both the cost of materials and labour have increase above the rate of CPIH inflation since the RIIO-T2 price control was set, and as such the cost of any NOCs activity has increased proportionally.
- The RIIO-T1 data set was captured at a very high aggregated cost level (i.e. total spend per NOCs category, with no volumes) and any attempt to break this down into the RIIO-T2 RRP Asset Possibilities level will require more broad assumptions that will lead to inaccurate unit cost data, which was also explained to Ofgem during the RIIO-T2 business plan submission. For example, RIIO-T1 data for Repairs was captured along with Faults, and Maintenance along with Inspections. These were not separately defined and monitored activities at the time within the

RIGs and our own internal systems were not set up to capture activities at the level of detail required within the RIIO-T2 RIGs.

- The data set collected through the RIIO-T2 RRs is incomplete and not reflective of a full cycle of operating our network. Much of our inspections and maintenance regime takes place over a 4–6-year interval, which means the existing RR data represents a very narrow set of actual incurred costs. Any attempts to apply RIIO-T2 unit costs in a forward-looking sense will require we either extrapolate data from a relatively small data set across our entire network, or we include some element of the forecast expenditure for the remainder of the price control in any unit costs calculations. Either of these approaches will require broad assumptions and will lead to inaccurate setting of allowances.

We therefore believe a change in cost assessment approach is necessary for this category of costs. We set out our initial views on how this assessment approach would work below:

#### **Exclude Long Term Service Agreements (LTSAs) and Service Level Agreements (SLAs)**

Long Term Service Agreements (LTSAs) are in place whereby Original Equipment Manufacturers or other specialist third parties provide knowledge and services to support effective maintenance and repair of our assets. This includes providing operational and maintenance services following the installation of specialist equipment (both HVDC and HVAC) to ensure guaranteed levels of service.

We propose that for RIIO-T3, Ofgem separates out costs for assets under LTSAs and SLAs and review these separately from other NOCs activity. We anticipate a major cost driver for our RIIO-T3 request will come through LTSAs and SLAs for the inspection and maintenance of new, novel assets on our network.

These agreements deliver consumer benefit in the form of known costs for servicing of new assets on the network that we have not yet developed expertise in operating and guaranteed levels of availability and access to OEM expertise for these assets. LTSA costs in particular will be of significant materiality and assessing these at the same level of our other NOCs would not be a proportionate approach.

#### **Qualitative review of NOCs**

For our non-LTSA and SLA NOCs, we propose Ofgem undertakes a staged process of expert review.

- **Stage 1 – Submission Review:** Ofgem should review each TO's NOCs submission to gain a high level of understanding of their respective operational strategies for the RIIO-T3 period, the level of growth anticipated on the network and the types of projects and assets driving this growth.
- **Stage 2 – Triage/Materiality Assessment:** Given the wide range of costs associated with operating the network, we propose Ofgem undertakes a process of triage to determine which categories to focus its assessment on to drive value for money for consumers.
- **Stage 3 – Focussed Expert Review:** Once Ofgem has identified key areas of concern, if any, it should undertake a more in-depth expert review of our submission. This should focus on the data and expertise we have utilised to establish our RIIO-T3 forecasts.

In addition, any large one-off expenditure on operational activity should be assessed separately as part of this qualitative review, for example on any refurbishment programmes related to activities like tower painting or substation refurbishment. In our view this is a more proportionate and transparent approach than that used for setting NOCs allowances in RIIO-T2.



Ultimately, we see activity that comes under NOCs is a critical part of our role as a TO. This day-to-day activity is high value to consumers and low materiality in the wider context of the price control and our Totex. Ofgem's assessment approach for RIIO-T3 must be more pragmatic than that used in RIIO-T2.

ETQ35 Do you have any views on how the cost assessment methods used in RIIO-ET2 for indirect costs could be improved and/or simplified for RIIO-ET3? Do you think we should consider alternative and/or supplementary approaches to the assessment? If so, which?

In principle, we agree with the use of econometric benchmarking for Indirect costs, as ultimately the activities undertaken across the three TO's in this space should be similar and therefore to a certain extent, comparable.

However, Ofgem must make an assessment as to whether the econometric models being developed are suitable for allowance setting by analysing the dataset, ensuring best practice econometric modelling principles are followed and only assessing indirect costs which are not related to the capex growth programme.

#### **Challenges for indirects cost assessment**

Ofgem must recognise that the structural break that can be witnessed in capex can also be witnessed within indirects. A higher level of indirect activity may be required to manage and deliver more complex projects during the RIIO-T3 period, this includes increased levels of closely associated indirects and business support costs.

In addition, there are issues with data comparability and changes in reporting practices, including that proposed for contractor indirects reporting which may make the econometric dataset less comparable to historical time periods.

These challenges may mean that the historical data is no longer reflective of the future and the use of the econometric models are not suitable for cost assessment.

#### **Changes for indirects cost assessment**

To guard against inappropriate modelling, when developing econometric models for RIIO-T3, we ask that Ofgem:

- **Assess the dataset, by using cross checks, following Business Plan submission, and consider whether the data submitted is comparable to the historical dataset, this could include:**
  - Assessing whether the submissions are materially different from the historical data set (i.e. all three TO's submissions are significantly higher than historical indirect spend)
  - Whether the output of the historical models is close to the submitted business plans or not.
  - What the impact of including the forecast data is within the modelling, as systematic under or over allowance against the submissions may suggest another approach is needed
- Ensure econometric modelling best practice principles are followed, such that any modelling is statistically robust, is based off economic and engineering justification, is transparent and relevant and can be replicated.

