

Consultation

RIIO-ED1 Closeout: Consultation on proposed adjustments

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Contact:	Anthony Mungall
Team:	Networks
Telephone:	0141 331 6010
Email:	Anthony.mungall@ofgem.gov.uk

The previous electricity distribution price control (RIIO-ED1) ended on 31 March 2023. It had several elements which could not be settled until the price control had ended. We have now assessed company performance for these areas and have come to a view on the proposed adjustments.

We are consulting on our view under each of the RIIO-ED1 closeout mechanisms for each of the onshore electricity distribution network owner (DNO) licensees. We would like views from people with an interest in electricity distribution. We would also welcome responses from other stakeholders and the public.

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Any enquiries related to the text of this publication should be sent to Ofgem at:

10 South Colonnade, Canary Wharf, London, E14 4PU.

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Executive Summary

This document summarises the value of adjustments for each onshore electricity distribution network owner (DNO) business under the previous RIIO¹ price control period (RIIO-ED1), which ended on 31 March 2023.

The RIIO-ED1 electricity distribution licence (the “ED1 Licence”) makes provision in relation to several areas which, due to their uncertain nature, could only be settled once all costs and/or outputs are known or can be forecast with sufficient accuracy. This means that some elements of the price control need to be subject to “closeout” once the price control has ended and all the relevant information is available.

For the purposes of the closeout of RIIO-ED1, the following need to be addressed²:

- Load Related Expenditure (“LRR”);
- Net contributions from customers towards gross reinforcement costs (known as “Net to Gross”);
- High Value Projects (“HVP”);
- Network Output Measures/Network Asset Secondary Deliverables (“NASD”);
- Expenditure associated with Link Box³ Replacement Volumes; and
- Specified Street Works Costs (“SSWC”).

We have assessed each DNO’s performance against these areas and have come to a minded-to position on proposed adjustments. We now seek stakeholder opinion on the results of the assessment.

Summary of our assessment

The result of our assessment of company performance under each mechanism is explained in more detail in the following chapters. The table below states the overall impact of the allowance adjustments we are proposing.

¹ “RIIO” is Revenue = Incentives + Innovation + Outputs.

² A further closeout area was originally included within the scope of the ED1 closeout – expenditure associated with Shetland Extension Fixed Energy Costs, Shetland Extension Battery Costs, and Shetland Enduring Solution Process Costs – but no longer forms part of the ED1 closeout assessment process.

³ A low voltage cable marshalling point with facilities for the insertion and removal of linking cables.

All financial values in this document are presented in £ million 2012/13 prices unless specified otherwise.

Table 1: RIIO-ED1 closeout – total value of proposed adjustments

Area	Cumulative value of adjustments across all DNOs
Load Related Expenditure	84.5 ⁴
Net to Gross	0
Network Output Measures	0
HVP	36.6 ⁵
Link Box Replacement Volumes	0
SSWC	19.02

Values are indicative only pending operational treatment of applying calculation of adjustments through the financial model.

Next Steps

We are inviting responses to this consultation, following the Decision on the closeout methodologies for RIIO-ED1⁶, on or before Friday 2nd August 2024. Contact details are on page 1. After we have considered consultation responses, we will publish our decision on or before 30th September 2024.

We will give licensees 28 days' notice of any associated revenue adjustments (if necessary) calculated in line with the methodology set out in the Price Control Financial Handbook⁷. These revenue adjustments will be used in the calculation of revised allowed revenues as part of the Annual Iteration Process (AIP).⁸

Our final view of adjustments is subject to consideration of any further information submitted and views in response to this consultation.

⁴ Proposed amount to be shared with consumers through the Totex Incentive Mechanism.

⁵ Proposed amount prior to the application of the Totex Incentive Mechanism.

⁶ 17 December 2019: [Decision on the methodologies for RIIO-ED1 closeout | Ofgem](#)

⁷ [ED2 Price Control Financial Handbook | Ofgem](#)

⁸ <https://www.ofgem.gov.uk/publications/decision-modify-ed2-price-control-financial-instruments>

1. Introduction

- 1.1 The electricity distribution network in Great Britain (GB) consists of the low and medium voltage electricity wires and cables, which convey electricity from the high voltage electricity network across local distribution networks to customers directly connected to the system.
- 1.2 The providers of electricity distribution services (or DNOs) are natural regional monopolies. To ensure value for money for consumers, we regulate DNOs through periodic controls. The onshore DNO licensees are summarised in the table below.

Table 2: DNO names and geographic area of activity

DNO Licensee	Onshore distribution network area
ENWL	Electricity North West Limited
NPgN	Northern Powergrid (Northeast) Limited
NPgY	Northern Powergrid (Yorkshire) plc
WMID	National Grid Electricity Distribution (West Midlands) plc
EMID	National Grid Electricity Distribution (East Midlands) plc
SWALES	National Grid Electricity Distribution (South Wales) plc
SWEST	National Grid Electricity Distribution (South West) plc
LPN	London Power Networks plc
EPN	Eastern Power Networks plc
SPN	South Eastern Power Networks plc
SPMW	SP Manweb plc
SPD	SP Distribution plc
SSEH	Scottish Hydro Electric Power Distribution plc
SSES	Southern Electric Power Distribution plc

Overview of ED1 closeout mechanisms

- 1.3 The previous electricity distribution price control (RIIO-ED1) ran from 1 April 2015 to 31 March 2023. The price control set outputs that DNOs must deliver relating to network investment, and revenues they are allowed to collect from customers.

