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14 March 2019

**RIIO-2 Sector Specific Methodology consultation**

Dear Akshay,

Thank you for the opportunity to respond to the RIIO-2 Sector Specific Methodology consultation on behalf of the National Grid Electricity System Operator (ESO).

Energy is the lifeblood of our society and economy, and as the ESO we hold a privileged position at the heart of the nation's energy system. Looking ahead to RIIO-2, there is a huge amount for us to do as we continue to deliver energy safely and reliably and play our part in delivering decarbonisation – the challenge of a generation.

As trends towards decarbonisation, decentralisation and digitisation continue to drive change across the energy system, developments in technology, business models and government policy in recent years are shaping the potential pathways to a clean energy future. While the precise roadmap to a 'compliant' 2050 cannot be known, there are elements of the future energy landscape we can forecast and plan for with increased confidence. For example, by 2050 we expect that energy 'prosumers' will have the tools and services to actively produce, store and consume energy and to modify their behaviour in response to market signals; low carbon, flexible sources will dominate the generation mix; there will be near full electrification of small private vehicles; and home heating will be delivered through a combination of technological solutions including hydrogen boilers, district heating and hybrid heat pumps.

In understanding more about the long-term direction of travel for the energy industry, we can take an informed view of the evolving challenges of system operation and the future roles and activities of the ESO required to deliver safe, reliable energy supply to GB homes and business. The fundamental roles of the ESO – real-time balancing, administering markets and enabling policy will not change – however, the context within which we fulfil those roles, and the complexity of doing so, will change significantly as, for example, we operate the system with 100% renewable generation; network operations and planning are optimised across transmission, distribution, electricity and gas; and new commercial frameworks and markets support flexibility and operability across the whole energy system.

RIIO-2 represents a clear opportunity to position the ESO to drive and enable this change. Later this month, we will publish a suite of three documents that will set out: 1) Our vision for the 2030 energy landscape and energy system; 2) 'Our RIIO-2 Ambition' – exploring the roles and activities we could fulfil to drive and enable the clean energy transition in the period 2021 to 2026; and 3) our Forward Plan – setting out our commitments for delivery above and beyond the current RIIO-T1 'baseline' in the intervening period of 2019-21. In this response to Ofgem's Sector Specific Methodology consultation we focus on the regulatory framework required to enable an ambitious, financeable and efficient system operator to deliver for consumers.

The ESO is a relatively small player – our costs are around £1 on a consumer's annual energy bill[1] – but we play a crucial role in lowering other costs on consumers' bills by balancing the electricity system as efficiently and effectively as possible, managing around £1 billion of electricity balancing decisions every year and

[1] https://www.nationalgrideso.com/about-us/breaking-down-your-bill

facilitating markets worth over £35bn a year[2]. We estimate that our 2018/19 network development recommendations could save consumers between £1.8bn and £2.6bn over the next 11 years[3].

We welcome Ofgem's decision to introduce a bespoke price control for the ESO in RIIO-2. This reflects the separation of the ESO from National Grid's Electricity Transmission Owner business, and the fact that we are an asset-light, service-focused business, different from the other RIIO-2 companies.

Our overarching priority as the ESO is to deliver for consumers. We fully support the following objectives, which we understand underpin Ofgem's proposals for the ESO RIIO-2 price control:

- To undertake enhanced engagement with stakeholders throughout the price control, ensuring they are at the heart of what we do.
- To provide flexibility in the regulatory framework so we can be agile and responsive to stakeholder and consumer needs, while giving us certainty to plan and invest for the long-term.
- To focus on the benefits we can deliver across the wider energy system and for consumers, through our ability to influence and reduce overall industry costs.
- To ensure financial security to mitigate against risk, enable recovery of our costs and ensure the ESO is financeable as a standalone business.

However, we believe that the proposed regulatory framework set out by Ofgem in the ESO Annex will not deliver on these objectives unless some specific and critical changes are made. Our response sets out why this is the case, and proposes those changes needed in the key areas of 1) funding model; 2) length of price control; and 3) incentives. We believe these changes build on the work done to date and will deliver a framework that aligns strongly with our shared objectives for the ESO in RIIO-2.

**Remuneration model**

***The remuneration or funding model for the ESO should provide appropriate ex ante certainty around baseline outputs, costs and returns, while creating flexibility for the ESO and Ofgem to respond to unforeseen changes in the energy landscape and stakeholder needs. Ofgem's cost pass-through model, with disproportionate ex post cost assessment and disallowance risk, is not the optimal framework through which to create this balance of certainty and flexibility.***

We welcome Ofgem's objective of creating flexibility within our framework to allow the ESO to be responsive to stakeholders and invest within the price control period, in order to deliver for consumers and customers. However, we believe the proposed funding model will have the opposite effect in practice.

Ofgem's proposals cannot be accurately described as a pass-through arrangement because they include a disallowance mechanism and evaluative financial incentives, meaning that our revenues are at risk. We cannot know the risk we are running in this model because assessment is undertaken ex post, with significant discretion for Ofgem to decide the outcome. This uncertainty increases our and others' perception of the ESO's investment risk, with two impacts:

a) Making us risk-averse, reducing our capacity to be innovative and ambitious, which will likely reduce the benefits we deliver across the energy system.

b) Putting upward pressure on the cost of raising capital for the ESO. This has been referenced in Moody's recent ratings action press release in relation to the initial rating of the ESO[4].

We also do not consider ourselves a business that simply passes through costs, nor do we believe that is what our stakeholders want from us. Where we are best placed, we should manage risk and costs on behalf of industry and consumers – doing so drives us to be innovative and ambitious.

In terms of risk and return, we welcome Ofgem's recognition that we hold different risks across our activities, and that we should have different margins to reflect these. We agree with the proposal for a funding model that groups our activities into 'layers' based on similar risks. The margin values could vary for the different layers, and could be applied on either internal or external costs. For example, for our role as Revenue Collection Agent

[2] "Market value of traded electricity for inland consumption", page 33 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/736148/DUKES_2018.pdf

[3] This is the suggested saving against a counterfactual where the TOs do not build according to our recommendations https://www.nationalgrideso.com/insights/network-options-assessment-noa

[4] https://www.moodys.com/research/Moodys-assigns-Baa1-rating-to-National-Grid-Electricity-System-Operator--PR_396553

on behalf of the industry, we think it would be appropriate to have a margin on the very significant amounts we transact that present a large cashflow risk to us.

We support the principle that reasonably incurred costs should attract a margin, and therefore propose adjustments to Ofgem's model to more clearly allow for this. We also agree with Ofgem's principle that our costs should be fully funded; this must be applied to all ESO costs, including our legacy Regulatory Asset Value (RAV), interest charges, financial security costs (e.g. working capital) and external costs.

Building from Ofgem's proposed remuneration model, our response sets out a revised model that we believe meets our and Ofgem's objectives. Our model proposes ex ante approved business plan funding, with a sharing factor to drive cost-efficiency, plus a 'flexibility mechanism' that enables the ESO to be responsive to changes in the landscape and to meet changing stakeholder and consumer needs. Every two years, new costs incurred under the flexibility mechanism would be subject to an ex post proportionate review by Ofgem, with the potential for disallowance of expenditure that meets an agreed definition of 'demonstrably inefficient'. Upon review, efficiently incurred recurring expenditure would be included in the business plan funding for the rest of that price control period, with the relevant margin applied. The model is explained in more detail on pages 11-15.

**Duration and price control process**

***The length of the ESO's price control should balance flexibility with appropriate certainty to enable longer-term investments for the benefit of consumers. A two-year business planning cycle creates unnecessary uncertainty around our baseline costs, as well as significant administrative burden for the ESO, stakeholders and Ofgem.***

We welcome Ofgem's intent to encourage the ESO to look over the long term and work on at least a five-year business planning horizon. This is also supported by many of our stakeholders.

We recognise that there is value for stakeholders and consumers in creating the flexibility to adjust to deliver new activities and investments not foreseen at the start of the price control; we believe this flexibility can be enabled without resetting the full price control every two years. Providing longer-term certainty for parameters of the price control that are well understood, scrutinised and agreed ex ante – including (but not limited to) margins, business plan costs to deliver baseline outputs, and multi-year capex investments – will enable us to innovate and invest in the right areas with confidence. Full re-opening of our baseline costs every two years would risk under-investment in areas that could deliver benefits over the longer term, as well as create an unnecessary burden on stakeholders, Ofgem and the ESO.

We propose that the price control is five years, with the potential for proportionate reviews undertaken on a more frequent basis under pre-specified circumstances. Such reviews would focus only on the most material changes in cost, new investments or significant changes in the external environment. We believe this approach is proportionate and will provide an appropriate balance between certainty (to deliver benefits) and flexibility (to respond to the changing landscape).

**Incentives**

***Incentives are an important element of the regulatory framework for the ESO, driving us to deliver benefits for consumers in a manner that exceeds the 'baseline' level of performance funded through the remuneration model. Changes are required to the existing regime to ensure the ESO is incentivised – through a coherent package of funding model and incentives – to take risks and innovate in areas where significant additional consumer benefits can be created.***

We agree that an incentive scheme should continue to be used to encourage the ESO to take appropriate risks and innovate to deliver benefits beyond baseline expectations. Stakeholders we have spoken to also support the continuation of incentives. Given the interaction between the funding model and incentives framework in driving our behaviours and ultimately our revenues, we believe they must be developed in parallel to ensure an overall coherent framework.

The existing evaluative incentive framework is broad in its scope and lacks clear focus on the areas where the ESO can create most value for consumers. To be most effective, the incentives designed for the ESO in RIIO-2 should have clear success criteria, predictable financial outcomes for pre-agreed delivery of outcomes, and be focused on the areas where we can deliver most additional benefits for consumers.

**Other areas covered in our response to Ofgem's consultation**

On competition in transmission assets, we are fully supportive of the introduction of competition in the delivery of onshore transmission infrastructure, in a way that maximises value for consumers. We believe this is best achieved through a model that competes at the early stages of project development. Early models facilitate the introduction of truly innovative solutions and therefore have the potential for greatest consumer benefits.

If a late model is pursued, Ofgem could expand its list of potential organisations to run preliminary works beyond its proposal for one of the ESO, TOs or Ofgem. We do not currently possess the skills or expertise needed to carry out preliminary works (e.g. consenting), and significant investment in resource would be needed to develop these. It may be more cost-effective for the role to be undertaken by a party that already has the necessary skills.

We enclose in this document our detailed responses to these and additional topic areas including innovation, whole system, other finance proposals, cyber resilience and physical security, as well as responses to questions in the Electricity Transmission Sector Methodology document. This document responds to the specifics of the Ofgem consultation, in light of what stakeholders have been telling us, but does not provide the comprehensive stakeholder feedback that will come in our RIIO-2 Ambition document later in March.

To conclude, RIIO-2 is a unique opportunity to harness the legal separation of the ESO and deliver a regulatory framework appropriate for an ambitious, innovative organisation at the heart of the GB energy system. The framework must work as a coherent, holistic package to ensure the ESO is financeable, incentivised to innovate and invest on behalf of consumers, and can earn a fair return for the risks we hold.

We look forward to continuing to work with Ofgem, customers and stakeholders over the coming months, as the design of RIIO-2 for the ESO is further developed and finalised.

Yours Sincerely,

[By e-mail]

Fintan Slye

**ESO RESPONSE TO OFGEM'S RIIO-2 SECTOR SPECIFIC METHODOLOGY CONSULTATION**

## Achieving a reasonable balance in RIIO-2

*Core document: Chapter 11, p.125-131*

We support Ofgem's intention to create a bespoke regulatory framework to enable the ESO to be more flexible, responsive and outward-focused to deliver benefits across the energy system. We recognise the effort that is required to develop a framework, and our response seeks to build positively on the proposals laid out to date.

We believe the current proposals move away from the core incentive and innovation RIIO principles and risk not achieving the intention outlined above. The proposals **remove the ongoing efficiency incentive** that drives continuous improvement and innovation, revealing information about our costs. In addition, we are concerned with three key aspects of the proposed framework: the widening of regulatory discretion; disproportionality in the scrutiny of our costs; and lack of detail on key elements of the framework.

**Increasing regulatory uncertainty due to the widening of discretion** with a cost disallowance mechanism makes it harder for us to assess the likely financial outcomes for the ESO in taking the initiative to innovate and do things differently. This is compounded by the potential for a downside adjustment applied through the evaluative incentive scheme, e.g. if there was a noticeable impact on performance from trying something new.

The proposed approach means that the **allocation of risk between ESO and consumers is only known ex post**. This uncertainty will drive us to be more cautious and less ambitious, which we believe runs counter to the intent for the ESO to be more responsive and flexible that we have heard from stakeholders and Ofgem.

**Increasing the regulatory burden** through frequent full reviews and multiple tools for scrutinising our costs appears disproportionate to mitigate the risk that we spend inefficiently. Our operational baseline costs are small compared to the Transmission Owners (TOs), largely predictable in nature, and in previous controls the sharing arrangement has provided a simple incentive for us to manage costs (over a longer price control). This has avoided the need for detailed scrutiny by third party audits or a disallowance mechanism. The consultation proposals focus us inward on justifying our internal costs to Ofgem on a frequent and detailed basis, rather than encouraging us to focus on the benefits we can deliver across the energy system and for consumers.

**There is a lack of detail** in the consultation's ESO Annex, and a lack of clarity in the applicability of the proposals to the ESO in the Core Document. This means we have found it challenging to provide a complete and comprehensive response. For example, we are unable to comment on the balance of risk vs return, because there is insufficient detail in the consultation about the level of return Ofgem is considering for the ESO, how margins would be set or how discretion will be used in assessing incentives and cost disallowance.

**We would like to work with Ofgem and stakeholders further to develop our framework** to find the right balance across all these areas, to best enable us to deliver for consumers and stakeholders, including investors and debt holders. We have sought to build on the proposals in our response to move the discussion forward; however, we require further detail from Ofgem on several areas, including (but not limited to):

- Methodology for setting of margins so we can finance our activities, including evaluation of risk
- Mechanism for the recovery of legacy RAV
- Approach for the return on, and return of, future capital expenditure
- Proposed design for funding to support ESO innovation
- Cost disallowance mechanism
- Evaluative incentive scheme
- Expected treatment for external costs, including the Black Start disallowance
- Ongoing industry changes that may affect the ESO role or risk profile, e.g. changes to charging arrangements

We have structured our response to reflect the order in which topic areas are set out in the consultation, starting with the ESO Annex and then addressing additional proposals in the Core Document and Finance Annex. This is not an indication of priority.

We also enclose five annexes providing financial context on the ESO, more detail on cost assessment, remuneration and other finance proposals, and responses to some questions in the Electricity Transmission Sector Methodology document.

**ESO Roles and Principles**

**ESOQ1: Do you agree with our proposal to maintain the current roles and principles framework for RIIO-2?**

**ESOQ2: Do you agree with our proposals to keep the ESO's code administration, EMR delivery body, data administration, and revenue collection functions in place for RIIO-2? Do you believe that any of these functions (or any other functions) should be opened up to competition, either now or in future?**

- It is likely that the existing Roles and Principles framework will need to be re-shaped to work alongside an activity-based funding model. Development of the funding model and incentive framework should take place in parallel to ensure the resulting model is coherent and effective.
- The ESO is delivering on our activities efficiently and effectively; we therefore welcome Ofgem's proposals to keep all the ESO's current activities in place for RIIO-2.

The Roles and Principles were created to provide a framework for an interim incentive scheme, which will need to be reconsidered in the context of a new funding model and price control process for the ESO. Ofgem has proposed an activity-based funding model for the ESO, and we think the Roles and Principles should be re-shaped to align with that in parallel. This will enable a stronger link between our activities and our incentives. We would welcome further discussions with Ofgem and stakeholders as the ESO's funding model and incentive framework are developed in more detail.

We welcome Ofgem's proposals to keep all the ESO's current activities in place for RIIO-2. Our Forward Plan and RIIO-2 Ambition documents published later in March will set out how we are improving our delivery of these activities, and how we will continue to do so.

ESOQ3 is answered on pages 17-19 in the Competition section.

**Price control process**

**ESOQ4: Do you agree with our proposal to move to a two-year business planning cycled price control process for the ESO? If not, please outline your preferred alternative, noting any key features (e.g. uncertainty mechanisms or re-openers) that should be included.**

- We share Ofgem's intention to encourage the ESO to look over at least a five-year business planning horizon.
- We do not agree with the proposal for a full re-opening of the price control every two years, as it would create undue regulatory uncertainty and an unnecessary burden on stakeholders, Ofgem and the ESO in proportion to the potential benefits.
- Longer-term certainty is required for some elements to enable us to innovate and invest with confidence.
- We propose that the price control is five years, with the potential for proportionate reviews every two years focused on material changes in cost, new investments or changes in the external environment.
- We recognise the need to build in flexibility and propose an alternative model through which to achieve this.