This would ensure that the modelling can be assessed as appropriate before starting to use it for allowance setting.

### **Model Approach**

We believe there are two likely modelling approaches, gross total or disaggregated, both of which have their merits and drawbacks. Further work is required on impact on modelling, however, due to lack of other TO data, it would be difficult to differentiate between the two approaches.

#### **Gross Total**

For Cost Assessment, similar to RIIO-T2, the indirect costs could be modelled at total gross level (excluding IT&T), and potentially include ASTI costs. This would prevent the outcomes being affected by cost splits that are not reflective, however the outcome could be skewed with bespoke expensive projects.

#### **Disaggregated**

As part of the Cost Assessment Working Group, the splitting of closely associated indirects (CAIs) into those related to the capex growth programme (i.e. very CAIs) and those that are related to keeping the lights on and maintaining and renewing the existing network (i.e. not so CAIs) has been proposed. Further work is required on the definitions of this new split in reporting, including incorporating business support costs.

With the proposed split, we would expect each set of costs being assessed differently:

- Indirects related to keeping the lights on and maintaining and renewing the existing network should be assessed through econometric modelling. We would need to be able to split out the relevant Capex and MEAV to give fair modelling parameters.
- Indirects related to the capex growth programme are less comparable between TO's due to the different contracting and delivery strategies related to the ASTI, LOTI, and load programmes. In addition, our delivery model for the RIIO-T3 period will need to evolve from previous price controls to ensure successful delivery and therefore our indirect costs will be reflective of this change.
  - Indirects related to these growth programmes should therefore be reviewed separately as part of any capex (load and non-load) assessment (see response to ETQ31) or as part of a Project Assessment reopener submissions.

Disaggregated approach has many advantages including more qualitative assessment of indirects on capex resulting in more reflective allowances. However, it also comes with many disadvantages, including:

- i. model application;
- ii. split of very and not so CAI may be difficult; and
- iii. economies of scale may be lost with costs being double counted.

Both approaches need to be considered. We would be happy to support any additional work required to provide a more reflective modelling outcome.

### **Data and modelling challenges**

In addition to the points raised above, Ofgem must consider the impact of any changes in reporting that may impact the dataset, which includes the changes proposed around contractor indirects reporting following changes to the 2022/23 RIGs consulted on last year. These changes may have a

significant impact on reporting practices as TOs may not have been historically capturing data in a way to accurately reflect the requested changes, resulting in high level assumptions being made to split costs and potentially make any forecasts not comparable to historical data. The impact of this must be assessed and considered when developing econometric models.

The modelling of indirects also relates closely to the calibration of the Opex Escalator and we remain concerned that it will not be possible to calibrate the Opex escalator appropriately, given the points raised above. Given these challenges, we are therefore strongly in favour of removal of the Opex Escalator from the price control (see response to OVQ42 for more information).

#### **Cost drivers and weightings**

Further work is required to understand the appropriate cost drivers and weightings within any econometric models. We have provided a response on the issue of a methodology for MEAV in response to ETQ37.

#### **IT&T indirect costs should be separately assessed**

In addition, we agree with IT&T costs being reviewed and assessed separately by experts. These types of projects are distinct and have independent cost drivers due to the nature of individual IT infrastructure on networks.

**ETQ36** Do you have any views on how the cost assessment methods used in RIIO-ET2 for other costs could be improved and/or simplified for RIIO-ET3? Do you think we should consider alternative and/or supplementary approaches to the assessment? If so, which?

We agree with the cost assessment approached used at RIIO-T2 for other costs. For physical security, we agree that these should be assessed in a similar manner to capex, with need assessed through our submissions and cost assessment of bottom-up cost based on latest market rates, following a review of each TO's procurement strategies. For more information on our views on capex cost assessment see our response to question ETQ31.

For cyber security, we agree that these should be separately assessed through an expert review, similar to IT&T costs.

**ETQ37** Do you have any views on how to evolve MEAV as a scale driver for RIIO-ET3? What other scale drivers could we consider?

This question is closely linked to the response of ETQ35. We believe MEAV as a scale driver is not perfect, but with some adjustments, we believe it is still largely fit for purpose.

#### **Potential Improvements**

We propose potential improvements, which require to be further investigated and would improve the use of MEAV, being:

- i. Standardising MEAV Unit Costs;
- ii. Correcting the MEAV Asset weighting; and
- iii. including / excluding company specific assets.



## Standardising MEAV Unit Costs

Standardising unit costs would take out any price variance when comparing each networks' MEAV. TOs will be able to multiply their asset volumes by these rates to provide fair comparative valuations of network size. This would take out any efficiencies or inefficiencies built into historic unit rates.

## Correct MEAV Asset Weighting

We believe the application of MEAV needs to be considered, for example, in econometric modelling of CAIs, per below:

- **Underground Cable vs Overhead Lines** – MEAV cost of underground cables would be significantly higher than overhead lines, which in theory would result in higher CAIs for underground cables. However, in reality, the level of CAI costs (planning, design, and project management) are similar.

The above example could result in CAI underfunding for assets, which may be less expensive in capex to deliver. This would also be beneficial for TOs that have more expensive network (i.e. more underground cables than overhead lines), therefore higher MEAV and higher modelled CAI. We believe further work is required to ensure the use of MEAV is fair and reflective.