- 1.4 Within RIIO-ED1 there are several areas of expenditure that require information about actual efficient costs incurred, revenue received and the extent to which outputs have been delivered before RIIO-ED1 can be fully settled (or “closed out”).
- 1.5 There are two types of RIIO-ED1 closeout mechanisms: Re-openers and Output mechanisms.
- 1.6 **Re-openers** enable us to deal with areas of uncertainty by adjusting revenues upwards (for overspends) or downwards (for underspends). In order for any adjustments to be made, these two conditions must be met:
- Adjustment threshold: a DNO’s efficient expenditure, must be at least 20% higher or 20% lower than the relevant allowance for the whole of RIIO-ED1; and
 - Materiality test: the amount above or below the re-opener threshold must be greater than a threshold value (£ million) of licensee’s revenue allowance as set out in the ED1 Licence.
- 1.7 For RIIO-ED1 closeout, we are assessing efficient costs under two re-openers: the Load Related Expenditure Re-opener (LRR) and the High Value Projects (HVP) re-opener.⁹ Further information on the LRR mechanism is set out in chapter 2 and Appendix 1 of this document. Further information on the HVP mechanism is set out in chapter 4.
- 1.8 Both re-openers have the ability to apply symmetrical adjustments.
- 1.9 Specified Streetwork Costs (SSWC) is a further re-opener that is addressed through a dedicated methodology. Further information on the SSWC mechanism is set out in chapter 7.

⁹ Relevant detail can be found in the special condition CRC 3G: Revising the allowed level of Load Related Expenditure and CRC 3F: Arrangements for the recovery of uncertain costs, respectively.

- 1.10 **Output mechanisms** enable us to assess whether DNOs have delivered the outputs they committed to. We can make adjustments where we consider that a DNO has failed to deliver, and apply a penalty where appropriate. There are three output mechanisms in RIIO-ED1 closeout: the Network Asset Secondary Deliverables (NASD), the HVP outputs and the delivery of Link Box volumes.
- 1.11 The companies provided an initial 'performance assessment submission' or PAS in July 2023 detailing the value of the closeout adjustments to be made and additional information explaining and justifying their performance in each closeout area.
- 1.12 We carried out an assessment of the qualitative and quantitative information provided by the DNOs in line with the process and agreed methodologies. We sought further engagement to resolve points of calculation and explanation and, where necessary, the DNOs provided supplementary information and updated information to assist in our deliberations. We have consulted bilaterally on each closeout area where we considered further clarification was necessary. We are now seeking views on the results of our assessment.
- 1.13 We have now assessed company performance under all mechanisms and are consulting on:
- For re-openers: our view of the DNOs' efficient expenditure, whether it meets the adjustment threshold and materiality test, and if so by how much ('Post-threshold Amount'); and
 - For outputs mechanisms: what has been delivered and when, and is there a gap; if so, what is the value of this gap and should a penalty be applied?
- 1.14 Our final view of each DNO's performance and any associated revenue adjustments is subject to consideration of any further information submitted and views in response to this consultation.
- 1.15 The document also details our assessment under a separate methodology created to consider requests to adjust allowances pertinent to ED1 'street works'
-

provided as part of our re-opener decision in 2019¹⁰. Under this methodology we have:

- checked whether the appropriate information has been provided;
- applied a materiality threshold test (if a request already passed the materiality threshold in 2019, it will not be subject to the same threshold a second time); and
- checked whether outturn costs reported through the annual reporting submissions are efficient.

1.16 Further information on each mechanism is available in previous consultations, and the full methodologies are in the Price Control Financial Handbook (“the PCF Handbook”).¹¹

Structure of this document

1.17 The next sections of Chapter 1 explain the consultation process and how readers can respond to this consultation.

1.18 Each chapter (2-7) of the document provides a summary of each area of the price control where a closeout funding provision was required, briefly recaps the assessment process under each mechanism, and summarises our view of company performance for each DNO (where applicable). This is supported by further detail in Appendices, where appropriate.

Overview

1.19 On 17 December 2019, we published our decision on the closeout methodologies for each of the elements of the RIIO-ED1 price control (the “Closeout Methodologies Decision”).¹²

¹⁰ [Decision on RIIO-ED1 price control reopeners \(submissions made during May 2019 window\) | Ofgem](#)

¹¹ [ED2 Price Control Financial Handbook | Ofgem](#)

¹² [Decision on the methodologies for RIIO-ED1 closeout | Ofgem](#)

- 1.20 On 12 March 2021, we published our decision on a separate, specific methodology dedicated to closing out Specified Street Works Costs once the price control ended to account for its uncertain nature (the "SSWC Decision").¹³
- 1.21 In October 2023¹⁴, we modified the RIIO ED2 PCF Handbook to incorporate the RIIO ED1 closeout methodologies. The methodologies, associated decision documents, consultations and responses are all on our website¹⁵.
- 1.22 The final closeout methodologies for each closeout area (Annex A-E of the Closeout Methodologies Decision document and Appendix 1 of the SSWC document) are included in the PCF Handbook and are not repeated here.
- 1.23 We will consult on final revenue adjustments ahead of the AIP and will engage with the DNOs to implement the detail of these adjustments.
- 1.24 Separately, in the event that further modification is identified as being necessary as a result of an adjustment in any closeout area and to ensure the accuracy of the ongoing reporting requirements for the remainder of the ED2 price control period, we will initiate a process to consult on proposed drafting changes to the existing RIIO-ED2 electricity distribution licence (the "ED2 Licence") to update, where necessary, the text to reflect our closeout adjustment decision and to enable the impact on RIIO-ED2 baseline allowances to be accurately executed and represented.
- 1.25 We will develop and set out our thoughts on the need for any proposals in a separate statutory consultation on changes to the ED2 Licence. If necessary, this will be developed and issued after the conclusion of this process on the proposed adjustments.
- 1.26 Further details of the adjustment values for LRR and HVP can be found in a data file which has been published alongside this consultation document. A separate

¹³ [Decision on the RIIO-ED1 closeout methodology for Specified Street Works Costs \("SSWC"\) | Ofgem](#)

¹⁴ [Decision to modify the ED2 Price Control Financial Instruments October 2023 | Ofgem](#)

¹⁵ See Related Documents section.

data file containing the updated Streetworks model has also been made available.