Our understanding of Ofgem's proposal to move to a two-year price control is that Ofgem would expect the ESO to take a view out for five years, and possibly beyond, with costs agreed for a two-year period. While we have understood from recent discussions with Ofgem that the proposal for a two-year business planning cycle is not intended to be a full price control review, we believe that essentially it would be, as it would constitute a full review of all our agreed business plan costs.

We share Ofgem's intention to encourage the ESO to look out over at least a five-year business planning horizon, and agree with the need to build in flexibility in the context of a rapidly changing energy system. We and our stakeholders fully support this intention, but providing longer-term certainty for most elements is necessary to enable us to innovate and invest with confidence. We do not believe the proposal for a two-year business planning cycle is appropriate for the following reasons:

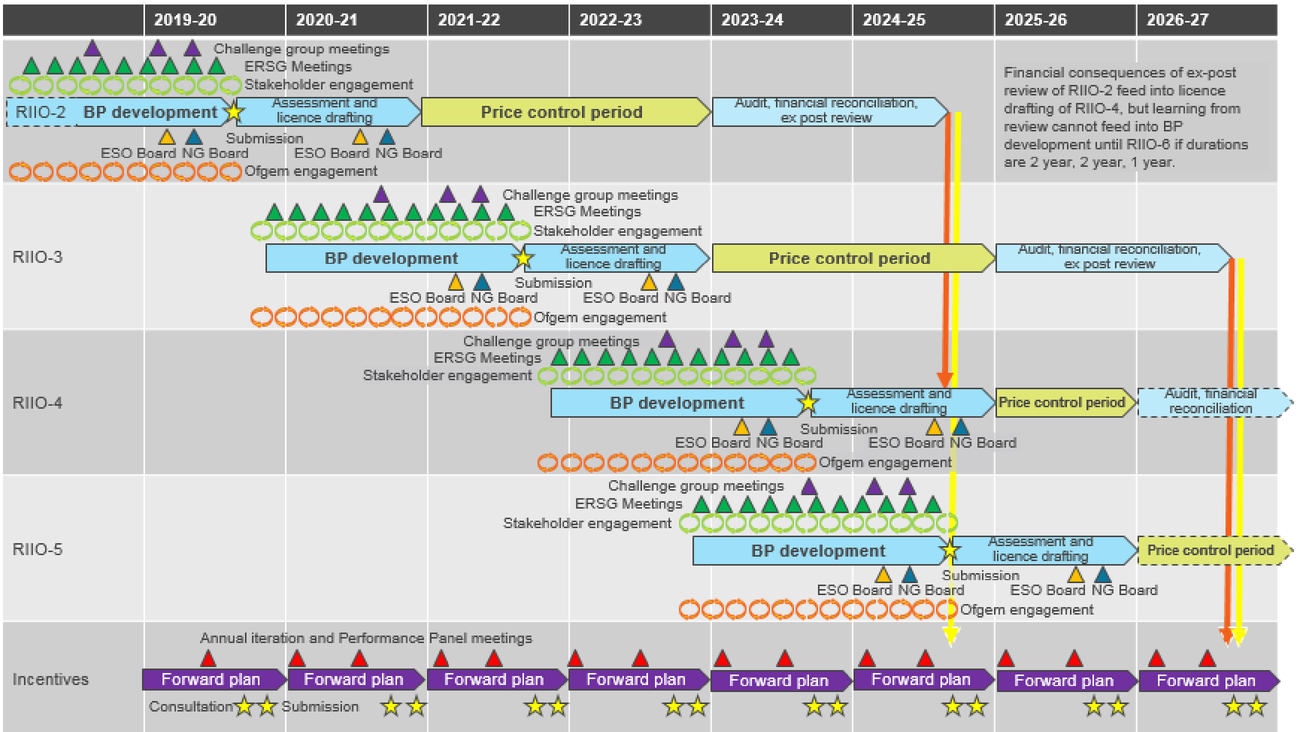
- **Uncertainty in allowed costs will stifle our ability to deliver.** A high frequency of cost reviews creates uncertainty and risks under-investment to deliver transformational change and benefits over the longer term, as the commitment to future spend depends on the review process. This is a concern that has also been raised by some stakeholders, including generators and major users.

- **A two-year control significantly increases regulatory uncertainty.** Revisiting fundamental parameters of the price control (e.g. margin levels) every two years would create significant uncertainty that would be viewed negatively by investors and credit rating agencies. The impact of such uncertainty can be seen in

Moody's recent press release[5] assigning a rating to the standalone ESO, as it states that the rating is constrained by the ongoing changes to the regulatory framework.

- **A two-year control adds significant regulatory burden on the ESO, stakeholders and Ofgem.** Re-opening all our costs on a two-year basis would significantly increase the regulatory burden on the ESO, stakeholders and Ofgem by increasing the frequency of planning, analysis and evidence gathering, stakeholder engagement and reporting, which will require additional resources. Our baseline operational costs are typically predictable; therefore, we do not see the benefit in re-opening these costs every two years. The diagram below illustrates what a two-year business planning process could look like.

*Indicative process for a two-year business planning cycle*




**Our proposal**

We want to be able to plan with confidence over the longer term so that we can learn, adjust and deliver benefits while avoiding uncertainty that constrains long-term ambition; we are consistently hearing requests from stakeholders for longer-term thinking and investment from the ESO.

We therefore propose setting parameters of the price control over a longer timeframe, including (but not limited to) margin levels, recovery of capital expenditure and baseline costs as agreed at the start of the price control. This will enable us to innovate and invest with confidence, delivering continuous improvement and efficiency benefits for consumers.

We propose that this price control timeframe is five years, with more frequent proportionate reviews on a two-yearly basis to provide flexibility. These would focus on:

a. material changes in costs, e.g. triggered by new innovative investments or significant changes in the external environment

b. reviewing incentives success criteria through the Forward Plan

We also anticipate the continuation of an annual iteration process that will calculate changes to our revenues as a result of incentive performance, revenue collection timing impacts and cost sharing adjustments etc.

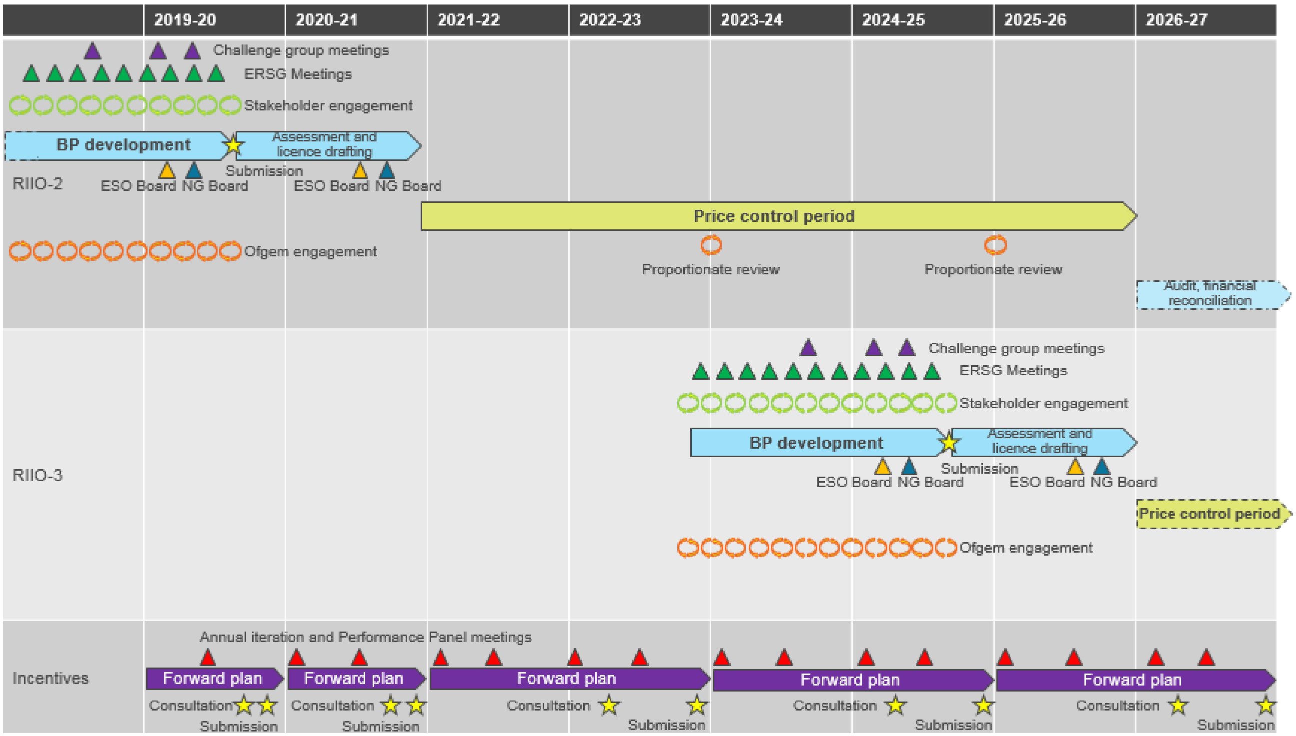
If implemented on a two-yearly basis, the first 'proportionate review' would align with the beginning of RIIO-ED2, when it is reasonable to assume that there may be changes to our costs or activities. We have proposed a five-year price control as a reasonable timeframe that provides a balance of flexibility and certainty. We would

[5] https://www.moodys.com/research/Moodys-assigns-Baa1-rating-to-National-Grid-Electricity-System-Operator--PR_396553

welcome a conversation with Ofgem and stakeholders to consider potential benefits of aligning future ESO price controls with the price controls for TOs, Distribution Network Owners (DNOs), or separating from those cycles completely.

We noted earlier in our response that the length of price control, funding model and incentives must come together as a coherent package. We recognise that the pace of change across the system requires mechanisms to support and adapt to industry needs – this can be achieved through the mechanics of the funding model, rather than through a move to a two-year price control. We discuss amendments to the funding model, including a new flexibility mechanism for new activities or investments not anticipated when setting the business plan on pages 11-15 of this document, in response to Ofgem's proposed funding model.

*Indicative process for our proposed model in a five-year control*




We think this approach will provide sufficient ability to manage activity and investment uncertainties during a five-year price control, while ensuring stability of funding for our core activities.

**ESOQ5: What stakeholder engagement mechanisms should be put in place for the ESO's business planning and ongoing scrutiny of its performance? Do you agree with our proposal to maintain, and build upon, the role of the Performance Panel?**

- Stakeholder engagement is critical to the development of our business plan.
- We propose publishing a Forward Plan on a two-yearly basis.
- We agree with the proposal to maintain and build upon the role of the Performance Panel, which should be considered once the design of the funding model and incentives are agreed.
- We will also continue to engage with stakeholders through various additional channels.

We are co-creating our plan with stakeholders: we provide information and receive input through many engagement channels, including bilateral meetings, webinars, workshops, thought-pieces, podcasts and monthly bulletins. We have also set up our ESO RIIO-2 Stakeholder Group (ERSG)[6], which provides regular constructive challenge to the creation of our plan. We will continue to use these channels to co-create and test our business plan with stakeholders, many of whom have been positive about the approach we are taking.

We see benefits in continuing with publishing a Forward Plan to keep stakeholders updated and to enable transparency, and we suggest that this is on a two-yearly basis to align with the proportionate review cycle set

[6] https://www.nationalgrideso.com/about-us/business-plans/future-planning-2021-onwards/have-your-say-on-our-future-plans/eso-riio2-stakeholder-group

out above. We agree with the proposal to maintain and build upon the role of the Performance Panel to provide ongoing challenge and scrutiny of our performance.

The ongoing role of the Panel should be considered once the funding model and incentives are agreed, but we have some suggestions for principles for the Panel on an enduring basis. It should:

- provide greater transparency on the relationship between performance outcomes and incentive outcomes, e.g. setting indicative relationships between variations in costs and likely incentive payments
- have clear roles, responsibilities and remit alongside Ofgem
- not be too labour-intensive for the ESO, Ofgem or any panel members
- balance time commitment from members against the quality and remit of assessment produced
- have consistent membership to build knowledge of the ESO and enhance the ongoing process
- learn lessons from the current Performance Panel

We are also finding input from ERSG valuable, and could see benefit in continuing with this group to challenge the development of our plans and potentially feed into the Performance Panel's review of our performance, subject to members' agreement.

**Outputs and incentives**

**ESOQ6: Do you agree with our proposed approach of using evaluative, ex ante incentives arrangements for the ESO?**

**ESOQ7: Do you agree that we should continue to apply a single 'pot' of incentives to the ESO, and that this should be a symmetrical positive/negative amount? If not, why not?**

*Core Document: Chapter 4, p.23-31*

- We support the use of robust incentives to focus the ESO on areas that create most benefits for consumers, driving performance above baseline.
- Development of the funding model and incentive framework should take place in parallel to ensure the resulting model is coherent and effective.
- The current evaluative incentive framework does not provide a strong link between levels of performance and associated incentive outcome; the framework should be reconsidered.
- We propose reviewing the incentive framework and success criteria on a two-yearly basis.

We agree with the three overarching RIIO-2 outcomes set out by Ofgem in Chapter Four of the Core Document. These are:

- Network companies must deliver a high quality and reliable service to all network users and consumers, including those in vulnerable situations.
- Network companies must deliver a safe and resilient network that is efficient and responsive to change.
- Network companies must enable the transition towards a smart, flexible, low cost and low carbon energy system for all consumers and network users.

Stakeholders have told us they want to see strong incentives to encourage the ESO to be more ambitious across all three dimensions. We believe incentives should motivate the ESO to deliver improvements in the areas that create the most benefits for consumers; to drive performance beyond our delivery of baseline activities, which are funded by our remuneration model.

We believe a decision on continuing with the current evaluative, ex post incentive scheme cannot be made until the design of the funding model is agreed. We have three key suggestions for how incentives should be designed for RIIO-2, in parallel with the ESO's funding model:

- **A clearer structure for incentives**, with clear success criteria to enable investment to deliver desired outcomes. This could include re-introducing mechanistic incentives for areas that are easier to measure, while maintaining a clearly defined ex post evaluation for our overall incentive performance. We would describe the current scheme as broad and subjective, with insufficient clarity on what constitutes success. This is a view shared by many of our stakeholders.
- **Rewards broadly linked to the size of potential consumer benefits**. We understand Ofgem's concerns that the ESO's previous Balancing Services Incentive Scheme (BSIS) focused our attention too narrowly, and did not encourage beneficial actions across all activities. However, there are areas in which we have the potential to deliver far greater consumer benefits than others. For example, in our Mid-Year Report

published in October 2018[7], over the next 1-2 years we estimated delivery of between £30-50m consumer value through improving competition in network investment (i.e. the NOA[8] process), and between £55-75m through activities to reform balancing services markets. We therefore propose dividing the overall incentives pot unequally between incentives to target those areas where we can deliver the most benefits.

- **Potential for asymmetric incentives where appropriate**. Depending on our funding model and agreed levels of return, a greater overall potential incentive upside may be more appropriate for a legally separate ESO. We need to remain financeable, but stakeholders want us to continue to have strong, realistic and transparent incentives to drive our behaviour. If we are only able to absorb a small incentive downside over the price control to remain financeable, having an overall symmetric incentive pot would limit the strength of incentives to deliver additional benefits. Positively-skewed upside incentives may be appropriate for those areas where we can deliver the greatest consumer benefits, or where they will be realised over a longer term.

In principle, we agree with the intention to bring all the ESO's incentives under one framework, although further thinking needs to be done as to how this will work depending on how incentives are to be designed. We need to ensure incentives are truly used to drive performance and not to provide remuneration for meeting our baseline costs and associated returns. In addition, we would like to explore with Ofgem the introduction of a symmetric incentive for Black Start, as opposed to a disallowance only (as currently exists), to encourage us to explore different approaches for the procurement of Black Start capability.

We would like to discuss the design of incentives further with Ofgem and stakeholders once we understand the rest of the regulatory framework in more detail.

