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# Consultation

| RIIO-ED2 Draft Determinations – NPg Annex | |
|---|---|
| Subject | Details |
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The next electricity distribution price control (RIIO-ED2) will cover the five-year period to 31 March 2028. In December 2021 the Distribution Network Operators (DNOs) submitted their Business Plans to Ofgem setting out proposed expenditure for RIIO-ED2. We have now assessed these plans and this document, and others published alongside it, set out our Draft Determinations for DNO allowances under the RIIO-ED2 price control for consultation. Responses are sought to the questions posed in these documents by 25 August 2022. Following our consideration of these responses we will confirm our Final Determinations by December 2022.

The full suite of Draft Determinations documents outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses before confirming our Final Determinations. We

want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at Ofgem.gov.uk/consultations. If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

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# Contents

# 1. Introduction

## Purpose of this document

1.1 This document sets out our Draft Determinations for the Electricity Distribution (ED) price control (RIIO-ED2) for the areas that are specific to NPg. The RIIO-ED2 price control will cover the five-year period from 1 April 2023 to 31 March 2028. All figures are in 2020/21 prices except where otherwise stated.

1.2 The purpose of this document is to focus on those elements of our consultation position for the price control settlement which specifically affect NPg's licence areas covering Northern Powergrid: Yorkshire (NPgY) and Northern Powergrid: Northeast (NPgN).

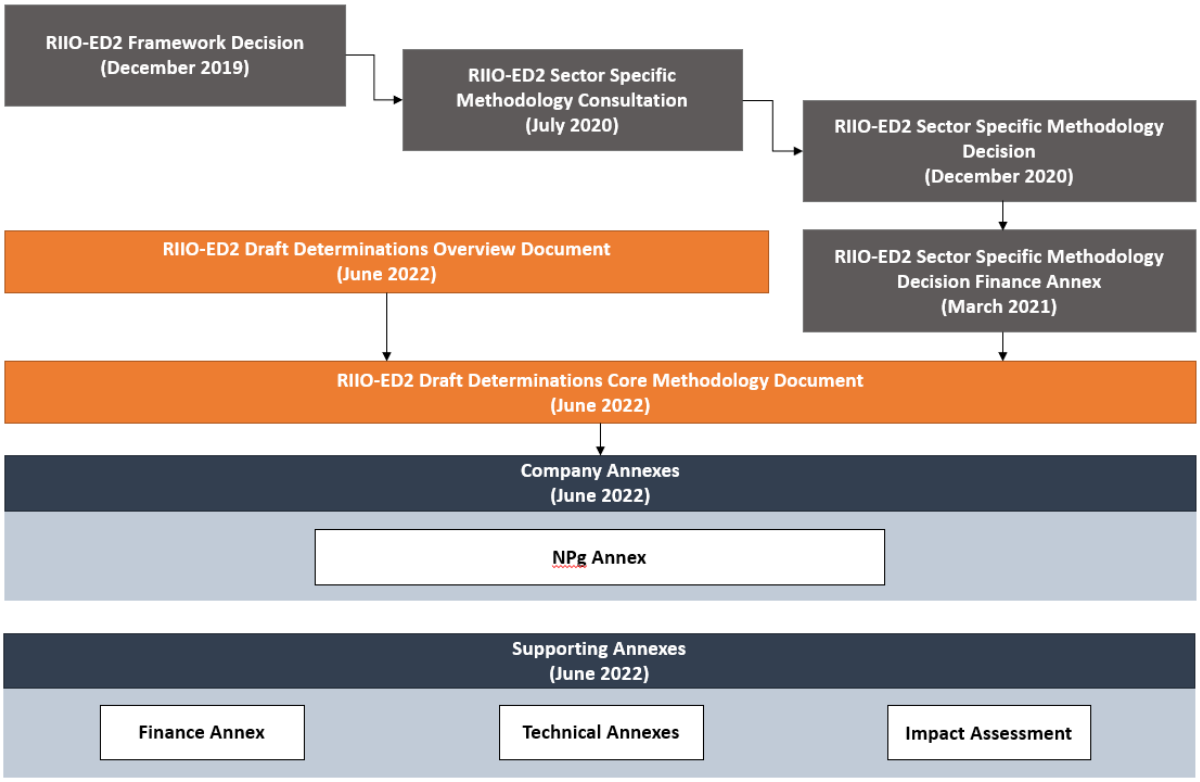
1.3 This document sets out any proposals that are specific to NPg, including:

- assessment of the business plan incentive (BPI), including consumer value propositions (CVPs)
- baseline cost allowances
- parameters for common outputs
- bespoke Output Delivery Incentives (ODIs)[1]
- bespoke Price Control Deliverables (PCDs)
- bespoke Uncertainty Mechanisms (UMs)
- Network Innovation Allowance (NIA) funding.

1.4 This document is intended to be read alongside the RIIO-ED2 Draft Determinations Core Methodology Document and RIIO-ED2 Draft Determinations Overview Document. Figure 1 sets out where you can find information about other areas of our RIIO-ED2 Draft Determinations.

[1] In this document, we refer to 'ODI-F', which is a financial incentive and 'ODI-R' which is a reputational incentive.

**Figure 1: Draft Determinations document map**




# What are the company-specific elements of NPg's Draft Determinations?

1.5 This section sets out a high-level summary of the elements of our Draft Determinations which are specific to NPg.

1.6 Table 1 summarises our assessment of NPg across the four stages of the BPI and where you can find additional information about our consultation position for each stage.

**Table 1: Summary of proposed NPg BPI performance**

| BPI stage | Ofgem proposed position | Further detail |
|---|---|---|
| Stage 1 Minimum Requirements | Pass | Overview Document for approach to assessment and rationale |
| Stage 2 Consumer Value Propositions | No reward | Chapter 2 of this document |
| Stage 3 Penalty | No penalty | Chapter 3 of this document |
| Stage 4 Reward | No reward | Chapter 3 of this document |
| Cap calculation | N/A | Overview Document for approach to assessment and rationale |

| BPI stage | Ofgem proposed position | Further detail |
|---|---|---|
| Overall | No penalty and no reward | |

1.7 The cost confidence assessment we have undertaken as part of this process results in a proposed Totex[2] Incentive Mechanism (TIM) incentive rate for NPg of 49.9%. For further details on the TIM, see Chapter 9 in the Overview Document.

1.8 We present a summary of our proposed baseline Totex for NPg in Table 2. This reflects our view of efficient costs including ongoing efficiency over RIIO-ED2. For further details, please refer to Chapter 7 of the Core Methodology Document.

**Table 2: NPg RIIO-ED2 submitted Totex versus proposed Totex (£m, 2020/21)[3]**

| Cost area | NPg submitted Totex | Ofgem proposed Totex | Difference | Difference |
|---|---|---|---|---|
| Load-related capex | 636 | 506 | -130 | -20.4% |
| Non-load related capex | 927 | 767 | -161 | -17.3% |
| Non-operating capex | 155 | 128 | -27 | -17.1% |
| Network operating costs | 587 | 486 | -102 | -17.3% |
| Closely associated indirects | 621 | 512 | -108 | -17.4% |
| Business support costs | 303 | 250 | -53 | -17.4% |
| Totex | 3,229 | 2,650 | -580 | -18.0% |

1.9 The common outputs that we are proposing for all DNOs in RIIO-ED2 are set out in Table 3 with further details provided in the Core Methodology Document. Table 3 also sets out the bespoke outputs that we are proposing to apply to NPg in RIIO-ED2 (further details are contained within Chapter 2).