Related documents

- RIIO-ED1 Strategy Decision: [Strategy decision for RIIO-ED1 - Overview | Ofgem](#)
- RIIO-ED1 Final Proposals: [RIIO-ED1 final determinations for the slow-track electricity distribution companies | Ofgem](#) and [Decision to fast-track Western Power Distribution | Ofgem](#)
- RIIO-ED Price Control Financial Handbook: [RIIO-ED1 Price Control Handbook \(Slow Track\) | Ofgem](#) and [ED2 Price Control Financial Handbook | Ofgem](#)
- RIIO-2 Final Determinations Electricity Distribution Network Companies: [RIIO-ED2 Final Determinations | Ofgem](#)

2. Load related reopener

This section explains our proposed adjustments in the area of Load Related Expenditure under CRC 3G of the ED1 Licence. This applies to UKPN and SSEN only.

Summary of Closeout Methodology

- 2.1 Load-related expenditure (LRE) covers the costs of developing the networks to accommodate increased demand and generation, as well as managing the changing patterns of customers' use of the networks.
- 2.2 At the time of setting the ED1 price control there was significant uncertainty around the required level of load related investments. We therefore included a reopener (the load-related reopener, LRR) to protect both customers and DNOs from changes to investment requirements. This reopener allows for adjustments to allowed revenues for LRE.
- 2.3 DNOs can access additional allowances only if costs are material and efficient. The Closeout Methodologies Decision and Section CRC 3G of the ED1 Licence ("the 3G test") set out how materiality and efficiency are determined. In essence:
 - Efficiency needs to be demonstrated in DNOs' submissions and determined by Ofgem.
 - Materiality is determined through the 3G test comparing ED1 LRE allowances, outturn expenditure, a materiality threshold and a deadband.
 - Ofgem runs the 3G test considering reinforcement expenditure that has been avoided as a result of innovative activities (e.g. demand-side response or other non-traditional solutions) to ensure DNOs are not discouraged from carrying out these activities.¹⁶

¹⁶ For more detail on the methodology underpinning the LRR see (i) Electricity Distribution Licence, Special Conditions, CRC 3G. "Revising the allowed level of Load Related Expenditure" and (ii) Ofgem (17 December 2019), Decision on the closeout methodologies for RIIO-ED1, Chapter 2.

- 2.4 In evaluating the companies' closeout submissions, we have followed the methodology set out in Annex A of the Closeout Methodologies Decision. We have determined whether the 3G test is triggered, whether companies have articulated a needs case and, additionally, whether costs are efficient and whether any innovative solution has been appropriately considered.¹⁷

Summary of DNOs' adjustment requests

- 2.5 In July 2023 we received DNOs' LRE expenditure submissions for the ED1 closeout. Every DNO, apart from SWALES, has underspent against ED1 LRE allowances.
- 2.6 UKPN's submission shows that LRE underspend has been material across each of its licence network areas (LPN, SPN and EPN). UKPN's submission states that the 3G test is passed and that additional funds should be returned to consumers. It also describes how non-traditional solutions (and other closeout reduction areas) have been taken into account to determine the amount to be returned. We summarise UKPN's reported non-traditional solutions and closeout reduction areas in the table below.

¹⁷ We describe how we have applied the methodology in detail in Appendix 1.

Table 3: UKPN's non-traditional solutions to load related issues

Licensee	LPN	SPN	EPN	UKPN
i. Green Recovery carry-over	4.7	1.3	31.8	37.8
ii. LV visibility	1.2	1.5	3.0	5.7
iii. Innovative savings (<i>sum of a-g</i>)	7.0	6.2	42.1	55.3
<i>a. LPN Interconnection</i>	4.5	-	-	4.5
<i>b. Fun-LV</i>	0.1	-	-	0.1
<i>c. Load Blinding Relays</i>	-	6.0	4.9	10.9
<i>d. Load Share</i>	-	-	5.4	5.4
<i>e. Flexible Connections</i>	-	0.1	31.4	31.5
<i>f. Timed Connections</i>	2.4	-	-	2.4
<i>g. LBR for Busbar protection</i>	-	0.1	0.4	0.5
iv. Flexibility savings	11.3	7.9	12.3	31.4
Total (i+ii+iii+iv)	24.1	16.9	89.2	130.2

Source: Ofgem analysis of (1) UKPN, RIIO-ED1 Performance Assessment Submission, Load Related Expenditure, table 19, table 9, (2) UKPN response to Ofgem SQ16 updated on 29th May 2024 and (3) UKPN response to a query raised on 14th May 2024.

2.7 SSEN's submission describes how in both its licence network areas the observed underspend against allowances on load related projects becomes immaterial once innovation projects, non-traditional solutions and cost reallocations are accounted for in the test.

- For SSEH, the PAS accounted for £1.4m of innovation saving from the Logie Pert Constraint Managed Zone (CMZ) and £16.3m of load schemes that were started in RIIO-ED1 but will be completed in RIIO-ED2 ("cross-over projects")
- For SSES, the PAS accounted for £36.9m of innovation savings from the ANM scheme implemented on the Isle of Wight.

2.8 We summarise SSEN's proposed deductions in table 4 below.

- 2.9 As part of our supplementary question (SQ) process SSEN proposed a further area of expenditure to be accounted for in our view of final LRE spend. SSEN mentions that in the ED1 business plan it requested LRE allowances for a number of projects which it however managed to deliver not through LRE but "via other drivers"¹⁸. According to SSEN, these costs which amount to £26.9m (SHEPD) and £2.13m (SEPD) should be considered for netting-off from the LRE underspend.
- 2.10 As there is no specific wording in the ED1 Licence or methodology which takes account of costs of this nature, there is no clear basis to include these costs within the 3G test. For presentation purposes, we have included these costs as deductions in the table below under "other considerations".