**Cost assessment**

**ESOQ8: Do you agree with our proposed approach to assessing the costs of the ESO under RIIO-2? Do you think we should assess costs on an activity-by-activity basis? How would you go about defining the activity categories? Are there alternative approaches we should consider?**

**ESOQ9: Do you consider the types of cost assessment activities we outline in this chapter are the right ones? Are there additional activities you think we should consider?**

- It is critical to consider all the internal costs faced by the ESO in the assessment process.
- We fully support an appropriate level of ex ante and ex post cost assessment. We consider the full range of cost assessment approaches proposed by Ofgem to be disproportionate and value-destructive.
- The use and design of each cost assessment approach should reflect the value of the potential benefit or risk they are seeking to mitigate.
- We believe robust external benchmarking may be hard to develop quickly due to the unique nature of the ESO, but we would like to explore the options further with Ofgem.

We welcome Ofgem's intention to focus less on our internal costs, given they are small compared to the wider impacts our actions have on system costs – we represent around £1 on the average annual consumer bill[9]. We therefore believe that the cost assessment process should reflect that desire, adopting a proportionate approach, while recognising the impact of even small increases in bills for the most vulnerable consumers. Annex A provides financial context on the ESO.

We consider the range of cost assessment approaches proposed by Ofgem to be comprehensive – third party audits, a cost trigger mechanism, benchmarking, cost benefit analysis (CBA), external audits, stakeholder assessment, identification of uncertainty and business plan expectations. However, if Ofgem are seeking to apply all of the mechanisms, we would consider this to be wholly disproportionate to the size of the ESO's internal cost base; this is a view supported by stakeholders.

In particular, the impact of applying some approaches needs careful consideration in the context of proportionate treatment and the intention to reduce focus on internal costs. We consider benchmarks to be highly effective, but developing benchmarks for ESO activities will require careful consideration of data availability and agreement of the appropriate methods to make them robust and insightful. Robust external benchmarking may be hard to develop quickly given the unique nature of the ESO business versus others carrying out the system operator (SO) role elsewhere: from a system operability perspective, we face different challenges compared to those faced by European SOs; and the role of the ESO is different to the defined role of other SOs in the US

[7] https://www.nationalgrideso.com/document/128421/download
[8] Network Options Assessment
[9] https://www.nationalgrideso.com/about-us/breaking-down-your-bill

and Europe. We would like to work with Ofgem and the Challenge Group to discuss and identify appropriate benchmarking approaches.

We do not consider external audits of our internal costs to be proportionate and would like to understand the specific risk Ofgem is seeking to mitigate by their introduction.

We agree that assessing costs on an activity-by-activity basis is proportionate if limited to the eight activities outlined in the consultation. Breaking ESO internal costs down beyond this level would require significant work in our financial systems to facilitate future reporting, as well as to provide historic comparators. The effort to disaggregate costs appears disproportionate, especially for the purpose, e.g. for benchmarking these sub-activities. We would also question the cost benefit of this work. The relatively small size of sub-activities and materiality of any incremental efficiency benefit would naturally limit the reasonable costs to capture the data.

We note that the consultation is silent on a range of costs that would need to be assessed under any proposed arrangement. In particular, it is important to consider all the internal costs of the ESO including (but not limited to) legacy RAV, interest costs, additional security (e.g. working capital).

We have included more detailed thoughts on each of the cost assessment approaches in Annex B.

**Remuneration**

**ESOQ10: Do you agree with our proposed remuneration model for the ESO under RIIO-2? Do you think it provides the right incentives for the ESO to deliver value for money for consumers and the energy system? Are there other models you think are better suited?**

**ESOQ11: Are there any risks associated with our proposed remuneration model that you do not think have been effectively captured and addressed? Do you think that we should put in place any of the mechanisms intended to provide additional security to the ESO outlined in this chapter – e.g. parent company guarantee, insurance premium, industry escrow or capital facility?**

**ESOQ12: Do you agree with our proposal relating to remove the cost sharing factor? Can you foresee any unintended consequences in doing so, and how could these be mitigated?**

**ESOQ13: Do you agree with our proposal to introduce a cost disallowance mechanism for demonstrably inefficient costs? What criteria should we apply in considering what constitutes 'demonstrably inefficient'?**

*Overall:*

- We share Ofgem's objective to create a framework that is flexible and adaptable within a longer-term horizon and incentivises the ESO to take a central role in the energy transition.
- We disagree that Ofgem's remuneration model, as set out in the consultation, provides the right balance of incentives to deliver for consumers and the future energy system. Indeed, we believe the proposed model reduces the incentive on us to be innovative and efficient.
- There are substantive gaps in the description of the remuneration model that will need to be developed before we can offer a comprehensive response.

*In relation to 'cost pass-through, with ex post cost disallowance':*

- We disagree with the use of the term 'pass-through' as it does not accurately describe the proposals or the fact that we hold risk on behalf of the industry.
- We disagree with the ex post cost disallowance as set out in the model because it, along with the ex post evaluative incentive scheme, creates undue uncertainty for the ESO. Under the proposed model, the risk allocation between the ESO and consumers is not known - this reduces the certainty against which we can innovative and invest and leads to higher required cost of capital and reduced financeability. We propose an alternative remuneration model that seeks to reduce uncertainty to a more acceptable level.
- We agree with adopting a flexibility mechanism for new activities or investments not anticipated when setting the business plan to allow us to be agile in response to industry needs.

*In relation to 'activity-based layers, with margins linked to risk':*

- We agree with a funding model based on grouping activities into a small number of 'layers' to balance simplicity and transparency.
- We support the principle that all reasonably incurred costs should attract the relevant margin.
- We agree that the level of margin should adequately compensate us for the risk we hold associated with each individual layer and be applied to all efficiently incurred costs.

- Tailoring the margin to each layer should include how it is applied, i.e. to a portion of internal or external costs as appropriate.

We welcome Ofgem's decision to design a new approach to funding and assessing the ESO's expenditure. We also share Ofgem's intention to create a framework that is flexible and adaptable within a longer-term horizon and incentivises us to take a central role in the energy transition. Such a framework is important to enable the 'ambitious ESO' that stakeholders want us to be.

The design of the ESO's funding model and incentives are fundamentally linked; both must work together to ensure that we are driven to deliver benefits for consumers, and that we are financeable and able to earn a fair return for the risks we hold.

We note that there are substantial gaps in the description of the proposed framework that will need to be developed before we can offer a comprehensive response and understand the overall balance of risk.

**Risk and ambition**

Ofgem's proposals cannot accurately be described as a 'pass-through' arrangement because they include a disallowance mechanism and the evaluative incentive scheme, meaning that our revenues are at risk. We also do not consider ourselves a business that simply passes through costs, nor do we believe that is what our stakeholders want from us. Where we are best placed to do so, we should manage risk on behalf of industry and customers; doing so drives us to be innovative and ambitious. In Ofgem's proposals, this risk allocation would not be known until after the event (ex post), creating new levels of uncertainty.

We are comfortable with the concept of putting revenue at risk subject to the appropriate bounds and within a clearly defined set of rules. However, the current entirely discretionary nature of the disallowance and incentives creates a disproportionately high level of uncertainty. This has a number of impacts, including raising the uncertainty in revenues and thus increasing the returns investors (debt and equity) require; and creating aversion to undertaking anything other than the safest projects, which is not an outcome our stakeholders want.

Equally, we do not believe it is appropriate for the ESO to hold risk that we are unable to control. For example, our role as Revenue Collection Agent leaves the ESO exposed to the risk that a customer is unable to pay their debts in full. Ofgem have previously acknowledged that this risk is not entirely avoidable, even with the requirements that the customer is a signatory to one of the governing codes and that collection efforts have followed best practice and exhausted all reasonable means for resolution. In that case, Ofgem set out a route for the debt to be socialised across all parties[10]. We believe this route should be formally adopted and drafting should be included in the licence to give certainty for all parties on how the debt should be treated. This is particularly relevant at present due to the high number of counterparty failures that have occurred recently.

In Ofgem's proposals, costs may be disallowed, or revenue reduced through the incentives, based on discretionary ex post evaluation of the action or investment that was taken in good faith. For example, lower benefits may be realised than expected at the time the decision was made. Extending this to innovative investments where a project may fail to deliver, but where the learnings are invaluable, would require significant faith in the discretionary evaluation process to make that commitment.

This uncertainty will lead to heavy discounting of any estimate of benefits within a CBA analysis, raising the hurdle for investments and therefore supressing ambition.

**Funding model**

We agree with a model based on grouping activities limited to 4-5 "layers" to balance simplicity and transparency. We also agree with the approach of setting margins by layer, and that each should be set to adequately compensate us for the risk we hold associated with that layer (i.e. avoiding cross-subsidy between layers).

The way in which the margin is applied to each layer should be tailored; in certain cases, it will be appropriate to apply the margin to external rather than internal costs. For example, we believe that for our role as Revenue Collection Agent, it is appropriate to apply a margin to the significant amounts we transact on behalf of the industry, which better reflects the correlation of the risk to amounts transacted rather than to our internal costs of providing the service.

[10] Best practice guidelines for gas and electricity network operator credit cover - Conclusions document published by Ofgem 24 February 2005 https://www.ofgem.gov.uk/publications-and-updates/best-practice-guidelines-gas-and-electricity-network-operator-credit-cover-conclusions-document

We strongly support the principle that all reasonably incurred costs should attract the relevant margin. This means that all costs considered (either ex ante or ex post) as efficient should be treated the same and attract the appropriate margin, i.e. efficient spend above the ex ante budget would attract a margin.

There is little detail around how Ofgem proposes to define and apply margins, so we cannot take a view on the balance of risk against levels of return. However, we would strongly support setting the margin level on a longer-term basis to provide greater certainty for longer-term investment decisions. We have concerns in a number of areas of the consultation, including:

- **Remuneration of all ESO costs** – Ofgem's proposals are silent on some of the ESO costs. We believe margins should be applied to all internal costs incurred by the ESO in delivering our activities, as well as some of our external costs. We cannot come to a full and evidenced view of the funding proposals before we understand the proposed approach for all the ESO's costs and assets: internal and external, costs outside of capital and operational expenditure[11], and our capital assets. The ESO Annex does not adequately cover the remuneration of ESO costs.
- **Incentivising efficiency** – we do not believe that Ofgem's proposed cost disallowance mechanism provides an effective incentive for cost-efficiency, and we propose the use of a sharing factor. We understand that Ofgem's concerns with a sharing factor are based on a view that the ESO might underspend in order to earn under the Totex Incentive Mechanism, at the expense of investing and delivering for consumers. ESO spend in T1 has been within 1% of allowed revenues[12], indicating that this concern is unfounded.

We note the proposal for the ESO's internal costs to be recovered via BSUoS[13] for RIIO-2. We agree that this is appropriate for many of our costs, but there are some for which it may not be e.g. licence fees or a margin on TNUoS[14] amounts transacted. If it is appropriate to recover them via BSUoS, there are practicalities to consider around timing. We would welcome further engagement with Ofgem to discuss the recovery of the ESO's costs.

We have worked with consultants to develop a funding model proposal that seeks to build on Ofgem's, improving the incentivisation of efficiency and our ability to assess the likely financial impact of success or failure, by introducing ex ante agreement of business plan costs with sharing of efficiency savings, to encourage innovation and ambition and enable us to deliver greater long-term benefits to consumers.

**Our proposal**

We have significant concerns that Ofgem's proposed remuneration model creates a large asymmetric downside risk for the ESO that would make us risk-averse and encourage us to focus on justifying our costs to the regulator, rather than delivering for customers and consumers. It would also significantly impact financeability.

We understand Ofgem's proposal is intended to free up the ESO to be more agile and ambitious, and to spend what we need to meet stakeholder expectations, with returns to reflect our risks and mechanisms to ensure consumers are protected from inefficient spend. We fully support these intentions.

We propose adjustments to the approach that seek to more explicitly recognise risk-sharing, to better allow us to assess the likely financial impact of success or failure.

We provide a high-level overview of an alternative funding model proposal below, which we have developed with consultants and would like to discuss further with Ofgem. The key components of our proposal are as follows:

- **Activity-based model** – breaking the ESO down into groups of activity "layers" with similar risk. We propose having no more than four or five layers to balance simplicity and transparency.
- **Ex ante business plan costs** – agreeing business plan costs ex ante, plus margins for all layers, funding everything set out in our business plan – i.e. baseline activities – thus strengthening incentives to be efficient and innovate.
- **Sharing factor** – adjusting the 100% sharing factor of the disallowance mechanism for baseline revenues and reducing this to an agreed sharing factor for variation in the business plan costs. This will drive us to spend efficiently, sharing the risks and benefits of that spending with consumers. This could be softer on

[11] These costs include: Ofgem fees, business rates, contingent capital
[12] https://www.ofgem.gov.uk/publications-and-updates/riio-et1-financial-model-following-annual-iteration-process-2018: The SO element can be seen by selecting "NGET TO" on the User Interface sheet, and then looking at rows 136 to 138 of the System Operator sheet to see our historic totex performance
[13] Balancing Services Use of System charges
[14] Transmission Network Use of System charges

underspend than on overspend, to avoid the risk of encouraging the ESO to underspend on activities that are in consumers' interests.

- **Deadband** – within which the sharing factor would not apply. This would minimise the administrative burden on Ofgem and the ESO and ensure we do not focus disproportionately on our internal costs to meet the exact agreed business plan costs. The deadband could be relatively narrow, e.g. +/-1% of the business plan costs.
- **Flexibility mechanism** – for new activities or investments that were unknown when setting the business plan. This would enable the ESO to spend immediately as needed, without waiting for approval from Ofgem in the next price control. Given the likely lead-time of significant spend, we could give Ofgem sight of our internal investment case process on an ongoing basis, which would enable Ofgem to carry out 'soft reviews' before major costs are incurred and stop the project if it deems it to be unnecessary or inefficient.

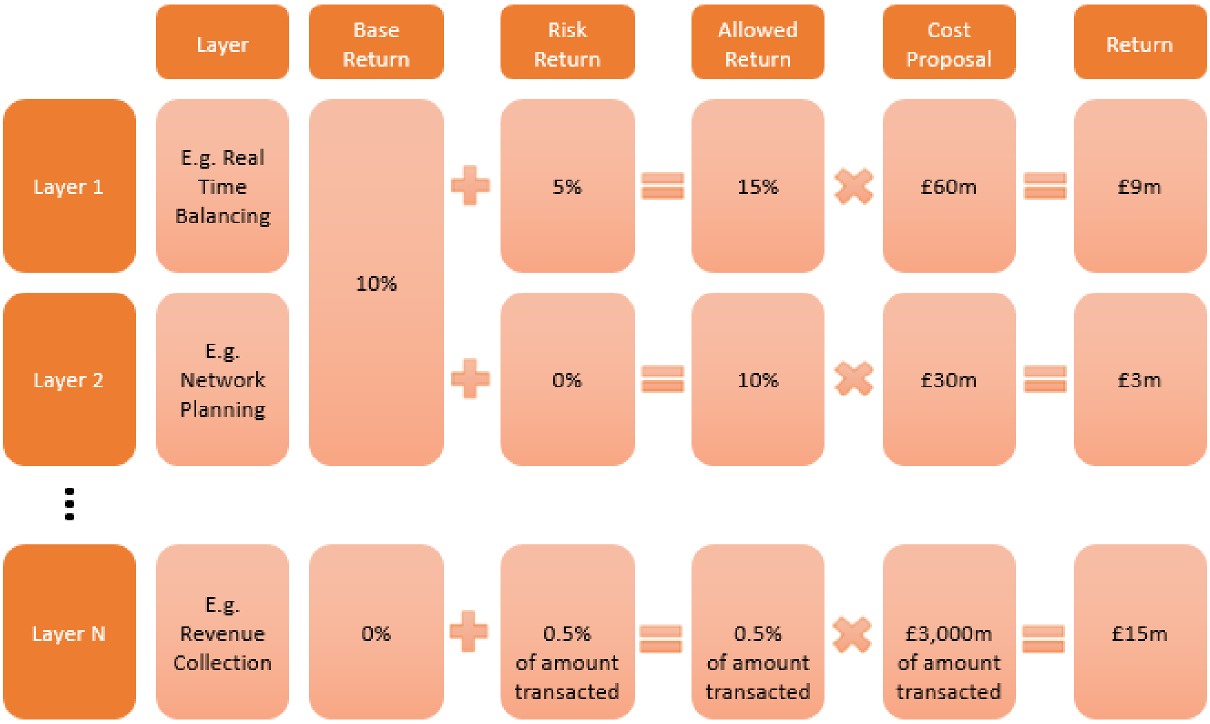
  The investment would be subject, at the next proportionate review, to ex post assessment and a potential disallowance for 'demonstrably inefficient' spend. Ofgem's early engagement in the planning would give the ESO more comfort to invest and the opportunity to incorporate any feedback received. If approved and enduring, this additional investment would be added into the baseline costs. The baseline revenue amount would be reset, but not re-opened entirely, and the additional investment would become subject to margins and the sharing factor for the rest of the price control.
- **Disallowance** should be an exception – the framework should have a presumption of allowance unless proven inefficient. Disallowance should be applicable only to investment made under the flexibility mechanism. It should not be applicable to ex ante agreed baseline costs. Any evaluation of efficiency must consider only the information available at the time of the decision and must demonstrate 'beyond reasonable doubt' that there is inefficiency. The wider impact of a disallowance on how the ESO may regard taking risk in the future would also need to be considered. Ofgem has previously noted that disallowance mechanisms were not "our preference in normal circumstances" and therefore should be considered by exception[15].
- **Margins** – margins to reflect and remunerate us for the risk we hold in delivering each activity layer, with different margins for different layers to reflect the level of risk. The margins may be applied to a portion of internal or external costs as appropriate: for example, for our revenue collection role on behalf of the industry, we think it would be appropriate to have a margin on the very significant amounts we transact that present a large cashflow risk to us. Therefore, we propose that, for external costs, a margin on the amounts passed through would be more appropriate than a margin on the internal costs involved in running the activity, as currently proposed by Ofgem. This is consistent with the approach used in the recent price control and Competition Markets Authority (CMA) determinations for System Operator Northern Ireland (SONI), and the administration fee currently allowed under RIIO-T1 for the "Assistance for Areas with High Distribution Costs Scheme" set out in Standard Condition C20 of the current licence.