## Including / Excluding Company Specific Assets

We believe there are many company specific assets (including higher voltage assets, subsea cables, etc.) which may inflate the MEAV size and provide an unfair comparison. If these assets are excluded from MEAV, then specific costs associated with these assets would also need to be excluded from econometric modelling and assessed separately.

The proposed changes and considerations above to the cost driver need to be fair and consistent to all TOs, ensuring that it appropriately estimates the size of each TO. In addition, there is limited time for the TOs and Ofgem to agree significant changes to the methodology for MEAV in a meaningful way which will still provide a fair, consistent and appropriate network scalar, and cost driver for modelling purposes.

Any potential changes must not be rushed. It is important for any changes to be fully understood and their impact analysed before making any significant changes to the scale driver used in the regressions. We intend to work with Ofgem and the other TO's through the Cost Assessment Working Groups to explore possible changes and the application of the scale driver.

**ETQ38 Do you have any views on how the cost assessment process could address the market volatility and supply chain challenges that the sector is facing?**

The approach to cost assessment must consider and address the market volatility and supply chain challenges that is currently being experienced within the electricity transmission sector.

We have provided evidence to Ofgem previously of the impact of these challenges on our business, including increasing lead times for key equipment, increased costs across our portfolio (both capex and opex) and supply chain capacity being severely constrained.

We have set out in response to other questions how we feel the cost assessment approach needs to adapt to these challenges. We summarise the key points below for each category.

- **Capex:** Capex cost assessment must adapt to reflect these challenges. In response to ETQ31, we set out that assessment of each company's submissions to understand the need, scope and cost of each scheme, and an assessment of the TO's procurement strategy to verify whether the unit costs used are reflective of market rates. Any use of the PAM for benchmarking should be limited to categories that have robust datasets.
- **NOCs:** NOCs cost assessment must adapt to reflect these challenges. In response to ETQ34, we set out that the approach should be to review the submissions to confirm need and scope of NOCs during the RIIO-T3 period, followed by deep dives of any areas where there are variances out with expectations. Any long-term service agreements must be excluded and assessed separately. Also, any costs that are one off bespoke expenditure should be assessed separately.
- **Indirects:** In response to ETQ35, we set out that in principle we support the use of regression modelling as long as; (i) appropriate cross checks on the data set are performed (to guard against inappropriate modelling); (ii) impacts from different modelling approaches, including cost driver weightings, are considered and reflect the volatility seen by Network companies; and (iii) the models are not overly complicated or restrictive like the Opex Escalator.
- **RPEs:** In response to OVQ44 and OVQ45, we set out that supply chain indexation could be treated as pass through in order to address market volatility and supply chain issues. A price adjustment mechanism must be introduced in order to protect both TOs and Consumers from the effects of inflation, exchange rate fluctuation and other market shocks.

In conclusion, we have set out that the cost assessment approach must adapt to reflect the market volatility and supply chain constraints currently being experienced within the electricity transmission sector.

**ETQ39** Do you have any views on our initial thinking around the role and potential evolution in RIIO-ET3 of the UMs listed in Table 9?

In RIIO-T3 uncertainty mechanisms will have a key role to play in managing cost and timing uncertainty during the price control operation. We largely agree with Ofgem's view on the RIIO-T2 uncertainty mechanisms within Table 9 in the SSMC ET Annex document. We support the continued review of evolving the RIIO-T2 mechanisms and replacing those that are not required for RIIO-T3 with new mechanisms that address current and future uncertainties.

Figure 9 below sets out our initial view on the portfolio of Uncertainty Mechanisms we believe are needed for RIIO-T3. It is important to note that this is an initial view and subject to change as we develop our business and is subject to change. We have retained a number of evolved RIIO-T2 mechanisms and proposed a number of new mechanisms for RIIO-T3 which reflect the aggregated impact of ASTI and other network developments. In our view the individual reopeners should be aggregated up into five overarching reopener areas.

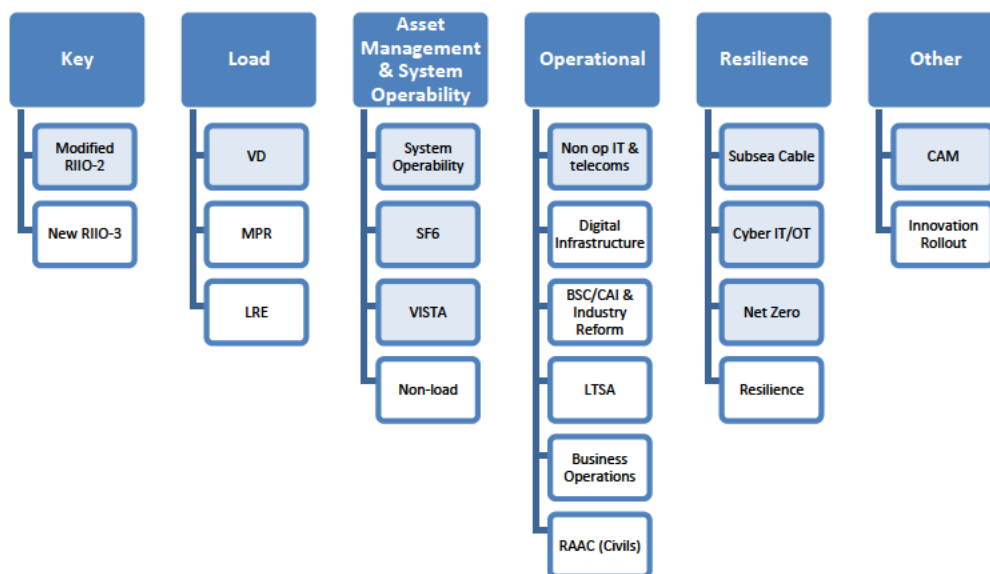


Figure 9 - Uncertainty Mechanism Framework

The Major Project Regime and work ongoing on the load related reopener and volume driver mechanism will create mechanisms to handle load uncertainty. These are discussed in more detail within question ETQ1-ETQ9 and will not be covered in detail within this response.