Table 4: SSEN's non-traditional solutions to load related issues and other considerations

Licensee	SSS	SSEH	Total
i. Innovative savings	36.9	1.4	38.3
<i>Isle of Wight ANM</i>	36.9	-	36.9
<i>Logie Pert CMZ</i>	-	1.4	1.4
ii. Other considerations	26.9	18.4	45.3
<i>Other Drivers</i>	26.9	2.1	29.0
<i>ED1-ED2 Cross Over</i>	-	16.3	16.3
Total (i + ii)	63.8	19.8	83.6

Source: Ofgem analysis of (1) SHEPD, RIIO-ED1 Performance Assessment Submission, table 2, table 8 (2) SEPD, RIIO-ED1 Performance Assessment Submission, table 2, table 10, and (3) SSEN's response to Ofgem SQ7 and SQ10.

- 2.11 In Table 5 below we summarise the reported LRE performance of all DNOs in terms of comparing their ED1 LRE allowances and the outturn value of LRE incurred during the eight-year ED1 period. The table then shows the application of the further materiality threshold required to pass the 3G test, and the

¹⁸ Schemes that were originally expected by SSEN to be delivered through LRE but have actually been progressed and delivered as a result of 'non-load' drivers such as replacement or refurbishment activity.

additional amount that will be shared with consumers through the Totex Incentive Mechanism (TIM¹⁹) as a result of passing the 3G test.

- 2.12 Table 5 replicates the values submitted through the closeout process. It shows that, as underspend sits within the “deadband plus materiality allowance” specified in the Closeout Methodologies Decision, the 3G test is not passed for the majority of DNOs. Other than the UKPN group, the DNOs consider that no adjustment to allowed revenues for LRE should be made through the ED1 closeout process.

¹⁹ Applies fixed efficiency incentive rate for the duration of RIIO-ED1 to the Totex figure to incentivise efficient overall total expenditure. It does this by sharing any over or under spend between the DNOs and customers.

Table 5: DNO expenditure and materiality test

DNO	LRE Allowance	Outturn LRE	Deductions claim	Underspend adjusted for deductions	Threshold to pass 3G test	Pass 3G Test?	Closeout return to users²⁰
LPN	352.1	172.8	24.1	155.2	77.9	YES	33.9
SPN	216.4	120.1	16.9	79.5	49.8	YES	14.4
EPN	360.5	132.6	89.2	138.8	81.8	YES	0
SSES	233.1	149.3	63.8	20.0	55.0	NO	-
SSEH	131.0	87.8	19.8	23.4	30.7	NO	-
SPD	140.5	139.4	0	1.1	34.6	NO	-
SPMW	166.1	134.1	0	32.0	39.0	NO	-
NPgN	107.2	82.3	0	24.9	25.9	NO	-
NPgY	104.5	91.4	0	13.1	26.8	NO	-
WMID	223.2	206.4	0	16.8	50.3	NO	-
EMID	297.2	277.8	0	19.4	65.1	NO	-
SWALES	54.9	60.4	0	-5.5	13.9	NO	-
SWEST	95.9	94.7	0	1.2	23.4	NO	-
ENWL	135.3	109	0	26.3	33.3	NO	-

Proposed adjustment values

2.13 Upon review of companies' submissions, we agree that no adjustments should be made for the following DNO groups: NPg, NGED, ENWL and SPEN. Our efficiency and materiality assessment of the evidence provided suggests that discrepancies between outturn and allowance sits within the materiality threshold set out in the Closeout Methodologies Decision and thus the LRR is not triggered.

2.14 For SSEN and UKPN, passing the 3G test and the quantum of additional LRE that is shared with consumers heavily depends on the estimated deductions.

²⁰ Closeout return to users captures the amount of underspend that will be shared with consumers as a result of the application of the Load Related Re-opener at closeout. This amount is shared through the application of the TIM and is additional to the underspend already shared through the TIM in its annual iterations. For detail on the mechanics behind this derivation see Appendix 1.

2.15 We have undertaken an assessment of these deductions to establish to what extent these meet Ofgem's criteria for innovation and non-traditional solutions. As shown in Table 6, our minded-to proposal is that:

- i. UKPN's LPN Interconnection, Fun-LV and Loadshare projects cannot be considered innovation and thus there are no grounds to account for the associated avoided cost value in the 3G test.
- ii. Adjustments have been applied to two projects - Flexible Connections and Timed Connections - for the purposes of the ED1 closeout process.
- iii. UKPN's load blinding relays (LBR) solution has been adjusted to remove activity on projects that we consider to be "business as usual" and excluded in our evaluation of the 3G test.
- iv. SSEN's proposal to carry over to ED2 the cost of LRE schemes that will be completed in ED2 does not comply with the Closeout Methodologies Decision or the definition of the test set out in CRC 3G, and
- v. The impact of specific projects delivered "via other drivers" has not been included in our evaluation of the 3G test as the activity does not comply with the Closeout Methodologies Decision or the definitions of the test set out in CRC 3G.
- vi. A small downward adjustment to the value of innovation savings for SSEH's Logie Pertz CMZ project.

The reasoning for the adjustments is set out in appendix 3.

2.16 Points ii and iii are further discussed in the Other Considerations section of this chapter.

Table 6: Ofgem Minded-to position on DNOs' proposed deductions

	LPN	SPN	EPN	UKPN total
i. Green Recovery carry-over	4.7	1.3	31.8	37.8
ii. LV visibility	1.2	1.5	3.0	5.7
iii. Innovative savings (<i>sum of a-g</i>)	0.7	0.1	17.9	18.7
<i>a. LPN Interconnection</i>	-	-	-	0
<i>b. Fun-LV</i>	-	-	-	0
<i>c. Load Blinding Relays</i>	-	0	2.1	2.1
<i>d. Load Share</i>	-	-	-	0
<i>e. Flexible Connections</i>	-	-	15.4	15.4
<i>f. Timed Connections</i>	0.7	-	-	0.7
<i>g. LBR for Busbar protection</i>	-	0.1	0.4	0.5
iv. Flexibility savings	11.3	7.9	12.3	31.4
Total (i + ii + iii + iv)	17.8	10.8	65.0	93.6
	SSSES	SSEH		SSEN total
i. Innovative savings	36.9	1.3		38.2
<i>Isle of Wight ANM</i>	36.9	-		36.9
<i>Logie Pert CMZ</i>	-	1.3		1.3
ii. Other considerations				
<i>Other Drivers</i>	-	-		-
<i>ED1-ED2 Cross Over</i>	-	-		-
Total (i + ii)	36.9	1.3		38.2

2.17 The result of our assessment process is to reduce the number of deductions admissible under the re-opener, which leads to the 3G test being passed for SSEH and more funds being shared with consumers. We present the mechanics of this process in appendix 1.