  We envisage that the baseline margin would be set to recognise the risks we hold across our business, including overall baseline cost uncertainty, any cost disallowance risk and risk of fines (this baseline margin would necessarily be different depending on whether it applied to internal or external costs). The margin for risk would be additive to each layer according to its specific risks, e.g. bad debt risk and cash timing risks. We note that the inclusion of significant discretion in any cost disallowance and incentive arrangements means outcomes are less predictable, and margins would necessarily be higher than in more structured sharing arrangements. A full evaluation of the ESO's risks should be undertaken prior to setting margins.

  We have built upon Ofgem's illustration of the application of margins by applying our example descriptions of funding layers. To populate the illustration, we have examined margins from a range of relevant industries, for example using IT-focused data network providers and data processors as a reference for real-time balancing, who might earn 10-15% margin. We have also looked at similar overall businesses, noting that SONI and EirGrid have margins on internal costs in the range of 11-14%.

  We recognise that the risk for specific layers may be very different if we are looking at the ESO overall or at specific activities; this is intended as illustrative only. We have applied these illustrative benchmarks to Ofgem's diagram to further support stakeholder engagement and discussion of this topic:

[15] https://www.ofgem.gov.uk/sites/default/files/docs/2013/02/ofgem-jan-workshop-slides.pdf




To be robust, any benchmark needs to carefully examine the comparability of similar organisations and the risk they hold versus the final funding arrangements for the ESO.

We believe these proposals more effectively incentivise us to deliver benefits across the energy system than those set out in the consultation.

Annex C sets out more detail on some of the elements described in this section, including a matrix showing proposed activity-based layers and the different costs that would need to be remunerated. It also outlines our views on Ofgem's other proposals in the consultation for additional security arrangements, as well as initial views on the treatment of external costs and legacy items.

We also have views on Ofgem's proposals for additional financial items, including cost of debt, financeability and cashflow floor, corporation tax and pensions. These are set out later in our response on pages 23-27 and in Annex D.

We would like to work with Ofgem to develop our proposal to a create an effective framework for the future.

**Innovation**

**ESOQ14. Do you agree with our proposals to retain an innovation stimulus for the ESO, but tailor aspects of this innovation stimulus to take account of the nature of the ESO business?**

**ESOQ15. What ESO-specific issues should we consider in the design of the ESO innovation stimulus package**

*Core Document: Chapter 8, p.65-75*

- We agree with the proposal to retain an innovation stimulus and tailor some elements to the ESO.
- As part of the SO, we see benefit in running projects that include the ESO and GSO.
- We agree with our innovation funding being recovered through BSUoS.
- We propose that the ESO should be able to spend a higher proportion of funding internally to remove barriers to smaller projects.
- We support the principle of carrying out more innovation as BAU, but there must continue to be a ring-fenced stimulus for higher-risk projects in the form of a continued NIA or similar.
- We agree with the proposal to replace the NIC with a new strategic funding pot.

We agree with Ofgem's proposal to retain the innovation stimulus for RIIO-2, with a tailored approach for the ESO to recognise the unique nature of our business and specific challenges. The areas in which we believe arrangements should be tailored for the ESO are as follows:

- **Whole energy system** – the ESO innovation function is made up of staff able to work across both the Gas and Electricity System Operator businesses, and is therefore ideally placed to tackle the energy system transformation across the gas and electricity systems. We would see benefit in being able to pursue dual-fuel projects to further accelerate the low carbon agenda.
- **Benefits** – the way we assess benefits is on a system-wide basis. We believe quality of innovation should be assessed using both financial impacts and non-financial benefits. We advocate agreeing and articulating a wide definition of benefits that will include not just direct efficiencies on our cost base, or on BSUoS and TNUoS, but also on environmental impacts, improvements in safety and reliability, increased quality of service, and learning that will reduce long-term operational risks associated with the exposure to lower Technology Readiness Level (TRL) solutions.
- **Recovery Mechanisms** – we welcome the proposal for having our innovation funding calculated and recovered through a different mechanism to other licensees, i.e. through BSUoS.
- **Funding internal/external split** – ESO innovation projects are normally significantly lower cost than TO or DNO projects due to the nature of our activities (i.e. typically no enduring physical assets); but the fixed costs of innovation (e.g. legal work to set up contracts/ management/ processes/ IT) remain the same, and therefore make up a higher percentage of the overall cost compared with other licensees. Enabling the ESO to spend more funding internally – such as 50% - would allow the internal management costs to be fully supported through innovation project budgets each year.

We also have views on the innovation proposals set out in Ofgem's Core Document:

- **Undertaking more innovation as BAU –** we cautiously support this, although to be successful the cost of innovation would need to be fully integrated into business plans; this would require detailed estimation of resourcing required. Appropriate and agreed benefit-tracking would need to be in place to monitor results fairly. Innovation must also be carefully encouraged through the right incentives, to drive the ESO to take appropriate risks in pursuing innovative ways of delivering results. Ofgem's proposal for a wide-ranging cost disallowance mechanism does not provide this supporting environment.

  We are concerned that this approach would leave little flexibility for addressing any new challenges that may arise after business plans are agreed, and would reduce the chance of pursuing longer-term benefits, as it would limit our scope to lower risk, higher TRL projects that typically solve immediate challenges. Lower TRL, higher risk projects that are more research-based and looking to solve long-term issues would not be funded, as it is impossible to accurately forecast the outputs and resources required.
- **Innovation Roll-out Mechanism (IRM) –** in its current form, we have found IRM difficult to access, even though implementation can often be the most expensive part of the project lifecycle. Implementation funding could be a discrete portion of a licensee's innovation stimulus: set aside only for projects where there are wider system or consumer benefits, or where the licensee will not sufficiently benefit through existing incentives and implementation has not been included in the existing capital plan for Information Systems (IS).
- **Network Innovation Competition (NIC) –** we agree with Ofgem's proposal to replace the NIC with a new funding mechanism structured around solving the most significant strategic challenges for the energy system. The challenge will be in reaching agreement on the areas that these projects should focus on. We believe there should be a separate piece of work owned by the Energy Networks Association (ENA), and supported by industry, to propose these focus areas.
- **Network Innovation Allowance (NIA) –** we believe there should be continuation of the NIA or a similar mechanism. It is critical that there is a ring-fenced budget to allow for higher risk, lower TRL projects that would not pass internal investment criteria. It is important that we have certainty over NIA funding to ensure continuity of projects beyond the end of T1; otherwise, licensees will undertake only short-term, low risk projects (i.e. successful results are guaranteed) in the run up to end of this price control.
- **Third-party access –** we cautiously support third-party involvement in NIC projects; however, we see some risks in third parties having direct access to NIC funding. An independent arbitrator would be needed to filter proposals that have technical merit aligned to the new focus areas, meet governance requirements and can deliver sufficient consumer benefit. This arbitrator would also need to decide which proposal to select if there is duplication of ideas, while ensuring proposals don't adversely affect licensees' networks and existing planned activities.

- **Proposals prior to the commencement of RIIO-ED2 –** We would like to understand Ofgem's proposals for electricity distribution companies in more detail, to ensure that approaches are complementary to those being applied to the ESO and others, avoiding any barrier to wider collaboration and innovative activities.

**Appeals**

**Do you have any view on our proposed approach for considering the extent to which a successful appeal has consequences, if any, on other components of the price control?**

*Core Document: Chapter 2, p.15-16*

- We do not agree with deviations from the established licence modifications appeals mechanism in primary legislation and the Competition Markets Authority (CMA) rules.
- We do not agree with the introduction of a discretionary mechanism.

Ofgem's proposed approach to the consequences of successful appeals is not clear and is therefore difficult to comment on in detail. We strongly object to deviations from the established licence modification appeals mechanism that is enshrined within primary legislation and the CMA Rules.

We would be concerned if a discretionary mechanism was introduced under which Ofgem could seek to change aspects of the price control that had not been considered in a CMA appeal. The potential re-opening of elements of a price control presents unacceptable uncertainty and risk. The mechanism appears to circumvent the existing statutory licence modification process and therefore fall outside the CMA appeals process.

The suggestion that changes could be made to aspects of the price control of non-appealing licensees is also concerning. It is not clear on what basis Ofgem could impose such changes when a price control package has already been accepted by a non-appealing licensee. This would undermine the certainty of that price control package.

We consider that any consequences of a successful CMA appeal should be addressed through the appellant and respondent as part of the appeals mechanism set out in legislation and the CMA rules, and should not extend to aspects of the price control that have not been considered in the appeal.

**Competition**

**ESOQ3. Do you consider the ESO is best placed to run early and late competitions?**

*Core Document: Chapter 8, p.75-84*

- We support the introduction of competition in network development wherever possible.
- We believe Ofgem should adopt early models as they facilitate innovation and therefore can deliver greater consumer benefits.
- Late models could lead to further delays and therefore increased constraint costs, which should be considered in Ofgem's impact assessment.
- The ESO does not currently have the skills or expertise to carry out preliminary works in a late model approach; we suggest that Ofgem explores a wider range of organisations that already have these skills.
- We believe that a two-phase assessment process is a more practical and cost-effective way to run the early model than the proposed two-tender model approach.

The ESO fully supports the introduction of competition in network development. This has the potential to unlock significant benefits for consumers, and we are currently working with a wide range of stakeholders to develop processes to facilitate this. In RIIO-2 we will be enabling competition between TOs, DNOs and market participants to provide network solutions wherever there is potential for consumer benefits.

We are also committed to supporting Ofgem to introduce the Competitively Appointed Transmission Owner (CATO) regime. To inform thinking on this, we have reviewed the projects that would have been competed had the CATO regime been in place. We would welcome the opportunity to discuss these real-life examples in further detail with Ofgem to help inform the development of the regime.

We believe the greatest consumer benefits can be realised by running competitions in the early stages of project design so that the full benefits from innovation in design and delivery can be realised. Early models facilitate the introduction of truly innovative solutions. The Government's Transforming Infrastructure Performance[16] strategy

[16] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664920/transforming_infrastructure_performance_web.pdf

promotes the use of innovation in national infrastructure because it has the potential to deliver infrastructure faster, deliver higher performance at lower costs, and can boost the productivity of the whole construction sector.

We have not identified any significant barriers that would have prevented the early model being used for the projects we have reviewed; we therefore think that Ofgem should focus on developing early models as its main approach.

**Late model impact assessment**

We would like to share some concerns we have with the costs and benefits set out in the late model impact assessment (IA). To help illustrate our points, we have used the two Eastern Link projects as examples. These have a combined value of £2.5 to £3.5bn.

In the IA, Ofgem appears to have used the RIIO-T1 incumbent prices to assess the savings that can be achieved. While the IA suggests that maximum savings of £473-662m could be achieved on the Eastern Links projects, we believe the proposed reduction in cost of capital for the TOs in RIIO-2 could reduce the scope for savings. We also understand that the IA does not take into account the cost of constraints due to delays. Delaying the completion dates for the two Eastern Links projects by 12 months would increase costs by £525m to £870m, and could outweigh the potential benefits. It is therefore imperative that any design in the process for introducing competition does not introduce delays to the completion date of the project. While all models of competition increase the length of the project development process due to the tender, we think the early model could minimise delays, and therefore costs, as different stages of the project can be run concurrently.

Currently, the TOs carry out preliminary works, i.e. pre-construction. In the consultation, Ofgem has suggested that the ESO could carry out this work in the future if the late model is pursued. We do not currently possess the skills or expertise needed to carry out preliminary works, and significant investment in resource would be needed to develop these; it may be more cost-effective for the role to be undertaken by a party that already has the necessary skillsets. There is also a risk that having a different company preparing the project to the company delivering it dilutes accountability, particularly to the local communities directly affected by transmission build. It also reduces the winning company's ability to capitalise on its own delivery expertise.

Overall, we believe the potential benefits that can be gained through the early model far outweigh the benefits from the late model, with limited additional cost or risk.

**Ofgem's early model criteria**

We have applied Ofgem's early model criteria to the current projects that meet the competition criteria and do not see any insurmountable issues.

- **Contestability** – for the majority of projects there will be different potential solutions (i.e. the type of solution is contestable). On the rare occasions where the nature of the solutions is clear we suggest Ofgem considers pragmatic approaches. For example, if the project has limited contestability the TO will gain little advantage from undertaking the preliminary work, so could potentially undertake this activity.
- **Time-criticality** – we believe the early model will introduce fewer delays. The early model allows for quicker delivery as it allows various stages of project development to run concurrently. This is not possible under the late model, which can cause increased delays and costs.
- **Value –** we do not believe there is a need for a different value threshold between the early and late model.
- **Certainty of system need** – changing system need is a risk for the CATO regime, regardless of the tender model. It is true that in the early model the system need could change or disappear after the tender is complete. We would expect significant change that makes the tender invalid to be rare. Overall, we believe that the early model benefits would outweigh this risk.

**Running the competition**

While a two-stage process as outlined in Appendix 2 of the consultation could be used for the very early model, we think there is a more practical option. Running two tenders is likely to create further delay and therefore increase constraint costs, and potentially could result in higher rewards needed for innovative ideas because they would not receive the value of building and owning the asset.

We suggest considering an alternative 'two-phase' approach like those used in the US and Canada. This would involve one formal tender but two stages of assessment. Successful bidders in Phase 1 could further refine their bids, potentially with expert input from the ESO, before the final assessment.

We suggest adding 'process expertise' to the criteria set out for determining who is appropriate to run the competition, as some elements of the process will require specific skills and knowledge. For example, preliminary work requires specific skills and expertise that are very different to the 'technical proficiency' required to plan the networks.

In addition, Ofgem could expand its list of potential organisations to run these processes. The current organisations do not meet Ofgem's criteria for late model preliminary works – TOs are not neutral, and neither Ofgem or the ESO have the necessary expertise. There are, for example, other existing organisations that are neutral and have consenting expertise, such as gas distribution networks or Highways England/Scotland.

**Competition in the gas sector**

The ESO is happy to support Ofgem and network companies to explore the introduction of competition into the gas network where this will provide benefits to consumers, noting that there are fewer gas projects compared to electricity. However, the exact role we could play would need further consideration. We could, for example, provide support and best practice around areas such as communicating system needs to third parties. We do not have expertise in the specific areas suggested by Ofgem; therefore, there would be little value in the ESO undertaking a formal role in these areas.

**Native competition**

In exploring how network companies can use competition to find alternatives to network investment or as a price finder, Ofgem should ensure the approach it adopts complements the ESO's network development processes. The ESO is currently introducing competition to find the most economic solutions to transmission network needs. It is important to ensure the competitive processes of different companies don't conflict; Ofgem should consider how any incentives, funding arrangements or assigned roles and responsibilities can promote collaborative working and overall network benefits. Any incentives aimed at promoting collaboration should be objective and clear enough to reward different parties for their input.

