# Decision



### **Business Plan 2 Final Determinations – Electricity System Operator**

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Our aim for the RIIO-2 price controls is to ensure energy consumers across GB get better value, better quality of service and environmentally sustainable outcomes from their networks.

As part of its RIIO-2 price control, the Electricity System Operator (ESO) has submitted a second Business Plan for its second Business Plan period, commencing on 1 April 2023. We assessed this plan and published our Draft Determination in November 2022.

This document sets out our Final Determinations for the ESO's second Business Plan period under RIIO-2, which will commence on 1 April 2023.

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# **1. Introduction**

### **Purpose of this document**

1.1 This document sets out our Final Determinations for the ESO's second Business Plan. We set key aspects of the ESO's RIIO-2 framework for the whole five-year period in our Final Determinations in December 2020<sup>1</sup>, but set a two-year Business Plan period which requires a limited number of decisions to be taken anew for the ESO's second Business Plan period (BP2). BP2 will cover the twoyear period from 1 April 2023 to 31 March 2025. All figures in this document are in 2018/19 prices except where otherwise stated.

# What do we expect the ESO's Business Plan 2 to deliver for consumers?

- 1.2 The ESO has a central role in our energy system. It performs a number of important functions from the real-time operation of the system, through to market development, managing connections and advising on network investment. The ESO's delivery of its Business Plan, across the spectrum of its roles, can unlock substantial benefits for consumers by helping to shape the best pathways to a Net Zero energy system whilst keeping the system operating securely.
- 1.3 Over the course of BP2, we expect to see the ESO continue to deliver its RIIO-2 ambitions<sup>2</sup>. This includes:
  - having the ability to operate the electricity system carbon-free by 2025;
  - ensuring all types of technology and solution are able to fully compete to provide the electricity system's short, medium and longer-term needs;
  - coordinating closely with network operators, to ensure there is seamless integration between ESO and distribution-level flexibility markets, as well as a consistent, whole system approach to operations and planning; and
  - shaping the evolution of the energy system by providing trusted analysis and recommendations that ensure decisions are taken to optimise outcomes for consumers across transmission and distribution networks.

<sup>&</sup>lt;sup>1</sup> RIIO-2 Final Determinations – Electricity System Operator Annex: <u>RIIO-2 Final Determinations – Electricity</u> <u>System Operator (REVISED) (ofgem.gov.uk)</u>

<sup>&</sup>lt;sup>2</sup> ESO RIIO-2 ambition: <u>https://www.nationalgrideso.com/document/141256/download</u>

- 1.4 Since the original RIIO-2 process and decision there have been several changes in the wider energy policy space, which have affected the ESO's future role. As we anticipated when setting RIIO-2, the ESO has taken on increasing roles in offshore coordination, early competition and enhanced network planning. In addition, further clarity has been provided by the Department for Energy Security and Net Zero (DESNZ) and Ofgem on the intention to create an expert, impartial Future System Operator (FSO) with responsibilities across both the electricity and gas systems,<sup>3</sup> subject to legislation currently before Parliament. We expect the ESO's transition to an FSO to be at the forefront of developments as we proceed into BP2.
- 1.5 We have reflected closely on the views of the ESO and stakeholders to ensure our price control decisions give the ESO the right resources and incentives. Following your feedback, we have ensured the reward for the ESO to act innovatively and ambitiously outweighs the risks it is exposed to in doing so. Taken as a package, our Final Determinations for BP2 should provide the ESO with the funding it needs to deliver its Business Plan, a fair return for the risks it faces, and a strong incentive reward for excellence. We believe that the successful delivery of an ambitious plan should translate into a reward for the ESO. Our grading of the ESO's Business Plan makes clear that if the ESO achieves demonstrable progress and quality delivery on the outcomes set out in its Business Plan, as well as providing significant further evidence throughout BP2 to justify cost efficiency, then this would result in an incentive reward.
- 1.6 We have reflected on comments from several stakeholders that a critical part of the ESO achieving this outcome is the delivery of an ambitious IT programme. Our Final Determinations sets out our decisions, including further detailed monitoring and assurance within the incentive scheme, to drive high quality cost-effective delivery through BP2.
- 1.7 Finally, we have decided on a funding and financing arrangement which we consider represents value for money for consumers and will allow the ESO to efficiently finance its activities and deliver its vision.

<sup>&</sup>lt;sup>3</sup> Proposal for a Future System Operator role – decision: <u>Future System Operator: government and Ofgem</u> response to consultation (publishing.service.gov.uk)

## An overview of our key BP2 decisions

1.8 Table 1 provides an overview of our key decisions for the ESO's BP2 period. We have also outlined the key values where applicable.

Table 1: Overview of key decisions for the ESO's BP2 period

Component of pri	ce control	Chapter	Decision for BP2
	Incentive scheme design	Chapter 2	Amend the evaluation criteria for Value for Money and Demonstration of plan benefits. Streamline the approach to within scheme feedback/Performance Panel.
	ESO Roles Guidance	Chapter 3	Update guidance to reflect developments in the ESO's areas of activity and evolving role in BP2.
	ESO Delivery Schedule	Chapter 3 and Appendix 1	Delivery Schedule grading: Role 1: 4/5 Role 2: 4/5 Role 3: 4/5
Outputs and performance incentives	Performance measures	Chapter 3 and Appendix 2	Amend our approach to a suite of measures, including performance metrics (balancing costs, demand forecasting, competitive procurement and a new measure to monitor day- ahead procurement under Role 2); stakeholder satisfaction surveys for each ESO Role; and a number of other areas for regularly reported evidence (including new measures for connection offers under Role 3).
	Cost benchmark	Chapter 4	Fund the full totex request of £651m for BP2 Value for Money scoring: Role 1: does not meet expectations Role 2: does not meet expectations Role 3: meets expectations

	Disallowance of Demonstrably Inefficient and Wasteful Expenditure	Chapter 4	No change to cap value from BP1 <sup>4</sup>
Baseline financial	ESO additional funding	Chapter 5	No increase to additional funding from BP1
returns	Capitalisation Rate	Chapter 5	No change in methodology from BP1
Innovation funding	Network Innovation Allowance	Chapter 6	Additional £21.9m for RIIO-2

1.9 DESNZ and Ofgem have set out their intention to create an FSO, subject to legislation currently before Parliament. The ESO produced an indicative plan for the FSO transition as part its BP2 submission, including high-level costs and milestones. This document makes a decision on our high-level proposals to enable and incentivise high-quality, cost effective FSO delivery by the ESO alongside its core BP2 plan, set out in Table 2. We will soon consult on detailed proposals for funding the transition to the FSO, including the costs that National Grid may need to incur to separate the ESO from its existing businesses. The consultation will seek views on both the level of appropriate costs for separation activities and the detailed incentives and consumer protections that will apply.

Table 2: Overview of high-level	decisions for FSO transition
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Component		Chapter	Decision
	Funding		Propose to fund efficient costs incurred by the ESO in order to transition to the FSO via its licence.
FSO transition	Reporting and incentives framework	Chapter 7	Propose to introduce a reporting and incentives framework to create transparency on progress with the FSO transition, and to incentivise timely and efficient FSO delivery. Framework will include an evaluative assessment against delivery and spending and reporting against key milestones and costs, including specific Key Performance Indicators (KPIs).

<sup>&</sup>lt;sup>4</sup> The first business plan cycle (BP1) covers the incentive scheme starting on 1 April 2021 and ending on 31 March 2023.

### Next steps and further work with stakeholders

- 1.10 Alongside our Final Determinations, we are publishing our decision on the detailed implementation of the policies set out. As discussed in this document, for the ESO, this includes detailed changes to:
  - The ESO Roles Guidance (which sets out our expectations for the ESO under its licence obligations and incentives); and
  - The ESO Reporting and Incentives (ESORI) Arrangements Guidance document (which contains detailed obligations and guidance on the incentive process for the ESO).
- 1.11 In addition, we intend to publish a further consultation on the detailed changes to the ESO Roles Guidance to fully capture our new 'Quality of outputs' assessment criterion and several other areas which merited further drafting changes between Draft and Final Determinations. We believe this consultation will allow industry the opportunity to fully input and engage on changes in these areas.
- 1.12 Finally, we are planning to publish a consultation on our proposed FSO incentive framework, which we expect to be later this year.

# **2. Incentives framework**

# Introduction

2.1 This chapter sets out our decisions for the ESO's incentives framework for the BP2 period. A summary of our positions is in Table 3. Table Throughout this chapter, and the next, we refer to a number of different components and documents used to define the ESO's outputs and incentives framework. For reference, these are listed and defined in Appendix 3.

Area		Final Determinations	Draft Determination
Scheme scope		No change from BP1	Same as Final Determination
	Scheme length	No change from BP1	Same as Final Determination
	ESO Performance Panel	Performance Panel meetings in line with revised scheme evaluation format below.	Same as Final Determination
		Reviews at six-month and eighteen-month will be streamlined.	
Scheme design	Timing and format of scheme evaluations	This will involve targeted feedback, but not a full evaluation and scoring process. Ofgem will provide a trajectory of score per Role every 6 months. We will not issue a Call for Evidence.	Same as Final Determination
	Evaluation criteria	Re-frame the evaluation criterion 'Demonstration of plan benefits' to 'Quality of outputs' to focus explicitly on <i>how</i> the ESO delivers the outputs in its Business Plan.	Same as Final Determination
		We will adjust our Value for Money criterion and ex-ante assessment (setting a score for each Role against our cost	

Table 3: Key incentive framework decisions for BP2

		expectations rather than a cost benchmark).	
	Performance evaluations	No change in structure from BP1; we will continue to set out expectations in the ESO Roles Guidance; grade the ESO's Delivery Schedule against our expectations and set performance measures. We are making changes to specifically reflect BP2, which are: updating the ESO Roles Guidance, grading the BP2 Delivery Schedule, and updating certain performance measures. These are set out in Chapter 3.	Same as Final Determination
Scheme value		No change from BP1	Same as Final Determination

### Scheme design

2.2 We discuss below our decision to adapt the scheme design in two areas for BP2: the timings and format of within scheme feedback (and the role of the Performance Panel) and the evaluation criteria.

### Within scheme feedback and panel timings

### Final Determination

Policy	Final Determinations	Draft Determination
Frequency of Call for Evidence on ESO performance	Every 12 months	Same as Final Determination
Frequency of stakeholder events	Every 12 months	Same as Final Determination
Frequency of Performance Panel feedback	Targeted feedback every 6 months, evaluation and scoring every 12 months.	Same as Final Determination
Frequency of Ofgem feedback	Targeted feedback as well as trajectory of score per Role every 6 months. Full evaluation and scoring every 12 months.	Same as Final Determination

#### Final Determination rationale and Draft Determination responses

- 2.3 Most respondents supported our proposal to streamline feedback at the six- and eighteen-month stage. Stakeholders noted how resource-intensive the previous process was and agreed that the proposed approach strikes a good balance between providing targeted feedback, whilst avoiding administrative burden.
- 2.4 One stakeholder noted that a streamlined approach shouldn't limit the opportunities for market participants to share feedback and that opportunities to engage should be clearly communicated with industry. Ofgem recognises the importance of stakeholder feedback which is a critical element of the ESO's incentive scheme. In BP2, whilst a formal request for feedback will only take place through the 'Call for Evidence' at the mid-scheme and end of scheme points, stakeholders can continue to input into the six-month and eighteen-month stages by providing feedback bilaterally with Ofgem or at any other point during the scheme.
- 2.5 The ESO expressed a need to still receive regular, in-depth feedback at the streamlined six- and eighteen-month stage. We recognise the importance of providing quality feedback in a timely manner. Therefore, Ofgem will provide both targeted feedback and a broad trajectory of performance during the streamlined review process. This should align expectations between Ofgem and the ESO and enable the ESO to respond quickly to feedback and make any adjustments needed during the BP2 cycle.
- 2.6 Finally, we note that one stakeholder shared concerns that Ofgem did not clearly communicate that there would not be a Call for Evidence at the 18-month review for BP1. We note that this is out of scope for our BP2 decision. However, we recognize that Ofgem will need to communicate clearly where and when stakeholders can engage and share feedback through BP2 going forwards. The updated ESORI Guidance, published alongside this document, should provide transparency around stakeholder engagement for BP2.

# **Evaluation criteria**

### **Demonstration of plan benefits**

#### Final Determination

Policy	Einal Netermination	Draft Determination
'Demonstration of plan benefits'	This criterion will now be called 'Quality of outputs'. This criterion will still aim to measure, as set out at the start of BP1, the benefits the ESO has achieved from its	Same as Draft Determination
evaluation criterion	Business Plan. However, it will also explicitly measure <i>how</i> the ESO has delivered its Delivery Schedule in line with our expectations in the ESO Roles Guidance.	Determination

### Final Determination rationale and Draft Determination responses

- 2.7 Most respondents, including the ESO, were supportive of the changes proposed. Several stakeholders were pleased with the shift of emphasis to grade *how* the ESO is delivering its Business Plan, with one stakeholder noting that this change will bring greater transparency behind any delays to the Delivery Schedule. We believe the distinction between the evaluation criteria 'Plan delivery' and 'Demonstration of plan benefits' will ensure better clarity on how the ESO can evidence the quality of its Business Plan, and the benefits from this.
- 2.8 The ESO questioned how performance against the evaluation criterion 'Quality of outputs' would be measured in practice. In particular, how Ofgem would weight performance between the benefits described through Cost Benefit Analysis (CBAs) and the ESO Roles Guidance, and how activities not covered in the Delivery Schedule will be assessed.
- 2.9 For clarity, there will not be a formalised weighting between benefits evidenced against CBAs and 'how' the ESO has delivered in line with the ESO Roles Guidance. We will consider both when assessing performance against this evaluation criterion on a case-by-case basis. For example, some deliverables in the ESO's Business Plan will unlock benefits during BP2, and as such a greater focus will be placed on the evidence against the CBAs. However, for other areas particularly under Role 2 and Role 3 the benefits from CBAs will not materialise for many years, and so a greater emphasis will be placed on considering 'how' the ESO has delivered, in line with our ESO Roles Guidance. This flexibility should

ensure our assessment will always reflect the quality of the ESO's performance and the ESO's ability to deliver long term benefits.

- 2.10 Activities not covered in the Delivery Schedule (such as early competition and offshore coordination) will also be considered on a case-by-case basis. We recognize that for these activities, the ESO may not have produced CBAs alongside the Business Plan. As such, our assessment of these activities will solely focus on performance against the ESO Roles Guidance. We will be issuing a further consultation on detailed changes to the ESO Roles Guidance, which should include our expectations under these areas. If the ESO's Roles and activities, or our expectations change within the BP2 period, we will seek to update the ESO Roles Guidance to reflect this which should enable us to effectively assess the ESO's performance. Furthermore, we note that any activities not initially covered in the Delivery Schedule, once they have reached sufficient maturity, should be reported on as part of an updated Delivery Schedule.
- 2.11 Table 4 at the end of this chapter highlights our decision on the changes to the 'Quality of outputs' evaluation criterion for BP2. Further guidance is provided in our ESORI Guidance, which we are publishing alongside this document.

### Value for Money

### Final Determination

Policy	Final Determination	Draft Determination
'Value for money' evaluation criterion	Move away from an ex-ante cost benchmark to an ex- ante scoring of 'Value for Money' for each Role against our cost expectations, based on the requested funding. This approach will be similar to how we set ex-ante performance expectations by scoring the ESO's Business Plan for each Role against the 'Plan delivery' evaluation criterion.	Same as Final Determination

2.12 We have decided that the 'Value for Money' evaluation criterion will measure whether the ESO has struck the optimum balance between maximising the benefits delivered from its outputs whilst minimising the cost required to achieve those outputs. 'Value for Money' for each Role will be considered in the round, taking the other evaluation criteria into account and weighing them against the costs incurred by the ESO.

- 2.13 We expect the ESO to regularly assess their own performance for this criterion and seek to improve on a continuous and ongoing basis. Self-reflection and lessons learned as well as stakeholder feedback and, where appropriate, independent audit should drive this improvement.
- 2.14 For all investments and business activities within a Role, we consider 'Value for Money' to include demonstration of good industry practice in planning and delivery as well as the context of the costs.
- 2.15 Good industry practice will differ across activities or types of activity. For example, where best practice is referenced for IT investment delivery, we expect the ESO to be able to provide evidence of the referenced best practice and performance in line with that. For non-IT ESO activities, the ESORI guidance provides further examples of more general good industry practice when considering 'Value for Money'.
- 2.16 When providing context of the costs, the ESO could provide, but is not limited to, considerations such as:
  - Business Suitability spend is necessary and has been appropriately prioritised against other activities;
  - Resilience and adaptability future uncertainty has been appropriately considered;
  - Ongoing efficiency value is managed throughout the life of the work; and
  - Governance, including delivery and management of risk spend is controlled, risks are managed, and robust oversight and accountability is maintained.
- 2.17 Specific technical criteria may also be considered where appropriate, for example for IT investments it may be suitable to consider aspects such as the foundational capability of those investments.
- 2.18 Our scoring for 'Value for Money' can be found in Chapter 4. Further guidance is provided in our ESORI Guidance, which we have published alongside this document.

### Final Determination rationale and Draft Determination responses

2.19 Overall, stakeholders were supportive of our proposals to move away from an exante cost benchmark to an ex-ante scoring of 'Value for Money'. The ESO stated that these changes strike the right balance between the need for investment certainty, whilst providing a clear signal on delivery expectations.

- 2.20 However, the ESO requested further clarity on how the four 'Value for Money' criteria will be applied and used in practice. The ESO also questioned the detail of what each criterion means in practice.
- 2.21 The criteria listed above are examples of areas that the Performance Panel and Ofgem will consider when reviewing 'Value for Money' for each of the ESO's activities under each Role. For clarity, there is no mechanistic link between a given criterion and the overall 'Value for Money' score and assessment. The criteria used, and weighting of each criterion, will depend upon the individual activities and associated investments. We will consider each activity on a case-by-case basis, and as such the criteria is not an exhaustive list. We therefore expect the ESO to consider the above criteria but evidence how it is maximising 'Value for Money' in the best way it sees fit.
- 2.22 Furthermore, the 'Value for Money' assessment is distinct from the Cost Monitoring Framework and Red Amber Green (RAG) assessment. The 'Value for Money' assessment, whilst taking into account the outcome of the RAG assessment from the ongoing Cost Monitoring Framework, is centred on the ESO's activities per Role and all related investments - rather than solely on the IT investments.
- 2.23 Table 4 highlights the changes to the 'Value for Money' evaluation criterion, as well as the other criteria we have changed for BP2. Further guidance is provided, including detail of how the 'Value for Money' assessment will work, in our ESORI Guidance, which we have published alongside this document.