**Table 3: Summary of proposed common and bespoke outputs applicable to NPg**

| Output name | Output Type | Further detail |
|---|---|---|
| **Common outputs for the ED Sector** | | |
| Annual environmental report | ODI-R | Chapter 3, Core Methodology Document |

[2] Totex is a shorthand term for total expenditure

[3] Submitted Totex is net costs, including our cost exclusions and reallocations and excluding real price effects (RPE), ongoing efficiency, non-controllable costs, and pass-through costs (except New Transmission Capacity Charges (NTCC)). Proposed Totex is net costs, excluding RPEs, non-controllable costs, pass-through costs (except NTCC), but includes Ofgem's view of ongoing efficiency and is before post-modelling adjustments for uncertainty mechanisms.

| Output name | Output Type | Further detail |
|---|---|---|
| Distribution System Operator (DSO) incentive | ODI-F | Chapter 4 Core Methodology Document |
| Digitalisation licence condition | Licence Condition (LC) | Chapter 4 Core Methodology Document |
| Technology Business Management taxonomy for classifying digital/IT spend | ODI-R | Chapter 4 Core Methodology Document |
| Innovation project to modernise regulatory reporting | ODI-R | Chapter 4 Core Methodology Document |
| Customer satisfaction survey | ODI-F | Chapter 5, Core Methodology Document |
| Complaints metric | ODI-F | Chapter 5, Core Methodology Document |
| Time to connect | ODI-F | Chapter 5, Core Methodology Document |
| Guaranteed standards of performance – Connections | LC | Chapter 5, Core Methodology Document |
| Major connections incentive | ODI-F | Chapter 5, Core Methodology Document and Chapter 2 of this document |
| Treating domestic customers fairly | LC | Chapter 5, Core Methodology Document |
| Consumer vulnerability incentive | ODI-F | Chapter 5, Core Methodology Document and chapter 2 of this document |
| Vulnerability annual report | ODI-R | Chapter 5, Core Methodology Document |
| Interruptions incentive scheme | ODI-F | Chapter 6, Core Methodology Document and chapter 2 of this document |
| Guaranteed standards of performance – reliability | LC | Chapter 6, Core Methodology Document |

| Output name | Output Type | Further detail |
|---|---|---|
| Network asset risk metric | PCD, ODI-F | Chapter 6, Core Methodology Document and chapter 2 of this document |
| Cyber resilience IT | PCD | Chapter 6, Core Methodology Document and Confidential NPg Annex |
| Cyber resilience operational technology (OT) | PCD | Chapter 6, Core Methodology Document and Confidential NPg Annex |
| **Proposed bespoke outputs for NPg** | | |
| One-stop app for vulnerable customers | CVP no reward | Chapter 2 of this document |
| Dynamic voltage optimisation for customer energy efficiency | CVP no reward | Chapter 2 of this document |
| Open Insights – a self-service analytics toolkit | CVP no reward | Chapter 2 of this document |

1.10 The common UMs that we are proposing for all DNOs in RIIO-ED2 are set out in Table 4 with further details in the Core Methodology Document. We are not proposing to accept any bespoke UMs for NPg as none were proposed.

**Table 4: Summary of proposed common and bespoke UMs applicable to NPg**

| UM Name | UM type | Further detail |
|---|---|---|
| **Common UMs to the ED sector** | | |
| Coordinated Adjustment Mechanism | Re-opener | Overview, Chapter 5 of SSMD[4] |
| Real Price Effects | Indexation | Annex 2, Chapter 4 of SSMD |
| Ofgem licence fee | Pass-through | Annex 2, Chapter 8 of SSMD |
| Business rates | Pass-through | Annex 2, Chapter 8 of SSMD |
| Transmission Connection Point Charges | Pass-through | Annex 2, Chapter 8 of SSMD |
| Pension deficit repair mechanism | Pass-through | Annex 2, Chapter 8 of SSMD |
| Ring-fence costs | Pass-through | Annex 2, Chapter 8 of SSMD |

[4] For more details on our Sector Specific Methodology Decision (SSMD) https://www.ofgem.gov.uk/publications/riio-ed2-sector-specific-methodology-decision.

| UM Name | UM type | Further detail |
|---|---|---|
| Miscellaneous pass-through | Pass-through | Annex 2, Chapter 8 of SSMD |
| Environmental legislation | Re-opener | Chapter 3, Core Methodology Document |
| Visual amenity | Use It Or Lose It (UIOLI) | Chapter 3, Core Methodology Document |
| Polychlorinated biphenyls | Volume driver | Chapter 3, Core Methodology Document |
| Load Related Expenditure (LRE) – Secondary Reinforcement | Volume driver | Chapter 3, Core Methodology Document |
| LRE – Low Voltage (LV) Services | Volume driver | Chapter 3, Core Methodology Document |
| LRE - General | Re-opener | Chapter 3, Core Methodology Document |
| Net Zero | Re-opener | Chapter 3, Core Methodology Document |
| Digitalisation | Re-opener | Chapter 4, Core Methodology Document |
| DSO | Re-opener | Chapter 4, Core Methodology Document |
| Worst Served Customers | UIOLI | Chapter 6, Core Methodology Document |
| Severe Weather 1-in-20 | Pass-through | Chapter 6, Core Methodology Document |
| Storm Arwen | Re-opener | Chapter 6, Overview Document |
| Physical security | Re-opener | Chapter 6, Core Methodology Document |
| Electricity system restoration | Re-opener | Chapter 6, Core Methodology Document |
| Cyber resilience OT and IT | Re-opener | Chapter 6, Core Methodology Document and Confidential NPg annex |
| Cyber Resilience OT | UIOLI | Chapter 6, Core Methodology Document and Confidential NPg annex |
| Smart meter information technology costs | Pass-through | Chapter 7, Core Methodology Document |
| Smart meter communications costs | Pass-through | Chapter 7, Core Methodology Document |
| Streetworks costs | Re-opener | Chapter 7, Core Methodology Document |
| Rail electrification | Re-opener | Chapter 7, Core Methodology Document |
| High Value Projects | Re-opener | Chapter 7, Core Methodology Document |

| UM Name | UM type | Further detail |
|---|---|---|
| Cost of debt indexation | Indexation | Chapter 2, Finance Annex |
| Cost of equity indexation | Indexation | Chapter 3, Finance Annex |
| Tax review | Re-opener | Chapter 7, Finance Annex |
| Inflation indexation of Regulatory Asset Value (RAV) | Indexation | Chapter 9, Finance Annex |
| Electric Vehicle Provider of Last Resort | To be confirmed | Chapter 6, Overview Document |
| **Bespoke UMs to NPg** | | |
| N/A | N/A | N/A |

1.11 Table 5 sets out our NIA proposals for NPg (further details can be found in Chapter 5). Our general approach to the NIA is set out in Chapter 3 in our Core Methodology Document.

**Table 5: Summary of proposed NIA applicable to NPg**

| Consultation position on NPg NIA |
|---|
| £7.5m initial allowance, to be reviewed in 2025 |

1.12 Table 6 summarises the financing arrangements that we are proposing to apply to NPg and all other DNOs. Please refer to Chapter 4 of our Finance Annex for more detail on these areas.

**Table 6: Summary of financing arrangements applicable to NPg**

| Finance parameter | NPgY rate | Source |
|---|---|---|
| Notional gearing | 60% | See Table 19 in Finance Annex |
| Cost of equity allowance | 4.75% | |
| Cost of debt allowance | 2.26% | |
| WACC allowance | 3.26% | |

| Finance parameter | NPgN rate | Source |
|---|---|---|
| Notional gearing | 60% | See Table 19 in Finance Annex |
| Cost of equity allowance | 4.75% | |
| Cost of debt allowance | 2.32% | |
| WACC allowance | 3.29% | |

# 2. Setting Outputs

## Introduction

2.1 This chapter sets out our Draft Determinations for output areas that specifically apply to NPg. In this chapter we provide our proposals on:

- The NPg specific parameters for common outputs, detailed in our Core Methodology Document, which we propose to apply to all DNOs.
- The bespoke outputs and CVPs proposed in NPg's Business Plan.

## Common outputs

2.2 The NPg-specific parameters for the common outputs which we are proposing for all DNOs in RIIO-ED2 are set out in the tables below. Further details on these outputs and our consultation position are set out in the Core Methodology Document.

### Interruptions Incentive Scheme (IIS)

2.3 Tables 7-10 summarise NPg's unplanned Customer Interruptions (CI) and Customer Minutes Lost (CML) targets and revenue cap and collar.

2.4 The unplanned targets are calculated under a common methodology that uses each DNO's own historical performance to determine their targets, which means they are bespoke for each DNO. This methodology ensures the DNOs are incentivised to improve their performance (or avoid it deteriorating) but recognises that there are factors that will affect each DNO's current performance and the cost and impact of any changes.