## Whole system

*Core Document: Chapter 5, p.32-39*

- We agree with a stronger focus on whole energy system issues and actions in RIIO-2.
- We agree with Ofgem's definitions of the blockers to delivering whole system outcomes, but ask for further clarity on the definition of whole system when used in different contexts.
- We agree with applying Ofgem's narrow and broad scope to appropriate areas in the price control and offer thoughts on where the narrow and broad scopes could apply.
- We note that the broad scope becomes increasingly relevant as we and others look within the electricity sector, and across transportation and heat, to drive the decarbonisation agenda. For the ESO in particular, the broad definition is important to our ability to forecast and manage the system efficiently and effectively.
- In principle, we agree with the mechanisms Ofgem has proposed. We seek clarity on how they would interact with other mechanisms in the price control, and would like to discuss them further with Ofgem and the other RIIO companies to develop appropriate detail and application.
- Ofgem should ensure funding mechanisms support whole system network development, including those applied to the TOs.

We support a stronger focus in RIIO-2 on optimising actions across the whole energy system. Across the industry, whole energy is widely considered an area of high value, with the ENA recently starting a whole energy system workstream that we are chairing as the SO. We hold a unique position within the industry, with a holistic view across gas and electricity and distinctive skills and stakeholder relationships that can add significant value to the development of the whole energy system. Having a more coordinated approach between different parties in the energy system can deliver a wide range of consumer benefits: increased system stability, faster incorporation of low carbon technologies, and reduced costs through parties working together to determine the optimal places to invest in the energy network.

We ask for more clarity around the term 'whole system' and what this means. As we set out in our response to Ofgem's Framework consultation last year, our view is that 'whole electricity system' should be used to refer to anything that crosses the electricity transmission and distribution boundary. Anything that expands that to cover more than one fuel should be referred to as 'whole energy system', with clarity on the scope of the term provided in every instance. We ask Ofgem to clearly set out terms and definitions for different areas of whole system in their May document, and to encourage a culture of being more specific about which areas of whole system are being referred to in industry discussions and activities.

We agree with Ofgem's definition of the blockers to delivering whole energy system outcomes. We have developed a set of key focus areas that we believe should be prioritised. Through our enhanced engagement, stakeholders have agreed that these are the right areas for the industry to focus on:

- **Markets** – promote and facilitate the use of economically rational price signals and coherence across different markets within the energy industry.
- **Operability** – maintain system operability by assessing the impact of volatile and unpredictable gas and electricity supply and demand patterns using a common set of assumptions.
- **Innovation and Technology** – consider opportunities and implications across energy sectors – not solely on the specific market or network that is directly impacted.
- **Governance** – agile licence and code governance arrangements that are reflective of the number and variety of market participants, and appropriate frameworks that enable policy change to be considered across energy vectors.

In its consultation, Ofgem proposes definitions of a narrow and broad scope[17]. We agree that, for RIIO-2, there is value in having two different scopes that can be applied to various aspects of the price control.

Our view is that the narrow scope should apply where a prescriptive set of rules is needed to precisely define the parameters in which a company operates, e.g. in setting outputs and revenues, in setting metrics to measure performance and in network investment recommendations.

According to the analysis we undertake as part of producing FES[18], there is likely to be limited impact from heat, waste and hydrogen over a five-year RIIO-2 period (2021-2026). Any changes that do occur are unlikely to warrant fundamental changes to the core RIIO framework design to support this. Therefore, while we think the narrow scope will be sufficient for most aspects of RIIO-2, the impact of the transport sector on RIIO companies should be monitored.

We propose that the broad scope is applied to future-looking activities and innovation in technology and ways of working, e.g. producing scenarios for analysis and consulting on them, supporting policy and industry decisions with whole energy analysis, and for projects eligible for funding through Ofgem's proposed whole system discretionary funding pot. These are areas where it is in consumers' interest for the RIIO companies to look as broadly as possible to realise benefits.

There are also areas within the price control where both the narrow and broad scope could be applicable, for example in network investment. Here, the broad scope could apply when considering scenarios for future gas and electricity flows that drive the need for capacity, while the narrow scope could apply to the investment recommendation process.

**Proposed mechanisms**

In principle, we agree with the mechanisms Ofgem has proposed to encourage collaboration and optimisation across the energy system. However, more clarity is needed on how these mechanisms would interact with other elements of the price control before we can provide a fully considered view. Our initial thoughts are set out below.

- **Business plan incentive** – we agree that RIIO companies should demonstrate consideration for the whole energy system through their business plans. With several companies seeking whole energy system outcomes, there needs to be a degree of coordination. Therefore, the incentive should encourage RIIO companies to develop proposals that complement existing activities, such as the ESO's NOA.

  We note that the proposal for a business plan incentive is not intended to apply to the ESO. We agree that a separate incentive may not be appropriate for the ESO for RIIO-2, given this is a new framework and there is limited ability to assess what good looks like, although we are testing this as far as we can through stakeholder feedback. We would expect any future business planning cycles to allow for such an incentive. We will still show how we will consider whole energy system issues and actions in our business plan and Forward Plans.

- **Ensuring network innovation has a whole system focus** – we believe the ESO is well placed to address whole energy system challenges, based on the activities we already undertake in carrying out analysis and sharing future energy insights. As highlighted in our response to the innovation chapter, we support Ofgem's proposal for introducing a new network innovation funding pot in place of the NIC. This funding pot could enable whole energy system modelling projects and ring-fenced funding for specific cross-fuel projects.

[17] A narrow scope for coordination of investment planning and operational delivery between the ESO, GSO and the four network sectors (gas and electricity transmission, gas and electricity distribution); and a broad scope that includes other parts of the energy system (e.g. heat), as well as other sectors (e.g. transport, waste)

[18] http://fes.nationalgrid.com/

- **Coordination and information sharing incentive** – we agree that greater sharing of information and coordination will facilitate optimal whole energy outcomes. For example, receiving good quality information, on time, from relevant parties would help improve the quality and timeliness of ESO outputs. There is an opportunity to design an incentive that encourages other parties to improve information sharing with the ESO. There should be careful consideration of the design of any information sharing and coordination incentive: how it is funded, who is paying for it, legal restrictions and any potential requirement to design mechanisms to defend against the risk of gaming. Areas that this incentive could provide benefits in are: outage planning between the ESO and TOs, network planning, system design, generator compliance, data modelling and information sharing across the ESO and GSO.

  We think there is potential for the broad scope to apply here. For example, while Ofgem cannot incentivise car manufacturers to share information with the ESO, Ofgem could place an incentive on the ESO to share information with the wider industry; it would be available to car manufacturers so they can take it into account in creating their business and investment plans.

- **Refining or formalising funding routes** – the ESO is working with stakeholders to identify the most efficient solutions to transmission issues, including solutions from TOs, DNOs and market participants. However, current frameworks are not designed to support this holistic approach as each of these groups has different funding arrangements. We agree that it would be helpful to enable us to allocate or trigger funding to enable solutions, e.g. through the NOA process. It is not always clear which party is accountable and therefore should be funding these solutions. For example, an issue may manifest on the transmission network, but there may be occasions where distribution networks are a significant contributing factor. Ofgem should consider clearly defining accountabilities or developing a funding approach that is agnostic of these boundaries and allocates costs in an appropriate manner, e.g. a discretionary funding mechanism administered by the ESO.

  As part of this, we agree that Ofgem needs to provide greater clarity on, and set out limitations for, the use of the term ‘directly remunerated services’. In considering how regulated businesses should be remunerated fairly, Ofgem should be mindful to ensure that companies have sufficient motivation to invest in the resources needed to submit bids that may not be successful.

  The ENA outlined initial thinking on potential routes for different solutions last year. We ask that Ofgem works with us, the ENA and market participants to continue developing this thinking. The thinking on this issue also needs to feed into, and reflect, developments through the charging review.

- **Aligned incentives** – we agree that incentive outcomes could be aligned to drive companies to achieve a common goal, designed separately for each licensee to fit in with their individual incentive scheme. For example, there is potential for an aligned incentive between the ESO and TO, and potentially with the DNOs, for connections. The ESO and TO could each have an incentive to reduce the amount of time it takes to produce a connection offer, aligned to drive complementary behaviours and outcomes. Currently, the only incentive that encourages the ESO and TO to work well together is the Customer Satisfaction Incentive (CSAT), which focuses on customer satisfaction between each licensee and its customers; not an improved working relationship that could result in a quicker connections process. This is also proposed to be removed for the ESO going forward.

  The National Grid TO has recently published a note outlining its thoughts on potential ESO-TO incentives within system access planning to reduce constraint costs[19]. While there is potential value in this, there would need to be careful consideration around their design and the behaviours they would drive. When considering incentives that could reduce constraint costs, we suggest carrying out a CBA in advance to determine if the costs of investing in resource and capabilities outweigh the potential benefits.

- **Whole system discretionary funding mechanism** – we support Ofgem’s proposal for a whole energy system discretionary funding mechanism, and suggest that this is made available to the ESO as well as the other RIIO companies. This could provide funding for transformational ways of working that are not eligible for innovation funding, for example the Regional Development Programmes. In the future, we think such a mechanism could drive coordination and efficiency across the RIIO companies, e.g. to facilitate standardised data sharing, or for funding cross-network solutions identified by the NOA.

**Physical security**

*Core Document: Chapter 6, p.51-52*

- We agree with maintaining the existing scope of costs that fall under physical security.

[19] https://www.ofgem.gov.uk/system/files/docs/2018/12/18-12-17_nget_thoughts_on_so-to_incentives.pdf

- We agree with the proposal of ex ante allowances for Physical Security Upgrade Programme (PSUP) works.
- We agree with the proposal to introduce a specific re-opener for PSUP.

We agree with Ofgem's proposal to maintain the existing scope of costs that fall under physical security, given ongoing management and operational costs still exist. We think the Government requirements to protect our control rooms through the Physical Security Upgrade Programme[20] (PSUP) agreement remain valid, and therefore so do the costs associated with monitoring, maintaining and upgrading the security equipment.

We agree with the approach for ex ante allowances for PSUP work, in line with our proposals for an ex ante agreement on all investment set out in our business plan. We believe that the partial replacement of capital equipment should be considered in line with the asset life estimates that are defined in the technical security specification.

While the requirements for physical security upgrades are now clearer than at the start of RIIO-T1, we agree that there may still be changes in Government policy during the price control, resulting in changes to investment needs. Therefore, we agree with the proposal to include a specific re-opener to deal with changes in costs associated with PSUP. This allows for uncertainty such as unplanned location moves of the control rooms. It makes sense for the re-opener to align with PSUP assessment commitments, so there could be one every three to four years, which could be linked to the next two-yearly proportionate review. As there is the possibility for a list review[21] within the next 12 months, there are likely to be two re-opener windows within a five-year RIIO-2 period to align with this.

## Cyber resilience

*Core Document: Chapter 6, p.52-55*

- We agree with categorising costs for cyber resilience as a direct result of the Network and Information Systems (NIS) regulations, but we would like a clear definition of the distinction between BAU and above BAU.
- We agree with the proposed approach of ex ante 'use it or lose it' allowances, and we see cyber resilience fitting into one of the activity layers we have proposed for our funding model.
- We agree with the proposal to introduce a specific re-opener for cyber resilience costs.

We agree with categorising costs for cyber resilience as a direct result of the introduction of the Network and Information Systems (NIS) regulations[22]. However, 'above BAU' is a broad category that needs to be more clearly defined, with a clear distinction between BAU and above. Above BAU costs should be categorised further as appropriate, for example:

- Refresh of technology at end of useful life
- Upgrades to technology
- Emergency response to emerging threat
- Proactive new capability
- Additional resources

This approach would set out the rationale for investments more clearly. Any costs incurred between now and RIIO-2 in accordance with the NIS Regulations should also be considered for recovery through the re-opener process.

We agree with Ofgem's proposed approach for an ex ante allowance, in line with our proposals for an ex ante agreement on all costs set out in our business plan. We see cyber resilience fitting into one of the activity layers we have proposed for our funding model. Agreed ex ante business plan costs for cyber resilience enables us to deliver against our strategic business plan, react to threats more effectively and reinvest any cost-reducing efficiencies we find in delivery. An established reporting process should be implemented to inform progress to plans, including a requirement for explanation for the rationale behind any deviations from plans.

We agree with the proposal to introduce a specific re-opener for cyber resilience costs. Due to the uncertain nature of cyber security and the response required to mitigate emerging threats, a re-opener will allow the ESO to respond to threats on an as-needed basis. We suggest this re-opener could be assessed as part of the same two-yearly process to undertake proportionate reviews.

[20] PSUP is a government-directed national programme designed to enhance the physical security of CNI sites
[21] A review of the sites/assets that qualify in accordance with requirements
[22] A set of Government regulations to ensure that UK operators in energy, transport, water, health and digital infrastructure are prepared to deal with the increasing number of cyber threats.

**Other finance proposals**

*Core Document: Chapter 10, p.98-124; and Finance Annex*

In the cost assessment and remuneration sections above we set out our position in relation to the proposed ESO remuneration model, including the principle that reasonably incurred costs should be recovered. These should include both the ESO's internal and external costs, as well as suitable provision for debt funding, tax and pension costs. Our key considerations in relation to these are outlined below, with further detail in Annex D.

**Cost of Debt**

- The ESO has different financing requirements than the other RIIO-2 network companies, which should be taken into account when setting the ESO's cost of debt.
- Liquidity and long-term debt requirements need to be considered for the ESO.
- We agree with the principles Ofgem set out in its Framework consultation.
- We would like to work with Ofgem to develop bespoke arrangements for the ESO.

The ESO is structurally and operationally different to the other entities included in the RIIO-2 consultation. As such we have different financing requirements.

The ESO invests in the tools and systems needed to support the services we provide, and will continue to have to finance this ongoing investment. ESO assets are typically related to IT systems rather than tangible construction, and these have useful lives that range from 5-10 years.

It should also be acknowledged that the ESO's debt is not simply made up of the type of long-term debt that is traditionally the main focus of RAV-based price controls. The ESO will require more working capital facilities to fund the capital requirements of the business in relation to our role as Revenue Collection Agent for the TOs, under which we transact in excess of £3bn per annum. In our role as electricity system balancer we transact additional cash in excess of £1bn per annum. This significantly changes the balance of requirement for the ESO between the long-term debt traditionally used to finance a RAV (c.£220m in 2020/21[23]) and our much larger short-term liquidity requirements.

These different requirements need to be taken into consideration when designing a financing structure for the ESO that aims to ensure we are able to:

- deliver our licence obligations, including the maintenance of an investment grade credit rating
- be financeable over the long term as a standalone notional company able to absorb shock events
- deliver a cost-efficient financing solution that provides stability for the industry, and is in the interest of consumers

As a highly operationally-leveraged business, with more volatile cashflows, we do not expect to be able to support a large amount of long-term debt relative to the other RIIO companies. However, we expect that the ESO would wish to continue to access debt markets to service our needs as set out above.

Long-term debt taken by the ESO is likely to have a shorter tenor than typically seen in the asset-heavy network companies, better reflecting the shorter life of our asset base. As a smaller company with much more modest requirements for debt, this may be satisfied through a bank-sourced term loan or perhaps a private placement, rather than from the debt capital markets. The cost to obtain this debt is likely to be higher than the equivalent debt sought by an asset-heavy company, due to the more limited choices for financing available to us. This should be appropriately reflected in the cost of debt.

We note and welcome Ofgem's acknowledgement that there may be several options to support our liquidity requirements, i.e. through a Revolving Credit Facility (RCF), via a form of Industry Escrow, or a combination of both. Each option would significantly change our risk profile and debt requirement. We have set out our response to these in Annex C on remuneration. We will continue to develop our understanding of how each can work in practice, including the impact on ESO and industry.

The ESO will face other costs that need to be considered and included in any cost of debt. These include any costs and fees required to obtain debt financing, and to maintain a credit rating in line with our licence requirement. As well as this requirement, the credit rating is an important source of comfort and reassurance for counterparties who deal with the ESO, giving them confidence to agree longer-term, lower-cost contracts for the availability of balancing services than would otherwise be the case.

[23] This figure represents closing RAV plus inflation, from source https://www.ofgem.gov.uk/publications-and-updates/riio-et1-financial-model-following-annual-iteration-process-2018

We support the spirit of the principles set out in the Framework consultation that:

- Consumers should pay no more than an efficient cost of debt.
- The cost of debt allowance should be a fair and reasonable estimate of the actual cost of debt likely to be incurred by a notionally geared, efficient company.
- Companies should be incentivised to obtain lowest cost financing without incurring undue risk.
- The calculation of the allowance should be simple and transparent, while providing adequate protection for consumers.

While we agree with these principles, we need to understand how they would be applied within the context of the ESO's agreed funding model. We look forward to working with Ofgem to develop these bespoke arrangements.