Criterion	Description	Below	Meets	Exceeds
a) Plan delivery	Measures whether the ESO has delivered its Delivery Schedule on time. Exceptions made where the ESO can clearly explain why a plan deviation was in consumer's interest or outside of its control.	Delivery of a <3 graded Delivery Schedule.	On track to	On track to deliver the key components of a 4 or 5-graded Delivery Schedule.

 Table 4: Changes to the evaluation criteria for BP2

### Decision - Business Plan 2 Final Determinations - Electricity System Operator

Criterion	Description	Below	Meets	Exceeds
b) Metric performance	No change from BP1			
c) Stakeholder evidence	No change from BP1			
d) Quality of outputs	Measures the benefits the ESO has achieved from its Business Plan, considering the ESO's original benefits case and the quality of the outcomes and outputs delivered through the plan. Also considers whether the ESO adapts when needed in order to maximise plan benefits. Where the ESO cannot clearly demonstrate the benefits from its Business Plan, this also measures whether it has demonstrated actions to meet our guidance for exceeding expectations.	not support the realisation of the Business Plan's benefits. ESO does not identify changes or course correct when needed. And ESO does not produce outputs that	in others. ESO identifies the most significant changes and course corrects when needed. Or	Reported evidence strongly supports the realisation of plan's benefits in most areas. ESO quickly and proactively identifies changes and course-corrects when need. Or ESO produces outputs that demonstrate most/all of the 'exceeds expectations' guidance in our ESO Roles framework.
e) Value for money	Measures whether the ESO has delivered value for money, striking the optimal balance between maximising benefit delivered from outputs whilst minimising costs.	practice and/or	Clear demonstration that the ESO is operating to standard levels of good industry practice in a reasonable manner, with clear evidence of ongoing improvement.	Clear demonstration that the ESO is operating to the highest standards. Clear evidence that best practice is being followed and the ESO is taking all reasonable steps to maximise the value of its delivery through ongoing improvement.

# 3. Outputs

### Introduction

- 3.1 This chapter sets out our final set of outputs for the ESO, following our review of its Business Plan for BP2 and stakeholder responses to our Draft Determination.
- 3.2 Table 5 Table sets our key decisions on the outputs the ESO should deliver for BP2. We discuss the aspects that we have decided to change for BP2 in more detail in the sections that follow.

Table 5: ESO outputs for BP2

Type of output	Final Determination	Draft Determination
Licence obligations	No change from BP1.	Same as Final Determination
ESO Roles Guidance	The ESO Roles Guidance has been updated to reflect new developments in the ESO's activities in BP2. We will further consult on detailed drafting changes to reflect new developments in the ESO's activities following our Draft Determination. We will also consult further on changes needed to capture expectations in line with the 'Quality of outputs' evaluation criterion outlined in Chapter 2.	Broadly consistent with Final Determination. However, we proposed changes to certain policy areas which were more detailed and wide- ranging than expected. As a result, we have now decided to further consult on these areas.
ESO Delivery Schedule	Ambition grading: Role 1: 4/5 Role 2: 4/5 Role 3: 4/5	Same as Final Determination
Performance metrics	Amendments to metrics from BP1 on: balancing costs, demand forecasting, wind forecasting and competitive procurement. New metric on day-ahead procurement.	Similar changes to metrics in the Final Determination, but with differences in a few areas, which are detailed within this chapter.

Stakeholder satisfaction Surveys	We will consider evidence holistically when assessing stakeholder satisfaction surveys - taking into account the strength and quality of feedback to consider whether the ESO has either outperformed or underperformed expectations when 'meeting' expectations is the majority category.	Same as Final Determination
Regularly Reported Evidence (RRE)	Amendments to RRE from BP1: transparency of operational decision making, diversity of service providers and consumer value from the Networks Options Assessment (NOA). We have introduced a new RRE to accompany metric 2A and new measures around connections. We have removed RRE on the Electricity Market Reform (EMR) disputes process and the diversity of technologies considered and consumer value from the NOA.	Similar changes to RRE in the Final Determination, but with differences in a few areas, which are detailed within this chapter.

### **ESO Roles Guidance**

### Final Determination

3.3 Following our review of the ESO's Business Plan, we have decided to update the ESO Roles Guidance for BP2. Detailed changes are set out in the ESO Roles Guidance published alongside this document.

Role	Final Determination	Draft Determination
Role 1: Control Centre	Person Professionally Arranging Transactions (PPAt); new PPAt monitoring expectations in line with new Balancing Market monitoring licence obligations.	In addition to the changes at Final Determination, we proposed changes to Security of Supply.
Operations	<b>Restoration;</b> update to reflect the direction for the Electricity System Restoration Standard by government and changes in risk management expectations.	This will be considered in a further consultation.
Role 2: Market Development and Transactions	Cross-border Markets; improvements to interconnector role in the market by removing barriers to entering balancing markets & work under Trade and Cooperation Agreement (TCA). Competitive Procurement; minor amends and moved to Delivering Accessible Markets. Real-time Procurement; updates to reflect	Same as Final Determination, with minor changes in structure.
	updated metrics.	

	Signaling Procurement Needs; minor amends. Electricity Market Reform (EMR); minor amends to reflect progress in development. Role in Europe; changes to a number of sections to reflect the ESO's changing role in the sector following the UK's exit from the European Union.	
Role 3: System Insight, Planning and Network Development	<b>Connections;</b> changes in line with new proposed	In addition to the changes at Final Determination, we proposed changes to Network Planning Activities; Early Competition; Operational Strategy and Insights. This will be considered in a further consultation.

3.4 We have decided to consult further on the detailed changes to the ESO Roles Guidance to fully capture our new 'Quality of outputs' assessment criterion and several other areas which merited further drafting changes between Draft and Final Determinations. Table 6 highlights the main areas we will consult on further.

 Table 6: Proposed further areas of change for future ESO Roles Guidance

 consultation

Role	Area of change
All Roles	Expectations against 'Quality of outputs' evaluation criterion
Role 1: Control Centre Operations	Security of Supply
Role 2: Market Development and Transactions	Additional EMR Changes
Role 3: System Insight, Planning and Network Development	Network Planning Activities; Early Competition; Connections and Operational Strategy and Insights.

#### Final Determination rationale and Draft Determination responses

- 3.5 As most stakeholders agreed with our Draft Determination proposals, we are retaining these, with minor amendments, for Final Determinations. We believe these additions for BP2 will strengthen our expectations of the ESO's performance and more accurately represent the current role of the ESO in industry.
- 3.6 A few respondents requested clarity or minor drafting amendments to our proposed changes to the ESO Roles Guidance. Clarity has been provided where necessary and we have made some minor amendments to the ESO Roles Guidance document in line with this. We note the specific areas where clarity was requested in the subsequent paragraphs below.
- 3.7 For Role 1, the ESO requested clarity on our expectation for "best in class" market surveillance. After discussion with the ESO, we have amended the wording for this expectation to "in-depth and independent" market surveillance to provide clarification. The ESO also asked for confirmation on our expectations of open data and modifications to enable digitalisation. We have clarified that we expect data to open by default, unless there is a good reason to withhold data. If data is withheld, the reason for doing so should be published for transparency. We also confirmed that we expect the ESO to identify and raise any code modifications needed to achieve their Digitalisation Strategy<sup>5</sup>, but we do not expect all code modifications to be assessed from a digitalisation perspective if not relevant.
- 3.8 For Role 2, the ESO sought clarity under Activity 2a on what constitutes 'efficient and appropriate design' for market-based procurement expectations and our expectations for EMR. We have engaged with the ESO and proposed updated wording to clarify these expectations where appropriate in the ESO Roles Guidance document.
- 3.9 In addition, we received responses from the ESO and one other stakeholder, advising against setting certain expectations on how the ESO procure balancing services under Activity 2a. They both expressed that these expectations should not restrict the ESO from procuring in the most cost-effective manner. We note this concern, and in any assessment of the ESO's performance we will consider the reasons why the ESO has made its decision. However, we also note that the ESO works under a legislative and policy regime which consider long-term benefits, in

<sup>&</sup>lt;sup>5</sup> The ESO Digitalisation Strategy and Action Plan:

https://www.nationalgrideso.com/document/262371/download

addition to immediate benefits, and that the ESO itself has set out targets such as 'Competition Everywhere'. Therefore, we have decided not to change our expectations under this area in response to this feedback.

- 3.10 One stakeholder felt our expectations on multi-purpose interconnectors needed strengthening within Activity 2c. We agree that strengthening expectations in this area is beneficial, and as such have added an additional point to clarify our expectations.
- 3.11 Stakeholders, including the ESO, proposed several drafting amendments to our changes for Role 3 in the ESO Roles Guidance. We plan to further consult on this area, given the changing programme of work under Role 3, and so shall reflect on these comments from stakeholders as part of this future consultation.
- 3.12 We note that in our Draft Determination, we expected to make additional changes to several expectations across the ESO's activities, as well as to fully capture our expectations against the 'Quality of outputs' evaluation criterion. Upon review, the changes were more extensive than we had initially considered. To ensure these changes are robust and accurately reflected the ESO's current role, as well as allow industry to engage and comment, we have decided to undertake an additional consultation.
- 3.13 Furthermore, for Role 2 we note delays to the delivery of the EMR Delivery Body Portal between Draft and Final Determinations. This has affected our expectations of performance from the ESO, and as such we intend to further consult on changes to our expectations in this area to reflect this.
- 3.14 For the avoidance of doubt, the ESO Roles Guidance published alongside this document is in force until a final decision is made on the additional consultation.

### **ESO Delivery Schedule**

### Final Determination

What	What Assessment F		Role 2	Role 3
RIIO-2 aims	Ambition (1-5)	No change fron	n BP1	
Two-year Delivery Schedule	Minimum requirements met (Yes / No)	Yes	Yes	Yes
Schedule	Ambition (1-5)	4	4	4

- 3.15 Full details, including our assessment of individual activities, are contained in Appendix 1.
- 3.16 Our expectations for each activity will be published in our ESO Roles Guidance document. This document, combined with the messages in Appendix 1, will help create clarity for the ESO on how it can exceed our expectations in those areas where we have indicated its Delivery Schedule could be more ambitious.

### Final Determination rationale and Draft Determination consultation responses

- 3.17 The ESO responded in detail to our grading of the Delivery Schedule. We've provided a high-level summary of its comments by each Role below.
  - For Role 1, the ESO supported the ambition grading of the Delivery Schedule. The ESO has provided some additional clarification in response to our Draft Determination but noted that several areas could not be addressed at this stage. The ESO has committed to providing additional information and more concrete milestone throughout the BP2 period.
  - For Role 2, the ESO largely agreed with our assessment of the Delivery Schedule. The ESO has provided some additional clarification on some areas of the Delivery Schedule. However, the ESO acknowledged that for some areas, where it was unable to provide more certainty, Ofgem would not be able to change our assessment of ambition. The ESO also confirmed some planned actions, which the ESO believes should resolve concerns from Ofgem around its ability to deliver to a high level under this Role.

- For Role 3, the ESO generally accepted our assessment of the Delivery Schedule. The ESO noted that Role 3 deals with a particularly complex and changing landscape, and that this can make it difficult to provide detail in some areas. The ESO also stated that it is challenging to make clear all the links between Role 3 activities. Furthermore, the ESO noted that a lack of clarity in some areas is due to the need to see the outcomes of early work and policy. This should not block delivery during BP2 once these activities are established, however, the ESO accepted that Ofgem would not be able to score ambition any higher without any further information.
- 3.18 Two other stakeholders commented on our grading. One stakeholder agreed with our proposed grading, stating that the ESO's Delivery Schedule displays ambitious vision. However, the stakeholder was not confident given performance to date that the milestones in the plan would be achieved. The other stakeholder, whilst in agreement with our grading for Role 1, felt that it should be clearer how Ofgem grades the ESO's Delivery Schedule to enable industry to share a view on the specific grades awarded. Further comments were raised around several activities: Balancing Reserve, Skip Rates and the EMR Delivery Body Portal.
- 3.19 For clarity, as stated in our Draft Determination, we have assessed the ESO's twoyear Delivery Schedule using the same methodology as at the start of RIIO-2<sup>6</sup>. We have not re-graded the ESO's RIIO-2 aims. We have acknowledged specific comments on individual activities in Appendix 1.
- 3.20 Since the Draft Determination, we have engaged with the ESO to discuss its Delivery Schedule and our assessment. The ESO has provided some additional detail between Draft and Final Determination, and this has strengthened our view of a score of '4' as appropriate under certain areas. However, the ESO has also stated that some areas are harder to provide extra detail for, preferring to wait for firmer plans to transpire close to the point of delivery. As such, we could not increase our view of ESO ambition without this detail.
- 3.21 Overall, we continue to believe the ESO's Business Plan shows strong ambition. However, for Role 1 we are still not confident that the ESO's activities in BP2 will make highly ambitious progress towards the overall RIIO-2 aims. The ESO's RIIO-2 aims – in particular, to operate the system carbon free by 2025 – are now two years closer, however we have not seen outputs and outcomes materialise under

<sup>&</sup>lt;sup>6</sup> Appendix 1, RIIO-2 Final Determinations – Electricity System Operator Annex: <u>RIIO-2 Final Determinations –</u> <u>Electricity System Operator (REVISED) (ofgem.gov.uk)</u>

BP1 at the quality and pace expected under all areas. This has pushed back delivery in BP1, reducing the pace at which benefits are likely to be realised from highly ambitious to ambitious.

- 3.22 For Role 2 and 3, we have also continued to grade the ambition of the Delivery Schedule as a 4. This is due to the approach taken in both Roles to address key stakeholder issues while delivering a broad scope of activity. At the start of BP1, we expressed our view that Role 3 was starting to exceed expectations and we see a consolidation of ambition in this Role for BP2. We indicated that there was a lack of detail on some activities in the delivery schedule for both Roles 2 and 3.
- 3.23 For Role 2, we note that there has been a slip in delivery timescales for the new EMR platform. As a result of this, our view of the ambition under this area is lower and our overall assessment of the Role 2 Delivery Schedule has reduced slightly. We also note the ESO has reduced deliverables in relation to Enhanced Frequency Control (A15.7) under Role 3 between Draft and Final Determinations. This has been done to increase savings by minimising duplicated expected outputs. We understand and agree with the ESO's rationale for doing so. We note that while this does reflect a slight reduction in ambition over the programme, it does not have a large enough impact to affect our score.
- 3.24 In order to outperform against the 'Plan delivery' evaluation criteria, we expect to see the ESO over the course of BP2, across all Roles, provide and commit to clearer and more concrete milestones for certain deliverables highlighted in Appendix 1.

### **Performance measures**

3.25 For BP2 we have decided on amendments to the ESO's performance measures (performance metrics, stakeholder satisfaction surveys and regularly reported evidence (RRE)). These performance measures should better track the quality of the ESO's actions under its Business Plan and help inform the evaluation against the relevant criteria of the incentive scheme.

### **Performance metrics**

### Final Determination

Performance Metric	Final Determin methodology a benchmarks	ation on the Ind performance	Draft Determinatio	on
Role 1			I	
1A. Balancing	against a cost be Methodology inc 1. Benchmark cr preceding 3 yea 2. A straight-line historic constrain the historic who 3. A straight-line	e relationship establis nt costs, outturn wind lesale day ahead pric e relationship establis straint costs and the	Black Start costs). lements: data from the shed between d generation and e of electricity. shed between	Consistent with Final Determination but with less detail on
costs	4. Ex-post actual by the historic rebenchmarks.	I data inputted into t elationships to create		methodology and performance benchmarks
	Further details a	re in Appendix 2.		
	Exceeds	10% lower than the cost benchmark.	annual balancing	
	Meets	Within ±10% of the cost benchmark	annual balancing	
	Below	10% higher than the cost benchmark	e annual balancing	
1B. Demand Forecasting	Cost benchmark Measures the average absolute MW error between forecast and outturn day-ahead demand for each half hour period (taken from the Balancing Mechanism Report Service (BMRS). The current benchmarks are drawn from analysis of historical errors for the period between April 2014 and March 2020. This takes average Winter (November to March) and Summer (April to October) errors and applies a smoothing over the two-month ramp period either side of Summer. 5% improvement in performance expected each year, with a range of +/-5% used to set the benchmark for meeting expectations.		Consistent with Final Determination, with a change to the methodology to measure MW error rather than % error	

	Exceeds	Year 1: < 5% lower than 95% of average value for previous 5 years. Year 2: As for Year 1, but with 5-year period refreshed.		
	Meets	Year 1: ±5% window around 95% of average value for previous 5 years. Year 2: As for Year 1, but with 5-year period refreshed.	-	
	Below	Year 1: > 5% higher than 95% of average value for previous 5 years. Year 2: As for Year 1, but with 5-year period refreshed.		
	forecast (betwee ESO Data Portal published on ES as a percentage data will only be offer acceptance period. The ESC for transparency The benchmarks	s are drawn from analysis of historical		
1C. Wind generation forecasting	errors of the five years preceding the performance year. 5% improvement in performance expected on the 5-year historical average, with range of $\pm 5\%$ used to set benchmark for meeting expectations Year 1: < 5% lower than 95% of			
	Exceeds	average value for previous 5 years. Year 2: As for Year 1, but with 5-year period refreshed.		
	Meets	Year 1: ±5% window around 95% of average value for previous 5 years. Year 2: As for Year 1, but with 5-year period refreshed.	-	
	Below	Year 1: > 5% higher than 95% of average value for previous 5 years. Year 2: As for Year 1, but with 5-year period refreshed.		
1D. Short	more than an ho	umber of planned outages delayed by our or cancelled in the control phase to process failure, per 1,000 outages.	_	
notice changes to	Exceeds	Year 1: <1 Year 2: <1	Same as Final	
planned outages	Meets	Year 1: 1 to 2.5 Year 2: 1 to 2.5	Determination	
	Below	Year 1: >2.5 Year 2: >2.5		
Role 2				
2Ai. Phase- out of non- competitive	volume of contra	of non-competitive services based on acted services for all relevant services for all relevant services red by the ESO. Expectations are set for	Consistent with Final Determination	

balancing services	products are int We have set ber Frequency respondency Constraints. Benchmarks are projected procur The ESO will rep of the services,	e of products and may be revised if new roduced. Excludes SO-SO trades. <sup>7</sup> achmarks for the following categories: onse and Reserve, Reactive power and e set based on the ESO's current and rement for each of these services. port on MW procurement volumes for all apart from reactive power - where inst procurement volumes in MVar.	but with less detail on methodology and performance benchmarks
	Frequency response & Reserve	Y1: 25% Y2: 20%	
	Reactive Power	Y1: 90% Y2: 90%	
	Constraints	Y1: 65% Y2: 55%	
	Exceeds	5% or more lower than annual procurement benchmark	
	Meets	Within $\pm$ 5% of the annual procurement benchmark	
	Below	5% or more higher than the annual procurement benchmark	
		ntage of balancing services <sup>8</sup> procured at he day-ahead stage. <sup>9</sup>	
2X. Day- ahead		e set based on expected product expectations for new procurement	Consistent with Final Determination but with less detail on
procurement		e set for all relevant services currently ESO and may be revised if new products	methodology
	Y1: 55% Y2: 80%		
	Exceeds	5% or more higher than the annual day- ahead procurement benchmark	

<sup>&</sup>lt;sup>7</sup> SO-SO trades refer to trades made between system operators of connected countries used to determine the direction of electricity flow over interconnectors.