Within this response we will cover the wider uncertainty mechanism framework to allow networks to respond to the impacts across our business areas (System Operability, Non-Load etc.) during the RIIO-T3 period. As noted above we propose that certain UMs are evolved and rolled over from RIIO-T2 along with new mechanism to address known and evolving uncertainties.

Our key asks for Ofgem 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 (TIM and Cap & Collar). For any reopener related to common digital infrastructure, network resilience or security, the materiality threshold should be set at zero.

Regarding cost-only pathways, the key example is atypical volume driver projects driven by connection requests. For these projects, the need is demonstrated as companies are obliged to provide connections, so the reopener's purpose is to establish an efficient cost.

In addition, we are proposing that the non-load components of the current MSIP reopener are disaggregated into separate mechanisms or allocated to more appropriate reopener, for example having a Non-Load reopener that covers those activities. We think these changes will make the purpose of reopeners easier to understand and process. We provide further detail and rationale of each uncertainty mechanism in Table 2.



Table 2 - Uncertainty Mechanism Overview & Rationale

Reopener	Overview & Rationale
NLRE Reopener	A reopener to allow for funding for NARM projects during the RIIO-T3 period. Need may be confirmed through the business plan.
Business Operations	A reopener mechanism to provide allowances for activities driven by but not directly funded through the ASTI/MPR framework but have a wider and enduring business use.
Business Support Costs & Industry Reform	A reopener mechanism that will adjust our BSC & CAI allowances to reflect requirement for business growth driven by but not directly funded through a capital delivery program. For example, CSNP publications or significant industry reform decisions.
Resilience Reopener	Ofgem proposed reopener covering climate, physical and engineering standards.
IT/OT & Cyber	Rollover the existing reopener mechanism from RIIO-T2 with evolution of calibration e.g., window frequency.
Co-Ordinated Adjustment Mechanism	Rollover of the existing RIIO-2 CAM mechanism.
Subsea Cable	Rollover from RIIO-T2 mechanism to deal with High Impact Low Probability (HILP) identified via inspections or event via third party damage.
Innovation Roll Out	A reopener mechanism to streamline the implementation of innovative solutions. With innovation developed and proven by one party, there is still an element of risk associated with implementing that innovation by other networks that requires an alternative approach to BAU, given the additional risks.
System Operability Reopener	A reopener mechanism for system operability needs to be identified by either the NESO or network. As the network grows with a mix of technology types (HVDC etc.) there is a need for a flexibility mechanism to allow solutions to be implemented.
Civils (RAACs) Reopener	Given the current issues identified with RAACs we are undergoing a program to identify where RAACs may be present. The scale and costs of the works identified are uncertain and therefore a reopener is required to fund these works.
Net Zero Reopener	Evolution of the current RIIO-T2 reopener mechanism. Please see our response to OVQ35.
VISTA	Please see our response to ETQ11.
SF6	A reopener to allow us to intervene on assets at sites containing SF6. This will also provide allowances to account for any policy changes around SF6 that materialise within RIIO-T3.
Digital Infrastructure	A reopener to allow us to respond to industry driven requirement to deliver the digital infrastructure to meet future digital outcomes identified during RIIO-T3.
Long Term Service Agreement Reopener	Agreements required due to patent restrictions, resource limitations or contractual provisions, which means that servicing must be carried out by the Original Equipment Manufacturers.

We are continuing to develop the uncertainty mechanisms we need as the business plan process progressed to December and how these will be calibrated. Therefore, Ofgem should allow networks to propose bespoke or additional UMs as part of the business plan submission. In summary, we support the need for a strong, flexible, and fast-moving uncertainty mechanism framework that will allow us to secure the allowances needed to deliver for consumers.

## ET Business Plan Data Templates

ETQ40 We invite views on current reporting requirements and structure at the cost category level and how this may be adapted to better suit RIIO-ET3 and related development of BPDT

We broadly agree that the current RIIO-T2 RRP pack provides a good basis for the RIIO-T3 BPDTs in terms of structure of the pack. However, we have concerns that the number of cost categories we currently report as part of the RRP process is not suitable for the RIIO-T3 BPDTs.

### Capex Tables

Our key concern is the level of detail Ofgem are looking to capture in terms of cost categories as the basis of meeting the objectives set out within the SSMC document is not appropriate given the varying levels of project maturity that will be submitted within the BPDTs. This is because the current data capture under the RRP provides Ofgem good insight into costs but is inappropriate for cost assessment as part of the RIIO-T3 BPDTs. We believe that cost data is aggregated within the BPDT's to an appropriate level (e.g. costs split by aggregated substation assets and project civils) with additional context around number of bays, for example.