**Financeability**

**FQ22. What is your view on our proposed approach to assessing financeability? How should Ofgem approach quantitative and qualitative aspects of the financeability assessment? In your view, what are the relevant qualitative and quantitative aspects?**

**FQ23. Do you agree with the possible measures companies could take for addressing financeability? Are there any additional measures we should consider?**

- The ESO needs to achieve a strong investment grade credit rating.
- Financeability should be assessed on the notional company, and should be measured on qualitative and quantitative metrics.
- Rigorous stress-testing should be undertaken to take into account our significant cashflow risks.
- We do not see the value in introducing a cashflow floor mechanism.

Our main objective is to ensure that the ESO is financeable over the longer term so that we can perform our role on behalf of industry and consumers in an efficient manner. This needs to be assessed on a Notional Company level and cover both debt and equity.

As noted in the cost of debt section above, the ESO's financeability profile differs significantly from that of the other RIIO-2 companies. The high inherent profit volatility driven by the relative size of incentive / penalty schemes, as well as the large and uncertain liquidity requirement due to our revenue collection role, will all negatively impact on the ESO's financeability. This strongly indicates a need to stress-test financeability robustly against various scenarios to ensure that adequate headroom is included, especially considering the importance of the ESO to the wider system. This needs to explicitly include stress-testing the exposure we have to liquidity volatility as a result of our revenue collection role.

On the debt side, it is critical to aim for a strong standalone investment grade credit rating (at least A3/BBB+) – this is important for attracting external debt, and to provide counterparty confidence to our customers in relation to our balancing services and revenue collection roles. While credit ratings in the low BBB range (Baa3/BBB- to Baa2/BBB) are still considered investment grade, they provide significantly less headroom to absorb external shocks, with potentially serious consequences for the industry.

Moody's published its initial rating of the ESO on 12 March 2019 with an outcome of Baa1 with a stable outlook. Moody's calls out the following as the key constraints to the ESO's rating:

- The ESO's exposure to temporary cash outflows due to our revenue collection role and the potential size of these relative to our regulatory asset base.
- Ongoing changes to the ESO's regulatory framework, including the transition to a margin-based funding model where no guidance has yet been provided by Ofgem on the margins.
- Subjective assessment of the ESO's performance through the existing incentive framework.

It is important to point out that Moody's Baa1 rating includes an uplift related to Moody's assigning a high likelihood of parental support should it become necessary to maintain the ESO credit quality. A clear implication of this is that the ESO standalone credit rating would not be strong investment grade (and possibly not even investment grade).

Moody's stable outlook for the ESO relies on the assumption of broadly stable cashflows for the remainder of the current regulatory period and, critically, that the RIIO-2 framework will not result in materially weaker cashflows or a deterioration in the ESO's business risk profile. The design of the future remuneration model, including the ability of the ESO to recover costs and earn returns, the level and predictability of incentive schemes, as well as the arrangements around risk mitigation for the cashflow volatility related to the revenue collection role (and cost recovery thereof), will be key in determining future ratings. Moody's also points out in its press release that the ESO's rating could be downgraded if the regulatory framework appeared likely to become less stable and predictable.

It is important that financeability is assessed with respect to equity capital as well as debt, to ensure that the regulatory regime allows equity holders to earn a return reflecting the higher level of risk associated with an asset-light, high-volatility business model.

Ofgem has suggested a number of potential mechanisms for supporting / addressing financeability. We agree with Ofgem that ESO financeability considerations will need to be reviewed once the funding and return arrangements are finalised. Financeability will also need to be tested against any recommendations from the Charging Task Force review.

**FQ24. Do you agree with the objectives and principles set out for the design of a cashflow floor?**

The cashflow floor concept appears to have been created for a business with a smoother cashflow profile than that of the ESO, with the aim of providing support to companies should they become unable to service debt payments.

We suggest that this may not meet the objectives as set out in the consultation to:

a) Strengthen the ringfence and support the creditworthiness of actual licensees in the current low cost equity environment.

b) Protect consumers and debtholders from downside scenarios while leaving shareholders fully exposed to incentives on cost and quality of service.

c) Preserve the incentive on licensees to manage their financial structures in a reasonable and prudent manner.

The mechanism appears to focus predominantly on financeability in the context of debt holders, thus creating an active bias to debt over equity which we would question. Although it appears to support short-term liquidity requirements by pulling forwards cash, this may lead to challenges in longer-term financeability as the cash injection is offset in future periods. We suggest that underlying financeability challenges could be masked through the existence of the floor, thus pushing issues into future periods and eroding the investor proposition. In recent sector reports, Moodys, Standard and Poors and Fitch have all raised potential limitations with the proposed mechanism. Standard and Poors stated that "the cashflow floor mechanism is of limited credit value[24]", and Fitch go further to say: "the benefit of this mechanism in its proposed form is limited for companies with investment-grade ratings"; and "the cashflow floor appears to merely buy time rather than address the underlying issue causing the liquidity emergency in the first place"[25].

Subsequent clarification from Ofgem has suggested that the cashflow floor concept would only apply to the company's ability to service debt in existence as at 31 March 2018; therefore, it would not apply to the ESO.

Should this change, and the floor would apply to the ESO, we believe it would do little to address financeability concerns. In addition, we do not believe the floor would be a helpful tool to address our liquidity concerns, as it is not expected to provide liquidity at the scale and speed required to address the key liquidity/recovery risk of the ESO (under-recovery of TNUoS charges).

In practice, we do not believe this will provide any financeability or ratings benefit to the ESO.

**FQ25. Do you support our inclusion of and focus on Variant 3 of the cashflow floor as most likely to meet the main objectives?**

We do not believe the cashflow floor will meet Ofgem's objectives given the constraints identified above.

In addition, the proposal for the ESO to facilitate the floor mechanism would considerably increase the scope of our role and create greater volatility in electricity charges. This is counter to customer and stakeholders stated desire for greater stability and longer-term visibility of charges. Such a mechanism has the potential to significantly increase the cashflow risk in the ESO due to timing differences between collection and any potential payment of required funds to the licensee. This would negatively impact the ESO's own financeability

[24] S&P Global Ratings: Ofgem's Proposed RIIO-2 Regulatory Framework Will Test U.K. Energy Networks, 20 February 2019
[25] https://www.fitchratings.com/site/pr/10064354

considerations, as any network company support required is likely to be material in size in comparison to our asset base.

**Corporation Tax**

- We support further exploration of Option A (notional allowance with added protections) and Option B (pass-through for payments to HMRC), with suitable adjustments.
- We believe Option A with adjustments is the best approach for consumers.
- We do not believe Option C (double-lock) is suitable, as it undermines the principle of sharing tax risks outside of the control of the licensee with consumers.

Tax proposals are not considered in the ESO section of the consultation; instead, Ofgem indicates that the proposals set out in the Core Document and Finance Annex will be reviewed to identify if any departure is required to deal with the ESO. The proposals Ofgem has set out for consideration in the Finance Annex are:

- Option A – Notional allowance with added protections
- Option B – Pass-through for payments to HMRC
- Option C – The ‘double-lock’: the lower of notional (Option A) and actual (Option B)

In our view, Option C is not suitable. As we set out in our response to the Framework consultation, we believe this option undermines the principle of sharing tax risks that are outside of the control of the licensee between consumers and the licensee. This proposed mechanism is one-sided, with risk remaining with the licensee.

Of the remaining two options, we believe each has merits and would be worthy of further consideration, although our view is that Option A with adjustments would be best for consumers.

Option A (notional allowance with added protections) builds on the principle of providing a tax allowance to fund the notional company, similar to that applied during RIIO-T1. We recognise that this approach has worked well and has provided a good level of protection to consumers in RIIO-T1, and as a principle is well understood by all parties. However, we would suggest that incentive arrangements are also considered on a post-tax funding basis, ensuring consistency with the remainder of the regulatory framework.

Option A introduces the concept of added protections through a form of re-opener “should [they] find that allowances are materially greater than payments to HMRC”. The existing RIIO-T1 framework includes a tax trigger mechanism that adjusts tax allowances for risks outside of the licensee’s control, e.g. changes in tax rate. We do not believe that a re-opener should be introduced to manage the tax impact of risks within the licensee’s control.

If Ofgem decides to introduce a re-opener in addition to the current tax trigger, we believe it should adjust for both outperformance and underperformance, and should include clear adjustment parameters to ensure the basis of calculation is not retrospectively changed.

As part of our revenue collection role, we are exposed to significant cashflow and profit volatility as incomes collected vary based on demand and generation volumes. Any tax liability resulting from this will require settlement within the tax year in question under the legislation being introduced from 1 April 2019.

Any mechanism developed should allow for this to be managed, both to ensure that the ESO receives appropriate tax allowances to cover this variation across time, and that we can manage the increased cash volatility this may bring.

This volatility suggests that Option B (tax pass-through) may be more appropriate for the ESO. However, this moves away from the regulatory principle of a notional, efficient licensee. It should also be noted that pass-through, as we understand it, would only take place via a true-up at a future point in time and may not therefore be a complete method of providing funding for any tax transactions that the ESO may face as set out above.

There are also practical challenges that would need to be considered, including potential complications associated with intra-group balances (e.g. Group Relief), which would need to be addressed to allow for an approximation of ‘actual’ tax associated with the licensee’s regulated activities, as well as the consideration of factors that sit outside of the baseline revenue calculation.

Our suggested solution to the issues experienced by the ESO is to develop Option A further, providing a core tax allowance to the ESO that is adjusted for the impact of items driving significant tax volatility, e.g. profit volatility resulting from the Revenue Collection Agent role. To ensure a ‘fair’ and risk-balanced solution, this would include the funding of associated cashflow volatility.

Any final decision regarding tax allowances should balance the practicalities of implementation and the allocation of risk across the remuneration model.

**Pension Funding**

- We do not agree with the proposal to align the treatment of Scheme Admin and Pension Protection Fund (PPF) with electricity distribution, or to include these costs as part of totex.
- We believe the existing RIIO-1 approach for Transmission and Gas Distribution should continue.

We welcome Ofgem's ongoing commitment to the funding of deficits in defined benefit pension schemes, as well as its confirmation that the next triennial review of the established deficit pension allowance will sit outside of the RIIO-2 price control review, due for completion in November 2020.

However, we do not agree with the proposal to align the treatment of Scheme Admin and Pension Protection Fund (PPF) costs with electricity distribution.

Retention of the current methodology allows for these costs to be directly reviewed and compared. We believe this has, to date, been successful in containing Admin and PPF costs to the extent that they are controllable, and is therefore in consumers' interests. This is evidenced by the per member Admin costs of the National Grid Electricity Group of the Electricity Supply Pension Scheme in the year to March 2016 being £36 lower than the RPI adjusted average running cost for very large schemes reported in The Pensions Regulator's DB Scheme Cost Comparison Report.[26]

There is limited ability to directly control significant parts of both Scheme Admin and PPF levy costs; they are set by external parties, e.g. the Pension Regulator, or are outside of the direct control of the ESO with responsibility resting with the Trustees, e.g. scheme administration costs. The level of costs will depend on the details of each individual scheme, including its size, investment and risk management strategies. We believe it is more appropriate to retain the existing pass-through mechanism with directly set allowances. This is also more in line with Ofgem's general approach to non-controllable costs and the spirit of the proposal for the new ESO funding model.

A movement away from the current treatment of Admin and PPF costs will lead to a reduction in information transparency, with significant risk of complex historic imbalances in cost between network companies being 'lost'. The current regime of setting specific Admin and PPF allowances separately for each licensed entity allows for individual scheme circumstances and history to be dealt with in a transparent and explicit way.

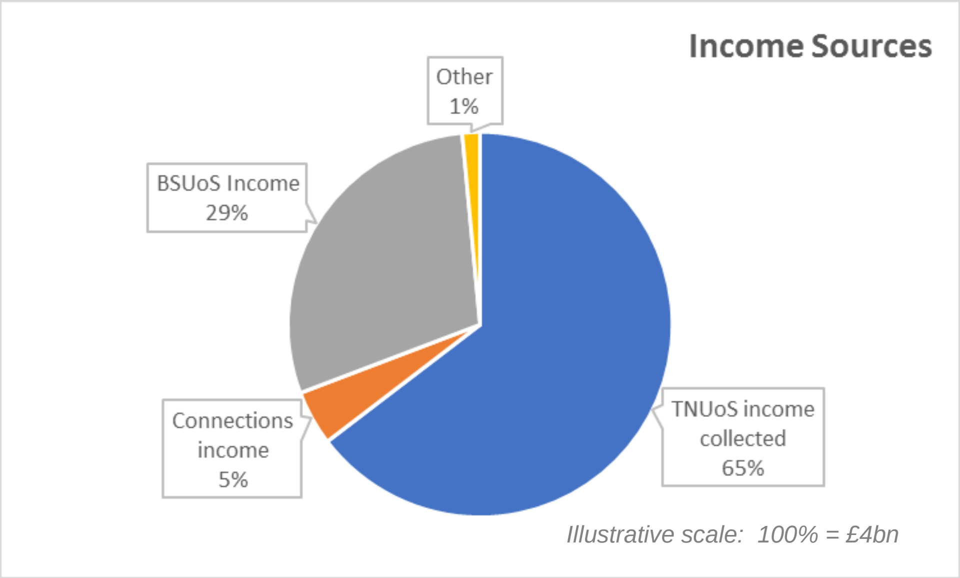
[26] See "Table 3.4 – Total cost per member, by scheme size" in "Defined benefit (DB) scheme running cost research" of April 2014 prepared for The Pensions Regulator by IFF Research.

## Annex A: Financial context on the ESO

The ESO holds a unique role within the energy system and, although relatively small in terms of our internal costs, we have the ability to influence much greater sums of industry costs. We are an asset-light organisation with a Regulatory Asset Value of c£220m at 31 March 2021, giving us a very small balance sheet compared to the >£4bn cash which we transact as part of our revenue collection role.

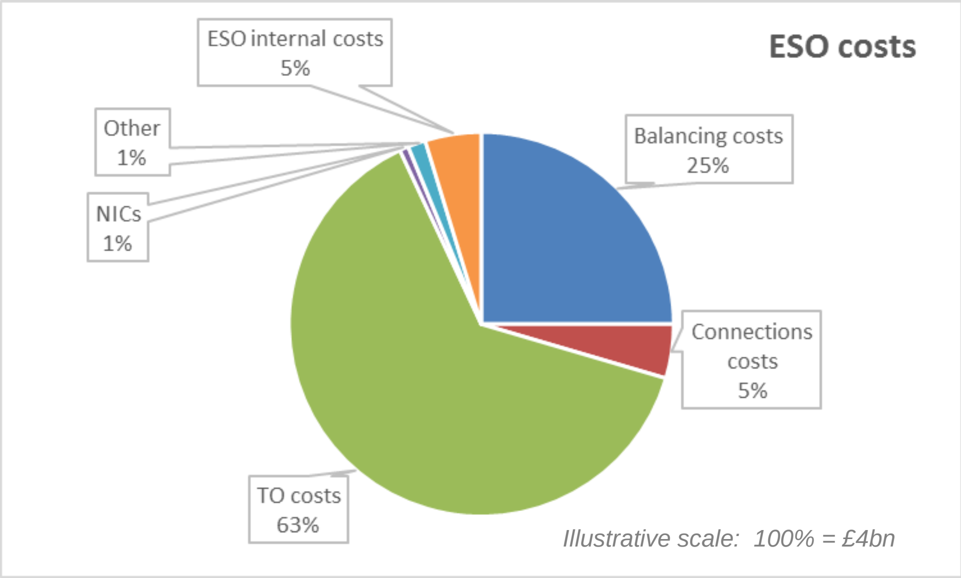
While we are a relatively asset-light business, we rely on IT systems to deliver many of our activities, most notably in the control room to operate the electricity system in real time. Our IT systems have an asset life of between 5-10 years. We also invest heavily in people and have a directly employed workforce of c700, many of whom hold specialist skills. We take specialist support services from the wider National Grid entity (for example Tax, Treasury and Property Management Services).

The charts below[27] provide some context on the relative size of the ESO, the amounts we transact for the business and for others, as well as our costs – both internal and external.




The ESO's income, which is in the region of £4bn, is driven by the two main Use of System charge streams that exist in GB – Transmission Network Use of System (TNUoS) and Balancing Services Use of System (BSUoS). Most TNUoS charges are passed on to other entities while the Balancing Charges that the business incurs are passed on to our customers (suppliers and generators). The majority of the operational costs that we incur are recovered through BSUoS.