2.18 In terms of adjustments to submitted expenditure for innovative solutions, a summary by DNO group is provided below and further details are included in appendix 2.

2.19 Our minded-to position is summarised in the table 7 below.

Table 7: Ofgem Minded-to position on DNOs proposed deductions

Licensee	Allowance	Outturn	Deduction	Underspend	Threshold	Pass Test?	Closeout return to users
LPN	£352.1	£172.8	£17.8	£161.5	£77.9	YES	£40.2
SPN	£216.4	£119.5	£10.8	£86.2	£49.8	YES	£17.8
EPN	£360.5	£132.3	£65.0	£163.3	£81.8	YES	£18.2
SSES	£233.1	£149.3	£36.9	£47.0	£55.0	NO	-
SSEH	£131.0	£87.8	£1.3	£42.0	£30.7	YES	£8.3

2.20 The above minded-to position does not consider the operational treatment of applying the calculation of adjustments through the PCFM. The process of adjustment and calculation will be separately discussed and developed as part of the process in support of the AIP. We will continue to further liaise with the relevant experts taking this process forward and will provide further update in our Decision.

Other considerations

“Other Drivers”

2.21 As noted in paragraph 2.9 above, SSEN’s submission contained reference to additional expenditure on schemes that were named in SSEN’s RIIO-ED1 business plan and delivered through “other drivers”.

2.22 SSEN’s PAS explained that expenditure incurred on specified schemes should be incorporated into the determination of its final LRE position and the resultant

value then used in its evaluation of the Net to Gross under CRC 5G, with the result of moving SSEN further from the threshold not to trigger.

2.23 The PAS did not provide firm view on the treatment of expenditure in relation to the 3G test.

2.24 Further engagement with SSEN confirmed:

- our observation that a similar approach to Gross LRE for “other drivers” had not been applied in the context of the 3G test presented in the PAS.
- the costs were not considered to meet the requirements of Annex A: “Glossary” and Annex J: “Environment and Innovation” of the ED1 Regulatory Instructions and Guidance document²¹ (ie. do not meet the criteria for “innovative solutions”).
- SSEN was of the view that the expenditure should also be considered when reviewing its final position on load – i.e. it should be netted off. This view is presented in table 4 above.

Ofgem view

2.25 We note that the scope of the RIIO-ED1 closeout (and what is permissible in the context of closeout) is determined by the ED1 Licence and the applicable guidance and supporting documentation which does not accommodate consideration of a review of scheme costs as part of the ED1 closeout process. For the avoidance of doubt, we have not included the costs associated with “other drivers” in our evaluation of the values permissible under the 3G test.

Crossover schemes

2.26 As noted in paragraph 2.7 above, SHEPD’s PAS contained reference to a number of load ‘cross-over’ schemes that were initiated in RIIO-ED1 and which are expected to complete in RIIO-ED2. Since the scheme costs were not included

²¹ [Direction to make modifications to the Regulatory Instructions and Guidance \(RIGs\) for RIIO-ED1 \(version 7.0\) | Ofgem](#). The relevant sections are reproduced in Appendix 3 of this document.

within the RIIO-ED2 business plan²², and as the profile of spend simply reflects timing issues across the ED1 and ED2 price control periods, SSEN requested that the carry over costs of these schemes be considered as part of SHEPD's LRE spend.

- 2.27 SSEN noted that step five (Evaluation of TLRRCF) of the Closeout Methodologies Decision²³ allows Ofgem to subtract any efficiencies/add any innovation adjustment, and offers a potential interpretation to allow the process to capture adjustment.
- 2.28 The alternative solution - to use the RIIO-ED2 LRE reopener to apply for additional funding to cover the costs – is considered by SSEN to offer an inefficient regulatory approach, given that SHEPD have been funded to deliver these projects as part of our RIIO-ED1 LRE allowance.

Ofgem view

- 2.29 We agree with SSEN's observation that the Closeout Methodologies Decision does not accommodate consideration of the 'crossover' scheme costs as part of the ED1 closeout process. For the avoidance of doubt, we have not netted-off the costs associated with the schemes in our evaluation of the values permissible under the 3G test.
- 2.30 We note that SHEPD has the option to consider using the applicable RIIO-ED2 LRE reopener mechanism to apply for additional funding to cover the costs. We do not view this approach to be inefficient.
- 2.31 We acknowledge SSEN's commitment to progress with completing the schemes in the ED2 period regardless of the funding mechanism.

²² Many schemes were not triggered until after the RIIO-ED2 final business plan submission.

²³ Annex A, page 56.