The level of data availability and project maturity means that indicative asset volumes and costs may be available for certain RIIO-T3 schemes. Therefore, the following key points should be considered:

- For new RIIO-T3 schemes consideration must be given to labour intensity of collating this data and the value it would add, (given these volumes would be highly estimates) the anticipated ramp up within the current RIIO-T2 RRP and the reported cost and volume (C&V) data as we move through the RIIO-T2 Price Control in tandem with the RIIO-T3 business plan. Consideration should also be given to the quantum of C&V data that will be provided in future reporting years.
- New RIIO-T3 Schemes will vary significantly in scope and may not have tendered costs. Costs will be based upon our internal estimating process and therefore any cost allocation data provided would be circular in nature. We do not see the value in reporting this if data is to be used in an Ofgem benchmarking process.
- It should be noted that in recognition of the value of our enhanced C&V reporting we are trying to create and embed to embed more detailed asset volume reporting for all post Gate 3 schemes upon contract signature. That said, this would still only apply to projects post Gate 3. Therefore, internally collation of these indicative volumes does not help build on internal processes.
- The changes in reporting being introduced by Ofgem through the RIGs, which will reclassify direct activity into indirects as a result of changing the requirements around reporting of contractor indirects. We continue to believe this change will have unintended consequences and will not provide consumers benefit.

### Indirects Tables

In the current RIIO-T2 reporting for CAI and BSC, the total costs include both business as usual and uncertainty mechanism spends and they are not differentiated. Our concerns for RIIO-T3 include: (i) how will costs be populated in BPDTs, whether these costs need to be differentiated or not; (ii) if costs are to be differentiated, do we have to adjust retrospectively for previous price controls; and (iii) how will reporting of these numbers impact the econometric modelling.

Ofgem must consider the impact of the cost assessment dataset for RIIO-T3 of this change as it will introduce additional inconsistencies and distortions in the dataset and will make the historical dataset even more different to the future dataset for RIIO-T3 assessment purposes.

In summary, we agree that the RRP template is a sensible basis for the RIIO-T3 BPDTs, however have concerns around the applicability of the level of data capture Ofgem are looking to use in line with the RIIO-T2 RRP. We are keen to continue to work with Ofgem through the SSMC working groups to develop the RIIO-T3 BPDTs.



## Addendum 1: Additional detail on NARM

*This addendum provides further detail on our views on the NARMs framework to the summary included in the main response to OVQ22 on proposals for the NARM framework.*

We believe that aspects of NARM require a substantial overhaul (and not just evolutionary updates) as they have fundamental flaws. In our view Ofgem's proposals for the framework do not acknowledge the significant challenges NARM has created in RIIO-T2. The SSMC does not appear to address any of the feedback that the TOs have provided to date on the current framework. We have raised significant concerns with Ofgem during RIIO-T2, as in our view the current NARM framework is not fit for purpose as a Non-Load Output Mechanism.

### Funding Adjustment and Penalty Mechanism

As previously communicated to Ofgem (in our responses to the RIIO-T2 Draft and Final Determinations, and in subsequent correspondence) the costs of, and more significantly the LTRB for, asset interventions are very bespoke to the work required and there is no correlation between the two. To illustrate this fact, we took our 25 NARM Projects for RIIO-T2 and plotted the LTRB against cost which resulted in  $R^2 = 0.005$  (where 1 demonstrates perfect correlation and 0 shows an absence of correlation). This shows that for SSEN Transmission there is no direct relationship between costs and outputs and the methodology for calculating the Funding Adjustment and Penalty Mechanism is fundamentally flawed and not fit for purpose. This methodology produces significant windfall gains and losses when applied and impedes sound investment decision making.

The absence of correlation is more significantly attributable to variations with the outputs, rather than costs. The methodology for calculating a bespoke monetised consequence of failure coupled with the network topology, critical national infrastructure, and boundaries (by way of some examples) leads to potentially very similar interventions delivering outputs which can vary by orders of magnitude. The bespoke, high value, low volume interventions undertaken in Transmission (compared to distribution) further exacerbate this behaviour.

By way of further example, the Harris Stornoway OHL Project costs £36m (4.9% of Baseline Allowance) and equates to an LTRB of R£6,319m (72% of Baseline Outputs). If this project was not delivered in RIIO-T2, then applying the Funding Adjustment principle Ofgem would remove £452m of our RIIO-T2 allowance (60% of our Baseline Allowance). Such disproportional adjustments make it virtually impossible to make the right investment decisions without incurring very significant cost risk.

We have provided Ofgem further live examples where this methodology would produce illogical and unfair adjustments<sup>12</sup>.

Following our response to the RIIO-T2 Draft Determination the concept of Risk-Sub Categories<sup>13</sup> was introduced. Unfortunately, these cloud the situation further by combining different asset interventions into the asset category with the largest risk. For example, an OHL Conductor risk-sub category can be made up of conductor, fittings, and towers all with different risk profiles and costs.

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<sup>12</sup> NARM Funding Adjustment and Penalty Mechanism – Real Examples 13th July 2023

<sup>13</sup> For the Electricity Transmission, the NARM Funding Category A1 was further segmented into 7 Risk Sub-Categories. The NARM Funding Adjustment and Penalty Mechanism will operate independently for each Risk Sub-Category. Network companies should, however, still optimise their overall network-wide delivery and while there will not be any automatic trading between Risk Sub-Categories, network companies may be able to justify over-delivery in one Risk Sub-Category by reference to under-delivery in another.

This did inadvertently improve the situation of significant windfall gains and losses, even though this was not the intended result of this change. The smaller groups of assets have less variation from the Unit Cost of Risk (UCR) and so a smaller disproportionate adjustment. Windfall gains and losses above an acceptable magnitude are still present as per the example below.