2.5 Please refer to Chapter 6 of the Core Methodology Document for our consultation position and rationale. Planned CI and CML targets will be updated at Final Determinations, once 2021/22 performance data has been finalised.

**Table 7: Consultation position – IIS – unplanned CI targets**

| | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 |
|---|---|---|---|---|---|
| NPgN | 47.4 | 46.7 | 46.0 | 45.3 | 44.6 |
| NPgY | 47.8 | 47.1 | 46.4 | 45.7 | 45.0 |

**Table 8: Consultation position – IIS – unplanned CML targets**

| | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 |
|---|---|---|---|---|---|
| NPgN | 38.78 | 38.2 | 37.6 | 37.1 | 36.5 |
| NPgY | 36.03 | 35.5 | 35.0 | 34.4 | 34.3 |

**Table 9: Consultation position – IIS – revenue cap (£m)**

| | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 |
|---|---|---|---|---|---|
| NPgN | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 |
| NPgY | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 |

**Table 10: Consultation position – IIS – revenue collar (£m)**

| | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 |
|---|---|---|---|---|---|
| NPgN | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 |
| NPgY | 21.8 | 21.8 | 21.8 | 21.8 | 21.8 |

**NARM PCD and ODI-F**

2.6 Table 11 summarises our proposals for NPg's Network Asset Risk Metric (NARM) baseline network risk output for RIIO-ED2. Please refer to Chapter 6 of the Core Methodology Document for our consultation position and rationale.

**Table 11 Consultation position – NARM PCD and ODI-F – Baseline Network Risk Outputs (£R, 2020/21 prices)**

| Network | Draft Determinations Proposed Baseline Network Risk Output |
|---|---|
| NPgN | 391,605,428 |
| NPgY | 393,647,413 |

**Consumer Vulnerability Incentive (ODI-F)**

2.7 Tables 12 and 13 summarise our proposals for NPg's vulnerability incentive targets for the value of fuel poverty services delivered and the value of low carbon support services delivered, with financial targets set out in net present value (NPV).

**Table 12: Consultation position - Consumer Vulnerability Incentive (ODI-F): the value of fuel poverty services delivered (NPV, £m)**

| | Year 2 target | Year 5 target |
|---|---|---|
| NPg bespoke target | £6.76m | £16.36m |

**Table 13: Consultation position - Consumer Vulnerability Incentive (ODI-F): the value of low carbon support services delivered (NPV, £m)**

| | Year 2 target | Year 5 target |
|---|---|---|
| NPg bespoke target | -£0.66m | -£0.38m |

2.8 The NPV values proposed by NPg in tables 12 and 13 are the forecasted values based on the delivery of its vulnerability strategy.

2.9 We have reviewed the targets proposed and the supporting rationale. That review is ongoing, and we will work with all DNOs to ensure that the DNOs' targets are complete, comparable and independently assured using the common Social Value Framework ahead of Final Determinations.

2.10 Our approach to bespoke target setting and further detail on these metrics can be found in Chapter 5 of our Core Methodology Document.

**Major Connections Incentive**

2.11 The Major Connections Incentive will be an ODI-F with a maximum penalty exposure of 0.9% base revenue and applied to performance in the Major Connections Customer Satisfaction Survey.[5] Please see "Creating consistency in baselines for ODI incentive rates, caps, or collars" in section 10 of the Finance Annex for our proposal to translate this incentive to 0.35% RoRE.

2.12 The penalty is calculated by applying approximately a 0.1% penalty rate per Relevant Market Segment (RMS), and will be applied based on the number of RMS where effective competition has not been demonstrated.[6] Based on the outcomes of the Distribution Price Control Review 5 ('DPCR5') Competition Test and our minded-to proposals on the competition review for:

- NPg's NPgN region, there would be a maximum penalty of 0.8% of base revenue
- NPg's NPgY region, there would be a maximum penalty of 0.7% of base revenue.

[5] See the Major Connections Incentive section in the Core Methodology Document for more detail.
[6] For more details on which RMS have demonstrated evidence of effective competition, see our minded-to proposals https://www.ofgem.gov.uk/publications/consultation-our-review-competition-electricity-distribution-connections-market

**Common outputs consultation question**

NPg-Q1. What are your views on the company specific parameters we have proposed for the common outputs that we have set out above?

# Bespoke outputs

2.13 For RIIO-ED2, we invited DNOs to propose additional bespoke outputs as part of their Business Plans reflecting the needs of, and feedback from, their stakeholders and consumers.

2.14 We said that companies were required to support their bespoke proposals with robust justification. In our Business Plan Guidance[7] (BPG), we asked for this justification to ensure that the potential consumer benefits put forward under bespoke proposals were significant enough to merit introducing any additional cost and / or regulatory complexity associated with them.

2.15 In making our Draft Determinations for RIIO-ED2 outputs, we have sought to strike a balance between these trade-offs for each bespoke proposal. You can find the background and our assessment approach in the Overview Document.

2.16 NPg has submitted five bespoke outputs. This includes one PCD and four CVPs. We provide a summary of each bespoke proposal below, with the full details of each bespoke output put forward by NPg found in its Business Plan submission[8]. We set out our assessment of each output and detail which of them we are proposing to accept and apply to NPg in RIIO-ED2.

**Bespoke output delivery incentives**

2.17 NPg did not put forward any bespoke output delivery incentives and we are not proposing to implement any bespoke output delivery incentives for NPg in RIIO-ED2.

[7] https://www.ofgem.gov.uk/publications/riio-ed2-business-plan-guidance
[8] NPg Business Plan NPg_Our_business_plan_for_2023_28.pdf (northernpowergrid.com)

**Bespoke price control deliverables**

2.18 Table 14 below summarises the bespoke PCD proposals that NPg submitted as part of its Business Plan and outlines our consultation position.

**Table 14: NPg's bespoke price control deliverables**

| Output name and description | Consultation position |
|---|---|
| **High Voltage automation**: NPg's long term programme of investment in HV automation to enable faster fault identification and restoration times. | **Reject:** The Interruptions Incentive Scheme incentivises the DNOs to undertake improvements to reduce the number and duration of interruptions, in order to earn a reward. We do not provide funding for quality of supply (QoS) activities, as there is a likelihood that this would result in a DNO receiving a double benefit by being funded for activities they can earn rewards for undertaking. |

**Consultation questions**

NPg-Q2. What are your views on our proposal to reject NPg's bespoke price control deliverable?

## Consumer Value Propositions

2.19 Table 15 below summarises the CVP proposals that NPg submitted as part of its Business Plan and our consultation position in relation to each. Where necessary, we have provided detail on our rationale for our consultation position in the section following the table.

**Table 15: NPg's CVP proposals**

| Output name and description | Consultation position |
|---|---|
| **One-stop app for vulnerable customers**: Developing a fully digitalised app for customers in vulnerable situations to make it easier for customers to access a wide range of services. | **Accept, no reward:** We do not think that this proposal goes beyond what we would expect in relation to the vulnerability baseline expectations, and the current performance of other DNOs in providing information on live network information and access to support and advice through apps and/or via the websites. We think this activity should form part of NPg's Vulnerability Strategy under the Vulnerability ODI-F and it should not receive a CVP reward. Please see below for further detail. |
| **Dynamic voltage optimisation for customer energy efficiency**: Dynamically managing voltage on NPg's system to achieve behind the meter benefits through energy consumption reduction. | **Accept, no reward:** We believe this project risks not delivering the benefits modelled as it is yet to complete its innovation trials, alongside broader concerns that benefits may diminish over time due to the uptake of low carbon technologies (LCTs). However, we recognise that this project could deliver benefits to consumers, subject to trial results, and therefore believe it would be more appropriate to fund the initiative through the baseline, without a CVP reward. Please see below for further detail. |
| **Open Insights – a self-service analytics toolkit:** It will bring together the tools customers and stakeholders require to self-serve energy system data, undertake network planning and get LCTs connected. | **Accept, no reward:** We do not think that this proposal goes beyond what we would expect in relation to the major connections and DSO baseline expectations. In our baseline expectations we have stated that DNOs must provide live network information and have clear and simple application processes in place. As a result, we believe this activity should be funded in baseline with delivery tracked through NPg's Major Connections Annual Report, and should not receive a CVP reward. Please see below for further detail. |
| **Phase one rollout of next generation energy system:** Proposal to rollout 30 innovative microgrid solutions in some of the most remote parts of the network to enhance system resilience. | **Reject:** We are proposing to reject this proposal for three reasons:<br>a) It does not meet the definition of a whole systems solution, which means it was not eligible to be considered as a CVP<br>b) The Network Innovation Allowance[9] project that is testing the microgrid solution has not concluded yet and so benefits of the solution are still unproven<br>c) If the solution is proven through the NIA project, NPg should use Business as Usual (BAU) funds to rollout this innovation solution as part of its toolkit for delivering a more resilient network |

[9] https://smarter.energynetworks.org/

**One-stop app for vulnerable consumers**

Background

2.20 In its Business Plan, NPg proposed a CVP to develop and provide a fully digitalised 'one-stop solution' app for customers in vulnerable situations. The app is intended to make it easier for customers to access support services and energy saving advice, providing direct access to NPg's partner programmes. The cost NPg have requested for this proposal is £1.9m.