Isle of Wight

- 2.32 The Isle of Wight (IoW) is currently connected to an onshore substation by a mixture of overhead line (OHL) and three subsea cables. As noted above, SSEN's submission details the avoidance of significant LRE through an innovative Active Network Management (ANM) scheme; avoiding the need for £38m of spend on a fourth subsea cable across to the IoW and subsequent onshore reinforcement.
- 2.33 We understand from SSEN that, at this moment, there are no firm proposals to request additional funding within the RIIO-ED2 period for investment in system upgrades (including a fourth subsea circuit to the IoW) to the island connection or for upgrade work associated with the cable/OHL sections on land.
- 2.34 We also note that:
- current intelligence indicates that there are no significant constraints in relation to this area of the network and the nature of load or generation will not exceed forecast requirements. Hence, the current ANM scheme is expected to manage adequately for the foreseeable future.
 - there are other potential developments that may address some of the network events that will currently lead to constraint and further reduce/remove the need for reinforcement beyond the ED2 period (e.g. developments at the power station on the island may resolve the generation export constraint from the island under certain conditions, and the potential plan to install a further Super Grid Transformer at the onshore GSP).
- 2.35 We recognise, however, that timings on progression of any investment options are uncertain as there are a number of factors including (but not limited to) the trend of increasing appetite for generation connection on the island and the impact of new commercial products to manage demand and generation growth.
- 2.36 As noted in tables 6 and 7 above, we are minded to include the estimated avoided cost associated with the IoW ANM scheme presented by SSEN in our
-

assessment of SSEN's final position on LRE (i.e. netted-off) as part of our application of the 3G test. We note, however, that the value associated with this solution is based on SSEN's assumption that the ANM will provide sufficient capacity to defer the reinforcement cost until financial year 2028/29.

- 2.37 We are mindful that SSEN is actively exploring a range of options on the IoW, including a fourth subsea cable. If the option of further system upgrade for export capacity from the IoW to the mainland is chosen by SSEN, triggering a request for funding through the ED2 framework, we therefore reserve the right to seek to consider the recovery of any offset applied through the ED1 closeout when considering the application. We consider this approach to be in the consumers' interest and serves to insulate future consumers from costs that may be larger (or value of avoided costs that may be smaller) than have been communicated on the basis of current intelligence. This does not inhibit the ability of the licensee to develop and submit future funding applications.

Traditional reinforcement counterfactual costs (UKPN)

- 2.38 As noted in paragraph 2.15, adjustments have been applied to solutions which use protection relays with "load blinding" functionality to manage constraints and maximise network utilisation across UKPN's network. UKPN's PAS contained summary detail of the calculation method applied by UKPN and the value of the savings provided through the LBR solution.
- 2.39 Our evaluation process raised a query with UKPN seeking to improve our understanding of the solution and calculation method, including the level of network capacity released via the innovative solution, and the network capacity that would have been released via the counterfactual traditional reinforcement.
- 2.40 While the information contained in UKPN's response provided further clarity on the applicable sites used in the derivation of the avoided cost, including corrections and updates to the number of sites and the total value of the proposed benefit, and did provide additional explanation of the counterfactual

method applied²⁴, it did not provide the further detail sought on the method of estimating counterfactual traditional reinforcement costs.²⁵

- 2.41 Moreover, UKPN's response stated that "*a true counterfactual traditional reinforcement cost would be higher based on the fact that more capacity would likely be released to accommodate additional needs and ensure future proofing sites*"²⁶. Our understanding is therefore that the innovative solution has not been compared directly to a traditional reinforcement, and that the sites will likely require further upgrade in the future. We remain of the view that it is important to capture these impacts when calculating the benefits and savings associated with the LBR solution for the purposes of the ED1 closeout process. We consider this approach to be in the consumers' interest.
- 2.42 We request that UKPN give further thought to this matter during the consultation period. Our expectation is that further analysis will be presented by UKPN as part of their consultation response to demonstrate the derivation of a counterfactual that considers a traditional reinforcement cost and the impact on the value of savings provided through the application of LBR solutions within the ED1 period. The analysis is equally applicable to the innovative areas of Flexibility Connections and Timed Connections.²⁷
- 2.43 We will consider the further detail and explanation provided and reserve the right to consider the results of any further assessment of UKPN's final position on LRE (i.e. netted-off) as part of our application of the 3G test in the decision document.

²⁴ UKPN confirmed the current counterfactual approach to be based on the £/MVA unit cost in the 2022/23 E6 submission multiplied by the network capacity released from each LBR solution.

²⁵ Our inquiry was based on our understanding that a traditional reinforcement counterfactual would release more capacity than an approach associated with only the capacity released via the use of the LBR solution.

²⁶ UKPN response document titled 'UKPN_LBR_14_05_24'.

²⁷ Or provide further detail and explanation on the reasons why such an approach is not considered to be practical and/or beneficial in the context of ED1 closeout process.

3. Net to Gross

This section explains our proposed adjustments in the area of Net to Gross under CRC 5G of the ED1 Licence.

Summary of Closeout Methodology

- 3.1 As part of the ED1 closeout process it was agreed that if, at the end of the ED1 price control period, the proportion of Load Related Expenditure (LRE) funded by connections customers is greater (or lower) than a defined percentage, we would assess whether a DNO had justified this final position. If adequate justification was not given²⁸, we hold the ability to implement an additional adjustment and revise a DNO's Base Demand Revenue in the ED2 price control period, as set out in paragraph 14 of CRC 5G of the ED1 Licence.
- 3.2 The Net to Gross assessment applies to the difference between the forecast percentage of customer contributions to reinforcement work, and the actual amount that is contributed. The ED1 price control settlement prescribed an expected range of Net to Gross ratios (Table 2 of CRC 5G), outside of which DNOs must provide an explanation for the circumstances that have led to this deviation.²⁹
- 3.3 This approach can only take place where no adjustment is made under the Load Related Reopener as part of CRC 3G of the ED1 Licence.³⁰ This is because any adjustment there will account for any difference in expenditure (if applicable) from that set out in the allowance contained in the ED1 Licence, thereby meaning any additional adjustment on account of Net to Gross will result in a double counting of adjustments.
- 3.4 There is no simple mechanistic calculation that can be performed. Instead, a qualitative assessment has been completed based on the circumstances of each licensee. This has considered all relevant information provided by the licensee to

²⁸ Paragraph 8 of CRC 5G of the ED1 Licence placed the onus on licensees to provide the justification for the Authority not to make relevant adjustments.

²⁹ Paragraph 9 of CRC 5G specified the type of information required within the report.