<sup>&</sup>lt;sup>8</sup> Note that for services introduced during BP2, only those that displace those procured earlier than day-ahead or those procured at earlier than day-ahead should be added to the list of balancing services for the purposes of this metric.

<sup>&</sup>lt;sup>9</sup> Note that in line with the terms of a derogation from the requirements of Article 6(9) of the Electricity Regulation, the ESO is required to procure **at least** 30% of services no earlier than day-ahead stage. An example of a derogation held by the ESO detailing this requirement can be accessed here: https://www.ofgem.gov.uk/publications/decision-grant-eso-derogation-requirements-article-69-electricity-

regulation-and-exemption-requirements-article-323-ebgl-mandatory-and-firm-frequency-response

IVIDATE	Within $\pm$ 5% of the annual day-ahead procurement benchmark
	5% or more lower than the annual day- ahead procurement benchmark

- 3.26 Full details are contained in Appendix 2. The ESO will report on each of these metrics monthly, except for the Performance metric 2Ai and metric 2X which it will update every quarter. The ESO will also provide supporting narrative in its reporting to explain its performance against the benchmarks.
- 3.27 We note that it may be appropriate to adjust metric 1A within the scheme period. We will engage with the ESO prior to making any such changes.
- 3.28 We will confirm the final benchmarks for performance metrics 1A, 1B and 1C when we have received the full data required later in the year.

### Final Determination rationale and Draft Determination responses

- 3.29 For Role 1, one stakeholder suggested we should reconsider whether metric 1A was fit for purpose in the current climate. The stakeholder suggested that using only day-ahead wholesale prices may not result in a more reflective ex-post benchmark, in light of real-time price exposure.
- 3.30 We agree that it is increasingly difficult to assess the ESO's balancing cost actions, given the current climate in the wholesale market. However, we believe that the changes made to our methodology are improvements that will allow for a better comparison with the ESO's balancing costs. We also note that this metric facilitates an assessment of balancing costs through both numerical values and detailed narrative. This combined approach, rather than just focusing on a mechanistic methodology, should provide a more reflective picture of the ESO's balancing costs. Furthermore, given the difficulty of setting an effective metric in this area, we will continue to review this metric within scheme and assess, if appropriate, whether any further adjustments are needed.
- 3.31 The ESO generally agreed that we had selected the right metrics to measure it performance. However, it disagreed with our proposed methodology for metric 1B. Other stakeholders also sought clarity on the changes to demand and wind forecasting. They questioned whether further transparency and communication

was needed from the ESO, given the power of forecasts to influence market behaviour and prices.

- 3.32 For metric 1B, we understand the ESO's concern that, with national demand outturn falling year on year, the percentage error for the same MW error is increasing. After further engagement, we have therefore agreed to a MW error which will allow consistent year-on-year comparison. While we acknowledge that an increase in embedded generation could increase the complexity of demand forecasting at transmission-level, we believe that the performance baseline and expectation bands provide a reasonable benchmark against which we expect to see improvements. In addition, we believe that the proposed changes to the forecasting metrics and associated reporting requirements will improve the transparency of the ESO's action - and the utility of the information provided for the wider market.
- 3.33 For Role 2 metrics, one respondent highlighted the need to avoid unintended consequences through the introduction of the two new performance metrics around market reform. The response highlighted the importance of understanding the role of non-competitive balancing services suggesting a pre-emptive drive towards competition everywhere in these markets could significantly increase systemic risk and increase the overall cost of balancing.
- 3.34 We acknowledge that completely moving to day-ahead or competitive procurement could potentially deplete the options available to the ESO if these contracts are not replaced by new, efficient markets. Through our decision in this area, the ESO will have the opportunity to provide justification for its progress around market reform in the supporting narrative, in addition to RRE 2Aii. Where the ESO identifies significant consumer value to procuring services non-competitively, it must be able to evidence this strongly, otherwise, our expectation is that all services move to competitive procurement methods over the BP2 period.
- 3.35 For Role 3, most respondents to our consultation were supportive of the proposed new measure, metric 3X. The ESO specified its preferred approach to the new Role 3 metric on connections, suggesting we address both the quality and timeliness of offers. We have separated the two components of our proposed metric 3X into RRE 3Y and RRE 3X, which we discuss in further detail below.

- 3.36 Finally, one respondent questioned whether it would be appropriate to include clear measures of performance from the ESO around IT delivery. We do not consider a metric to be the appropriate way to track and measure performance of ESO IT delivery as it would require significant simplification and aggregation of a complex arrangement of investments that carry significant uncertainty. However, we are introducing a Cost Monitoring Framework to focus on both the cost and delivery of ESO IT. This should have the same outcome of incentivising the ESO to improve its IT transparency and delivery performance.
- 3.37 The full list of performance metrics, including our proposed methodologies and required associated reporting can be found in our ESORI Guidance, which we are publishing alongside this document.

### Stakeholder satisfaction surveys

#### Final Determination

Policy	Final Determination	Draft Determination	
	We will consider evidence holistically when assessing stakeholder satisfaction surveys - taking into account the strength and quality of feedback to consider whether the ESO has either outperformed or underperformed against expectations when 'meeting' expectations is the majority category.		
	We will keep the same benchmarks as in BP1, with the caveat that:		
Stakeholder satisfaction surveys	<ul> <li>Should the majority of respondents score the ESO as 'meeting' expectations, but the number of respondents that score the ESO as 'exceeding' expectations significantly outweigh those that score the ESO as 'below' expectations, then the ESO can be categorized as 'exceeding' expectations; and</li> </ul>	Same as Final Determination	
	<ul> <li>Should the majority of respondents score the ESO as 'meeting' expectations, but the number of respondents that score the ESO as 'below' expectations significantly outweigh the number of respondents that score the ESO as 'exceeding' expectations, then the ESO would be considered 'below' expectations.</li> </ul>		

#### Final Determination rationale and Draft Determination responses

- 3.38 Stakeholders were largely supportive of our proposal. The ESO noted that our proposal recognises that a combination of 'meeting' and 'exceeding' expectations categories can be seen as an overall positive performance indicator.
- 3.39 The ESO sought further clarity on how "significantly outweighs" will be assessed in practice. The ESO stated that the subjective nature of the statement reduces predictability, and that expanding the definition or providing examples will improve clarity. We recognize the ESO's point, however we believe that expanding the definition will lead to a more mechanistic approach to setting an overall benchmark score towards either 'exceeds' or 'below' expectations. This in turn could result in either the ESO being overcompensated or undercompensated for a relatively even distribution of stakeholder views across categories.
- 3.40 Therefore, to avoid indirectly setting a mechanistic approach, we will not be providing further examples. Our decision is consistent with our Draft Determination position to provide the ESO with certainty that Ofgem will consider all evidence holistically when assessing stakeholder satisfaction survey scores. We will take into account the strength and quality of feedback as part of the stakeholder surveys to consider whether the ESO has either outperformed or underperformed against expectations when the majority category is 'meeting' expectations.
- 3.41 Furthermore, we note that stakeholder surveys are only one input used as part of the stakeholder evidence evaluation. We will consider all other stakeholder feedback received in the round when reaching a decision against the stakeholder evidence evaluation criterion.
- 3.42 Finally, one stakeholder suggested that a similar metric should be implemented that is currently used for Transmission Owners (TOs), to measure stakeholder satisfaction. Given the current approach for the ESO is tailored specifically for feedback on the ESO's Roles and has benchmarks that align with the incentive scheme – we will continue to use the same methodology.
- 3.43 The full stakeholder satisfaction benchmarks can be found in our ESORI Guidance, which we are publishing alongside this document.

### Regularly reported evidence

### Final Determination

Role	Regularly reported evidence	Final Determination	Draft Determination
1	1E. Transparency of operational decision making	Include the requirement to provide a narrative explaining: i) the action the ESO is taking to increase transparency of operational decision making; ii) the causes of actions being taken outside of merit; and iii) the actions planned or taken by the ESO to address the need for actions to be taken out of the merit order.	Consistent with Final Determination but different requirements for reporting.
2	2Aii. Balancing services delivered in a non-competitive manner	We will introduce a new RRE to accompany metric 2Ai. This RRE will monitor the impact of the changes to the number of competitive/non- competitive contracts the ESO holds on actions taken. Requirement to send associated reporting to Ofgem.	Same as Final Determination
2	2B. Diversity of service providers	We have outlined what is to be reported for the new services the ESO expects to procure.	Same as Final Determination
2	2C. EMR decision quality	We believe that this RRE is no longer useful and will be removed from the framework.	Same as Final Determination
3	3A. Future benefits from operability solutions	Additional requirement to provide further narrative on estimated benefits being reported, including disaggregated information for commercial and technical tenders.	Consistent with Final Determination but with less detail on reporting requirements.

3	3B. Consumer value from the Network Options Assessment (NOA)	We believe that this RRE is no longer useful and will be removed from the framework.	We proposed to introduce a 'mini-CBA' framework for each NOA activity, or to refocus the measure of the pathfinder projects.
3	3C. Diversity of technologies in NOA processes	We believe that this RRE is no longer useful and will be removed from the framework.	Same as Final Determination
3	3X. Timeliness of connection offers	Measures the timeliness of the ESO's connection offers that would add value. We have determined that it is valuable for the ESO to report this information, but not appropriate to set performance benchmarks given the ESO has requirements under its licence.	We proposed this as a potential metric in our Draft Determination, with less detail on method and reporting requirements.
3	3Y. Percentage of right first-time connection offers	Measure the percentage of connection offers made which did not need reissuing due to reasons which can be assigned to the ESO. We believe that there may be scope to set performance bands for this measure in the future based on historic ESO performance.	We proposed this as a potential metric in our Draft Determination, with less detail on method and reporting requirements.

### 3.44 Further details are in Appendix 2.

### Final Determination rationale and Draft Determination responses

3.45 For Role 1, stakeholders welcomed changes to the reporting requirements for RRE 1E - to increase transparency and communication around the ESO's dispatch protocol, particularly with regard to the treatment of smaller Balancing Mechanism Units (BMUs). The ESO was not supportive of the proposed changes to the reporting requirements. The ESO suggested that including narrative to explain the reason behind the decision to skip units in the dispatch order - beyond what is provided in the form of a reason code - would be disproportionately timeconsuming due to the sheer volume of instructions.

- 3.46 We agree that further transparency and communication is needed from the ESO to provide market participants with clear information on how and when the decision to skip a unit is made. We have engaged with the ESO further and have decided to change our position from that set out in the Draft Determination. The decision to include different reporting requirements should provide a greater overall benefit to industry for a smaller burden to the ESO. We note that we are setting this requirement as a minimum, and therefore expect the ESO to work with industry to work out the best ways of increasing overall transparency around ESO decision-making.
- 3.47 For Role 2, respondents to our consultation generally welcomed our proposed revisions to the RREs. The ESO was supportive of the changes we proposed to RRE 2Aii but highlighted the necessity of continuing to procure some services in a non-competitive manner and requested that this be taken into consideration in our assessment. We believe the reporting requirements for RRE 2Aii will allow the ESO to justify its procurement choices, which should increase transparency of its progress around market reform.
- 3.48 For Role 3, the ESO was supportive of our proposals for RRE 3A and 3C. However, the ESO questioned our proposal to introduce a more detailed assessment framework and refocus the measure to address some other network planning tools for RRE 3B. After further engagement with the ESO, we have decided to remove RRE 3B from the assessment framework. We recognise that the value of the data the ESO reports on as part of this measure is limited, as the focus of the ESO's network planning has shifted from the NOA. We believe that it is premature to introduce new measures to assess the ESO's performance in other areas as it continues to define its role across new network planning activities during BP2. Furthermore, we believe that we can suitably monitor the ESO's performance under these activities through other areas of incentives reporting.
- 3.49 The ESO and two other stakeholders were supportive of our suggestion to create a performance measure for Role 3 that focussed on the ESO's performance around connections. We have decided that timeliness of connection offers and the percentage of Right First-Time (RFT) connection offers will be two separate RREs 3X and 3Y to capture performance under these areas. We have decided that timeliness of connection offers should be an RRE, rather than a performance metric, as the ESO already has numerical expectations set out under its licence. For RRE 3Y, while we are not setting targets, we expect that process improvements, including coordination between parties, should also drive

improvements in this area. We believe that there may be scope to set performance bands for this measure in the future based on historic ESO performance. We will engage with the ESO prior to making any such changes.

3.50 More details, including methodologies and required associated reporting can be found in the ESORI Guidance, which we have published our decision on alongside this document.

## 4. Internal costs

## Introduction

- 4.1 This chapter sets out our decision for the regulation of the ESO's internal costs during BP2. In particular, it covers:
  - Our assessment of the ESO's total expenditure (totex);
  - Our Value for Money scoring;
  - Our Cost Monitoring Framework for use in the ESO's incentive scheme; and
  - Our decision to maintain the cap value for demonstrably inefficient and wasteful expenditure (DIWE) for BP2.
- 4.2 An overview of our decisions, discussed in this chapter, are outlined in table Table7.

Area	Final Determinations	Draft Determination
Totex assessment	We agree to the totex of $\pounds651m$ for BP2.	£671m for BP2
Value for Money	We have rated the ESO costs per Role below: Role 1: Below expectations Role 2: Below expectations Role 3: Meets expectations	Same as Final Determinations
Cost monitoring framework	We will introduce a more granular cost monitoring framework to enable the ESO to provide regular updates on internal costs. Ofgem will consider the additional information provided when reassessing costs and our Value for Money scoring, on an annual basis, as part of our assessment against the 'Value for Money' evaluation criterion.	Same as Final Determinations
Demonstrably Inefficient and Wasteful (cost disallowance)	No change to the cap value from BP1.	Same as Final Determinations

 Table 7: Overview of ESO cost assessment for BP2

## **Totex assessment**

#### Summary of ESO Business Plan totex

- 4.3 There are various 'internal' costs that the ESO incurs which it seeks to recover through its price control.<sup>10</sup> The costs which the ESO can influence form part of its totex. Other costs which the ESO cannot influence (such as licence fees and business rates) are passed-through to consumers and are not part of the incentive assessment.
- 4.4 In our RIIO-2 Final Determinations<sup>11</sup> we decided:
  - To adopt a two-year Business Planning cycle for assessing totex;
  - Not to apply a Totex Incentive Mechanism (TIM) on the ESO's totex; and
  - To cap the ESO's disallowance in recognition of the balance between the ESO's totex and its Regulatory Asset Value (RAV) compared to the balance for network companies.
- 4.5 This recognised that the main focus of the ESO's price control should be to encourage the ESO to deliver the best overall outcomes for the energy system and consumers at an efficient level of costs, rather than minimising its own totex.
- 4.6 There are four main categories of costs that the ESO incurs as part of its totex:
   ESO operational costs (opex), capital expenditure (capex), business support costs (BSC) and other price control costs<sup>12</sup>.
- 4.7 The ESO shares certain functions with other National Grid Group companies, including IT, HR, finance, legal and procurement. The costs associated with these functions are allocated to the ESO by National Grid Group. Some of these costs are allocated on an indirect basis, based on a methodology to reflect the ESO's approximate usage. Others are allocated to the ESO directly (for example costs for ESO-specific property or IT investments).

<sup>&</sup>lt;sup>10</sup> The ESO also recovers 'external' costs. These are the costs it incurs to pay electricity market participants and network operators for services to operate the electricity system. This section discusses internal costs. External costs are regulated through our decisions in Chapter 2 and 3.

<sup>&</sup>lt;sup>11</sup> Chapter 4, RIIO-2 Final Determinations – Electricity System Operator: <u>RIIO-2 Final Determinations –</u> <u>Electricity System Operator (REVISED) (ofgem.gov.uk)</u>

<sup>&</sup>lt;sup>12</sup> Full details of the ESO's totex cost categories are in Chapter 4, RIIO-2 Final Determinations – Electricity System Operator: <u>RIIO-2 Final Determinations – Electricity System Operator (REVISED) (ofgem.gov.uk)</u>

#### Final Determination

- 4.8 We have decided to approve the ESO recovering its full BP2 funding request of £651m. This reflects the ESO's full BP2 funding request as set out in its Business Plan, updated to reflect the cost savings identified between our Draft and Final Determination.
- 4.9 We consider that there are no activities or investments in the ESO's plan that are not worth proceeding with. However, we recognise that there are activities and ESO IT investments that, based on the evidence provided, currently lack the evidence for us to conclude that the ESO proposes to deliver them most efficiently. Further detail of this can be found in the Value for Money scoring section later in this chapter.
- 4.10 We also note that the ESO's internal costs are pass-through with no sharing factor, which should enable the ESO to flexibly manage its spend as it modernises its IT and takes on significant new activities.