Consultation position

**Table 16: Summary of proposed NPg BPI performance**

| CVP parameter | Consultation position |
|---|---|
| Deliverable | One-stop app solution for vulnerable solutions |
| CVP value | £3.3m |
| CVP reward | No reward |
| Reporting and clawback | Progress in delivering the app should be reported in the common ODI-R Vulnerability Report. |

Rationale for consultation position

2.21 We are proposing to accept this proposal but reject the CVP reward.

2.22 We are supportive of NPg's proposal to introduce an app to make it easier for customers to access a wide range of services and energy saving advice and propose to fund the development and rollout of the app over RIIO-ED2 through NPg's baseline allowances.

2.23 We recognise the value the app could have in providing more accessible communication channels for customers, freeing up other routes such as telephone lines. We acknowledge that the value added from this proposal is the 'one-stop shop' aspect, where customers can access the information they require on live network issues, support services, and updating their details. We note that the majority of the services the application will provide are already available through existing NPg channels.

2.24 We note the views of NPg's CEG who support this proposal and consider it to go beyond our vulnerability baseline expectations. The CEG highlights customer and

stakeholder support for this proposal, noting that NPg's customers consider being fully updated and supported during interruptions a priority. Citizens Advice welcome NPg's intent to drive more accessible communication channels. However, the CEG, Citizens Advice and the Challenge Group all have concerns regarding the proposal which we have taken into account in setting out our consultation position.

2.25 We share views highlighted by both the Challenge Group and Citizens Advice that this proposal does not demonstrate ambition that clearly goes beyond business as usual (BAU) or the baseline expectations of other DNOs. This is due to the material overlap with existing apps offered by other DNOs currently within RIIO-ED1. We expect DNOs to have a sophisticated approach to information provision to customers, including implementing a data and information strategy to meet the needs of vulnerable consumers and having a multi-channel approach to information provision during supply interruptions.

2.26 In addition, we share the concerns highlighted by NPg's CEG that the app may not deliver the cost savings set out through social return on investment modelling. As the CEG highlight, the main benefit that would result from customers using the app is that it would assist them to save money by switching supplier or tariff. That benefit is now likely to be limited as a result of changes to the energy price cap and the impact of the current energy crisis, meaning that many customers are not able to shop around for better deals. We agree with the Challenge Group that there would be significant challenges to drive sufficient awareness, understanding and ongoing usage. We also noted that NPg's evidence provided on likely uptake is based on an online survey which may be skewed as a result of it being more likely to have been completed by consumers who are already digitally engaged and comfortable using technology.

2.27 On this basis, our position is to provide baseline funding for NPg to develop the app as part of their wider investments to deliver a number of initiatives which enable customers to self-serve. We agree that the app can deliver benefit for customers but encourage NPg to consider how they will drive uptake of the app and ongoing usage.

**Open Insights – a self-service analytics toolkit**

Background

2.28 NPg have proposed an online tool to enable customers to self-serve energy system data to enable low carbon technologies (LCTs) to be connected. The proposal is planned to be completed through seven milestones between 2023 and 2027.

Consultation position

**Table 17: Summary of proposed NPg BPI performance**

| CVP parameter | Consultation position |
|---|---|
| Deliverable | An online self-service tool for customers |
| CVP value | £4.7m |
| CVP reward | No reward |
| Reporting and clawback | ODI-R with reporting on the progress of delivery through the Major Connections Annual Report |

Rationale for consultation position

2.29 We are proposing to accept this proposal but reject the CVP reward.

2.30 We are supportive of the developments proposed in this CVP, and believe that it will generate value for current and future customers in the transition to Net Zero. However, we do not believe that this proposal goes beyond what we would expect in relation to the major connections and DSO baseline expectations. We expect DNOs to provide access to up to date and relevant information to enable a connection stakeholder to decide whether, and where, to connect to the distribution network. We also expect DNOs to have clear and simple customer application processes, which account for the particular needs of different customer groups.

2.31 We are therefore of the view that this proposal helps NPg meet baseline expectations, and thus should not receive a CVP reward. We propose to fund it and require NPg to report on progress on through the Major Connections Annual Report.

**Dynamic voltage optimisation for customer energy efficiency**

Background

2.32 NPg have proposed a CVP for their initiative to use dynamic voltage management on their system to achieve behind the meter benefits through energy consumption reduction. Phase 1 of the project, which concluded in 2021, focused on studies to justify Phase 2, a rollout of the Boston Energy Efficiency Trial technology to optimise voltage on a half-hourly basis.

Consultation position

**Table 18: Summary of proposed NPg BPI performance**

| CVP parameter | Consultation position |
|---|---|
| Deliverable | Delivery of voltage optimisation solution to 80% of customers |
| CVP value | £14.5m |
| CVP reward | No reward |
| Reporting and clawback | ODI-R with reporting on the progress of delivery through a bespoke annual report |

Rationale for consultation position

2.33 We are proposing to accept this proposal but reject the reward.

2.34 This initiative risks under-delivery due to projected benefits being subject to the outcome of ongoing trials. We are also concerned that NPg's expected reduction in energy consumption may diminish over time due to the uptake of LCTs and changes in domestic consumption profiles. However, we recognise that this project could deliver benefits to consumers, subject to trial results and mitigating any unforeseen complexities by 2025/26. Therefore, we propose funding the initiative through baseline allowances without a CVP reward. We believe further historical evidence through voltage optimisation projects will improve our understanding of the future role of such technologies in a net zero system. For this reason, we are also proposing that NPg provides an annual CVP report on the benefits that NPg's rollout of voltage optimisation delivers to consumers and associated reductions in energy consumption.

**Consultation questions**

NPg-Q3. What are your views on our proposals for NPg's CVPs?

# 3. Setting baseline allowances

## Introduction

3.1 This chapter sets out our Draft Determinations on baseline allowances for the different cost areas within NPg's Business Plan submission. We intend this chapter to be read alongside other parts of our Draft Determinations that set out our overall approach to RIIO-ED2.

## Baseline allowances

3.2 Baseline Totex referenced in this chapter comprises forecast controllable costs[10] and is inclusive of our proposed ongoing efficiency challenge, unless stated otherwise. Furthermore, the figures presented in this chapter do not include real price effects (RPEs) to allow comparison with DNOs' submissions.

3.3 Tables 19 and 20 compare NPg's submitted baseline Totex for each of its networks with our Draft Determinations position at a disaggregated cost activity level.