In the case of the Harris Stornoway OHL Project an under-delivery would result in £53m of allowance being removed, still £16.4m more than the original Baseline Allowance. This is, a large improvement on the £452m reduction in funding without the risk-sub categories (as outlined above), but this windfall loss is still unacceptable.

The NARM objectives do not set out an expectation for funding to be linked to outputs, this is a concept that was introduced in the NARM Handbook.

The TOs proposed some changes to the way that Outputs and Funding are linked at the NARM Working Group 1 (29<sup>th</sup> Jan), and we are keen to further develop these alternatives with a view to implementing a solution that works for all parties.

Recognising the amount of time available to make changes to NARM for use in the RIIO-T3 Price Control setting Period, our preferred solution is to automatically ring fence all schemes where the scheme UCR falls outside the clearly identifiable threshold at price control setting. NARM would continue to be used as it is in RIIO-T2, however projects where there are potential windfall gains and losses would be treated individually. The process around calculating adjustments to the allowance and adding additional projects would need to be detailed so that timely investment decisions can still be made. There is simply insufficient time to investigate and potentially implement changes to the consequence of failure methodology to reduce the variability of outputs and make the current Funding Adjustment and Penalty Mechanism approach work.

#### **Clearly Identifiable Under/Over Delivery**

The concept of Clearly Identifiable Under/Over Delivery was brought in at Final Determination by Ofgem in response to the TO's concerns over the Funding Adjustment and Penalty Mechanism (as above).

Unfortunately, this attempted remedy is further evidence that the Funding Adjustment and Penalty Mechanism is not fit for purpose. For our submitted RIIO-T2 Business Plan we believe that 22 out of the 25 Projects (88%) "should" be considered Clearly Identifiable in the event of any changes from baseline. This means that most of our portfolio falls into a rule designed to catch exceptions only. If most projects are assessed as exceptions, then it is clear indication that the primary method of assessment does not properly accommodate the real-world scenarios faced in delivering projects.

The fact that closing out NARM will almost entirely rely on ex-post assessments – the very concept that it was brought in to prevent – strongly indicates that the UCR in NARM is not working.

Further to this the UCR thresholds (for Clearly Identified Over/Under Delivery) have not yet been defined by Ofgem. It remains a concern that almost 3 years into the Price Control there are no details in the NARM Handbook as to how allowances will be adjusted for Clearly Identifiable Projects, only that Ofgem will make an ex-post efficiency assessment.

This will be a burdensome process which does not give us confidence on the treatment of these projects at close out. Resultingly, TOs carry significant risk in managing project development of Non-Load projects and are unable to make timely decisions. Effective decision making for projects is also curtailed by a lack of transparency over how the projects will be treated at close out.

This is a particular concern where there is need for an additional project not originally submitted in the Business Plan or in the increasingly common situation, as we have illustrated to Ofgem previously, where Load-Related interventions change the delivery of the Non-Load interventions.

### **NARM Funding Across Regulatory Periods**

There are a number of factors outside of our control which make it increasingly challenging to deliver projects within the limits of a 5-year Price Control. For example, supply chain constraints: the lead time on transformers has increased from ~6 months to ~48 months, outages are being cancelled at the last minute by the ESO due to network constraints and the availability of outages is curtailed by the multitude of projects all requiring access to the network for the transition to Net Zero.

At present there is no mechanism to avoid a “cliff edge” at the end of the Price Control. Delays to the commissioning of assets can result in most of the allowance being spent but none of the outputs delivered due to potential for disruption coming from the circumstances noted above. This would lead to a situation where the full allowance is returned at Close-Out but then the project required submitting into the following Price Control’s Business Plan to obtain the allowance. This arrangement could become even more protracted where the project then goes on to be claimed as a justified over delivery at the end of the latter Price Control and returning the allowances an entire Price Control after they were first removed.

Network companies should not be penalised for a delay in delivery or non-delivery of NARM Outputs where the reasons for this are outside of their control. A framework should be developed within the NARM Handbook that has sufficient flexibility to account for this.

The TOs proposed some ideas around how this could work at the NARM Working Group 1 (29th Jan), and we are keen to further develop these ideas with a view to a pragmatic approach to projects which span Price Controls.

There are likely two scenarios that would need to be defined and documented in the NARM Handbook, depending on the severity of the delay:

**Scenario 1: Delays up to certain agreed date early in the following Price Control**

- Project is treated as delivered at close out (similar to RIIO-T1 COVID delayed schemes).
- Register set up (e.g. in RRP) to give early warning of delayed schemes to Ofgem.
- Justification of delays provided if required in format to be agreed.

**Scenario 2: Delays beyond agreed date**

- Project will need to be submitted in following Price Control Business Plan submission.
- Approved need is not re-opened.
- Justification for the delay to be set out.
- Phasing of spend and outputs delivery across current/future Price Control to be set out.
- Any changes to need/scope/cost compared to what was originally set out in the EJP detailed and justified.

### **Interaction with other Funding Mechanisms**

With the acceleration to reach Net Zero there has been a significant increase in Load-Related Asset Investment funded through other mechanisms. This is having an impact on the non-load investment funded through NARM as some interventions are no longer required or a different intervention is being undertaken on the asset funded through another mechanism. E.g. increased capacity asset.