[27] The charts use an average of the results in the RIIO-T1 period to date, being 2013-14 to 2017-18, with adjustments as required to extract the items relevant to the ESO from the overall National Grid Electricity position




The effect of passing on the majority of the cash that we collect can be seen in this chart. Only a small proportion (5%) is retained within the business to pay for our internal operations. Around 50% of that provides funding for our operating expenditure, with a further 25% reimbursing our capital investment.

## Annex B: Cost assessment

### Activity-based cost assessment approach

We welcome Ofgem's proposal to assess the ESO's costs on an activity-by-activity basis, and believe this should be limited to the eight activities outlined in the consultation. Breaking internal costs down beyond this level would require significant work in financial systems for capturing costs into the future, in addition to the effort to recreate historic costs on the same basis; the cost required to do this would need to be carefully considered against the likely benefits.

We consider the range of cost assessment activities proposed by Ofgem to be comprehensive and provide our views on each below. We believe that applying all of the proposed mechanisms together is wholly disproportionate to the size of the ESO's internal cost base; this is a view supported by stakeholders.

### Additional cost assessment tools

**Benchmarking**: We agree with Ofgem that benchmarking is a useful tool and should be used where appropriate in our business plan as a broad indicator of costs. Developing benchmarks for ESO activities will require careful consideration of data availability and appropriate methods to make them robust and insightful.

For historical costs, we must be able to access past data at the agreed activity level, which may not be possible depending on how the activities are defined. For comparable benchmarking, some of our activities are not delivered elsewhere, or they are delivered by companies that are completely different in size and risk level. Even where it is possible, robust benchmarking may be hard to develop quickly due to the unique nature of the ESO business. We would like to work with Ofgem and the Challenge Group to discuss and identify appropriate benchmarking approaches and agree what is feasible and proportionate.

**Cost benefit analysis (CBA)**: We fully support the use of transparent CBA: the ESO should be able to demonstrate the consumer benefit for all proposed activities and options in our business plan, which may be qualitative for some activities. We are improving our capability in benefits assessment, setting out our view of the benefits we are looking to deliver through the current incentive arrangements in our Forward Plan. Where appropriate, our CBA assumptions and references should be aligned to other RIIO companies.

We are collaborating with Ofgem and stakeholders to identify an appropriate CBA methodology, and we want to continue these discussions, in particular with groups representing consumer interests. It is important to note that a CBA for the ESO will look and feel different from those for the other companies regulated under the RIIO framework, because of our very different role and the need to focus on the benefits we deliver across the energy system. There will continue to be areas where monetised quantification of benefits will be challenging, so we propose that an ESO CBA combines both quantitative and qualitative data, alongside stakeholder feedback and commercial judgement to justify a recommended position. We would also like to understand what Ofgem means by a "proportionate CBA"; we believe this is best defined around clear activities rather than financial levels, given the varying nature of ESO activities.

We understand Ofgem intends to publish a consultation on CBA in March; we look forward to seeing more detail on CBA for the ESO and engaging further on this.

**Third-party auditing**: We do not consider external audits of our internal costs to be proportionate and would like to understand the specific risk Ofgem is seeking to mitigate by their introduction. We also question the need for audits alongside the other tools proposed for assessing costs, as well as Ofgem's ability to take enforcement action through licence condition C16[28].

**Stakeholder assessment and review**: It is essential that our plan is co-created with stakeholders, including those representing consumers and vulnerable consumers, so that we can ensure we are delivering what they need. We agree that there should be ongoing challenge and scrutiny of the ESO's performance, and we have outlined our view of the continued role of the Performance Panel in our response on the price control process on pages 8-9.

We will continue to engage with stakeholders through multiple channels as we develop our business plan. However, we are also conscious of a general concern across the industry over stakeholder fatigue. We must remain sensitive to that and look to ensure that we balance the importance of stakeholder input against desire to engage.

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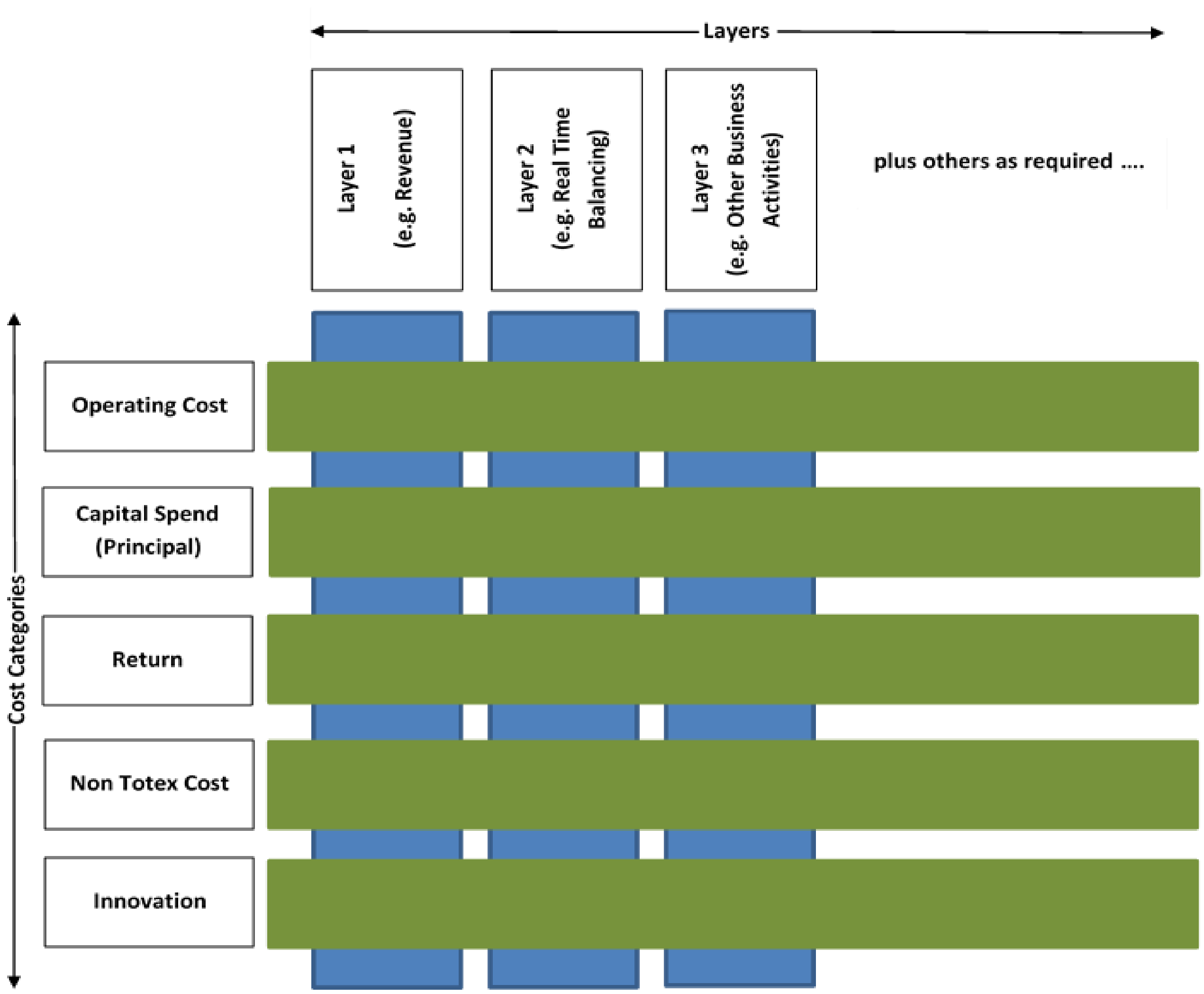
[28] Standard Licence Condition C16 (Procurement and use of balancing services) of the National Grid Electricity Transmission licence says *"The licensee shall co-ordinate and direct the flow of electricity onto and over the national electricity transmission system in an efficient, economic and co-ordinated manner."*

## Annex C: Remuneration

The ESO undertakes a range of varied activities, each with different risks attached, which Ofgem has recognised. We agree that the best approach is to group together activities that have similar risks, and then consider the appropriate remuneration approach and level of return for that grouping or 'layer'. The number of layers must balance the need for simplicity and transparency, with the ability to remunerate different activities according to their risk.

In October last year we published a thought-piece outlining an example of what an activity-based funding model could look like[29], with activities grouped into layers. We have been working with Ofgem this year to review this and come to a shared understanding of how the layers could be built up. An example is pictured below, and we would like to continue discussions with Ofgem to develop this in further detail.




This matrix form of the funding model[30] has the potential to become complex and administratively burdensome if many layers are introduced and different remuneration techniques are used. For simplicity, we have illustrated three activity layers:

1. Revenue Collection Agent Layer – the role the ESO plays as Revenue Collection Agent subjects us to a very different risk profile. This involves transacting >£4bn cash, the majority of which is passed on to other parties, which creates the potential for significant cashflow and profit volatility.

[29] http://yourenergyfuture.nationalgrid.com/media/1587/exploring-how-the-eso-could-be-funded-in-riio-2-v1.pdf
[30] This illustration excludes other types of finance costs that are specifically covered in other sections

2. Real Time Balancing Layer – this includes the activities the ESO undertakes to balance the system in real time. This layer would contain significant operational and reputational risk, and would also drive the need for the majority of our large IT system investments.
3. Network Planning Layer – this includes our Network Options Assessment (NOA), longer term planning on the network, our Future Energy Scenarios (FES) analysis, and is where any activities associated with competition in electricity transmission assets would be delivered.

Other activities we undertake, such as facilitating markets, Electricity Market Reform (EMR) and electricity network codes administration, as well as legacy RAV, should be reflected in the final model.

**Remuneration of ESO costs**

We note that the consultation is silent on a range of costs that would need to be funded under any proposed arrangements. We describe below the costs that need to be considered:

- Operating cost (opex) – we agree with Ofgem that there should be agreed business plan costs (ex ante) to ensure funding is available to match spend.
- Capital Investment cost (capex) – the ESO will continue to invest in new IT systems and tools, but we note that the consultation does not propose how capex would be treated. There are two basic approaches: either to recover the full capex in the year that it is incurred or to spread the cost over the useful life of the asset.

  We believe it is more appropriate to spread the return of the capital invested over the period of the assets' useful life, which would include a principal tracker that would act like a regulatory IOU and be subject to indexation.
- Non-totex costs – the ESO incurs several types of costs today that are not classed as totex, such as business rates and licence fees. For simplicity, we suggest that these costs are allocated to one layer or dealt with at a licence level.
- Legacy – the consultation is silent on how our existing RAV on 31 March 2021 would be treated. There are a number of options, set out at the end of this annex.
- External costs – the consultation is silent on the treatment of external costs. The ESO manages large external costs that are ultimately passed on to consumers and we would suggest that they continue to be treated in RIIO-2 as in RIIO-T1, aside from our response in relation to Black Start costs.

Costs in relation to tax, pensions and debt funding are covered elsewhere in our response.

**Legacy items**

We note that the consultation does not provide any proposals on how legacy items are to be treated. The ESO has an existing RAV that will carry forward into RIIO-2. We believe it is right to assume that this amount should attract appropriate funding and return in line with the principles applied at the time that the RAV was created. We note that this should include the corresponding RAV for some items currently remunerated in an equivalent manner, but do not formally form part of the ESO RAV, e.g. Wokingham property.

There are multiple options for managing this legacy RAV, some of which we highlight below. Whichever methodology is applied it is expected that the following elements are taken into consideration: provision of an appropriate return on legacy RAV and continued indexation of legacy RAV; and that it is not subject to any form of disallowance. We highlight three ways in which legacy RAV could be handled:

1) Legacy RAV unwinds as a separate remuneration layer under the existing methodology.
2) Legacy RAV is allocated into the different layers agreed with Ofgem and unwinds as an allowance built into the corresponding layer's revenue calculation.
3) A bespoke settlement of the RAV across the RIIO-2 period is agreed.

We are keen to work with Ofgem to explore these options further. We would suggest that it is not in consumers' interests to look to transition the ESO's legacy RAV to a CPIH[31] indexation methodology given its limited value and life; the cost and complexity this would introduce would likely far outweigh any benefit.

We set out elsewhere in our response an expectation that ESO revenues will include the *return of* the capital invested as well as a *return on* this investment in the form of a margin. We have suggested that the return of the capital invested in longer term assets be via a depreciation allowance. To support this, we would envisage

[31] Consumer Prices Index Housing

maintaining a tracker for all costs not yet recovered via depreciation allowances. This principal tracker would act like a regulatory IOU and be subject to CPIH indexation. This allows the immediate move to CPIH.

We would like to work with Ofgem to agree an appropriate methodology to deliver the above aim.

**Incentivising cost-efficiency**

Ofgem is proposing a disallowance mechanism that represents a 100% sharing factor for baseline revenues; an unbounded risk for the ESO. We propose amending this to an agreed sharing factor for variation of baseline costs versus the budget. We believe this will drive us to spend efficiently, sharing the risks and benefits of that spending with consumers.

We believe there are merits with continuing with a cost sharing factor that should be considered:

- Allows for the principles of RIIO to be maintained, through incentivisation.
- Allows for the balance of risk to be maintained between the ESO and consumers, rather than passing all risk onto consumers.
- Places a behavioural driver on us to appropriately manage our costs in a more efficient manner than significant ex-post review and audit, allowing the ESO to focus more on innovation and delivery to drive consumer benefits.
- Allows the ESO to make small-scale adjustments to spending during the planning cycle within the budget as set out at the start of the price control. This allows us to trade-off short-term decisions without the risk of disallowance.

We recognise the risk that this sharing mechanism could drive us to reduce our spending in order to increase our share of the benefits. With the scale of the current evaluative financial incentives (+/-£30m), this risk is largely mitigated by discretion available in the consideration of overall ESO performance. We also believe our historical performance has shown that we have not underspent to any significant level, as demonstrated by our totex performance over RIIO-T1 so far[32]; and the fact that we have taken on new activities at risk when there has been a need, such as Power Responsive.

Nevertheless, we would be happy to explore with Ofgem options for the application of appropriate sharing arrangements for ex ante set baseline costs, including considering a different calibration of sharing factor.

**Building in flexibility**

Our baseline operational costs are typically stable and do not significantly change over more than a two-year period. We therefore do not see the benefit in re-opening these costs every two years. This is a view supported by our RIIO-2 Stakeholder Group. This is demonstrated in the small variations that flow through the current cost sharing incentive.[33]

We propose adopting a flexibility mechanism for new activities or investments that were unexpected when setting the business plan, building new agility to respond quickly to industry needs, with appropriate oversight. This could be provided by the Performance Panel, for example. We also agree with Ofgem's proposals for specific re-openers for cyber resilience and physical security as described in the relevant response sections on pages 21-22.

**Risk**

We welcome Ofgem's recognition that we hold different risks across our activities, and that we should have different margins and mechanisms so the notional ESO is financially resilient. A number of the financial risks we hold are discussed below (although this is not an exhaustive list), with our views on margin and additional security mechanisms in the subsequent sections.

- **Cost disallowance** – the proposed cost disallowance mechanism in the consultation is discretionary – up to 100% sharing factor for all costs – and presents an unbounded risk to the ESO. We propose to limit this to new investment or material changes in spend incurred through the flexibility mechanism.
- **Incentives downside** – Ofgem has proposed continuing the current symmetric, evaluative scheme as well as the downside-only Black Start arrangement into RIIO-2 (which does not currently operate as an

[32] https://www.ofgem.gov.uk/publications-and-updates/riio-et1-financial-model-following-annual-iteration-process-2018: The SO element can be seen by selecting "NGET TO" on the User Interface sheet, and then looking at rows 136 to 138 of the System Operator sheet to see our historic totex performance
[33] See footnote 4

incentive). Downside from the incentives represents a risk to the financeability of a standalone ESO – this has been specifically called out in the ESO's credit rating assessment, and therefore will need to be considered when designing an incentive scheme.

- **Business plan incentive**: We note that Ofgem has proposed a business plan incentive for the other RIIO companies, but not for the ESO. We agree that a separate incentive may not be appropriate for the ESO for RIIO-2, given this is a new framework and there is limited ability to assess what good looks like, although we are testing this as far as we can through stakeholder feedback. We would expect any future business planning cycles to allow for such an incentive.
- **Cost uncertainty** – our proposal recognises the need to set ex ante revenues based on the agreed business plan for internal costs and seeks a cost variance sharing mechanism, rather than a discretionary ex post true-up. A sharing factor to incentivise the management of baseline costs is a risk that is well understood and we are used to taking. This is supplemented by re-openers for specific items, e.g. cyber resilience and physical security.
- **Risk of fine –** Any enforcement fine levied on the ESO would have a similar effect to cost disallowance and create an additional cash requirement.
- **Cash timing** – One of the roles of the ESO is to act as Revenue Collection Agent of transmission charges for the TOs. We are required to pay a fixed, regular amount to the TOs, on whose behalf we collect money. Our collections are linked to system demand and therefore subject to variability beyond our direct control. Although we ultimately collect the money to cover our payments, there is the potential for short-term (monthly and annual) differences that the ESO needs to be able to cover.
- **Risk of customer non-payment** – the risk of a customer failing to satisfactorily discharge their debts sits with the ESO. In these cases, the relevant amount still needs to be passed on to the relevant TO, but the ESO will be unable to recover the funds.