**Table 19: NPgN RIIO-ED2 submitted Totex versus proposed Totex by cost activity (£m, 2020/21 price base)**

| NPgN | Cost activity | Submitted Totex | Proposed Totex | Difference | Difference |
|---|---|---|---|---|---|
| Capex[11] | Connections | 63 | 45 | -18 | -28.1% |
| Capex | New Transmission Capacity Charges | 4 | 3 | -1 | -18.5% |
| Capex | Primary Reinforcement | 22 | 18 | -4 | -18.9% |
| Capex | Secondary Reinforcement | 108 | 87 | -21 | -19.2% |
| Capex | Fault Level Reinforcement | 37 | 30 | -7 | -18.5% |
| Capex | Civil Works Condition Driven | 11 | 9 | -2 | -18.5% |
| Capex | Blackstart | - | - | - | - |
| Capex | Legal & Safety | 20 | 16 | -4 | -18.4% |
| Capex | QoS & North of Scotland Resilience | 8 | - | -8 | -100.0% |
| Capex | Flood Mitigation | 3 | 2 | -0 | -18.5% |

[10] Non-controllable costs, while included in overall allowed revenue recoverable by DNOs, are not included in baseline Totex and are treated separately. See Chapter 7 of the Core Methodology Document for more details on what is and is not included in the numbers presented here.
[11] Capex is a shorthand term for capital expenditure and Opex is a shorthand term for operational expenditure

| NPgN | Cost activity | Submitted Totex | Proposed Totex | Difference | Difference |
|---|---|---|---|---|---|
| Capex | Physical Security | - | - | - | - |
| Capex | Rising and Lateral Mains | 4 | 4 | -1 | -18.5% |
| Capex | Overhead Line Clearances | 13 | 11 | -3 | -19.2% |
| Capex | Losses | - | - | - | - |
| Capex | Environmental Reporting | 22 | 18 | -4 | -17.6% |
| Capex | Operational IT and telecoms | 36 | 29 | -7 | -18.5% |
| Capex | Worst Served Customers | 1 | 1 | -0 | -18.5% |
| Capex | Visual Amenity | 5 | 4 | -1 | -18.5% |
| Capex | Diversions (excl Rail) | 28 | 23 | -5 | -18.5% |
| Capex | Diversions Rail Electrification | - | - | - | - |
| Capex | Civil Works Asset Replacement Driven | 10 | 8 | -2 | -18.2% |
| Capex | Asset Replacement NARM | 150 | 122 | -28 | -18.5% |
| Capex | Asset Replacement Non-NARM | 88 | 72 | -16 | -18.5% |
| Capex | Asset Refurbishment Non-NARM | 21 | 17 | -4 | -18.5% |
| Capex | Asset Refurbishment NARM | 4 | 3 | -1 | -18.0% |
| Capex | IT and Telecoms (Non-Op) | 36 | 30 | -7 | -18.5% |
| Capex | Non-Op Property | 8 | 7 | -1 | -18.5% |
| Capex | Vehicles and Transport (Non-Op) | 16 | 13 | -3 | -18.5% |
| Capex | Small Tools and Equipment | 14 | 11 | -3 | -18.5% |
| Capex | High Value Projects (HVP) RIIO-ED2 | - | - | - | - |
| Capex | Shetland | - | - | - | - |
| Opex | Tree Cutting | 22 | 18 | -4 | -18.4% |
| Opex | Faults | 119 | 97 | -22 | -18.5% |
| Opex | Severe Weather 1 in 20 | 4 | - | -4 | -100.0% |
| Opex | Occurrences Not Incentivised (ONIs) | 29 | 24 | -5 | -18.5% |
| Opex | Inspections | 14 | 12 | -3 | -18.5% |
| Opex | Repair and Maintenance | 39 | 32 | -7 | -18.5% |
| Opex | Dismantlement | 2 | 1 | -0 | -18.3% |
| Opex | Remote Generation Opex | - | - | - | - |
| Opex | Substation Electricity | 6 | 5 | -1 | -18.5% |
| Opex | Smart Metering Rollout | 2 | 2 | -0 | -17.6% |

| NPgN | Cost activity | Submitted Totex | Proposed Totex | Difference | Difference |
|---|---|---|---|---|---|
| Opex | Total Closely associated indirects (CAI) | 289 | 235 | -53 | -18.5% |
| Opex | Total Business Support | 140 | 114 | -26 | -18.5% |
| Cost activities sub-total[12] | | 1,398 | 1,123 | -275 | -19.7% |
| Excluded cost activities[13] | | -12 | - | | - |
| Total Totex (modelled component) | | 1,386 | 1,123 | -263 | -19.0% |
| Technically assessed Totex | | 6 | 6 | -0 | -8.0% |
| Total Totex | | 1,392 | 1,129 | -264 | -18.9% |

**Table 20: NPgY RIIO-ED2 submitted Totex versus proposed Totex by cost activity (£m, 2020/21 price base)**

| NPgY | Cost activity | Submitted Totex | Proposed Totex | Difference | Difference |
|---|---|---|---|---|---|
| Capex | Connections | 89 | 62 | -26 | -29.6% |
| Capex | New Transmission Capacity Charges | - | - | - | - |
| Capex | Primary Reinforcement | 43 | 36 | -7 | -16.2% |
| Capex | Secondary Reinforcement | 249 | 206 | -43 | -17.3% |
| Capex | Fault Level Reinforcement | 22 | 19 | -4 | -16.1% |
| Capex | Civil Works Condition Driven | 19 | 16 | -3 | -16.5% |
| Capex | Blackstart | - | - | - | - |
| Capex | Legal & Safety | 27 | 23 | -4 | -16.5% |
| Capex | QoS & North of Scotland Resilience | 53 | - | -53 | -100.0% |
| Capex | Flood Mitigation | 3 | 3 | -1 | -16.5% |
| Capex | Physical Security | - | - | - | - |
| Capex | Rising and Lateral Mains | 9 | 7 | -1 | -16.6% |
| Capex | Overhead Line Clearances | 9 | 8 | -2 | -17.1% |
| Capex | Losses | - | - | - | - |
| Capex | Environmental Reporting | 24 | 20 | -4 | -15.7% |
| Capex | Operational IT and telecoms | 52 | 43 | -9 | -16.5% |
| Capex | Worst Served Customers | 3 | 3 | -1 | -16.3% |

[12] Proposed Totex for Worst Served Customers and Visual Amenity are shown here including ongoing efficiency for comparability with other activities, but ongoing efficiency is removed from these two activities as a post-modelling step. See Worst Served Customers and Visual Amenity sections in Chapter 7 of the Core Methodology Document for the proposed Totex values excluding ongoing efficiency.

[13] QoS & North of Scotland Resilience, Diversions Rail Electrification and Severe Weather 1 in 20 cost activities are excluded from the modelled component of Totex. See Chapter 7 of the Core Methodology Document for details.

| NPgY | Cost activity | Submitted Totex | Proposed Totex | Difference | Difference |
|---|---|---|---|---|---|
| Capex | Visual Amenity | 5 | 4 | -1 | -16.5% |
| Capex | Diversions (excl Rail) | 32 | 27 | -5 | -16.5% |
| Capex | Diversions Rail Electrification | - | - | - | - |
| Capex | Civil Works Asset Replacement Driven | 14 | 12 | -2 | -16.4% |
| Capex | Asset Replacement NARM | 177 | 148 | -29 | -16.5% |
| Capex | Asset Replacement Non-NARM | 86 | 72 | -14 | -16.6% |
| Capex | Asset Refurbishment Non-NARM | 34 | 29 | -6 | -16.6% |
| Capex | Asset Refurbishment NARM | 9 | 7 | -1 | -16.1% |
| Capex | IT and Telecoms (Non-Op) | 36 | 30 | -6 | -16.6% |
| Capex | Non-Op Property | 6 | 5 | -1 | -16.5% |
| Capex | Vehicles and Transport (Non-Op) | 17 | 14 | -3 | -16.5% |
| Capex | Small Tools and Equipment | 15 | 13 | -3 | -16.5% |
| Capex | HVP RIIO-ED2 | - | - | - | - |
| Capex | Shetland | - | - | - | - |
| Opex | Tree Cutting | 32 | 26 | -5 | -16.5% |
| Opex | Faults | 178 | 149 | -29 | -16.5% |
| Opex | Severe Weather 1 in 20 | 6 | - | -6 | -100.0% |
| Opex | Occurrences Not Incentivised (ONIs) | 61 | 51 | -10 | -16.5% |
| Opex | Inspections | 19 | 16 | -3 | -16.5% |
| Opex | Repair and Maintenance | 49 | 41 | -8 | -16.6% |
| Opex | Dismantlement | 2 | 1 | -0 | -16.4% |
| Opex | Remote Generation Opex | - | - | - | - |
| Opex | Substation Electricity | 10 | 8 | -2 | -16.6% |
| Opex | Smart Metering Rollout | 4 | 3 | -1 | -15.7% |
| Opex | Total Closely associated indirects (CAI) | 332 | 277 | -55 | -16.5% |
| Opex | Total Business Support | 164 | 136 | -27 | -16.5% |
| Cost activities sub-total[14] | | 1,888 | 1,514 | -374 | -19.8% |