Cost c	ategory	Draft Determination Funding for BP2 (£m)	Final Determination for BP2 (£m)
(a)	Role 1	67.8	67.7
(b)	Role 2	39.2	39.1
(C)	Role 3	56.5	56.4
(d)	Supporting Operational Costs	16.5	16.5
(e)	Total ESO opex	179.9	179.7
(f)	IT & Telecoms (IT&T)	241.8	226.4
(g)	Property	10.7	10.7
(h)	<b>Total Capex</b>	252.5	237.1
(i)	IT&T	178.1	174
(j)	Property management	11.4	11.4
(k)	HR and non- operational training	4.8	4.8
(I)	Finance, audit and regulation	6.6	6.6
(m)	Insurance	1.8	1.8

Table 8: BP2 Totex overview

#### Decision - Business Plan 2 Final Determinations - Electricity System Operator

(n)	Procurement	1.4	1.4
(0)	CEO and group management	6.8	6.8
(p)	Total Business Support Costs	211.0	207
(q)	Other price control costs	30.7	27.2
(r)	Total costs (e+h+p+q)	674.2	650.9

#### Final Determination rationale and Draft Determination responses

- 4.11 Stakeholders responded positively to our proposal to approve the ESO recovering its full funding request for the BP2 period. The ESO stated, in their response to our consultation, that this funding gives the ESO the certainty needed to invest in the systems, processes and people capabilities needed to enable the energy transition, and deliver tangible, substantial benefits for consumers.
- 4.12 Overall, we believe all activities should proceed for the reasons set out in our Draft Determination<sup>13</sup> and as such, we have made the decision to approve the full totex amount. This decision is qualified by Ofgem setting an ex-ante Value for Money score which will ensure the ESO is strongly incentivised to drive cost efficiency, whilst still enabling the ESO to deliver at pace.
- 4.13 We consider the ESO's activities, and thus investments, to be of high value to consumers, with strong positive CBAs. We recognise that the ESO is being asked to take on new activities, and to significantly change how it delivers existing activities in order to meet its ambition to operate a zero-carbon system. We believe the ESO's BP2 ambitions build on the actions we approved under BP1, with a strengthened focus on driving the transformation to a fully decarbonised electricity system in line with the government's new 2035 target. We recognise that, whilst costs for BP2 have significantly increased, undertaking these activities and committing to these investments are critical to achieve the key outputs the ESO has committed to deliver.

<sup>&</sup>lt;sup>13</sup> Chapter 2, Business Plan 2 Draft Determinations – Electricity System Operator: <u>Business Plan 2 Draft</u> <u>Determinations - Electricity System Operator.pdf</u>

#### ESO non-IT opex and capex costs

- 4.14 We recognise that the activities proposed by the ESO are all activities we would expect from an efficient system operator. The activities proposed by the ESO in its Business Plan align strongly with the expectations we set out in the ESO Roles Guidance document. Together with the ESO, we have validated this with ongoing stakeholder engagement which has supported the view that the ESO should deliver across the proposed areas at pace.
- 4.15 The forecast for the ESO's non-IT capex expenditure has risen for the remainder of BP2 from BP1 levels, especially for years 2024/25. However, the forecast remains small in comparison to IT capex. We are confident that the ESO's property investments are justified and required as the ESO looks to increase headcount and hire for the future.
- 4.16 We acknowledge that some increase in expenditure is merited in BP2 for the ESO to achieve its 2025 vision and comply with new obligations.

#### ESO IT opex and capex Costs

4.17 We commissioned an independent consultant, Zuhlke<sup>14</sup>, to assess the ESO's IT investment programme based on the criteria set out in our ESO Business Plan: IT Investment Plan Guidance document<sup>15</sup>. Through this assessment, the independent consultant concluded that, based on the evidence provided, all ESO specific investments had met the threshold set out in our guidance of being required from an effective ESO.

#### Business Support Costs

4.18 The ESO's forecast Business Support Costs have risen significantly from BP1 driven by a large rise in the IT & Telecoms (IT&T) category. As with the ESO specific IT costs, we recognise the need for the IT improvements but have concerns regarding the efficiency of the proposed delivery.

#### Other price control costs

4.19 Our assessment of Cyber IT costs is confidential and not discussed in this document in the interests of national security.

<sup>&</sup>lt;sup>14</sup> Appendix 4, Business Plan 2 Draft Determinations – Electricity System Operator: <u>Business Plan 2 Draft</u> <u>Determinations - Electricity System Operator.pdf</u>

<sup>&</sup>lt;sup>15</sup> Chapter 2, ESO Business Plan: IT Investment Plan Guidance Document: <u>ESO Business Plan IT Investment</u> <u>Plan Guidance.pdf</u>

## Value for Money scoring

4.20 As outlined in our Draft Determination, we have decided to move away from setting an ex-ante cost benchmark and instead provide an ex-ante score for costs against the Value for Money evaluation criterion.

#### Final Determination

Role	Score	Overview of Rationale	Draft Determination
Role	Below	71% of the Role 1 ESO specific IT investments were rated Red in the Zuhlke report. We note that non-IT costs have sufficient evidence to justify the proposed cost increases.	Same as Final
1	Expectations		Determination
Role 2	Below Expectations	47% of ESO specific IT costs were rated Red. Only 12% of costs were in investments rated as Green in the Zuhlke report.	Same as Final Determination - we raised concerns around non-IT costs that have now been justified by the ESO.
Role	Meets	<ul> <li>Non-IT costs generally have sufficient evidence to justify the proposed cost increases, although we highlight some specific areas below that require further information.</li> <li>99.8% of ESO specific IT spend is on Amber rated projects and there are minor concerns with the clarity of some deliverables. However, there were no Red rated projects in the Zuhlke report.</li> <li>We believe that the issues with the Amber projects are due to lack of evidence rather than specific issues highlighted in the Zuhlke report.</li> </ul>	Same as Final
3	Expectations		Determination

4.21 To provide context to this decision, the high-level RAG results were taken from the Zuhlke report. As set out in our IT Guidance<sup>16</sup>, a project will be rated as red if any significant concern is present, and amber if any concern is present – even if the majority of findings for a project are positive. The ESO's investments were assessed based on the information provided at the time of assessment and in some cases the ratings reflect the ESO not being able to provide evidence. This approach is chosen to ensure that the project is understood in terms of its most

<sup>&</sup>lt;sup>16</sup> ESO Business Plan: IT Investment Plan Guidance Document: <u>Decision on IT Guidance for ESO Business Plan</u> <u>Guidance | Ofgem</u>

significant potential risk. Details of the outcome of this RAG assessment can be found in Annex 4 of the ESO BP2 Draft Determination. A summary of the findings can be found in Figure 1 below.

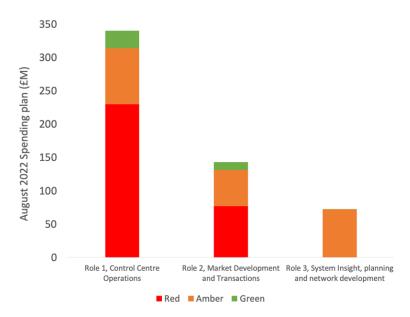


Figure 1: Zuhlke scores using Ofgem RAG method for the ESO latest spending plan.  $\pm$ 307M (55%) Red;  $\pm$ 210M (38%) Amber and  $\pm$ 38M (7%) Green. Values are quoted in FY2018/19 money.

#### Final Determination rationale and Draft Determination responses

- 4.22 The ESO did not support the conclusions of the RAG ratings that informed our Value for Money scores. Following the publication of the Draft Determination, we have engaged extensively with the ESO to understand their concerns and develop a monitoring framework that allows them to provide additional evidence to inform our view of their IT ahead of subsequent assessments. The ESO has produced a plan to address the concerns raised and have begun providing some additional information. While this has been valuable information across the Roles, at the time of this determination, it has not been enough to impact the Value for Money scores.
- 4.23 In our Draft Determination we set out a more complete view of the Value for Money scoring and rationale. In the section below we outline only the key drivers and address any changes in our views since the Draft Determination.

#### <u>Role 1</u>

4.24 The key driver for scoring Role 1 as 'below expectations' are the concerns we have identified with the Role 1 specific IT investments. Some 64% of the Role 1 funding request is ESO IT specific investments and red-rated IT projects make up more than 45% of the total Role 1 request. Beyond the ESO's more general challenge, no respondents directly commented on the Role 1 scoring of 'below expectations'.

#### Role 2

- 4.25 The main driver for scoring Role 2 as 'below expectations' are concerns with the ESO's proposed Role-specific IT spend. Some 51% of the Role 2 funding request is IT; with 47% of those ESO Role-specific IT investments rated red and 41% of the investments rated amber. Beyond the ESO's more general challenge, no respondents directly commented on the Role 2 scoring of 'below expectations'.
- 4.26 At Draft Determination, we noted concern regarding the headcount for subactivities A4.2 *Power responsive* and A4.3 *Deliver a single day-ahead response* The ESO has provided, between Draft and Final Determination, a clear breakdown of the realignment of headcount within Role 2. We are satisfied that the ESO has provided sufficient detail to address these concerns.
- 4.27 At Draft Determination, we had concerns regarding the clarity of the what the ESO expected market reform to deliver for the inputs, as well as the material differences between sub-activity A6.8 and A6.5 *Work with all stakeholders to create a fully digitalised whole system technical code by 2025*. The ESO has indicated that, due to de-prioritisation of the consolidation element under sub-activity A6.5 at the end of BP1, A6.8 was created to look specifically into digitalisation, while *A6.5* will focus on the ESO's code consolidation work. Going forward, we expect the ESO to provide greater clarity on the impact of the high-level deliverables attached to the code management and reform work in its Business Plan as BP2 progresses. We expect this to be evidenced through the incentive scheme monitoring and reporting process at six-monthly intervals.

#### Role 3

4.28 We have scored Role 3 as 'meeting expectations'. Some 39% of the total Role 3 funding request is IT. No projects were rated as red for Role 3 and the vast majority of spend is on amber-rated investments. The main reason for a number of those projects being rated as amber was a lack of information, rather than identified issues.

- 4.29 One respondent did not support the Value for Money scoring proposed in the Draft Determination, stating that as 99.8% of the ESO's spend proposal has limited justification, with 0.2% of the spend sufficiently justified. They stated that they were in favour of maintaining a higher justification threshold to demonstrate Value for Money. We agree that were this based solely on the IT spend ratings without wider context, the ESO would have scored lower. However, taking into account the causes of the Amber ratings, noting the proportion of IT to non-IT costs, and the additional information provided by the ESO, we stand by the score of 'meeting expectations'.
- 4.30 At Draft Determination, we noted that the forecast for Role 3 non-IT opex has risen significantly when compared to BP1 estimates driven by a marked increase in headcount, most notably to support activities A22 *Offshore coordination and network planning review* and A14 *Take a whole electricity system approach to connections*. In addition, we indicated concerns around the deliverability and the lack of clarity for sub-activity A15.8 *Facilitated distributed flexibility and whole electricity system alignment*. In response to our concerns the ESO has updated the Delivery Schedule to provide further clarity and insight into targeted improvements and success measures for these activities. We are satisfied with the ESO's response but expect to see clear positive outcomes for the level of funding increase through BP2.
- 4.31 Overall, while the ESO has scored within the 'meeting expectations' bracket, it is towards the lower end of this scoring. We expect to see further clarity and action to address our concerns, both for IT and non-IT issues, to consider adjusting our score upwards.

## **Cost monitoring framework**

#### Final Determination

4.32 We confirm our decision to introduce a detailed framework to monitor the ESO's costs. We note that in order to ensure timely reporting of information, the reports created for the Cost Monitoring Framework will be shared with Ofgem but will not be published. As part of the ESO's stakeholder engagement, the ESO should publish regular progress updates on its IT investments and IT Portfolio and

engage with stakeholders regularly. In doing so we expect the ESO to ensure industry members are kept aware of the ESO's IT delivery progress and any notable developments, including any notable reprioritisations, changes in approach or significant deviations from planned costs. The outcome of our RAG reassessment of the ESO's IT at the mid-scheme (12 month) stage will be published.

Policy Decision	Einal Natarmination	Draft Determination
Focus of the Cost Monitoring Framework	IT and the delivery of IT investment.	Same as Final Determination
Further IT Assessments	The ESO IT will be reassessed at the mid- scheme (12 month) stage, using a RAG rating of the same criteria as used in the assessment that informed our positions for this determination.	Same as Final Determination

## 4.33 Further detail of the Cost Monitoring Framework can be found in the ESORI Guidance document, published alongside this document.

Final Determination rationale and Draft Determination responses

- 4.34 All stakeholders, including the ESO, were supportive of the introduction of a Cost Monitoring Framework. One stakeholder highlighted that this framework was urgently needed. Another stakeholder highlighted the importance of identifying cost inefficiencies early, as this will give Ofgem transparency to deal with these issues appropriately.
- 4.35 By introducing a framework for ongoing monitoring of costs, we give the ESO the opportunity to regularly engage with Ofgem on our Value for Money assessment.
- 4.36 The monitoring framework and regular engagement will also allow the ESO to provide an update as plans change, with the reason for the changes as they happen, allowing Ofgem to ask further questions and provide initial feedback to that evidence where appropriate.
- 4.37 We believe our decision on the Cost Monitoring Framework strikes the right balance between allowing the ESO to provide evidence and ongoing assurance without placing too much regulatory burden upon them.

# Disallowance of demonstrably inefficient or wasteful expenditure

#### Final Determination

Policy	Final Determination	Draft Determination
DIWE cap (% RAV per year)	2.5%	Same as Final Determination

#### Final Determination rationale and Draft Determination responses

- 4.38 The ESO agreed with our proposal to not change the cap on Demonstrably Inefficient and Wasteful Expenditure (DIWE), which aligns with the ESO's proposals in their final Business Plan. The other respondent to this question commented that they disagreed with our proposal given the significant increase in costs, which have not been sufficiently justified. They argued that the result is a potential push of risk onto the consumer with over inflated costs.
- 4.39 We note that the DIWE cap is a percentage of RAV as RAV increases, the amount that can be disallowed increases proportionally. In addition, we note that the increase in costs has largely been as a result of higher IT spend which we have specifically created a monitoring framework around to catch cost concerns early.
- 4.40 Whilst costs have increased, we do not consider this cap would excessively weaken consumer protection. This is due to the ESO's more agile, modular approach to project development, combined with our twelve-monthly Value for Money incentive assessments. In setting this cap, we have balanced the potential benefits of enabling the ESO to deliver its plan rapidly and ambitiously, against the risks of reducing consumer protection.
- 4.41 We expect to place a strong focus on the ESO to drive for cost efficiency through our incentive scheme – by setting clear ex-ante expectations on cost efficiency through our Value for Money scores and monitoring and assurance through the scheme with our Cost Monitoring Framework.

## 5. Finance

## Introduction

- 5.1 This chapter sets out our decisions for the regulation of the ESO's financial decisions for BP2. In particular, it covers:
  - Our decision on the ESO's BP2 additional funding proposal; and
  - Our decision on the ESO's BP2 capitalisation rates.
- 5.2 Table 9 summarises our key financial decisions.

Table 9: Finance decisions for the ESO for BP2

Finance Area	Final Determination	Draft Determination
Capitalisation rates	Capitalisation rate set as 38.3% for 2023/2024 and 37.6% for 2024/2025.	Capitalisation rate set as 35% for 2023/2024 and 34% for 2024/2025.
Additional funding – Working Capital Facility (WCF) Additional funding – Other	Maintain the additional funding at the BP1 level (£5.6m per annum).	Same as Final Determination

## Additional funding (including the WCF)

- 5.3 Our Final Determination for BP1 set 'Additional Funding Other' at £4.8m<sup>17</sup> per year (nominal prices) and 'Additional Funding Working Capital Facility (WCF)' as a pass-through arrangement to fund the efficient and observable costs for the WCF. The WCF costs were estimated at £0.7m £0.9m in nominal prices. Together, the total additional funding was £5.6m per annum.
- For BP2, the ESO has requested a further additional £4.4m (bringing the total 'additional funding' to £10m per annum) based on increased potential risks to the ESO associated with the fixed Balancing Services Use of System (BSUoS) tariff.<sup>18</sup>

<sup>&</sup>lt;sup>17</sup> Chapter 5, RIIO-2 Final Determinations – Electricity System Operator Annex: <u>RIIO-2 Final Determinations – Electricity System Operator (REVISED) (ofgem.gov.uk)</u>
<sup>18</sup> 54 American State of a solid to a state of a solid to a solid

<sup>&</sup>lt;sup>18</sup> £4.4m per year = £300m of capital \* 15% equity proportion \* 9.7% cost of equity

#### Final Determination

Policy	Final Determination	Draft Determination
Additional Funding	We have decided not to grant any further additional funding for the BP2 Final Determination. We continue to provide additional funding of £5.6m per annum.	Same as Final Determination

#### Final Determination rationale and Draft Determination responses

- 5.5 We received 2 responses with comments on BP2 additional funding.
- 5.6 An industry stakeholder confirmed support for our Draft Determination position, to not provide any further additional funding. They said "...we support Ofgem's proposal not to increase the additional funding mechanism. Whilst we accept there are risks and uncertainties faced by NGESO, we consider the case for increasing additional funding has not been made. Specifically, there is not sufficient clarity around the need for more funding or that these risks cannot be managed within the existing funding envelope."
- 5.7 The ESO's response disagreed with Ofgem's Draft Determination position regarding additional funding. The ESO said that additional renumeration would support new risks arising from fixed BSUoS tariff in line with CMP361<sup>19</sup>. The ESO referred to Liquidity Risk, Credit Risk, and Profit Volatility Risk. Additionally, the ESO referred to Ofgem's concern of 'double counting', claiming that only additional risks, which emerge from the introduction of the BSUoS fixed tariffs, are remunerated as per the methodology set out in its BP2 submission.
- 5.8 Through our post Draft Determination engagement with the ESO, we deduced that the ESO's actual WCF is £550m, and costs approximately £800k to service across a variety of fees. It is funded via a pass-through mechanism and the ESO confirmed that it offered and could use £300m of this £550m to support the Fixed BSUoS tariff (CMP361), with the remaining £250m potentially funding other cashflow risks. The £550m facility was maintained by the ESO in expectation that it could be used to support the new BSUoS tariff. Therefore, from a debt

<sup>&</sup>lt;sup>19</sup> Final Modification Report CMP361 & CMP362: <u>download (nationalgrideso.com)</u>

perspective, any additional/new risks are explicitly renumerated within the current (BP1 and BP2) pass-through funding arrangements.