Whilst this is not an under-delivery on our Network Risk Targets (because we are reducing the risk on our Network) they appear as an under-delivery in NARM because the outputs are delivered by a different mechanism. This then exposes them to the Funding Adjustment and Penalty Mechanism to remove the elements which no longer need funding through NARM. However as noted above, this interaction then causes uncertainty in the amount of funding left for the remaining NARM works due to the unpredictable windfall gains and losses the Funding Adjustment and Penalty Mechanisms produce. If these are classed as clearly identifiable under-delivery then the ex-post cost assessment rules are not clear and so we remain exposed to the risk of not having enough allowances to complete the NARM work.

The mechanisms for dealing with the interaction of NARM with other funding mechanisms need to be clearly set out in the NARM Handbook so that it is clear how this will work and how it will be treated at Close Out. We believe that there is a sensible position where interactions with load-based interventions removing the need for NARM interventions do not result in any unwarranted penalty. We have presented such a scenario to Ofgem and look forward to Ofgem providing further clarity on how this will be dealt with in RIIO-T3.

### **NARM Handbook Incomplete**

There are some sections of the NARM Handbook which are still incomplete. This document is the main point of reference for TOs in the application of the NARM Methodology and these gaps burden companies with additional risk and make decision making difficult (i.e. as the complete set of rules are undefined).

In particular, the UCR thresholds for clearly identifiable under/over delivery have not yet been defined in the NARM Handbook. There are also no details as to how allowances will be adjusted for Clearly Identifiable Projects. Given that we expect 88% of our projects to fall into this set of rules it is very important that these are set for RIIO-T2 as soon as possible and that they are defined in advance of the RIIO-T3 Business Plan Submission in December.

The specifics for how NARM funding across Regulatory periods should be treated should also be included in the NARM Handbook in advance of the RIIO-T3 Business Plan Submission in December.

The specifics of how NARM interacts with other funding mechanisms should also be detailed.

Other gaps or inconsistencies should also be dealt with so that the Handbook contains a complete set of rules and guidance on NARM. These should include the rounds of methodology changes that have been proposed, and for some, consulted on, by the licensees for proposed updates to be made to the NARM methodology documents. Where appropriate, these have been consulted on for stakeholder feedback, but still require Ofgem consideration to be integrated into the methodology.

### **Complexity of the LTRB Calculation**

The long-term monetised risk calculation was developed very late in the RIIO-T2 Business Planning process and is very complex and overly burdensome. The calculations are not consistent within the Transmission Sector with SPT and SSEN Transmission undertaking the approach set out by Ofgem and NGET using a different approach agreed unilaterally without input from the other TOs. The LTRB calculation would benefit from being simplified and a consistent approach adopted across companies. It might be possible to use some of the simplifications being used in other sectors e.g. Electricity Distribution.

## **Expanded Coverage of NARM Methodology**

We recognise Ofgem's ambition to expand the coverage of the NARM Methodology. However, the time taken to collect new relevant data, develop the models and undertake calibration testing and validation means that it is near practically impossible to have anything ready for either a draft submission of the NARM BPDTs in July 2024 or the final submission in December 2024.

For additional models to be included in the RIIO-T3 Price Control, work would need to start immediately following the December 2024 Business Plan Submission.

Including additional NARM assets is unlikely to improve the correlation of the costs and outputs as it is the variability of outputs (due to the topology of the Network) which are driving the lack of correlation (i.e. not the absence of more granular costs.) Adding additional asset categories is likely to exacerbate the issue.

We hope that this gives a useful expectation to Ofgem as to the possible pace of change to the NARM methodology and it should be considered in any further proposals towards cross-sector harmonising of NARM.

## **Reporting**

The NARM reporting in RIIO-T2 has expanded to 30 tables up from 2 tables in RIIO-T1. This pack is very onerous to populate, and it is unclear what value some of the tables bring.

As a minimum we would like Ofgem to address the feedback we have already provided based on the population of two years' worth of NARM RRP tables. These include suggestions on fixing erroneous formulae and improving the logic/ordering of the interventions to cut down on the number of calculations required (with no change to the final output).

In addition, we would like to discuss with Ofgem whether there are tables that could be reduced in complexity or removed altogether.

We would like to take this opportunity to note that the same people and systems help populate both RIIO-T3 BPTDs and the RRP. Ofgem should be mindful of this and support TOs in choreographing deadlines accordingly and confirming that completion of only the most valuable sections should be prioritised.

## **Non-NARM Asset Interventions**

Where we need to intervene on a non-NARM asset (e.g. current transformer), there is no mechanism to recover costs for justified over-delivery where the intervention was not included in the Baseline Business Plan. Non-NARM assets are vital to maintaining a safe and secure network and it is important that there is a mechanism to recover their costs.

## **Real Price Effects on Allowances**

Over the RIIO-T2 Price Control Period we have seen projects costs escalate much faster than the real price effects adjustments built into the licence. This means that many of our projects will over-spend in order to deliver the outputs set out in the NARM Workbook. There needs to be a method to adjust allowances fairly in line with external factors.

## **Engagement with Ofgem**

We have concerns about the lack of historical engagement and the lack of resource in the Asset Risk and Resilience Team at Ofgem to make the improvements necessary to NARM in the time available to TOs and the Regulator. There are a significant number of outstanding actions (including approvals on documents). Moreover, we have providing significant amounts of information to Ofgem and note that working groups (on certain areas) which have been proposed continue to be deferred. For example, the work on the Clearly Identifiable Thresholds was due to start in summer 2023. This was then delayed until September 2023. The meetings between Ofgem and licensees were then further delayed until early 2024.