³⁰ Paragraph 7 of CRC 5G.

justify the reasons for the deviation, including performance assessment submission, narrative commentaries provided in support of the annual reporting process as well as additional information provided in response to points of enquiry and engagement through the closeout review process.

Proposed adjustment values

3.5 We have implemented the methodology as provided in Annex B of our Closeout Methodologies Decision.

3.6 Four licensees reported an Actual Percentage of Gross Load Related Expenditure provided by Specific Customer Funded Reinforcement during the Price Control Period³¹ that had fallen outside the percentage band thresholds specified in Table 2 of CRC 5G.

- East Midlands (NGED)
- LPN (UKPN)
- SHEPD (SSEN)³²
- SPD (SPEN)

3.7 There is no prescribed calculation method provided in the ED1 methodology or the ED1 Licence to identify the level of reinforcement which is funded by customers. This has led to a level of interpretation and differing methods of calculation being utilised between licensees.

3.8 In the interests of completing this test on a comparable basis, and to ensure the use of robust and consistent data from the ED1 regulatory submissions, we have applied the following calculation method.

Step 1: The value for customer funded reinforcement has been taken from the 2022/23 Cost and Volumes Reporting Pack, specifically tab C2 (entitled

³¹ Referred to as "Relevant Expenditure" under 1 paragraph 1c. of CRC 5G of the ED1 Licence.

³² When using an approach that builds on the minded-to position in chapter 2 (ie. excluding disallowed ED1-ED2 cross over and Other drivers), and is discussed later in this chapter.

'Connections Inside Price Control') and is the summation of 'Customer Funded' and 'DPCR4 Connections' cost categories³³ in each reporting year (adjusted for inflation to convert from nominal pricing to 2012/13 price base).

Step 2: Total gross load related costs has been taken from the 2022/23 Cost and Volumes Reporting Pack, specifically tabs 'C1 – Cost Matrix 2016' to 'C1 – Cost matrix 2023' (adjusted for inflation to convert from nominal pricing to 2012/13 price base).

Step 3: total value (step 1) ÷ total value (step 2) = percentage value.

Step 4: The value from step 3 is then compared to the licensee specific percentage bands specified in Table 2 of CRC 5G of the ED1 Licence.

- 3.9 The calculations above remove the impact of any Related Party Margins reported across the ED1 price control period (if applicable). No other adjustments have been applied.
- 3.10 Using the information provided by the DNOs, we have re-run the calculation and established that the same three licensees (see paragraph 3.6) have fallen outside the thresholds specified in table 2 of CRC 5G.
- 3.11 The onus is on each licensee to provide an explanation for the circumstances that have led to this deviation unless the licensee has already triggered the Load Related Reopener as part of CRC 3G.
- 3.12 As noted in chapter 2, SHEPD and LPN are both subject to a proposed adjustment under the Load Related Reopener and, in accordance with the Closeout Methodologies Decision, we have not performed an assessment of the circumstances for the deviation and we do not propose to make any net-to-gross relevant adjustments.

³³ Excludes 'DUoS Funded' category.

- 3.13 The remaining two licensees (East Midlands and SPD) are not subject to a proposed adjustment under the Load Related Reopener and, in accordance with the Closeout Methodologies Decision, we have reviewed the explanation and justification provided for the circumstances that have led to each licensee's deviation.
- 3.14 The result of our review is that each company has provided adequate justification. We note in particular that both licensees have experienced a significant increase in the volume of new connections (far in excess of the ED1 forecast) which has driven a higher level of customer contributions. We acknowledge that the impact of increases in connection related activity are driven by factors that are difficult for licensees to exert significant control over. With this in mind, we propose that no adjustment is applied as a result of the outturn Net to Gross ratios for the relevant licensees.

Other considerations

- 3.15 Chapter 2 discusses the treatment of costs associated with "other drivers" and SSEN's view that these costs should be considered as part of our assessment of LRE.
- 3.16 SSEN confirmed that while there is no specific wording in the ED1 Licence or methodology which takes account of costs of this nature, it is a reasonable request to consider the inclusion of these costs in our view of final LRE spend.
- 3.17 SSEN's proposal is to net-off the spend incurred on specific schemes as part of the assessment of LRE. Specifically:
- SHEPD – 3 schemes with a total LRE allowance request in ED1 for £2.13m.
 - SEPD – 6 schemes with a total LRE allowance request in ED1 for £26.9m.

3.18 The rationale was as follows:

- SSEN requested an allowance as part of the RIIO-ED1 business plan to deliver these schemes through LRE.
- SSEN were able to deliver them through other drivers (i.e. “non-load” cost categories of replacement, refurbishment) and the cost for these schemes did not count towards SSEN’s final LRE spend.
- SSEN consider that because it has delivered and spent money elsewhere Ofgem should take this into consideration. Particularly, given SSEN have overspent on Totex³⁴ across the ED1 period.

3.19 After careful consideration, our minded-to position is not to incorporate the costs associated with other drivers which were detailed in SSEN’s submission across the ED1 price control period in the assessment of SSEN’s final position on LRE and in the execution of the 5G test values. We do not consider it appropriate to adjust the RIIO-ED1 closeout framework to address the issue in the manner indicated by SSEN because it does not satisfy the definition parameters of the ED1 Licence.

³⁴ SHEPD’s RIIO-ED1 outturn position is an overspend of £68.7m. SEPD’s RIIO-ED1 outturn position is an overspend of £34.2m.

4. High Value Projects

This section details our proposed adjustments relating to High Value Projects (HVPs) under CRC 3F of the ED1 Licence. This process applies to the UKPN DNO group and to the licensees of NPgN and SSES.