- 5.9 The ESO's overall request for £10m<sup>20</sup> per annum relies heavily on the assumption that there are additional equity risks, and additional equity capital, which requires an equity return. However, we did not receive persuasive evidence that there were additional equity risks or that the ESO would need additional equity capital, over and above the existing equity assumptions, reflected in the £5.6m per annum of additional funding as per BP1 funding envelope.
- 5.10 Ofgem confirmed with the ESO, that there were no implementation or industry issues arising if ESO receives  $\pounds 5.6m^{21}$  per annum, rather than  $\pounds 10m$  per annum, after the introduction of a new BSUoS tariff. The  $\pounds 5.6m$  per annum already includes funding for both debt and equity risks. The debt allowance is  $\sim \pounds 0.8m$  per annum and fully funds the existing  $\pounds 550m$  WCF, of which  $\pounds 300m$  has been offered and ring-fenced by the ESO for BSUoS. The equity amount is  $\sim \pounds 4.8m^{22}$  per annum which reflects a basket of equity capital and equity risks for the entire ESO business.
- 5.11 Given the body of evidence outlined above, Ofgem concludes that the case for an  $\pounds 4.4m^{23}$  has not been robustly made. Specifically, there is not sufficient clarity around the need for more funding or that these risks cannot be managed within the ESO's existing funding envelope. A further backstop is the potential for the ESO to revise tariffs, should the current level be insufficient.

## **Capitalisation rates**

- 5.12 For BP1 we set annual capitalisation rates that reflect expected split between capex and opex expenditure (37% for 2021/22 and 34% for 2022/23).<sup>24</sup>
- 5.13 For BP2 the ESO did not propose to change the capitalisation rate methodology from BP1.

 $<sup>^{20}</sup>$  £10m = £5.6m + £4.4m

 $<sup>^{21}</sup>$  £5.6m per annum = £4.8m of equity portion per annum + £0.8m of debt portion per annum

<sup>&</sup>lt;sup>22</sup> £4.8m per annum = £3.3m revenue collection role (equity) + £1.5m asymmetry and other risk claims £3.3m is calculated as a midpoint of £5.1m (£260m of capital \* 20% equity proportion \* 9.73% cost of equity) and £1.6m (£165m of capital \* 10% equity proportion \* 9.73% cost of equity)

 $<sup>^{23}</sup>$  £4.4m per annum = £300m of capital \* 15% equity proportion \* 9.73% cost of equity  $^{24}$  These values can be seen in the ESO Price Control Financial Model (PCFM) for AIP 2022 (published 22 July 2022): ESO Price Control Financial Model | Ofgem and the RIIO-2 Final Determinations – Electricity System Operator (Table 10, page 65): <u>RIIO-2 Final Determinations – Electricity System Operator (REVISED)</u> (ofgem.gov.uk).

#### Final Determination

Policy	Final Determination	Draft Determination
Capitalisation rates	We have decided to set capitalisation rates at 38.3% for 2023/2024 and 37.6% for 2024/2025, in keeping with our previous BP1 methodology <sup>25</sup> .	Ofgem proposed to set annual capitalisation rates at 35% for 2023/2024 and 34% for 2024/2025.

#### Final Determination rationale and Draft Determination responses

- 5.14 We received one response to ESOQ16 in the Draft Determination from the ESO.
- 5.15 The ESO agreed with our proposal to set capitalisation rates in accordance with the methodology for BP1. The ESO did not agree with the source of the values because these were based on the ESO's forecast costs rather than the costs assessed by Ofgem in their BP2 submission. The ESO also noted that the FSO costs should not be classed as totex and should not be added to the Regulatory Asset Value (RAV).
- 5.16 Following the publication of BP2 Draft Determination, the ESO provided Ofgem with updated cost figures. Ofgem then used these figures to conduct a cost assessment.
- 5.17 Based on these updated figures, Ofgem was able to calculate the expected split between capex and opex expenditure for BP2 (see Table 10). Accordingly, we are setting annual capitalisation rates at 38.3% for 2023/2024 and 37.6% for 2024/2025. These capitalisation rates reflect the fact that FSO costs are not eligible to be added to the RAV<sup>26</sup>.

<sup>&</sup>lt;sup>25</sup> RIIO-2 Final Determinations – Finance Annex: <u>RIIO-2 Final Determinations – Finance Annex (REVISED)</u> (ofgem.gov.uk) 26 See table on merce 56

<sup>&</sup>lt;sup>26</sup> See table on page 56.

		2023/2024	2024/2025
Totex	£m 2018/19 Prices	320.6	330.3
Capex	£m 2018/19 Prices	122.8	124.3
Opex	£m 2018/19 Prices	197.8	206.0
Cap rates	%	38.3	37.6
Non-Totex	£m 2018/19 Prices	76.3	79.5

#### Table 10: Capitalisation rates

## 6. Innovation

## **Network Innovation Allowance**

6.1 We set out below our Final Determinations on the ESO's BP2 Network Innovation Allowance (NIA) funding.

#### Final Determination

Network Innovation Allowance	Final Determination	Draft Determination
Level of NIA funding	Additional £21.9m NIA funding for RIIO-2	Same as Final Determination

#### Final Determination rationale and Draft Determination responses

- 6.2 We have decided to award the ESO NIA funding totalling £21.9m for the remainder of RIIO-2. Our decision remains unchanged from our Draft Determination proposal, after considering feedback from responses to the question on the ESO's NIA funding and further engagement with the ESO.
- 6.3 The ESO agreed with the level of funding proposed and requested further information from Ofgem to clarify what additional information, as part of benefits tracking, we would like the ESO to provide. The ESO highlighted the examples of benefits from innovation it had provided in previous engagements. In addition, the ESO noted that it had been agreed that the benefits of the ESO's innovation work should be assessed differently compared to other network companies, due to the indirect impacts this work has on the wider energy system as opposed to the ESO's operations.
- 6.4 One stakeholder expressed concerns with our proposal to increase the ESO's NIA funding by such a significant amount, noting there is a lack of evidence to suggest the ESO has a robust process in place to track the benefits from innovation.
- 6.5 Our decision, as set out in our Draft Determination proposal, accounts for the ESO's inability to fully satisfy the benefits tracking criterion within our refreshed approach to assessing innovation. Our assessment reflects an expectation to see the ESO provide more detailed and transparent information on the processes it

had in place to track, monitor and report the benefits from innovation projects at all stages of the project development cycle - beyond what it is currently reported as part of the Energy Network Association's Innovation Measurement Framework.

- 6.6 Going forward into BP2, we will be working with the ESO to make this process more transparent for innovation projects at different stages of the development cycle, with the aim of developing a bespoke reporting framework in recognition of the unique nature of the innovation work the ESO carries out, as well as the longer lead times associated with this work.
- 6.7 Furthermore, we believe that this level of funding will provide the ESO with the certainty it needs to be able to plan and execute innovation activities over the remainder of the period. Through the submission of evidence of planned innovation activity, and through engagement with the ESO, we believe that the innovation activities the ESO has proposed are justified and support Business As Usual (BAU) activities within the wider Business Plan.
- 6.8 Other feedback suggested that TOs should be given the same opportunity to increase innovation funding, as they are facing the same network issues. We consider this view to be outside the scope of our assessment. However, we note that a minimum of 75% of NIA funding must be spent outside the ESO on collaboration with third parties, thereby giving the wider industry the opportunity to benefit from this funding.

## **7. FSO**

## Introduction

- 7.1 The introduction of the FSO will deliver significant benefits for the entire energy sector and consumers. We have been working closely with DESNZ to ensure a timely and cost-efficient transition that will rapidly unlock these benefits. The Energy Bill that will help facilitate this is currently making its way through parliament.
- 7.2 As part of its BP2 submission, the ESO produced an indicative plan for the transition to FSO. This plan included transformational activities, high-level costs and milestones. We have since received further information on costs and outputs. These plans are being considered and assessed by Ofgem and DESNZ, in conjunction with on-going engagement between all parties involved.
- 7.3 In line with the decision in this document, we recently provided the ESO with assurance that it will be able to recover some initial efficient costs associated with the FSO transition through the ESO's BP2 price control, prior to us concluding a full consultation on the main costs of separation. These costs are mainly for initial detailed planning work.
- 7.4 In working with the ESO, National Grid Plc has also incurred costs to support the separation and transformation of the ESO to the FSO, and is expected to incur further costs. We consider that where these costs are economic and efficient, and where they are for activities which have clear benefit to energy consumers (i.e. by directly contributing to the successful, timely and high-quality implementation of an independent FSO), they should be funded via the ESO's price control or other relevant network price controls. Therefore, we have also provided assurance that efficient planning costs directly incurred by National Grid Plc can be recovered via the ESO. This does not cover FSO-related costs which solely benefit National Grid Plc interests (e.g. certain transaction-related costs) or other costs that are a matter for a negotiation between National Grid Plc and the government.
- 7.5 The objective of this funding is to prepare the ESO and National Grid Plc to be able to immediately react to the FSO obtaining Royal Ascent and begin delivering on separation activities. We have decided that costs will not be added to the ESO's RAV, the same principle we proposed at Draft Determination. Costs will be

introduced through a new pass-through item with appropriate consumer protections in place.

- 7.6 We plan to consult further on the main funding arrangements and incentives for the FSO transition later this year. We will be seeking views on both the level of appropriate costs and the incentives framework that will apply to this funding. Where further funding for this interim period may be required between now and the conclusion of our consultation, we will consider providing similar assurances if doing so will deliver clear consumer benefits. Additionally, we will only do so if we consider that the types of costs and activities do not require industry consultation first.
- 7.7 The FSO could be established by, or in, 2024, subject to multiple factors including legislation. This would fall within the ESO's BP2 period. We plan to consult on licence changes to facilitate the introduction of the FSO this year. This may directly alter or supersede parts of the ESO's BP2 price control package as the ESO becomes part of a new FSO organisational structure. For the avoidance of doubt, the decisions in this document are applicable to the ESO under its current ownership structure. These decisions may end or be changed following the introduction of the FSO, as we develop a regulatory framework that will drive the FSO to best deliver its new roles and objectives. Our enduring approach to FSO regulation and incentives is considered separately to the BP2 process.

## Funding

Transition funding	Final Determination	Draft Determination
Scope of costs	In principle, fund all efficient costs for the transition. Efficient cost is yet to be decided.	Same as Final Determination
Mechanism	Through the ESO's licence as a new `pass-through' item. (Not classed as totex or added to RAV)	Same as Final Determination

#### Final Determination

#### Final Determination rationale and Draft Determination responses

7.8 Stakeholders agreed that Ofgem should fund all efficient costs for the FSO transition, and the majority also agreed that a new 'pass-through' item in the ESO's licence would be the most appropriate mechanism. However, one

stakeholder voiced their uncertainty over whether introducing a new 'passthrough' item would be the best approach considering exact costs and activities are yet to be confirmed.

- 7.9 We believe the timely and cost-effective delivery of the FSO is within consumer's best interests as it will facilitate Net Zero whilst also maintaining a resilient, and affordable system. The objective of a new 'pass-through' item in the ESO's licence will be to ensure the ESO is held accountable for transition costs, while providing assurance and protection for network users. This will be in conjunction with the new incentive framework for FSO activities, providing opportunity for Ofgem, with input from stakeholders, to assess the ESO's performance.
- 7.10 Some stakeholders also offered broader views on the challenges the ESO and Ofgem may face during the transition. We have taken these views into consideration and will reflect on them outside the BP2 Final Determinations process.

## **Regulatory and incentives framework**

Incentive and reporting framework	Final Determination	Draft Determination
Scheme length	To final delivery of a standalone FSO with interim progress assessments to be set in line with transition plan and timetable.	Same as Final Determination
Scheme design	Evaluative assessment focused on delivery and spending with potential use of KPIs/performance measures.	Same as Final Determination
Scheme value	Reputational only	Same as Final Determination
Reporting & monitoring	Report against key delivery milestones and costs. Co- ordinated with wider BP2 process and new Cost Monitoring Framework (see Chapter 4) where appropriate.	Same as Final Determination

#### Final Determination

#### Final Determination rationale and Draft Determination responses

7.11 Stakeholders broadly agreed with our high-level proposals for the regulatory and incentives framework. There was agreement that the framework should last until

the FSO is delivered, allowing us to continually assess the ESO's performance through intermediate progress assessments linked to key stages of the transition. Stakeholders also noted that they were keen to have input into the assessments' precise criteria and output expectations.

- 7.12 Stakeholders agreed that the scheme should be comprised of evaluative assessments focused on high-quality and cost-effective delivery of the FSO and return reputational value only. We believe having a reputational incentive is appropriate as the scheme will need to be reactive to any uncertainty in FSO delivery times, unrestricted by BP2 timelines.
- 7.13 Furthermore, FSO transition activities are distinct from current Business Plan activities, making allocating funds from the existing framework challenging. This may also present the risk of the FSO facing financial penalties for actions the ESO did not take prior to or during the transition.
- 7.14 The ESO recognised the need for monitoring and scrutiny of their transition costs and activities. Their response highlighted that associated reporting should remain proportionate considering the existing levels of governance oversight in place, including the Joint Implementation Delivery Group and Senior Leadership Group.
- 7.15 Ofgem agrees that the scheme should not put disproportionate regulatory burden on transition activities and will consider this in the scheduling of assessments, while ensuring that there are timely opportunities for feedback from Ofgem and wider stakeholder groups.
- 7.16 Stakeholders also offered their initial views on the scheme's design moving forward. While these comments went beyond the scope of the high-level proposals set out at Draft Determination, we will be taking them into consideration moving forward.
- 7.17 A transmission network company highlighted their views on the importance of stakeholder feedback as part of the FSO transition regulatory framework, alongside a clear programme of KPIs and milestones for tracking the ESO's performance. This stakeholder and a supplier went further to provide comments on the FSO transition beyond the scope of our Draft Determination proposals, covering their views on what should be the FSO's priorities, the transmission challenges of a future energy system and Ofgem's role in regulating the FSO. Their response added that the potentially broad, yet complex, scope of regulating

the FSO called into question whether Net Zero will be delivered, whilst maintaining energy security and affordability.

## **Appendices**

### List of appendices

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## **Appendix 1 – Grading of the ESO's Delivery Schedule**

This appendix sets out our final grading of the ESO's two-year Delivery Schedule, performed in line with the methodology set out at the start of RIIO-2<sup>27</sup>. Its purpose is to provide the ESO with targeted feedback on what it can do to meet and exceed our expectations over the course of BP2.

For clarity, we have graded the Delivery Schedule for BP2. The ESO's RIIO-2 aims were assessed at the start of RIIO-2.

#### Summary of assessment

What	Assessment	Role 1	Role 2	Role 3
RIIO-2 aims (assessed at the start of RIIO-2)	Ambition (1-5)	5	4	4
	Minimum requirements met (Yes / No)	Yes	Yes	Yes
Schedule	Ambition (1-5)	4	4	4

 Table 11: Summary of ESO Delivery Schedule Grading for BP2

#### <u>Role 1</u>

#### ESO's response to our Draft Determination assessment

Overall, the ESO supported the ambition grading of the Delivery Schedule. The ESO has provided some additional clarification to areas of the Delivery Schedule. However, several areas noted by Ofgem at Draft Determination could not be addressed at this stage. The ESO have committed to providing additional information and more concrete milestones throughout the BP2 period.

#### Assessment of two-year Delivery Schedule

We determined the Delivery Schedule for Role 1 was particularly ambitious in our BP1 assessment. We still consider the Delivery Schedule to have a high degree of ambition and exceed some of our expectations over the next two years in BP2. However, whilst

<sup>&</sup>lt;sup>27</sup> Appendix 1, RIIO-2 Final Determinations – Electricity System Operator Annex: <u>RIIO-2 Final Determinations –</u> <u>Electricity System Operator (REVISED) (ofgem.gov.uk)</u>

the ESO has provided further clarification for some areas of the plan, this has not largely changed our assessment from Draft Determination.

Given the ESO's ability to further develop and scope activities in BP1, we expected to see more tangible deliverables across BP2 that provide assurance that the ESO will be on track to deliver its full RIIO-2 ambition. As a result, we now have less confidence in the full delivery of the plan for BP2, owing to notable delays during BP1 or unclear targets set in the Delivery Schedule for BP2. In particular, we note the following:

- Delays in the delivery of enhanced balancing capability and competitive procurement of restoration services – two key deliverables in our assessment of the Delivery Schedule both for BP1 and BP2; and
- Milestones for operational coordination with Distribution Network Operators (DNOs) are difficult to assess, meaning it is unclear whether these activities will exceed our expectations or not.

For Role 1, we have therefore graded the two-year Delivery Schedule for BP2 a '4'. To further build on this score and ensure it exceeds our expectations, the ESO must provide surety that key milestones for deliverables in its Delivery Schedule will be reached during the BP2 period and that the ambitions for RIIO-2 can be achieved in the remaining years.