SSEN Transmission have recruited resources required to manage work on this topic and is fully committed to working collaboratively and constructively with Ofgem and the other TOs to improve the NARM Methodology for the benefit of our customers. However, it is vital that Ofgem are able to support this work adequately in the time we have available.

## **Key NARM Focus Areas**

We are ready to work constructively with Ofgem to make improvements to the NARM Methodology and have summarised the key areas requiring focus below:

- Linkage between funding and outputs
- Calculation of LTRB
- Funding NARM across Regulatory periods
- NARM Reporting
- Interactions between Funding Mechanisms
- Gaps in the NARM Handbook



## Addendum 2: Innovation Supporting Information

*This addendum provides further detail on our views on the innovation framework to the summary included in the main responses.*

OVQ47

### Transmission Owner Tools for EMT Modelling (TOTEM)

TOTEM is a transmission owners' tool for Electromagnetic Transient (EMT) modelling, that delivers a new EMT system power model that will enable the safe implementation of innovative technology on our network. The project has delivered a new large-scale EMT network model that will support the safe implementation of innovative technology on our network. Working with our project partners, we enlisted MHI to complete the build of the PSCAD models for all licence areas and have now provided the first version of supporting tools. Project partners include National Grid Electricity Transmission (NGET), Scottish Power Transmission (SPT), and the Electricity System Operator. This project has demonstrated successful collaboration across all licensees and with a third party to leverage international innovation. The advanced models created in the project are already supporting system operation in reducing customer outages and improving system reliability. The full detail of the TOTEM project can be accessed through the Smarter Networks Portal (SNP)<sup>14</sup>.

### Low Profile 132kV Poles

This project has researched and designed a new and innovative pole for our Overhead Lines (OHLs) at altitudes above 300m, using a new design as an alternative to steel lattice towers across our Transmission network. The new structures remain similar in design to current wooden OHLs to ensure there is a limited visual impact on the landscape. Two prototype poles were constructed in December 2022 and a design review has been conducted with several stakeholders from SSEN Transmission and PLPC. Following this, some minor design improvements have been incorporated with a full suite of engineering drawings now in progress. As part of SSEN Transmission's innovation process, a full deployment plan has been implemented, where the new low-profile design is expected to be adopted on a number of capital project. In RIIO-2 alone, it is anticipated that the design will return £2.4m of benefit savings. The full detail of the Low Profile Poles project can be accessed through the SNP<sup>15</sup>.

OVQ48

### Network DC<sup>16</sup>

Addressing the Whole System round 1 challenge, Network DC will support the coordination of offshore and onshore networks by connecting multiple wind farms into higher capacity DC substations through the introduction of DC Circuit Breakers to the network. This new technology is an innovative approach to improving system security and connecting more energy through a more

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<sup>14</sup> [TOTEM Extension | Smarter Networks Portal](#)

<sup>15</sup> [Low Profile 132kV Steel Poles | Smarter Networks Portal](#)

<sup>16</sup> [Network-DC Circuit Breakers | Smarter Networks Portal](#)

efficient network design. The benefits of this project are twofold. 1. Avoidance of additional infrastructure costs associated with point-to-point DC connections 2. Reduction in network outages in the event of a system fault. CBA analysis shows a combined positive benefit of ~£3.5m over the first ten years of operation and £350m in the expected lifetime of operation.

#### **Incentive<sup>17</sup>**

Again, addressing the Whole System round 1 challenge, the Incentive project is investigating and demonstrating how offshore wind farms (OWFs) can provide inertia to the onshore network. The fall in inertia in the GB network is inherently a challenge that requires network innovation. The focus is on improving coordination between onshore networks and offshore wind farms through the addition of supercapacitor energy storage and grid forming converters to a conventional STATCOM. If proven successful, this could meet around 5% of GB inertia needs, and in doing so, deliver savings of around £1bn over 30 years.

### **OVQ57**

#### **Multi-Terminal Test Environment (MTTE) for HVDC Systems**

The MTTE project<sup>18</sup> was a collaborative innovation project funded via the Network Innovation Competition (NIC). The aim was to develop a facility that would house a unique real-time simulator that would replicate High Voltage Direct Current (HVDC) schemes. The need for this solution has been driven by the increasing penetration of renewable energy onto the Transmission system and the lack of experience in GB of the design, construction, and operation of HVDC systems. The project was a tremendous success and as a result has stimulated many other HVDC projects, namely:

1. PLS-FC<sup>19</sup>
2. Network DC<sup>15</sup>
3. Incentive<sup>16</sup>
4. Aquila<sup>20</sup>

### **OVQ58**

#### **Low Profile Pole NIA Project**

Our Low-Profile Pole NIA project started in 2022 and will complete this year, having taken 2 years. It will then be applied to suitable projects that have already received approved funding, either through volume driver or other mechanisms. The improvement/cost reduction on the already gained allowance will be reallocated between the consumer and us via the TIM. Had the project started later in the price control there would be fewer or no projects to apply it to as an improvement on the approved design. Applying it to future yet to be approved future projects will mean that the design submitted for regulatory approval would already have the innovation applied and wouldn't thus recognise the innovation benefit.

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<sup>17</sup> [INCENTIVE | Smarter Networks Portal](#)

<sup>18</sup> [Multi-Terminal Test Environment | Smarter Networks Portal](#)

<sup>19</sup> [Protection Solutions to perform for Lower Levels of Fault Current | Smarter Networks Portal](#)

<sup>20</sup> [Pathway to 2030](#)