[14] Proposed Totex for Worst Served Customers and Visual Amenity are shown here including ongoing efficiency for comparability with other activities, but ongoing efficiency is removed from these two activities as a post-modelling step. See Worst Served Customers and Visual Amenity sections in Chapter 7 of the Core Methodology Document for the proposed Totex values excluding ongoing efficiency.

| NPgY | Cost activity | Submitted Totex | Proposed Totex | Difference | Difference |
|---|---|---|---|---|---|
| Excluded cost activities[15] | | -59 | - | | - |
| Total Totex (modelled component) | | 1,829 | 1,514 | -316 | -17.3% |
| Technically assessed Totex | | 8 | 7 | -1 | -7.9% |
| Total Totex | | 1,837 | 1,521 | -316 | -17.2% |

## Technically assessed costs

3.4 For technically assessed costs, we have made the following adjustments, listed in Table 21 below. Our proposed view of bespoke proposals is presented in Chapter 2. Further details on other items are provided later in this chapter.

**Table 21: Consultation position – technically assessed costs**

| Proposal name | Draft Determinations proposal | | |
|---|---|---|---|
| | Submitted | Proposed (1) | Confidence |
| | £m | £m | |
| CVP2: Open Insights – self-service analytics toolkit | 6.3 | 6.3 | High |
| CVP3: Dynamic voltage optimisation for domestic energy efficiency | 7.5 | 7.5 | Lower |
| (1) Proposed costs do not include efficiency challenge | | | |

3.5 In relation to CVP2: Open Insights - self-service analytics toolkit, it was difficult to ascertain why the costs had been apportioned in the manner in which they are presented. However, as stated in the rationale section for this CVP, we do not believe that this proposal goes beyond what we would expect in relation to the major connections and DSO baseline expectations. As such, we believe that NPg will be well positioned to deliver it. It is stated that the proposal will build on NPg's existing self-service platform, giving us further confidence in delivery.

3.6 With regard to CVP3: Dynamic voltage optimisation for domestic energy efficiency, we were unable to find sufficient cost figures in NPg's proposal to understand

[15] QoS & North of Scotland Resilience, Diversions Rail Electrification and Severe Weather 1 in 20 cost activities are excluded from the modelled component of Totex. See Chapter 7 of the Core Methodology Document for details.

whether the amount requested was reasonable. Without other comparable costs for benchmarking and considering the early development stages of this project, we therefore propose to treat costs as lower confidence.

## Engineering Justification Paper review

3.7 We have reviewed each of the individual Engineering Justification Papers (EJP) submitted by NPg, as well as the supporting documentation. These EJPs were assessed the EJPs in accordance with paragraph 2.23 of the Engineering Justification Papers for RIIO-ED2 Guidance document.[16]

3.8 As discussed in Chapter 7 of our Core Methodology Document, our assessment provided a view on each EJP that was assigned one of three outcomes: Justified, Partially Justified, or Unjustified.

3.9 Our review of the EJPs is one of several assessment tools that has contributed to our overall assessment and proposed costs and volumes. The positions set out in this specific section should be considered in the wider context of the cost assessment methodology set out in Chapter 7 of the Core Methodology Document.

3.10 NPg submitted a total of 61 EJPs to substantiate its RIIO-ED2 submission.

3.11 We consider that NPg's EJPs are generally well presented, and the majority of the needs cases have provided sufficient evidence to be considered demonstrated and were broadly in line with wider industry trends.

3.12 We asked Supplementary Questions of NPg to support the background information and assumptions used within EJPs and to help with our engineering assessment, for example, the source of asset condition data and demand assumptions. As a result of our engineering review, we have identified some risks, which mainly relate to optioneering (which in some cases drives volumes) and deliverability.

3.13 A summary of our review assessing NPg's EJPs as either Justified, Partially Justified, or Unjustified for each EJP is presented in Table 22. We have provided more detail on EJPs of significant value where our review determined the EJP to be Partially Justified or Unjustified in Appendix 2.

16 https://www.ofgem.gov.uk/sites/default/files/docs/2021/02/riio_ed2_engineering_justification_paper_guidance.pdf

**Table 22: Summary of the NPg EJP Review**

| EJP review outcome | No. of EJPs |
|---|---|
| Justified | 24 |
| Partially Justified | 24 |
| Unjustified | 13 |
| Total EJPs | 61 |

**Load Related Investment Proposals**

3.14 We note that the majority of the extra high voltage (EHV) reinforcement EJPs are declared as currently being P2/7 compliant and the forecast peak demand growth does not result in the group categorisation changing within the RIIO-ED2 period. The driver in these instances appears to be solely to create anticipatory headroom for new customers and to facilitate future LCT connections, taking the sites capability beyond the minimum P2/7 compliance within ED2.

3.15 We note however that a number of the proposed EHV reinforcements also have secondary drivers such as asset health. The options presented by NPg may address the longer-term needs, however these needs appear to materialise after the RIIO-ED2 period. We were not satisfied that NPg have provided sufficient justification as to why these investments should be carried out in the RIIO-ED2 period rather than a later time. The schemes also appear to be at an early stage of development which give rise to some concerns regarding cost certainty.

3.16 We consider NPg has demonstrated a need for investment in relation to secondary reinforcement and at a basic level the investment types proposed by NPg appear appropriate. Within their Business Plan, NPg provide a high-level overview of the approach used to estimate LCT uptake and hence the ED2 volumes. However, the volumes proposed by NPg and associated costs are highly dependent on actual demand uptake forecasts which naturally have a number of assumptions. We consider this leads to a risk that the outturn volumes will differ from those proposed within NPg's submission.

3.17 Our LRE review was based on the review of each of NPg's individual EJPs; some of which are discussed within this document. Our LRE engineering review and recommendations have helped inform the LRE Draft Determinations proposals. The overall Draft Determination proposals reflect the wider assessment undertaken, including the processes described in Chapters 3 and 7 of the Core Methodology document.

**Non-Load Related Investment Proposals**

3.18 Generally, we consider NPg to have provided suitable evidence to demonstrate the needs cases for investment for the proposed condition-based asset replacement and refurbishment EJPs. However, we identified numerous examples where volumes are predicted to increase compared to RIIO-ED1 and the associated ramp up in delivery (and resulting delivery risk) is not sufficiently explained. Based on the information provided by NPg, the plans in these areas appear to be at an early stage and in some cases only generic information regarding optioneering and delivery strategy has been provided.

3.19 NPg's other non-load related EJPs cover a wide range of areas, including security at major operational sites and IT & telecoms investments. These EJPs are varied in terms of the level of supporting evidence presented for the proposed investment and we consider that several of the EJPs did not show a sufficient level of detail to justify the proposed volumes and / or insufficient evidence is provided to ensure deliverability.

3.20 Generally, we consider NPg to have provided sufficient evidence of the needs case for investment in proposed NARM asset replacement and refurbishment. However, we identified numerous examples where volumes are predicted to increase compared to RIIO-ED1 and the associated ramp up in delivery (and resulting delivery risk) is not sufficiently explained. Based on the information provided by NPg, the plans in these areas appear to be at an early stage and in some cases only generic information regarding optioneering and delivery strategy has been provided.

## TIM

3.21 Our cost confidence assessment results in a proposed Totex Incentive Mechanism (TIM) incentive rate for NPg of 49.9%. For further details on the TIM, see Chapter 9 in the Overview Document.

## BPI Stage 3

3.22 We propose that NPg does not incur any penalty following our BPI Stage 3 assessment. Though we identified some lower confidence costs associated with its CVP3 proposal, we have not removed any of these costs.

# BPI Stage 4

3.23 We propose that NPg will earn no reward following our BPI stage 4 assessment.

3.24 Table 23 sets out our proposals on high-cost confidence categories and allowances (before the application of RPEs and ongoing efficiency).