1(a) System Operation		
Relevant deliverables	Met minimum requirements?	Assessment against Ofgem expectations
A1 (excluding D1.1.7, D1.4.1) A2, A18	Yes	Exceeds
<ul> <li>they are primarily</li> <li>Co-operation with systems (D1.1.5) Report (D1.1.6) m measures for D1.1 milestones or dead</li> <li>Increasing the rob expectations, how possible.</li> <li>The deliverables a named Enhanced the ESO remains of these deliverables in the BP1 period,</li> </ul>	ons of the ESO (D1.1.1 – D1.1. assessed using metrics. European bodies (D1.1.4), cor as well as the continued produ neet our expectations for this R 1.4 appear to be deliverables bud dlines associated with these ou oustness of trading solutions (D rever, could be improved with consociated with the Future of Ba Balancing Capability (A1.2), stic on track to deliver the success We note that several milestor but we still consider that the f ter number of market participa	ntinued update of legacy IT ction of the Operability ole. We note that success ut there are no indicative tcomes. 1.1.8) meets our clear milestones where alancing activity, previously ill exceed our expectations if measures associated with hes in this area were delayed inal deliverable of being able

- Similarly, the activity to Transform Network Control (A1.3) will exceed our expectations if the ESO can continue to demonstrate it is able to meet its milestones for the end of BP2. The milestones in this area are well-specified and achieving the outcomes of this activity are a key success area in our grading.
- The new activity for Operational Coordination with DSO and DER (A1.5) could exceed our expectations to deliver whole system benefits in liaison with DNOs. However, the key milestones for these deliverables are generally intangible and difficult to track so we cannot say with confidence that the ESO will exceed our expectations in this area.
- The new activity for Minimising Balancing Costs (A1.6) meets our expectations as we consider most of the activities contained within to be BAU activities.
- Several of the deliverables for Control Centre Training and Simulation (A2) are unchanged from BP1 and therefore continue to meet our expectations. We are aware of multiple delays from this activity, so confidence that the ESO will meet its targets will be key to meeting our expectations.
- The new activity for Market Monitoring (A18) meets our expectations. This activity ensures compliance with the ESO's PPAt and licence conditions. Compliance in these areas is a minimum requirement for the ESO and so does not exceed our expectations.

1(b) Restoration		
Relevant deliverables	Met minimum requirements?	Assessment against Ofgem expectations
A3	Yes	Exceeds
<ul> <li>Comments:         <ul> <li>The delivery of Fully competitive restoration procurement (D3.1.5) would exceed our expectations. The ESO demonstrates that it will actively seek to maximise the use of non-traditional sources of generation at all voltage levels and could achieve a significant year-on-year increase in the level of restoration services that are competitively procured.</li> </ul> </li> </ul>		

• The deliverables associated with implementation of the Restoration Standard (A3.2) continue to meet our expectations. There has been little change in these deliverables from BP1, and so we continue to expect the necessary milestones for compliance will be achieved.

1(c) Transparency, data & forecasting		
Relevant deliverables	Met minimum requirements?	Assessment against Ofgem expectations
D1.1.7, D1.4.1, A17, A19	Yes	Exceeds
<ul> <li>Comments:</li> <li>The deliverable for Producing and publishing detailed forecasts (D1.1.7) meets our expectations and could exceed our expectations with the addition</li> </ul>		

of solar and wind product implementation. However, the success measure of

implementation "as far as possible" is not a solid commitment to be held to. This deliverable could be improved by specifying what improvements the ESO is aiming for and the level of integration expected. The ESO has provided additional information in their response to the Draft Determination which has increased our confidence but does not address the feedback we have provided.

- There have been no significant changes on the Data & Analytics Platform deliverable (D1.4.1) from BP1. This deliverable continues to exceed our expectations providing the ESO continues to meet integration milestones throughout BP2.
- We note several continuous deliverables from BP1 to BP2 under the activity for Transparency and Open Data (A17). These deliverables at least meet our expectations as they show intent to provide user-friendly, comprehensive, and accurate information, including transparency on control room decision making. Deliverable D17.6 for the Operational Transparency Forum has succeeded in exceeding our expectations to date for BP1. This could continue in BP2 if the ESO continues to; provide quality information and facilitate a high level of understanding among industry of the ESO's operations and decision-making processes.
- The new deliverable for the Data & Analytics Operating Model (A19) meets our expectations as the ESO continues to build on the open data platform. There is, however, limited supporting information in the way of activities and milestones for this deliverable which prevents it from exceeding our expectations.

#### Role 2

#### ESO's response to our assessment at Draft Determination

The ESO welcomed our grading of their Delivery Schedule for Role 2. The ESO acknowledged our feedback at Draft Determination around the lack of detail in some areas of the plan - and have thus provided additional clarity. The ESO was unable to commit further in some areas where they believe they have less control over the outcomes of early-stage work. We agree with the ESO's suggestion that, as clarity arises, they should engage with Ofgem and broader stakeholders to establish the specific details of such work to meet and exceed expectations.

#### Assessment of two-year Delivery Schedule

Overall, based on the information provided, we expect the activities in the Delivery Schedule will exceed some of our expectations over BP2 and have therefore graded this Role a '4'.

We note that there has been a slip in delivery timescales for the new EMR platform. As a result of this, our view of the ambition under this area is lower and our overall assessment of the Role 2 Delivery Schedule has reduced slightly. However, taking Role 2 in the round, we still believe activities under Role 2 are reflective of a '4' grading, albeit at the lower end of the scale.

In particular, we note the following:

- The pace at which the ESO plans to coordinate with DNOs to ensure a consistent procurement experience for providers of services. We are heartened to see new deliverables added under this activity (A4.5) and a broadening of its scope. We also note an increase in FTE supporting development here; and
- The BP2 Delivery Schedule indicates that the ESO will be continuing work, in a more formalised manner, on market development for both stability and reactive power requirements. The ESO's deliverables align with providing transparent investment signals - by clearly outlining the procurement principles for these services, which is important.

To further build upon this score in BP2, and ensure that it exceeds our expectations, the ESO could:

- Ensure procurement of balancing services is fully compliant with retained EU legislation,<sup>28</sup> and improve communication of why these features of product design are beneficial to industry. The ESO should express to industry why the product/market design principles work for the betterment of markets themselves, their participants and for the operation of the system as a whole, and ultimately result in best outcomes for end consumers; and
- Continue to communicate the importance, and ensure the messaging is clear, of the underpinning principles of balancing service market design. For example, through the publication of Markets Roadmap documents and establishing a Market Design Framework. The ESO has also committed to make decision-making processes around balancing market design choices more transparent – this would go some way to alleviating our concerns on this matter.

We note that Balancing Reserve (BR) is not part of the ESO's Delivery Schedule. We expect the ESO to include and deliver BR in its Delivery Schedule if they still identify that this would deliver consumer value. A service delivered well, with benefits evidenced post-implementation, would contribute positively to the ESO's score for Role 2a.

To provide further guidance on how the ESO can move from a score of a '4' to a '5', the tables below, while setting out our detailed assessment, also outline where specific activities could be enhanced to exceed our expectations.

2 (a) Market Design		
Relevant deliverables	Met minimum requirements?	Assessment against Ofgem expectations
A4 A20 A21	Yes	Exceeds
	expectations for BP2, the ESO w both in the roll-out of new prod	

<sup>&</sup>lt;sup>28</sup> We note that the ESO believes there are certain products which cannot comply with some aspects of the legislation. We expect this to be rare and by exception. In such cases, the ESO should seek a derogation from the requirement for that product, providing a strong evidence base for the need for the derogation. This would be viewed as compliant. However, derogations for products where they are technically able to comply, would not meet our expectations at the end of BP2.

for the ongoing improvements to existing products compared to historic performance. Activities such as delivery of the Enduring Auction Capability and continued development of the Single Markets Platform can boost performance in this area. In our assessment of BP1, we indicated that the integrated market platform alone, if delivered well and on time, would be enough to exceed our expectations. While this remains a key area of focus in our expectations, this platform must be a platform that supports high-quality balancing markets that provide consumer value and provider experience. Delivery of products, compliant with relevant legislative criteria, and evidence that these products are providing benefits would meet our expectations. During BP2, we will also be looking for evidence that the products introduced are adding value above and beyond existing services, in order for the ESO to exceed our expectations. Renaming the activity Deliver a Single Day-ahead Response and Reserve Market (A4.3) from a focus on response and reserve, to a focus on frequency management, is a positive indication that the ESO has given itself scope to develop new markets that meet system needs and break new ground where required. A standardised roadmap of delivery and post-delivery development of products would meet our expectations, including the ESO being able to evidence that products are well thought through, and no unreasonable foreseeable inefficiencies were introduced with 'day 1' products. We note that the ESO has focused on an agile delivery for their Single-Markets Platform (SMP). We understand that this allows the ESO to prioritise the updates that will most benefit consumers. This therefore has the potential to exceed expectations by providing a positive experience to service providers. We wish to express that the ESO should still focus on ensuring that the SMP is a one-stop shop for all of its markets. We recognise that ESO performance could also exceed expectations with clear and well-thought-out deliverables from activities under Net Zero Market

clear and well-thought-out deliverables from activities under Net Zero Market Reform (A20) - with the ESO showing leadership from its position central to electricity markets. We recognize that this activity does have dependencies with key policy decisions, but we are glad to see indications that ESO is taking a front-footed approach to overall electricity market design questions.

#### 2 (b) EMR

Relevant deliverables		Assessment against Ofgem expectations
A5	Yes	Meets

#### **Comments:**

- Since our Draft Determination position, we have come to understand that the new EMR portal will not be delivered until late in the BP2 period, this has reduced our view of the ESO's score for this area.
- The ESO generally meets our expectations across the deliverables under activity Transform Access to the Capacity Market (CM) and Contracts for Difference (CfDs) (A5).
- The ESO provided comfort and clarity around it's milestones relating to CfDs, and the slight concerns we raised in our Draft Determination have been abated.
- We note that there is still more certainty required around the CM deliverables, but we are comfortable with the Delivery Schedule on this sub-activity.
- The ESO has expressed the prioritisation of data structures across its EMR and balancing services is necessary for integration to the Single Markets Platform,

and this requires legislative change. We are sympathetic to this reality, however we still view the ambition to be reduced for the scope of EMR activities if the SMP platform cannot prioritised.

- The main ambition shown under A5 is the ESO positioning itself to be more proactive in policy, rule and process changes as the EMR delivery body. A change in line with this, whereby the EMR delivery body can share and make use of its knowledge and experience on EMR would be beneficial, and in doing so, the ESO could somewhat exceed our expectations.
- Under the activity Enhancing Cross-border Frameworks and Markets (A21.2), the ESO shows good ambition by having a deliverable that aims at enhancing the role of interconnectors in GB markets. Strong delivery against this deliverable could exceed our expectations, however we note that the ESO's definition of success for this lacks ambition.

2 (c) Industry codes and charging		
Relevant deliverables	Met minimum requirements?	Assessment against Ofgem expectations
A6 A12 A15.3 A15.8 A21	Yes	Meets

#### **Comments:**

- The ESO has defined a good number of deliverables under activity Code Management/Market Development and Change (A6.1) and Industry Revenue Management (A6.3), allowing them to prepare themselves and other industry parties for some of the largest changes expected to the markets in the coming years. Timelines for delivery appear reasonably ambitious. The ESO could exceed expectations by showing strong leadership and proactivity in these areas of reforms.
- While the general theme of Transform the Process to Amend Our Codes (A6.4) is in line with our expectations, milestones for D6.4 lack sufficient detail for us to consider delivery to exceed our expectations.
- The ESO has increased the Net Present Value (NPV) for activity Work with All Stakeholders to Create a Fully Digitalised, Whole System Technical Code by 2025 (A6.5) and Digitalisation of Codes (A6.8) in its CBA. Based on the milestones in the Delivery Schedule, the ESO can exceed our expectations through these activities, but there will need to be evidence of what is actually delivered under the high-level deliverable descriptions.
- For their Security and Quality of Supply Standard (SQSS) review (A12), the ESO has identified a larger number of areas of focus than they anticipated during BP1. It is good to see that the ESO has conducted prioritisation of these findings and aims to have high-priority areas delivered by the end of the first year of BP2.
- The activity Setting the Net Zero Cross-border Landscape (A21.1) includes the development of a cross-border strategy. We view this as an important deliverable and if the ESO can deliver outputs which are supported by relevant stakeholders, then this could exceed our expectations. The ESO has a crucial role in setting direction of operability and by extension attracting investment in interconnection (including of multi-purpose interconnectors). It is therefore important that the ESO takes a leadership role on this and is proactive in influencing. Particularly, the ESO needs to improve in explaining the potential operational challenges and finding solutions that create least impact across all parties.

• For activity Enhancing Cross-border Frameworks and Markets (A21.2), the ESO meets our expectations in this area, essentially ensuring their legal compliance with legislation and the Trade and Cooperation Agreement (TCA).

#### <u>Role 3</u>

#### ESO's response to our assessment at Draft Determination

The ESO agreed that our score of a '4' was reflective of their plans for Role 3 over BP2. The ESO believes the Delivery Schedule strikes the right balance between ambitious delivery without over-committing to specific courses of action where uncertainty remains. The ESO agreed that this approach is limiting in terms of fully describing the deliverables under Role 3.

In particular, the ESO agreed with our assessment that Role 3 includes a number of large (mainly planning) activities that have complex interactions. This makes it harder to fully understand the contribution of each activity to overall Role 3 ambition. The ESO has engaged with us to start to build up this picture and has committed in its response to share this insight with wider market parties.

In addition, the ESO has provided some additional clarity and detail around the deliverables in its Activity 3a plan. This is welcome and consolidates our view and assessment of the ESO's Delivery Schedule, however we still expect the ESO to update the Delivery Schedule with more detailed milestones as these become clear.

#### Assessment of two-year Delivery Schedule

The ESO has shown ambition in each of its Role 3 areas to exceed our expectations, and new activities and deliverables promise to deliver value across the electricity market.

The ESO have explained that they had descoped some activity from A15.7 (deliver Enhanced Frequency Control). The rationale for this – that outputs would be duplicative of work already completed through the dynamic containment work in Role 2 – is sound, and we therefore agree with the descoping and subsequent reduction in spending over RIIO-2 on this activity. However, it does slightly reduce our assessment of the Delivery Schedule under Role 3, though not enough to reduce the ESO's score of a '4'.

Specifically, we find that:

 Continuing to look forward at network needs and to identify best value opportunities to procure services and to signal investments are important functions of a successful ESO; and  Addressing the challenges the industry is facing with the connections process under the current significant volume of possible connections is vital. We are heartened to see that the ESO seems to recognise this. Making improvements in this area would create significant benefit. The ESO needs to make sure it sets clear milestones and ambitious aims to solve issues existing now, and also avoid a similar situation in a few years' time.

To further build upon this score in BP2, and ensure that it exceeds our expectations, the ESO could:

- Follow through on commitments to show how it is pulling together the broad swathe of activities, particularly under 3(b) and 3(c), and ensuring that this is working in the same direction. Additionally, the ESO needs to make this clear to market parties, such that they can prepare for the future easily. Parties should get the same investment signals wherever they go for information from the ESO and should be able to easily identify the right place for information to meet their needs; and
- Ensure clear messaging and processes, while working at pace, for connection and access to market deliverables. This is an important topic across broad swathes of industry, which we note has started recently and will continue into BP2.

To provide further guidance on how the ESO can move from a score of a '4' to a '5', the tables below, while setting out our detailed assessment, also outline where specific activities could be enhanced to exceed our expectations.

3 (a) Connections and	access	
Relevant deliverables	Met minimum requirements?	Assessment against Ofgem expectations
A14 A15.2 A15.5 D15.6.7 A16	Yes	Meets
the number of conforecasting, and the connections requested are often significated concern in some at additional resourcestimeframes. If do issues and avoid the source of	become a major task over BP1. The come a major task over BP1. The comparison of the level he ESO has also expressed that ests remaining at this higher level on the future with stakeho areas. Sion of its BP2 plans, the ESO has to allow A14.5 Connections Refer to allow A14.5 Connections Refer well, to deliver quality outcor recurrence, this would exceed out a taking onboard stakeholder fee	vel predicted by ESO they foresee the number of el. Dates for new connections olders expressing significant as committed to providing eform to be completed in BP2 mes that genuinely tackle these ur expectations. It is also good

where clear industry benefit can be derived. However, we cannot currently say it does exceed due to the lack of specific commitments and would expect to see more clarity in line with the Reform conclusions. To do so, the ESO should produce high quality outcomes that deliver genuine and significant benefits to connections customers and consumers, demonstrating substantial improvements in connection times across the whole system enabling net zero pathways, based on timely and accurate offers, with significantly improved management of the queue and based on transparent processes and accessible, standardised data.

- Under activity Develop Regional Development Programmes (A15.5), the ESO has added two extra deliverables for the delivery of two new Regional Development Programmes (RDPs). This meets our expectations alongside delivery of the RDPs already underway.
- Two new deliverables under activity Delivery of Consumer Benefits for Improved Network Access Planning (A16), (D16.5.1 and D16.5.2), introduce benefits in line with a system fit for the future and meet our expectations.

3 (b) Strategy and Insights		
Relevant deliverables	Met minimum requirements?	Assessment against Ofgem expectations
A13 A15.6 A15.7 D15.8.1 A15.9	Yes	Exceeds

#### Comments:

- The addition of a bespoke deliverable (D13.2.1) with ambitious milestones that looks to add regional level insights into the Future Energy Scenarios (FES) exceeds expectations. D13.5.3 is also welcome in that it adds to ESO's ability to be a trusted leading source of information for system insights, but there is not sufficient detail for us to assess whether this exceeds our expectations.
- Newly added deliverables for BP2 under activity Transform Our Capability in Modelling and Data Management (A15.6) improve the ESO's modelling capability. This appears to be a significant modernisation, and on timelines presented, slightly exceeds our expectations.

3 (c) Long term network planning			
Relevant deliverables	Met minimum requirements?	Assessment against Ofgem expectations	
A7 A8 A11 A22	Yes	Exceeds	

#### **Comments:**

Deliverables under activity Network Development (A7) continue to offer the ESO opportunity to exceed our expectations. Particularly, the ESO describes success for D7.2 as 'NOA methodology continues to evolve to reflect changing needs.' – this would exceed our expectations as the ESO is uniquely positioned to provide insight into how the NOA can best continue to deliver value in the changing environment of network planning. The ESO should clearly define how the NOA

fits within its other activities in Role 3(c), linked to deliverables under activity Network Planning Review and Offshore Coordination (A22).

- We are pleased to see pathfinders starting to develop into more bankable markets for system needs, yet that the ESO is bringing forth plans to continue finding efficient procurement through newly-named Network Services Procurement (D8.1). This especially appears to add value by reducing constraint costs, a key driver of high balancing costs. Continued delivery on this aspect, along with broadening of the type and number of technologies able to competitively provide such services, would exceed our expectations.
- Further, the new deliverable D8.4 meets Ofgem's expectations for timelines. A forward-thinking approach with the ESO providing input and being an active party in the delivery of a quality first auction would exceed expectations recognising the regulatory and legislative dependencies of this deliverable which are generally out of ESO's control.
- Deliverables under activity Enhance Analytical Capabilities (A11) add valuable functionality to the ESO's modelling capabilities. Successful, timely delivery of these improvements would exceed our expectations, as outlined in our BP1 assessment.
- We are aware that deliverables under activity Network Planning Review and Offshore Coordination (A22) are affected by ongoing policy decisions. Until we have a clearer view of policy conclusions and how ESO activities line up with our expectations against this, we will not comment on this area.