We hold additional operational and reputations risks that we have not listed here. Overall, the balance between how these are shared and remunerated should consider how well the ESO is placed to manage the risks within the layer and provide overall value for money for consumers. This will lead to choices between increasing the allowed margin and explicitly allowing recovery of costs associated with risks if they are realised.

**Financeability**

Ofgem and stakeholders recognise that the separate ESO will be more susceptible to financial risks, and therefore the ESO may need to put in place additional financial security to protect the financeability of the notional ESO. Each of the options proposed by Ofgem are discussed below together with the implications on baseline costs.

The consultation document suggests four ways that additional security can be put in place. We note that all the options would require appropriate remuneration to cover the handling or administration costs of these options. We address each of these in turn:

- **Parent Company Guarantee (PCG)**. A PCG is an undertaking from an entity's parent company that it will fulfil any payments the entity is unable to make on its own. We do not believe that a PCG should be required, or indeed would be appropriate, if the ESO is financeable as a standalone notional entity, where this financeability has been robustly tested against a number of scenarios.
- **Insurance Policy**. As with a PCG, an insurance policy would not offer any security on the cash timing risk. It is possible for an insurance policy to act as a bad debt mitigation, but this would typically involve some degree of debt factoring, with the debt becoming a tradeable commodity. While insurance may have a role in supporting the management of some of the ESO's risks, especially connected to non-payment, any premiums to provide reasonable coverage for the ESO are likely to be excessive and therefore may not be in the interest of consumers.
- **Industry Escrow**. An Escrow fund could provide mitigation for some of the risks outlined above. As we understand it, this would involve industry participants paying additional amounts into a ring-fenced fund that the ESO could access as required, and therefore involves passing the risk that the ESO faces onto other parties. Such a practice is followed elsewhere, especially for Storm Funds in the USA, but these are limited to exceptional circumstances that those jurisdictions may face rather than for regular events. We believe several funds would be required, separated by customer group, to prevent cross-subsidy between groups; which may be less efficient than if these risks were managed collectively. We are happy to work with Ofgem and industry to explore this, as well as linking to the output of the Charging Review work outlined in the

consultation. Any review jointly carried out would need to provide a mutually agreeable solution; we are aware that an Escrow fund would place additional costs on customers who would need to raise the funds to pay.

- **Financial / capital facility**. This option involves creating a financial facility that the ESO can draw on as needed. This option would support many of the liquidity-based risks discussed above. Further work is needed to size such a facility appropriately to ensure that liquidity risk is covered under a robustly stress-tested range of scenarios.

A security arrangement will be required to support the cash volatility risk of the ESO, and we believe there is merit in further exploring the use of an industry escrow and/or a financial facility. Both are capable of providing coverage for reasonably foreseeable liquidity risks. Each of these potential solutions would drive a different balance of risk held by the ESO, industry counterparties and consumers. In each case, the risk faced by the ESO cannot be entirely eliminated, and such residual risk would require calibration within margin returns and financeability assessments.

## Annex D: Other finance proposals

### Corporation Tax

**FQ26. Do you support our proposal that companies should seek to obtain the "Fair Tax Mark" certification?**

We support the suggestion in the consultation that companies should seek to achieve the Fair Tax Mark wherever possible.

However, we believe that the Mark is only applicable at Statutory Group level and is therefore of limited benefit when considering an individual entity such as the ESO (which is currently part of National Grid Group, a Group that extends over multiple jurisdictions undertaking both regulated and non-regulated activities).

As such, it is outwith the control of a licensee in many instances as to whether the Fair Tax Mark is available or achieved. We believe it is right to include the intention for a company to investigate the Fair Tax Mark where possible, but it is not appropriate for this to become a requirement subject to potential enforcement.

**FQ27. Is there another method to secure tax legitimacy other than the "Fair Tax Mark" certification? Could we build upon the Finance Acts (2016 and 2009) with regards to the requirement for companies to publish a tax strategy and appoint a Senior Accounting Officer?**

As noted in the consultation, the Finance Act 2016 already requires companies to publish their tax strategies and monitor all tax activities through a Senior Accounting Officer. We are not aware of any further alternatives that would give additional benefit.

**FQ28. For Option A, how should a tax re-opener mechanism be triggered? Is there a materiality threshold that we should use when considering the difference between allowances and taxes?**

The existing RIIO-T1 framework includes a tax trigger mechanism that adjusts tax allowances for risks outside of the licensee's control, e.g. changes in tax rate. We do not believe that a re-opener should be introduced to manage the tax impact of risks within the licensee's control.

If Ofgem decides to introduce a re-opener, in addition to the current tax trigger, we believe that it should:

- Adjust for both outperformance and underperformance
- Include clear adjustment parameters to ensure the basis of calculation is not retrospectively changed
- Support the timely funding of tax
- Work in union with the tax trigger mechanism
- Provide an appropriate balance between simplicity and improved accuracy

### RAV indexation (CPIH)

**FQ29. What is your view on our proposal for an immediate switch to CPIH from the beginning of RIIO-2 for the purposes of RAV indexation and calculation of allowed return?**

**FQ30. Is there a better way to secure NPV-neutrality in light of the difficulties we identify with a true - up?**

The methodology Ofgem outlines for the ESO's new funding model does not mention the ongoing use of a RAV, and remains silent on how the RAV in existence at the start of the new price control period might be dealt with.

We have set out elsewhere in our response an expectation that ESO revenues will include the *return of* the capital invested as well as a *return on* this investment in the form of a margin. To support this, we would envisage maintaining a tracker for all investment costs not yet recovered via allowances. This principal tracker would act like a regulatory IOU and be subjected to indexation.

We agree that future investment tracked on this basis could be indexed using CPIH.

We disagree that the ESO legacy RAV should transition to CPIH. This RAV is likely to be in the region of £220m[34] and under existing terms would unwind within seven years. We suggest that this is dealt with in a simple and transparent way, with potential options outlined on pages 32-33.

### Regulatory Depreciation

**FQ31. Do you have any specific views or evidence relating to useful economic lives of network assets that may impact the assessment of appropriate depreciation rates?**

[34] See footnote 16

We agree with Ofgem's framework principle of using economic assets lives as a basis for depreciating the RAV.

In the context of the ESO's price control framework, it is not clear whether regulatory depreciation has a direct role. However, capital investments made by the ESO would need to have their principal repaid as part of the base revenue calculation. We suggest this could be achieved based on a depreciation allowance.

The ESO tends to invest in assets with 5-10 years of useful economic life, with a current average of just over seven years. This aligns well with the current regulatory depreciation period of seven years.

In addition, we see the concept of the remuneration of regulatory deprecation as being an important factor in ensuring that the cost of investment is borne by those parties who benefit from the use of the asset, in line with the principle of intergenerational fairness.

**Capitalisation Rates**

**FQ32. Do you agree with our proposed approach to consider capitalisation rates following receipt of company business plans?**

We acknowledge Ofgem's plan to revisit capitalisation rates on business plan submission, and agree that this would be an appropriate timeframe to consider the impact of these on overall financeability.

We anticipate that capitalisation rates would continue to align to the principle of ensuring that business plans are adequately remunerated for operating and capital expenditure, and through assessing the timeframes over which these costs are returned in revenue. We do not advocate using capitalisation rates as a tool for bringing cash forwards, which would create longer-term financeability issues and potential intergenerational problems.

**Notional Gearing**

**FQ33. Do you have any comments on the working assumption for notional gearing of 60%, or on the underlying issues we identify above?**

The concept of notional gearing as representing the assumed percentage of net debt to RAV, and being used to set the percentages of RAV that will attract debt and equity allowances, will need to be reviewed for the ESO. The ESO Annex specifically suggests that a RAV-based remuneration and cost assessment model may not be appropriate to apply to a relatively asset-light business.

Although asset-light, the ESO will continue to make significant investments into our IT infrastructure and supporting tools, for which a RAV model is a useful mechanism.

It should be noted that much of the ESO's debt may be in the form of short-term cash requirements due to the cash volatility and risk we manage in our revenue collection role, rather than to fund long-term investment in our asset base. The impact of this on our debt and equity return positions needs to be considered.

At this stage, without greater clarity on the complete cost assessment and remuneration model, we are unable to directly comment on the appropriateness of a notional gearing of 60% in the context of a differently remunerated ESO, and how this may be applied in practice.

**Notional equity issuance costs**

**FQ34. Do you agree with our proposed approach to consider notional equity issuance costs in light of RIIO-2 business plans and notional gearing?**

We support exploring mechanisms for providing allowed revenue to compensate for the raising of notional equity for the ESO.

**Directly Remunerated Services**

**FQ36. Do you have any views on the categories of Directly Remunerated Services and their proposed treatment for RIIO-2?**

The ESO does not currently undertake any major directly remunerated services; however, given the need for the ESO to be flexible, we suggest it would be prudent to retain a miscellaneous category (as in the licence for the newly separated ESO that will come into effect on 1 April 2019) for RIIO-2 that would allow for additional categories or services to be introduced, should the need arise.

**Disposal of assets**

**FQ37. Do you have any views on the potential treatment of financial proceeds or fair value transfers of assets (including land) disposals for RIIO-2?**

We agree with the principle that profits resulting from the sale of assets completely funded under licence arrangements are returned to consumers.

We would ask for this to be considered separately for the ESO given our specific price control, and that this is reviewed as further detail of our funding arrangement is released.

**Real Price Effects (RPEs)**

We note that, in relation to Real Price Effects, the consultation document states that “The indexation of RPEs does not apply to the ESO price control.” However, we would highlight that the ESO will experience differences between general inflation and input price inflation across the business plan horizon. We are proposing a funding arrangement that has more of an ex ante approach, as we feel that better incentivises us to deliver efficiently for consumers. In our proposed arrangement, RPEs would apply to the ESO, and these factors will need to be considered, including any related indexation.

**Annex E: Responses to questions in the Electricity Transmission Sector Methodology document**

**Timeliness of connection offer**

**ETQ15. Do you have any views on whether we should retain the RIIO-ET1 Timely Connections Output (which applies to the connection offer stage) for RIIOET2, including the penalty rate, and extend it to NGET?**

We agree with Ofgem's proposal to retain the penalty incentive mechanism associated with the Scottish TOs' current licence obligation to produce a timely connections offer. We also agree with Ofgem's proposal to retain the current size of the penalty[35], and extend the mechanism to cover NGET. We believe there should be a consistent approach across each TO. The current System Operator Transmission Owner Code procedure (STCP) requires the TO to provide an offer within 60 days, so that the ESO can provide customers with an offer.

**Quality of connection offer**

**ETQ16. Do you have any views on options for capturing the quality of the overall connections process through our stakeholder engagement proposals, for example through the use of a survey?**

**ETQ17. Are there any alternative options for capturing the quality of the overall connection process, not identified in this consultation document, which we should be considering?**

**ETQ18. How do you think we can ensure that transmission operators are not rewarded and/or penalised for actions actually undertaken by the System Operator?**

We agree with Ofgem's proposal that there should be a metric and incentive in place for TOs, to measure the quality of the connections process. It is important that customers receive good quality service and have a positive experience. We do not think this necessarily needs to be a financial reward or penalty; a well-designed reputational incentive could also drive the right behaviours. However, we are not convinced that a survey is the right method for gaining an accurate insight into a wide range of different customer experiences. Currently, the Customer Satisfaction survey (CSAT) measures quality, and as customers are not obliged to provide a response to this we have found it challenging to obtain a representative selection of responses.

The connections process involves the ESO and TOs working together to produce a customer offer. Through the Forward Plan, the ESO is incentivised to 'get it right first time', which drives us to offer customers high-quality connection contracts. While we realise it will be challenging to identify the licensee to reward / penalise, we agree that checks should be in place to ensure that the appropriate party is held to account, and that the ESO isn't penalised for actions undertaken by the TO and vice versa.

**Network Access Policy**

**ETQ54. Do you agree with our proposal to retain the NAP as a licence obligation?**

We support the proposal to retain the Network Access Policy (NAP) as a licence obligation. The NAP has delivered improved collaboration between the TOs and the ESO across all timescales, and supported decision-making for the benefit of consumers. The NAP forum provides an opportunity for issues to be identified and shared, for solutions to be proposed and for new ways of working to be agreed, such as STCP 11-4 Enhanced Service Provision. This new procedure allows the ESO to buy a service from a Scottish TO to minimise constraint costs on the GB Transmission network.

**ETQ55. Do you have any views on the potential risks and benefits of introducing a single, consolidated NAP, and of expanding the NAP to cover interactions with third parties?**

We support a single NAP covering all TOs. Having all TOs working with the ESO in the same way should streamline processes and procedures. A single NAP would also support greater competition, through having a single, pre-established process that a CATO would work to. We recognise the view of some TOs that separate NAPs may better reflect individual TO priorities and circumstances, but we believe these could be incorporated into a single NAP. One way to do this would be similar to the GB Security and Quality of Supply Standards (SQSS), where some provisions differ between TOs within a single overall framework.

We believe there would be benefits to expanding the NAP to cover third parties. This might help clarify guidance over and above existing frameworks, for example the Grid Code, on the exchange of information needed to deliver whole electricity system efficiencies and what different parties can agree between them. For example, while a generator and a TO should engage on certain topics, such as connections, the ESO should be involved in any discussions around agreeing network access.

[35] The current incentive penalty size for the Timely Connections Output is 0.5% of base revenue.

**ETQ56. We welcome views on these [monitoring of NAP impacts and benefits, and interaction with other policy areas] proposals, and on any potential interactions and/or duplications between these proposals, the NAP and the STC.**

The ESO does not see any overlap between the NAP and STCP 11-3[36]. There is, however, a potential conflict between the NAP and STCP 11-4[37], depending on the timing of any increased build cost, because the NAP also requires the TOs to work with the ESO to find the lowest cost solution. Clarity is required over when the provisions of STCP 11-4 would be used instead of the funding being part of the TO allowances.

The benefits delivered by the NAP could be measured through the overall consumer benefits delivered. While it may be simple to compare TNUoS and BSUoS charges against a counterfactual, this would be more difficult if TO costs rather than TNUoS are used.

**Large Capital Projects**

**ETQ57. Do you agree with our proposed approach for ensuring TOs do not benefit financially from delays in delivering large capital investment projects?**

In principle, we agree that TOs should not benefit financially from delays in delivering large capital investment projects. There is potential for the ESO to cause or exacerbate delays in delivering large capital investment projects; for example, through not providing a TO with the required access due to system security concerns or expected high constraint costs. Currently, under the terms of STCP 11-3, a TO can recover incurred costs where the ESO has changed a system outage. We would want to ensure that this cost recovery mechanism would not be used to recover any loss of earnings.

**ETQ58. We invite views on the suitability of the milestone approach, the types of milestones or delivery criteria we should be considering and any potential challenges associated with implementing such an arrangement.**

We are supportive of the milestone approach[38]. This will reinforce the need for TOs to build robust forward delivery plans and should incentivise efficient and effective long term planning of large capital projects.

**ETQ59. Are there any alternatives which we should also consider?**

We do not propose any alternatives for consideration.

**ETQ60. We invite views on the circumstances we should consider options for minimising consumer detriment and/or sharing consumer detriment with consumers.**

Ofgem should consider options for minimising consumer detriment and/or sharing consumer detriment with consumers where a TO should have reasonably foreseen the circumstances or had control over the circumstances that led to the delay. Events outside of the TOs control, for example force majeure, should not result in TOs incurring penalties.

[36] SCTP 11-3: TO Outage Change Costing: to manage any costs payable to a TO for moving an outage at the request of the ESO
[37] SCTP 11-4: TO Service Provision: to allow the ESO to buy a service from a TO to assist in minimising the costs of managing the network
[38] Under the milestone approach, the existing arrangement for assessing and agreeing the total project cost allowances (for example at the start of every price control) would still apply. The new milestone-based approach would then enable the allocation of these allowances against project milestones, with recovery not permitted until the TO has demonstrated successful delivery against the criteria for that project milestone.