**Table 23: Draft Determinations on Stage 4**

| Cost category | Company's view (£m) | Ofgem view (£m) | BPI reward |
|---|---|---|---|
| Modelled costs | 3,215.5 | 2,914.2 | N/A |
| CVP2: Open Insights – self-service analytics toolkit | 6.3 | 6.1 | N/A |

**Consultation question**

NPg-Q4. What are your views on our proposals for the outcome of Stages 3 and 4 of the BPI for NPg?

# 4. Adjusting baseline allowances for uncertainty

## Introduction

4.1 In this chapter we set out our consultation position on bespoke UMs.

4.2 We set out more detail on the common UMs in our Core Methodology Document and Overview Document, including the broader consultation position and rationale.

## Bespoke UM proposals

4.3 We invited the DNOs to propose bespoke UMs with suitable justification in our Sector Specific Methodology Document (SSMD)[17]. We have considered the extent to which the supporting information justifies the key criteria outlined in the BPG[18]:

- materiality and likelihood of the uncertainty
- how the risk is apportioned between consumers and the network company
- the operation of the mechanism
- how any drawbacks may be mitigated to deliver value for money and efficient delivery.

4.4 We also considered whether the uncertainty was regionally specific, or sector wide, to assess whether a common UM could be more appropriate. You can find the background and our assessment approach in Chapter 6 of our Overview Document.

4.5 NPg did not put forward any proposals for bespoke UMs in their Business Plan. Accordingly, we are not proposing to implement any bespoke UMs for NPg in RIIO-ED2.

[17] Paragraph 5.37 of our SSMD https://www.ofgem.gov.uk/publications/riio-ed2-sector-specific-methodology-decision.
[18] Paragraph 5.44 of our BPG https://www.ofgem.gov.uk/publications/riio-ed2-business-plan-guidance.

# 5. Innovation

5.1 Our SSMD and the Core Methodology Document set out the criteria that we have used to assess NIA funding requests. The Core Methodology Document also details our proposals for the RIIO-ED2 NIA Framework and extension of the existing Strategic Innovation Fund to the DNOs.

## Network Innovation Allowance

5.2 NPg in its Business Plan submission proposed it should be awarded £25m of NIA over 5 years, equivalent to £5m per year, which is approximately £1m more than its maximum annual allowance in ED1.

5.3 We set out below our Draft Determinations on NPg's RIIO-ED2 NIA funding.

Consultation position

**Table 24: Summary of proposed NPg BPI performance**

| Name of the measure | DNO proposal | Consultation position |
|---|---|---|
| Level of NIA funding | £25m over 5 years | £7.5m initial allowance, to be reviewed in 2025. |

Rationale for consultation position

5.4 We propose that NPg should be awarded £7.5m (see Core Methodology Document, Paragraph 3.131 on our proposal to review in 2025 whether more NIA funding is required). This is equivalent to three years' worth the average of 0.4% of its annual ED1 base revenue to-date. This is an initial 3-year allocation of NIA allowances, calibrated based on assessment against the NIA criteria and the subsequent benchmarking of allowances (see Core Methodology Document paragraph 3.133 on our approach to benchmarking NIA).

5.5 We consider that NPg satisfactorily met four of our five NIA criteria.

- NPg proposed areas in which to target their innovation spending which we agree carry risk and are suitable for ringfenced innovation stimulus funds. NPg's CEG also said that engagement demonstrated that consumers support continued investment in innovation, and that NPg employs a satisfactory strategic framework to determine innovation priorities.

- The evidence provided by NPg gives us comfort that it is planning to undertake innovative initiatives using BAU funds during RIIO-ED2.
- It also showed that its proposals incorporate best practice.
- NPg provided evidence that shows it has in place a process to monitor innovation spend.
- However, NPg did not provide evidence that demonstrates it already has in place robust procedures to rollout innovation to BAU, which we consider must include a process to monitor benefits from innovation projects. NPg did previously populate the E6 table of the regulatory reporting pack in RIIO-ED1, which reports quantified benefits from innovation. However, in response to our recent request, NPg did not provide evidence, such as in the form of models, that these estimates were based on a robust process. NPg's Business Plan submission stated that benefits tracking is part of its innovation process but did not describe its process. NPg's CEG, while not doubting the value of the innovation the company plans to undertake, noted that it too had not seen detailed justification for the claimed benefits from innovation from 2015-23 or the expected Totex savings during 2023-28. As such, we are not satisfied that NPg has in place a robust process of measurement and monitoring innovation benefits at present.

**Consultation questions**

NPg-Q5. What are your views on the level of proposed NIA funding for NPg?

# Appendix 1 - Privacy notice on consultations

**Personal data**

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

**1. The identity of the controller and contact details of our Data Protection Officer**

The Gas and Electricity Markets Authority is the controller, (for ease of reference, "Ofgem"). The Data Protection Officer can be contacted at dpo@ofgem.gov.uk

**2. Why we are collecting your personal data**

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

**3. Our legal basis for processing your personal data**

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest ie a consultation.

**4. With whom we will be sharing your personal data**

No personal data will be shared with any organisations outside Ofgem.

**5. For how long we will keep your personal data, or criteria used to determine the retention period.**

Your personal data will be held for twelve months after the project is closed.

**6. Your rights**

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data
- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at https://ico.org.uk/, or telephone 0303 123 1113.

**7. Your personal data will not be sent overseas**

**8. Your personal data will not be used for any automated decision making.**

**9. Your personal data will be stored in a secure Government IT system.**

**10. More information**

For more information on how Ofgem processes your data, click on the link to our "Ofgem privacy promise".

# Appendix 2 - Key Engineering Recommendations

A1.1 This appendix provides additional details regarding our assessment of specific EJPs.

A1.2 Due to the high number of EJPs presented within the submission, we have not provided our view on each of NPg's EJPs within this document. Instead, this section focuses on EJPs of significant value where our review determined the EJP to be Partially Justified or Unjustified.

**Table 25: Load Related Expenditure (LRE): Key Engineering Recommendations**

| Paper | Comments | Identified Risks |
|---|---|---|
| EJP-11.1: HV/LV Network Reinforcement | **Partially Justified.** The extent of the needs case is dependent on LCT uptake and flexibility markets maturing. The optioneering options are considered in line with general industry trends, however the delivery rate for ED2 is significantly higher compared to ED1 which presents a delivery risk. | As the delivery rate for ED2 is significantly higher compared to ED1 we consider that this presents a delivery risk. |
| EJP-11.23: EHV Reinforcement 20 – Wetherby Phase 2 | **Unjustified.** The needs case for this EJP is to build a new primary substation in anticipation of EV charging load growth around Wetherby Motorway Service Area on the A1. The EJP presented limited information as to why this investment was needed within the proposed timeframe rather than at a later date, potentially being ahead of need. | Due to limited information as to why this investment was needed within the proposed timeframe rather than at a later date, we consider there to be a potential risk of this investment being ahead of need. |
| EJP-11.22: EHV Reinforcement 19 - Hebburn & Wardley | **Unjustified.** The qualitative needs case is considered justified and it is clear that 6kV HV assets are unlikely to play a role in future "net zero ready" networks, however there is little quantitative analysis presented to justify the need for investment, although reduction in losses is estimated. No detailed information has been presented regarding LCT or Distributed Energy Resource (DER) interest in this area.<br>Asset-based interventions are considered for the optioneering which is considered robust and delivery is proposed for ED2 years 3-5. | Due to limited information presented to fully justify the investment, such as no detailed information regarding LCT or DER interest in the area, we consider there to be a potential risk of this investment being ahead of need. |
| EJP-11.12: EHV Reinforcement 9 – Holme | **Unjustified.** It is not clear exactly what compliance issue is driving the need for reinforcement. The sites are declared as currently being P2/7 compliant and the | Due to not having sufficient justification why the investment must be delivered in ED2 rather than |

| Paper | Comments | Identified Risks |
|---|---|---|
| Upon Spalding Moor and Southgate<br><br>EJP-11.4: EHV Reinforcement 1-Beverly 132/33kV<br><br>EJP-11.18: EHV Reinforcement 15 - Ripon | forecast peak demand growth presented will not result in the group categorisation changing in the ED2 period. The options presented do address the long-term needs, but these needs appear to materialise well after ED2 and without sufficient justification why investment should occur in ED2. | a later date, we consider there to be a potential risk of this investment being ahead of need. |