# **Appendix 2 - Performance measures assessment for BP2**

This appendix sets out our detailed decisions on performance measures we will amend, retain, or remove for BP2 from BP1. We also outline which new performance measures we have decided to introduce for BP2 and the rationale for our decision.

## **Role 1: Control centre operations**

#### 1A. Balancing costs

Performance M			
	Performance Metric		
costs (including against a balan	cing cost benchmark. The methodology	Final Determination but with less detail on the methodology	
<ol> <li>Benchmark created using monthly data from the preceding 3 years.</li> <li>A straight-line relationship established between historic constraint costs, outturn wind generation and the historic wholesale day ahead price of electricity.</li> <li>A straight-line relationship established between historic non-constraint costs and the historic wholesale day ahead price of electricity.</li> <li>Ex-post actual data inputted into the equation created by the historic relationships to create the</li> </ol>			
,	10% lower than the annual balancing cost benchmark.	-	
Meets	balancing cost benchmark		
Below	10% higher than the annual balancing cost benchmark		
Explicit reporting on key monthly drivers of costs, including: • Volumes of actions taken disaggregated to constraint and non-constraint actions, • any major network outages, and • any material changes in energy balancing			
	costs (including against a balan ncludes the fol 1. Benchmark of preceding 3 yea 2. A straight-lin historic constra- the historic who 3. A straight-lin historic non-con day ahead price 4. Ex-post actu- created by the monthly benchr Exceeds Meets Below Explicit reportin ncluding: Volumes of ac constraint and any major ne	costs (including Electricity System Restoration costs)         against a balancing cost benchmark. The methodology         ncludes the following elements:         1. Benchmark created using monthly data from the preceding 3 years.         2. A straight-line relationship established between nistoric constraint costs, outturn wind generation and the historic wholesale day ahead price of electricity.         3. A straight-line relationship established between nistoric non-constraint costs and the historic wholesale day ahead price of electricity.         4. Ex-post actual data inputted into the equation the istoric relationships to create the nonthly benchmarks.         Exceeds       10% lower than the annual balancing cost benchmark.         Meets       10% higher than the annual balancing cost benchmark         Selow       10% higher than the annual balancing cost benchmark.         Explicit reporting on key monthly drivers of costs, ncluding:       Volumes of actions taken disaggregated to constraint and non-constraint actions,         • any major network outages, and       • any material changes in energy balancing	

Reporting frequency	Monthly		
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Respondents agreed with the proposed changes to the balancing cost metric but cautioned against introducing a new methodology which might struggle to capture the ESO's performance within the current climate of high and volatile prices.

The ESO noted it would work with Ofgem to agree a suitable methodology to account for changes in its operating environment as far as possible. It supported the inclusion of an ex-post renewable output adjustment in the methodology to replace wind output. It also supported the inclusion on a probabilistic approach to setting the benchmarks.

Since publication of the Draft Determination, we have worked with the ESO to develop this metric further. We have decided to continue to use wind output to measure the straight-line relationship established with historic constraint costs, rather than the previously proposed renewable percentage of demand - due to this being a better predictor when accounting for more recent data. For both constraint and non-constraint costs, we will add the adjustment for the wholesale day-ahead price of electricity.

In addition, we have engaged with the ESO to further consider their proposal to set the benchmark through probabilistic modelling. Given the time we had available to consider this proposal, we could not address all the concerns we had with using this approach. However, we will still consider this approach going forward.

We recognise that, in the current environment, this metric may not continue to be reflective for the full two-year period of the Business Plan. Therefore, we may be required to adjust this metric within the scheme period. We will engage with the ESO prior to making any such changes.

#### **1B. Demand forecasting**

Performance measure parameter	Final Determination	Draft Determination
Туре	Performance Metric	Consistent with Final

Method	Measures the avera ahead forecast dem Mechanism Report Demand Forecast p and outturn deman National Demand C The benchmarks ar errors for the five y year.	Determination, with a change to the methodology to measure MW error rather than % error	
		n historical 5-year average ted, with range of $\pm 5\%$ used to set eting expectations.	
	Flexibility Managen Flexibility Service ( will be retrospectiv calculate performan	eds where Optional Downward nent (ODFM) and/or Demand DFS) are instructed by the ESO, this ely accounted for in the data used to nce. The ESO shall publish the ed ODFM to enable this to be done.	
	include outturn dat	addendum with the performance benc a to the end of March 2023 once this on of the benchmarks.	
	Exceeds	Year 1: < 5% lower than 95% of average value for previous 5 years. Year 2: As for Year 1, but with 5- year period refreshed.	
Performance benchmarks	Meets	Year 1: $\pm$ 5% window around 95% of average value for previous 5 years. Year 2: As for Year 1, but with 5-year period refreshed.	
	Below	Year 1: $> 5\%$ higher than 95% of average value for	
		previous 5 years. Year 2: As for Year 1, but with 5- year period refreshed.	
Reporting frequency	Monthly		
Associated reporting	Narrative on perfor compare to monthl 95% of the average for the same calend process only and de annual figure.		
	The ESO should als		
	<ul> <li>Narrative reavoidance;</li> <li>Notification forecast dat the reasons</li> </ul>		

The ESO should provide Ofgem with the forecasts and performance of any operational forecast used that account for the sensitivity of demand to anticipated market prices for electricity.

#### Final Determination rationale and Draft Determination responses

We decided to update the Demand Forecasting Metric methodology from that set out in our Draft Determination. The metric will now measure average absolute MW error rather than absolute percentage error.

The ESO and one other stakeholder commented on this metric. The ESO did not agree with the proposal to use absolute percentage error to calculate benchmarks. The ESO stated that our proposal did not recognise the increasing complexity of demand forecasting as more low carbon, distributed generation comes on-line.

Specifically, the ESO suggested that whilst increasing volumes of distributed generation connected to the distribution network has resulted in the volume of transmission-connected generation declining - it is not appropriate to expect demand forecasting errors to fall proportionate to the reduction in demand. The ESO stated that this is because of the nature of distributed generation, which introduces inherent variability and irreducible error.

In our engagement with the ESO, where a number of alternative options were considered, the ESO has proposed the use of absolute mean error as an alternative input in the methodology - and suggested that consumer impact is more closely linked to MW errors. We agree that with falling 'national demand', the same error each year would result in an increasing percentage error. This trend adds an additional performance improvement requirement – beyond the 5 percent improvement built into this metric - which is year-on-year inconsistent. We have therefore decided to move from average absolute percentage error to average absolute MW error.

While we acknowledge that increased embedded generation could increase the complexity of transmission demand forecasting, it is our view that the performance baseline and expectation bands in the current methodology provide a reasonable benchmark against which we expect to see improvements. Now that the additional challenge posed by decreasing national demand has been removed, we will continue to assess the ESO's performance to ensure that the 5 percent bandings remain appropriate incentivisation.

The other stakeholder who responded in this area, sought further clarity on how allowing for the revision of demand forecasting based on demand reduction services would demonstrate accurate forecasting. The stakeholder suggested that this should be considered in the original forecast.

We note that given that Demand Side Response (DSR) services are instructed by the ESO and not forecasted, there is a need to account for this retrospectively in the data used to calculate performance. As part the supporting narrative, we require the ESO to publish and provide any operational forecast used to account for the sensitivity of demand to anticipated market prices.

We will confirm the final benchmarks once we receive the additional outturn data needed later this year.

## **1C Wind generation forecasting**

Performance measure parameter	Final Deter	rmination	Draft Determination
Туре	Performance	e Metric	
Method	between day 09:00 and 1 Portal) and published or hour period BM wind uni taken for sit acceptance settlement p data on its I purposes. The benchm historical er the perform	Measures the average absolute error between day-ahead forecast (between 09:00 and 10:00, as published on ESO Data Portal) and outturn wind generation (as published on ESO Data Portal) for each half hour period as a percentage of capacity for BM wind units only. The data will only be taken for sites that did not have a bid-offer acceptance (BOA) during the relevant settlement period. The ESO will publish this data on its Data Portal for transparency	
		rerage, with range of $\pm 5\%$ used mark for meeting expectations.	
Performance benchmarks			
	Exceeds	Year 1: < 5% lower than 95% of average value for	

		previous 5 years. Year 2: As for Year 1, but with 5-year period refreshed.	
	Meets	Year 1: ±5% window around 95% of average value for previous 5 years. Year 2: As for Year 1, but with 5-year period refreshed.	
	Below	Year 1: > 5% higher than 95% of average value for previous 5 years. Year 2: As for Year 1, but with 5-year period refreshed.	
Reporting frequency	Monthly		
Associated reporting	the benchma indicative fig average valu for the same indicative pro	narrative on performance against irk should compare to monthly ures (calculated as 95% of the e for the previous 5 years' data calendar month). This is an ocess only and does not eflect the final annual figure.	
	reports: • The details between time metering; an • Notification of forecast da	uld also include in their monthly if wind units withdraw availability e of forecast and time of d of any missed / late publication ata for the previous month, reasons for the missed / late	
	Additionally, Data Portal t	the ESO should publish on its he following:	
	wind units or • Day ahead	wind forecast; nd outturn; and	
	<ul> <li>Day ahea</li> <li>The close</li> <li>Metered w</li> <li>An indica BOA was</li> <li>The association of the second second</li></ul>	roken down by BM wind unit: d wind forecast; est to real time wind forecast; wind outturn; tion of whether in that half hour a issued for that site; ciate volume specified in any BOA ite; and ional tag to BM wind unit	

forecasts.	
The ESO should send all associated reporting to Ofgem in an appropriate time.	

We are maintaining the methodology as set out in our Draft Determination.

The ESO was supportive of the proposed changes to this metric. One other stakeholder sough clarity as to the rationale behind the proposal to introduce a locational tag for wind generation units.

We believe that the inclusion of locational tags will increase the transparency and utility of the data the ESO reports on for this metric. This should benefit industry, helping to increase the visibility of the wind forecast by region/unit and the impact on network constraints.

## 1D. Short notice changes to planned outages

Performance measure parameter	Final Dete	rmination	Draft Determination
Туре	Performance	ce Metric	
Method	Measures the number of planned outages delayed by more than an hour or cancelled in the control phase (within day) due to process failure, per 1,000 outages.		Same as Final Determination
	Exceeds	Year 1: <1 Year 2: <1	
Performance benchmarks	Meets	Year 1: 1 to 2.5 Year 2: 1 to 2.5	
	Below	Year 1: >2.5 Year 2: >2.5	
Reporting frequency	Monthly		
Associated reporting	Narrative o	n performance against benchmark.	

#### Final Determination

#### Final Determination rationale and Draft Determination responses

We have decided to retain this metric from BP1. The ESO supported our position at Draft Determination, and we received no further comments from stakeholders.

### 1E: Transparency of operational decision-making

#### Final Determination

Performance measure parameter	Final Determination	Draft Determination
Туре	Regularly Reported Evidence	
Method	Measures the % of balancing actions taken outside of merit order in the Balancing Mechanism each month.	Consistent with Final Determination but different
Quantitative expectations	n/a	requirements for reporting
Reporting frequency	Monthly	
Associated reporting	The ESO's supporting rationale for the % of actions taken outside of the merit order including trends seen over the course of BP2. This should include an explanation of any steps being taken that may influence these trends. The ESO will also report three supporting statistics:	
	<ul> <li>Monthly percentage of actions taken in merit order, or out of merit order due to an electrical parameter (e.g. voltage constraint);</li> <li>Monthly percentage of actions that have reason groups allocated; and</li> <li>Monthly number of actions without a reason.</li> <li>Reporting to include narrative explaining:</li> <li>The action the ESO is taking to increase transparency of operational decision-making;</li> <li>The causes of actions being taken outside of merit; and</li> <li>The actions planned or taken by the ESO to address the need for actions to be taken out of the merit order.</li> </ul>	

#### Final Determination rationale and Draft Determination responses

Several stakeholders indicated a desire to see the ESO increase transparency and communication in relation to its dispatch process. One stakeholder sought more information from the ESO to make clear where assets fall in the merit order and what volumes will be offered. Another respondent suggested that dispatch inefficiency was a multifaceted problem that the existing dispatch tool is unsuited to address this. This stakeholder urged the ESO to work with industry to come to a common understanding of

the requirements and purpose of dispatch transparency. The stakeholder suggested that Ofgem should consider tightening the incentive regime to better take into account dispatch efficiency and operational decision-making.

The ESO was not supportive of our proposal to update associated reporting requirements to include narrative for the reason behind decisions to skip units in the dispatch order, beyond what is provided in the form of a reason code. The ESO noted that there are a small number of 'genuine' skips (to which a reason code cannot automatically be allocated), where an alternative instruction could have been sent at lower cost - but was taken for operational reasons.

The ESO highlighted that its licence obligation does not infer an obligation to operate the system according to strict cost-order, but rather to operate the system in the most efficiency and economic way to reduce overall balancing costs. It further noted that its engagement with stakeholders on the topic has been strong, and that the future of balancing dispatch tools will enable additional narrative to be logged at the point of instruction.

Finally, the ESO suggested that as an alternative to our proposal - to provide additional information on the dispatch process through the Balancing Mechanism Audit and Balancing Principles Statement Audit processes.

In our engagement with the ESO, we have been open that we are committed to our expectation that the ESO increases overall transparency in this area and at a quick pace. We acknowledge and accept the ESO's concern that our Draft Determination position, to require a narrative explaining each skipped action, could provide less benefit than cost when considering the burden it would place on the control room staff. We have decided to remove this requirement and replace it with a wider requirement.

In addition, we expect the ESO to work with industry to work out the best ways of increasing overall transparency of ESO decision making.

#### 1F: Zero carbon operability indicator

Performance measure parameter	Final Determination	Draft Determination
Туре	Regularly Reported Evidence	

	Measures the proportion of zero carbon transmission connected generation that the system can accommodate. The ZCO indicator is defined as:	Same as Final Determination
Method	$ZCO(\%) = \frac{(Zero\ carbon\ transmission\ connected\ generation)}{(Total\ transmission\ connected\ generation)}x\ 100$	
	Zero carbon generation is defined as electricity generation that produces zero carbon emissions at the point of generation. This includes hydropower, nuclear, solar, wind and pumped storage technologies. This regularly reported evidence will be structured as	
	follows: <u>Part 1: defining the maximum ZCO limit</u> The ESO will define the approximate maximum ZCO limit (using a reasonable approximation of likely operating conditions), the system can accommodate at the start and end of BP1, explaining which deliverables are critical to increasing the limit.	
	Part 2: regular reporting on actual ZCO Every quarter, the ESO will report the data on the ZCO provided by the market versus the ZCO following ESO actions. This should be presented at a monthly granularity.	
	Part 3: updates on progress towards increasing the ZCO limit Every year, the ESO will provide detailed case studies on the periods where the market delivered the highest ZCO and the actions the ESO had to take in response. The ESO will provide updates of any actions that are expected to have a material impact on the ZCO limit or are expected to in the future. The ESO will report this as part of its mid-scheme and end of scheme reports.	
Quantitative expectations	n/a	
Reporting frequency	Part 1: First quarterly report, end-of-scheme report Part 2: Quarterly Part 3: Annually (mid-scheme, end-of-scheme reports)	

We have decided to retain this RRE from BP1. The ESO supported our position at Draft Determination, and we received no further comments from stakeholders.

## 1G: Carbon intensity of ESO's actions

#### Final Determination

Performance measure parameter	Final Determination	Draft Determination
Туре		Same as Final
Method	taken by the ESO, considering the proportion of the total CO2 emissions on the system which is a result of ESO actions. The ESO will use its carbon intensity forecast methodology <sup>29</sup> to estimate carbon intensity	Determination
	factors for each fuel type and interconnector import.	
	The ESO will report on aggregated settlement period data. Full data will be available on the ESO Data Portal.	
Quantitative expectations	n/a	
Reporting frequency	Monthly	

#### Final Determination rationale and Draft Determination responses

We have decided to retain this RRE from BP1. The ESO supported our position at Draft Determination, and we received no further comments from stakeholders.

#### 1H: Constraint cost savings from collaboration with TOs

## Final Determination

Performance measure parameter	Final Determination	Draft Determination
Туре	Regularly Reported Evidence	Same as Final Determination
	Measures the estimated £m of avoided constraints costs from solutions brought forward through solutions brought forward in STCP 11.4.	
	Where applicable, these savings should be	

<sup>29</sup> The ESO's carbon intensity forecast methodology can be found at: <u>www.carbonintensity.org.uk</u>

Method	calculated in line with the methodology that may be developed as part of the new trial financial incentive on TOs (the SO:TO Optimisation ODI-F). In other cases, the ESO should clearly state the assumptions used for its estimated savings. The ESO should provide additional narrative on any other solutions, such as outage planning actions, and the impact of these solutions on balancing costs.	
Quantitative expectations	n/a	
Reporting frequency	Quarterly	

We have decided to retain this RRE from BP1. The ESO supported our position at Draft Determination, and we received no further comments from stakeholders.

## 11: Security of supply

Performance measure parameter	Final Determination	Draft Determination
Туре	Regularly Reported Evidence	
Method	<ul> <li>Part 1: Excursions</li> <li>Monthly report on number of:         <ol> <li>frequency excursions outside 0.3hz for more than 60 seconds, and</li> <li>voltage excursions outside statutory limits</li> </ol> </li> <li>Part 2: Annual backward and forward- looking report</li> <li>Annual summary of the ESO's compliance with its frequency control methodology and plans for any future changes to the methodology.</li> </ul>	Same as Final Determination
Quantitative Expectations	n/a	
Reporting frequency	Part 1: Monthly / Part 2: Annual	

We have decided to retain this RRE from BP1. The ESO supported our position at Draft Determination, and we received no further comments from stakeholders.

#### 1J: CNI outages

#### Final Determination

Performance measure parameter	Final Determination	Draft Determination
Туре	Regularly Reported Evidence	Same as Final Determination
Method	Number and length of planned and unplanned outages to critical national infrastructure (CNI) IT systems.	
Performance benchmarks	n/a	
Reporting frequency	Monthly	

#### Final Determination rationale and Draft Determination responses

We have decided to retain this RRE from BP1. The ESO supported our position at Draft Determination, and we received no further comments from stakeholders.

#### **Role 2: Market development and transactions**

#### 2Ai: Phase-out of non-competitive balancing services

Performance measure parameter	Final Determination	Draft Determination
Туре	Performance Metric	

Method	on volume of contracted services for all relevant F services currently procured by the ESO. Expectations are set for the current suite of products and may be revised if new products are		Determination but with less
Performance Benchmarks	Frequency response & Reserve	Y1: 25% Y2: 20%	
	Reactive Power	Y1: 90% Y2: 90%	
	Constraints	Y1: 65% Y2: 55%	
	Exceeds	5% or more lower than annual procurement benchmark	
	Meets	Within $\pm$ 5% of the annual procurement benchmark	
	Below	5% or more higher than the annual procurement benchmark	
Reporting frequency	Quarterly		
Associated reporting	<ul> <li>The ESO should include the following in their reports:</li> <li>A breakdown of spend for each of the following services: frequency response and reserve, reactive power and constraints;</li> <li>A list of services procured competitively and non-competitively; and</li> <li>Narrative on SO-SO trades made during the period, including measures taken to avoid such trades.</li> </ul>		

The ESO and one other stakeholder commented on this metric. The ESO was supportive of the changes we proposed and requested that the performance benchmarks account for the fact that existing services may not be completely replaced by new services.

Another stakeholder cautioned against the introduction of this metric unless it could be clearly demonstrated that existing services are no longer providing value for money. The stakeholder suggested that incentivising the ESO to stop procuring certain contracts may increase the overall cost of balancing.

We have engaged with the ESO to clarify: the continued procurement of non-competitive services will not impact our assessment of performance against this metric - as long as the ESO is able to justify decisions in the supporting narrative and through the reporting for the accompanying RRE, 2Aii. However, we are also keen that the ESO procures against a set of clear rules and criteria, and is consistent in this behaviour such that market parties have strong and reliable investment criteria. We remind the ESO that it needs to balance short-term procurement costs against long-term procurement costs, including ensuring that it has the services needed to operate a zero-carbon system at best value to consumers.

Furthermore, we note that in its Business Plan the ESO aims to introduce 'competition everywhere' by 2025. We expect it to be mindful of its obligation to operate the system safely and in a cost-efficient manner in accordance with its licence conditions. We have worked with the ESO to arrive at reasonable benchmarks to assess its performance as new services are introduced within each service category and scaled-up during BP2.

#### 2Aii: Balancing services delivered in a non-competitive manner

Performance measure parameter	Final Determination	Draft Determination
Туре	Regularly Reported Evidence	Same as Final Determination
Method	Measures the volume and spend for non- competitive services contracted after 31/03/23.	
	Legacy Short Term Operating Reserve (STOR) and Enhanced	

	Frequency Response (EFR) contracts will be excluded. However, all SO-SO trades and Net Transfer Capacity (NTC) applications, as well as any other non-competitively procured services with contract award after	
Reporting frequency	this date, will be included. Quarterly	
Quantitative expectations	n/a	
Associated reporting	<ul> <li>The ESO should explain the rationale for the need to take actions including:</li> <li>why competitive alternatives were not chosen;</li> <li>why alternatives were not available (e.g. delays to product reform programmes); and</li> <li>actions being taken to increase availability of competitive alternatives.</li> </ul>	

The ESO agreed that focusing on procurement of non-competitive services by volume is preferable to a metric focusing on spend, which does not take into account underlying market conditions.

We believe the reporting requirements allow the ESO the opportunity to justify its procurement choices, which we hope will increase transparency of its progress around market reform as it looks to phase-out non-competitive service procurement.

#### 2X: Day-ahead procurement

Performance measure parameter	Final Determination	Draft Determination
Туре	Performance Metric	Consistent with
Method	procured at no earlier than the day-ahead	Final Determination but with less

<sup>&</sup>lt;sup>30</sup> Note that for services introduced during BP2, only those that displace those procured earlier than day-ahead or those procured at earlier than day-ahead should be added to the list of balancing services for the purposes of this metric.

	R Benchmarks are set based on expected product expirations and expectations for new		detail on methodology and performance benchmarks
	currently pr	s are set for all relevant services ocured by the ESO and may be ew products are introduced.	
	Y1: 55% Y2: 80%		
	Exceeds	5% or more higher than the annual day-ahead procurement benchmark	-
Performance Benchmarks	Meets	Within $\pm$ 5% of the annual day- ahead procurement benchmark	-
	Below	5% or more lower than the annual day-ahead procurement benchmark	-
Reporting frequency	Quarterly		-
Associated reporting	Requirement to provide accompanying narrative on the progress of response and reserve products and phase-out of legacy products, including reasons for any product reform delays.		

The ESO was supportive of our position to introduce a new metric. However, the ESO suggested that any future services required to be procured within timeframes further than at day-ahead stage should be excluded from consideration against this measure. We do not agree with this stance. Firstly, we expect the ESO to procure in a manner compliant with the relevant policy and legislative regime, unless this is not feasible and where the ESO has provided evidenced justification for this. Secondly, as ESO is bound by a minimum 30% requirement for procurement of services by at least the day-ahead stage, it is vital that all future services - irrespective of procurement timeframe - are included within this metric.

One other stakeholder suggested that it is important that the ESO continue to have the ability to procure services using the full range of options available – in order to deliver services at the lowest possible cost to consumers. As with RRE 2Aii however, the ESO would be required to fully justify any such decision, and apply for a derogation for such

<sup>&</sup>lt;sup>31</sup> Note that in line with the terms of a derogation from the requirements of Article 6(9) of the Electricity Regulation, the ESO is required to procure **at least** 30% of services no earlier than day-ahead stage. An example of a derogation held by the ESO detailing this requirement can be accessed here: <u>https://www.ofgem.gov.uk/publications/decision-grant-eso-derogation-requirements-article-69-electricity-</u> regulation-and-exemption-requirements-article-323-ebgl-mandatory-and-firm-frequency-response

services under Article 6(9) of the Electricity Regulation. Further, procurement earlier than the day-ahead stage cannot account for more than 30% of total procurement. We expect that the ESO procures against a set of clear rules and criteria, and is consistent in this behaviour, such that market parties have strong and reliable investment criteria. We remind the ESO that it needs to balance short-term procurement costs against long-term procurement costs, including ensuring that it has the services needed to operate a zerocarbon system at best value to consumers.

Taking into account these views, we provide the ESO the opportunity to justify its actions in the supporting narrative for this metric. This may also include justification for the introduction of any new services procured earlier than the day-ahead stage (subject to requirement for derogation).

#### **2B: Diversity of service providers**

Performance measure parameter	Final Determination	Draft Determination
Туре	Regularly Reported Evidence	Same as Final Determination
	Measures the diversity of technologies that provide services to the ESO in each of the markets covered by Performance Metric 2Ai.	
Method	The ESO should report on total contracted volumes (mandatory and tendered), with the supporting narrative providing more detail about the % of the service that is procured through mandatory means.	
	The ESO will not need to publish data for Restoration providers for security reasons. This information will be provided to Ofgem bilaterally.	
	The ESORI Guidance Document, published alongside this document, contains the full list of definitions for each service to be included and the basis on which the volume is calculated.	
Quantitative expectations	n/a	
Reporting frequency	Quarterly	

The ESO was supportive of our position on this RRE. No other stakeholders commented on this measure.

We have engaged with the ESO to clarify what is meant by 'the rationalization of data' proposed at Draft Determination. We believe there are some undue differences between the data the ESO reports on for different product types under this RRE, particularly STOR. We have brought the reporting requirements for STOR in line with the other services and have requested that that ESO report on both contracted and tendered volumes for all services where possible. We have also outlined what is to be reported for the new services the ESO expects to procure.

#### 2C: EMR decision quality

#### Final Determination

We have decided to remove this RRE from our performance measures for BP2.

#### Final Determination rationale and Draft Determination responses

The ESO supported our position on this RRE. Another stakeholder suggested it was a useful measure for the ESO's performance around EMR and sought clarity as to why we proposed to remove it from the measurement framework.

RREs are intended to support the Performance Panel and Ofgem's evaluation assessment by providing transparency on areas of the ESO's performance which are not well captured through performance metrics or satisfaction surveys. In addition, RREs provide the ESO with clear, ex-ante, performance expectations. We are not convinced that RRE 2C does this due to the particularly subjective nature of determining the number of themes when assessing decision errors for EMR Disputes.

We also believe that the information provided under deliverable *D5.1.1 Continuation of EMR Delivery Body obligations* (sub-activity *A5.1 EMR Delivery Body*) already allows us to track and assess the ESO's performance in this area. In particular, deliverable D5.1.1 includes a specific milestone on the disputes process.

#### 2D: EMR demand forecast accuracy

#### Final Determination

Performance measure parameter	Final Determination	Draft Determination
Туре	Regularly Reported Evidence	Same as Final
Method	Measures the ESO's accuracy of Peak national demand forecasts <sup>82</sup> for Capacity Market auctions.	Determination
Quantitative expectations	For further details, please see the ESORI Guidance published alongside this document.	
Reporting frequency	Annually	
Scope	All forecasts that outturn post 1 April 2023 will be assessed against this measure.	

#### Final Determination rationale and Draft Determination responses

We have decided to retain this RRE from BP1. The ESO supported our position at Draft Determination, and we received no further comments from stakeholders.

## 2E: Accuracy of forecasts for charge setting

Performance measure parameter	Final Determination	Draft Determination
Туре	Regularly Reported Evidence	Same as Final Determination
Method	Measures the accuracy of Transmission Network Use of System (TNUoS) and Balancing Services Use of System (BSUoS) forecasts used to set industry charges against actual charges.	
Quantitative expectations	n/a	
Reporting frequency	TNUoS charges – Annually BSUoS charges – Monthly	

We have decided to retain this RRE from BP1. The ESO supported our position at Draft Determination, and we received no further comments from stakeholders.

#### Role 3: System insight, planning and network development

## 3A: Future savings from operability solutions

#### Final Determination

Performance measure parameter	Final Determination	Draft Determination
Туре	Regularly Reported Evidence	Consistent with Final
Method	pathfinders and other operability measures).	Determination, but with less detail on method and reporting requirements
Quantitative expectations	n/a	-
Reporting frequency	Six-monthly	

#### Final Determination rationale and Draft Determination responses

The ESO supported our position on this RRE. We received no other stakeholder responses.

We expected the ESO to continue to report on this RRE, with further narrative to increase transparency around the estimated benefits being reported.

We believe that this measure will be particularly useful in terms of tracking the benefits from the ESO's Pathfinder (Network Service Procurement) activities. In our engagement with the ESO, we have further defined the requirement to disaggregate the information for technical and commercial tenders.

## **3B:** Consumer value from the NOA

#### Final Determination Proposal

Performance measure parameter	Final Determination	Draft Determination
Туре	We have decided to remove this	We proposed to introduce a
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_RRE from our performance	'mini-CBA' framework for each
	measures for BP2.	NOA activity (excluding
		pathfinders).
Method		Alternatively/additionally, we
		proposed focusing this
		performance measure on
		pathfinder projects
Quantitative expectations	_	In addition, we suggested
Reporting frequency	-	there may be further scope to
Reporting frequency		refocus this measure to
		address some of the other
		network planning tools we
		expect the ESO to develop in
		the BP2 period.

## Final Determination rationale and Draft Determination responses

The ESO was not supportive of our proposal to introduce a more detailed assessment framework for this RRE, including a 'mini-CBA' framework for each NOA activity. We received no further comments from stakeholders.

In our Draft Determination we suggested that there may be scope to refocus this measure on other network planning tools.

Having engaged with the ESO further, we have agreed to remove this RRE from the measurement framework. We no longer see value in the current reporting and could not establish a more useful measure under this heading.

## 3C: Diversity of technologies considered in the NOA

## Final Determination

We have decided to remove this RRE from our performance measures for BP2.

#### Final Determination rationale and Draft Determination responses

We have decided to remove this RRE from BP2. The ESO supported our position at Draft Determination, and we received no further comments from stakeholders.

## **3X. Timeliness of connection offers**

Performance measure parameter	Final Determination	Draft Determination
Туре	Regularly Reported Evidence	
Method	The ESO will report quarterly on the number of connection offers made within 3 months, and the number of connection offers made that took longer than 3 months. The ESO will provide Ofgem with this information separately for the England and Wales area, the Scotland area and by TO area. In Y1, in England and Wales - while the two-step offer process is running - the ESO will report:	We proposed performance metric 3X would capture both connection offers in line with meeting their timeline and 'right first- time' (RFT) performance.
	<ul> <li>the number of one-step offers issued within 3 months;</li> <li>the number of two-step offers issued within nine months after counter signature of the step one offer; and</li> <li>the number of any connection offers that took longer than the above timeframes.</li> </ul>	We have split this into two separate RREs and provided further detail.
Reporting frequency	Quarterly	
Quantitative expectations	n/a	

Associated reporting	The ESO should provide reasons, including those outside its control, where they have missed deadlines, including: where derogations have been granted, the length of any delay, and any trend analysis. The ESO should also explain any process improvements implemented to address any underlying issue and include information on the impact of the two-step process on performance.	
	The ESO should report on the scale of the connection queue in terms of GW and average time from offer acceptance to connection date, including the delta from when this data was last reported. The ESO should also include a breakdown of assets in the connection queue by size and technology type and comment on any trends.	

The ESO and two other stakeholders were supportive of our suggestion to create a performance measure for Role 3 that focussed on the ESO's performance around connections. The ESO agreed that reporting of their ability to make connection offers within a 90-day period would be a useful measure.

We have decided that timeliness of connection offers and the percentage of RFT connection offers will be two separate RREs to capture performance under these areas. We have decided that timeliness of connection offers should be an RRE, rather than a performance metric, as the ESO already has clear expectations set out under its licence, noting we expect to see improvements in this measure as process improvements take effect.

## 3Y. Percentage of 'right first time' connection offers

Performance measure parameter	Final Determination	Draft Determination
Туре		We proposed
Method	Measures the % of connection offers made which did not need reissuing.	performance metric 3X would capture both
Reporting frequency	Quarterry	connection
Quantitative expectations	D/d	offers in line with meeting

		their timeline
Associated reporting	were right first time, in addition to a breakdown	and `right first- time' (RFT) performance.
	The ESO will report the total number of connection offers made in the period and provide Ofgem with this information separately for the England and Wales area, and the	We have split this into two separate RREs and provided further detail.
	The ESO will provide commentary around the numbers reported for this, particularly if any trends are apparent.	

In their response to our proposal for a new metric 3X on connection offers at Draft Determination, the ESO proposed two options for measuring performance in this area. The second option was to assess their performance against the percentage of offers which are right first time. We agree with the ESO that this is a good measure of performance that considers the quality of this work, beyond the ESO's ability to meet established timelines. In addition, this measure is in line with one stakeholder suggestion to increase focus on the quality of the connections process.

Connection offers is a key topic of interest, with the ESO increasing spending and resourcing of this activity. Therefore, we believe it is important to monitor performance in this area over the BP2 period. We have also decided to have the ESO report on this measure quarterly, in line with RRE 3X. In addition, to improvements in ESO-driven re-offers, we expect to see progress in the level of re-offers required due to TO or customer factors. While we are not setting targets, we expect that process improvements, including coordination between parties, should also drive improvements in these areas.

We believe that there may be scope to set performance bands for this measure in the future based on historic ESO performance. We will engage with the ESO prior to making any such changes.

# **Appendix 3 – Glossary of ESO-specific framework terms**

Element	Description
Activity	A subset of responsibilities within a role with specific expectations and deliverables attached to it.
BP1	The ESO's Business Plan period from April 2021 to March 2023
BP2	The ESO's Business Plan period from April 2023 to March 2025
Business Plan	Submission from the ESO containing its proposed costs and deliverables for a (initial) two-year period. We assess this to make determinations on incentives.
Deliverable	A specific delivered output within an activity which has associated delivery dates and success measures.
Delivery schedule	A grouping of deliverables for either a role or the Business Plan.
Delivery Schedule grading	Our grading of the Delivery Schedule for each role, designed to set a clear reference point and align expectations in the incentives process. Outlined further in Chapter 3 and in Appendix 2.
ESO Performance Panel	A mix of independent experts and industry representatives that are responsible for reviewing the ESO's plans and performance, as well as performing an end of scheme evaluation of the ESO's performance.
ESO Roles Guidance	Sets out our expectations for how the ESO should comply with its obligations, and for RIIO-2, meet and exceed our incentives expectations under three roles: control centre operations; market development and procurement; and system insight, planning and network development.
ESORI Guidance	A guidance document which sets out the logistics and detailed mechanics of the incentives scheme, including guidance on how the ESO performance should be evaluated, what it should report, and how we determine an incentive payment or penalty.
Evaluation criteria	The criteria used by the Performance Panel to measure the ESO's performance for each role. Changes for BP2 are in Chapter 2.
Incentive scheme	The process over a business plan cycle to assess the ESO's performance against five key criteria, resulting in the award of a £m reward or penalty.
Long-term vision	The long-term vision covers the period from the start of RIIO-2 to 2030.
Medium-term strategy	The medium-term strategy is the five-year strategy covering the RIIO-2 period.
Performance benchmarks	Describes ex-ante what level of outturn performance is below, meets and exceeds expectations for each performance metric.
Performance measure	A measure of the ESO's performance, including performance metrics, stakeholder satisfaction and other regularly reported evidence.

# Table 12: Guide to ESO outputs and incentives components

Performance metric	A numerical measure of ESO performance which can be produced regularly, has a pre-defined methodology and has clear performance benchmarks.
Regularly reported evidence	Evidence that should be regularly reported by the ESO to inform the evidence of benefits criterion in the evaluation criteria.
Role	One of the three roles in the roles framework.
Value for Money assessment	Considers whether the ESO has delivered value for money, striking the optimal balance between maximising benefit delivered from outputs whilst minimising costs.