**Table 26: Non-Load Related Expenditure (NLRE): NARM - Key Engineering Recommendations**

| Paper | Comments | Identified Risks |
|---|---|---|
| EJP-2.1: Distribution Substations - Plant | **Partially Justified.** The needs case for some level of intervention is clearly based on NARM metrics and condition data snapshots provided. Optioneering has limited discussion of interactions between NPg's reinforcement-related replacements as well as the influence of potential future flexibility on the proposed volumes. There is a significant increase in the proposed number of plant items replaced and substation replacement, when compared to ED1. NPg state that the framework contract that it has in place will cover this increase, however no further supporting information is provided. | We do not believe sufficient detail on the large increase in volumes has been provided. We therefore consider that there is a risk related to the proposed volume and its deliverability. |
| EJP 3.1b: Major Substations - Plant (Switchgear) | **Partially Justified.** The needs case is considered justified as there will be an ongoing need for asset health related replacement of switchgear and a CNAIM[19] based approach has been followed. However, the EJP is relatively generic and has proposed a higher volume compared to ED1. | Due to the EJP being relatively generic and having an increased volume compared to ED1, we consider that there is a risk related to the proposed volume and its deliverability. |
| EJP 4.1b: HV Overhead Lines | **Partially Justified.** The needs case and volumes are well-explained, however there is limited detail on the consideration of alternative options, as well as overall deliverability, especially as the proposed volumes double from ED1. We view that the responses to SQs did not contain | Due to the proposed volumes doubling from ED1 and limited detail on how NPg will ensure efficient delivery of these assets during ED2, we consider that there is a risk |

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| Paper | Comments | Identified Risks |
|---|---|---|
| | enough specific detail on how NPg will ensure efficient delivery of these assets during ED2. | related to the proposed volume and its deliverability. |
| EJP 3.1a: Major Substations - Plant (Transformers) | **Partially Justified.** The EJP presented a clear optioneering section with relevant data used to justify decisions along with a discussion of prioritisation and delivery strategy. However, the EJP has limited specific details on how transformers have been chosen for intervention. Response to an SQ provides some additional details on strategy, including a sample of assets identified for intervention. However, some of the assets (eg Linton 66kV) include insufficient justification for intervention. | Due to some of the assets having insufficient justification for intervention, we consider that there is a risk related to the need and timing for some of these interventions. |
| EJP 4.2: EHV and 132kV Wood Pole and Mast Overhead Lines | **Partially Justified.** The needs case and volumes are well-explained, however there is limited detail on the consideration of alternative options, as well as overall deliverability, especially as the proposed volumes double from ED1. We view that the responses to SQs did not contain specific enough details on how NPg will ensure efficient delivery of these assets during ED2. | Due to the proposed volumes doubling from ED1 and limited detail on how NPg will ensure efficient delivery of these assets during ED2, we consider that there is a risk related to the proposed volume and its deliverability. |
| EJP 4.1a: LV Overhead Lines | **Partially Justified.** The needs case is considered sufficient, however insufficient justification is presented for the proposed volumes. The volumes are circa four times greater than those of ED1. Responses to SQs on volumes and deliverability have been relatively generic and did not contain specific details on how NPg will ensure efficient delivery of these assets during ED2. | Due to the EJP being relatively generic and having an increased volume compared to ED1, we consider that there is a risk related to the proposed volume and its deliverability. |
| EJP 1.3c: EHV and 132kV Cables (solid) | **Partially Justified.** The needs case is considered justified and a very detailed optioneering section is presented. However, it's not clear how the final volumes have been derived (various factors/data sources are discussed). Response to an SQ provided some further clarity on volume derivation, however the detail provided was considered insufficient to fully justify the volumes. | Due to insufficient detail being provided to justify the proposed volumes, we consider that there is a risk related to the proposed volume and its deliverability. |

**Table 27: Non-Load Related Expenditure (NLRE): Non-NARM - Key Engineering Recommendations**

| Paper | Comments | Identified Risks |
|---|---|---|
| EJP-1.3a: EHV and 132kV Cables (oil) | **Partially Justified.** NPg present a sufficient needs case for the investment, based on asset health and the associated risks. The submission includes detailed optioneering, providing justification for the strategy that NPg proposes to pursue in ED2. However, it is not clear how NPg has derived the final volumes included within the submission, nor is sufficient evidence provided to demonstrate that these volumes are economic and efficient. | We believe that insufficient data is used to justify the proposed volumes. We therefore consider that there is a risk related to the proposed volume. |
| EJP-10.1: HV Network Automation | **Partially Justified.** NPg present a sufficient needs case for the investment, which is predicated on its ability to increase the levels of HV remote control and automation across the network, delivering an improvement in reliability. Sufficient optioneering is provided within the submission. However, the volumes proposed within the submission have a high degree of uncertainty, and insufficient evidence is used to fully justify the proposed volumes. | We consider that there is a risk related to the high uncertainty and insufficient evidence associated with the proposed volumes. |
| EJP-7.1: Clearances | **Partially Justified.** NPg provide sufficient detail on the needs case for the works, noting the legal and safety requirements associated with overhead line clearances, and the risks that will be mitigated through this investment. The optioneering is high-level, but sufficient detail is provided to justify the balance between ESQCR compliance, as well as efficient investment. The submission does not include sufficient justification for the proposed volumes. NPg recognises that its data is limited, but provide insufficient assurances on how they have addressed this within the proposal, in particular when considering the increase in volumes when compared to ED1. | We do not believe that the proposed volumes have been sufficiently justified at this stage. We therefore consider that there is a risk related to the proposed volume. |
| EJP-8.3: PCBs | **Partially Justified.** NPg provide sufficient detail on the needs case for the works, noting the legal requirements associated with the removal of PCBs. In terms of optioneering, the submission includes appropriate discussion of intervention types and an overview of different options in terms of volumes. However, at this stage, insufficient justification has been provided in relation to how the pole | We do not believe that the proposed volumes have been sufficiently justified at this stage. We therefore consider that there is a risk related to the proposed volume. |

| Paper | Comments | Identified Risks |
|---|---|---|
| | mounted transformer volumes have been determined. In addition, insufficient detail has been provided on how deliverability risks will be mitigated. | |
| EJP-11.3: Looped Services | **Partially Justified.** NPg clearly set out the potential issues arising from looped services. It is considered a credible assumption that the application of LCT technologies will increase resulting in a greater number of looped services becoming overloaded.<br>The proposed approach of continuing to assess on an application-by-application basis is considered pragmatic.<br>Due to increased forecast of LCT applications the volume of interventions increases significantly compared to ED1, however limited information was provided on how delivery of the increased volumes would be managed or how costs and volumes would be managed in the event that requirements exceed the 2% forecast. | We do not believe that the delivery management of the proposed volumes have been sufficiently justified, hence there is a perceived risk associated with delivering the proposed volumes. |
| EJP-10.2: LV Network Automation | **Partially Justified.** NPg have taken a proactive approach to predictive LV fault monitoring and management to improve LV network performance. A clear needs case is presented based on fault rate for NPg's licence areas, which is higher than industry median mainly due to legacy cable technology choices. The proposed approach is based on a significant scale up of an earlier trial which will also require changes to behaviours in how faults are managed. | There is a risk related to how quickly the proposed investment can be scaled up and the changes in behaviours that will be required to deliver and realise the benefits. |

# Appendix 3 - Consultation questions

**1. Introduction**

**2. Setting Outputs**

NPg-Q1. What are your views on the company specific parameters we have proposed for the common outputs that we have set out above?

NPg-Q2. What are your views on our proposal to reject NPg's bespoke price control deliverable?

NPg-Q3. What are your views on our proposals for NPg's CVPs?

**3. Setting baseline allowances**

NPg-Q4. What are your views on our proposals for the outcome of Stages 3 and 4 of the BPI for NPg?

**4. Adjusting baseline allowances for uncertainty**

**5. Innovation**

NPg-Q5. What are your views on the level of proposed NIA funding for NPg?