Summary of Closeout Methodology

- 4.1 High Value Projects (HVPs) in RIIO-ED1 are defined as discrete projects valued at more than £25 million (in 2012-13 prices) in the price control period. There were seven HVPs in RIIO-ED1, four of which received reduced funding following Ofgem's analysis and technical assessment.
- 4.2 HVPs are discrete projects with specific deliverables. Given that their size and nature could involve a degree of uncertainty, we included provisions for Ofgem to review the DNOs' HVP expenditure, as well as a reopener window for DNOs to propose new HVPs within the price control.
- 4.3 The RIIO-ED1 Strategy Decision³⁵ set out that the DNOs' HVP reopener would cover new projects that were not known about when the price control was set, as well as projects that were known about but that were not included in baseline allowances.³⁶ It was also clear that where a DNO triggers the reopener within the price control, schemes will be reviewed on a project-by-project basis, through an assessment of whether total expenditure for that HVP meets a set of thresholds, and that no adjustments will be made on account of existing projects. The Authority's review after the end of the ED1 price control period requires an assessment of expenditure against thresholds; however unlike the within-period reopener, the Authority has the ability to make adjustments in respect of existing HVPs.
- 4.4 In our Strategy Decision we established that DNOs can recover efficient costs above a deadband, where the amount outside this deadband is a material

³⁵ [Strategy decision for RIIO-ED1 - Overview | Ofgem](#) pages 22-24 of the uncertainty mechanisms annex.

³⁶ These projects were not included in the baseline allowances because they failed to have one or more of clear outputs, forecast costs, and/or a needs case.

amount. However, DNOs remain exposed to a proportion of any overspend that is incurred up to the materiality threshold, and will retain a proportion of any underspend up to the materiality threshold (only the unused allowances beyond the threshold will be recovered). Where the materiality test is not passed, any differences between actual expenditure and allowances will be subject to the TIM.

- 4.5 The Final Determinations for RIIO-ED1 note that there are secondary deliverables associated with HVPs. These cover a variety of different types of work, leading to a natural interaction with the NASDs. Any assessment of a DNO's performance against secondary deliverables for HVPs will only occur where the primary driver is either refurbishment or asset replacement. This assessment, along with any associated adjustments to allowances, will need to ensure there is no double-counting of over or under-delivery through both the NASD and HVP assessments.
- 4.6 We set out a high level summary of the closeout methodology for HVPs³⁷ below:
- Ofgem will evaluate a DNO's efficient level of HVP expenditure for RIIO-ED1, which will then be compared against the DNO's allowances for the same period. If Ofgem determines that the difference between these two values is more than 20% different from allowances, and that the amount beyond this 20% deadband is a 'material' amount, then it will calculate the value of any adjustment that needs to be made.
 - Where Ofgem finds that a failure to deliver against required outputs for non-load HVPs has occurred (as indicated by a failure in relation to NASD associated with an HVP), the related value will be netted off the adjustment that would be made, where costs are materially different from allowances.
 - This adjustment will be spread across each year of RIIO-ED1 (mirroring the timing profile of HVP allowances), and have Time Value of Money adjustments applied to reflect deferral to 2023/24).

³⁷ see Annex D of the Closeout Methodologies Decision and Chapter 8, section 4 of the ED2 PCF Handbook.

- This resulting value will then be divided into two portions – one to adjust the DNO's Regulatory Asset Value (RAV), and one to adjust the DNO's ED2 revenue. Any adjustments to the DNO's RIIO-ED2 revenue on account of 'catch up' for RIIO-ED1 revenues will be spread equally across the five years of RIIO-ED2.

4.7 As set out above, the assessment of the efficient level of HVP expenditure will cover the total amount spent over the life of the project(s), and may include any adjustments to expenditure to reflect delayed or deferred projects.

Summary of DNOs' adjustment requests

4.8 ENWL, NPgN, SPD, SPMW, SSEH, WMID, EMID, SWALES and SWEST did not receive an allowance for HVPs so a reopener assessment is not applicable.

4.9 A summary of the DNOs' proposed HVP adjustment values are shown in the table below:

Table 8: Proposed DNO adjustment values³⁸

Licensee	ED1 TOTAL
LPN	20.54
EPN	0.00
SPN	0.00
SSES	0.00
NPgY	3.44
TOTAL	17.10

UKPN

4.10 In 2023 we received a PAS for HVPs from the DNO Group UKPN. In this report, and following further bilateral engagement, UKPN claimed that only one DNO licensee (LPN) triggered the HVP reopener for proposed financial adjustment through the Closeout Methodologies Decision. A summary of the UKPN PAS report and updates following our further engagement with UKPN is shown below:

- LPN had three HVPs “Eltham-Sydenham”, “West End”, and “VNEB” which UKPN aggregated resulting in an underspend of the ED1 HVP allowance. LPN also claimed £1.52m of expenditure in ED2 to complete the “VNEB” project. UKPN claimed that, by including the forecast ED2 expenditure in the assessment, the value of underspend for these projects was outside of the HVP deadband threshold and the LPN materiality threshold set out in the ED1 HVP closeout methodology. As a result, a £20.54m downward financial adjustment was requested for LPN’s HVPs.

³⁸ Downward adjustments (i.e. clawback of allowance) are indicated by positive numbers and upward adjustments (i.e. DNO to receive additional allowance) are indicated by negative numbers.

- EPN had one HVP “Little Barford & Eaton Socon” which overspent the ED1 HVP allowance and claimed £1.50m of expenditure in ED2 to complete this project. UKPN claimed that this HVP has been completed and while the overspend was outside the HVP deadband threshold it was not outside the EPN materiality threshold set out in the ED1 HVP closeout methodology. As a result, no financial adjustment was requested for this HVP.
- SPN had one HVP (“PO Route”) which has been delayed resulting in an underspend against the ED1 HVP allowance. SPN also claimed £9.14m of expenditure for ED2 to complete this project. UKPN claimed that, by including the forecast ED2 expenditure in the assessment, the value of underspend was outside of the HVP deadband threshold but was not outside the SPN materiality threshold set out in the ED1 HVP closeout methodology. As a result, no financial adjustment was requested for this HVP.

SSES

- 4.11 SSES reported that their HVP “Bicester” underspent the ED1 HVP allowance by £3.33m which was not outside the HVP deadband for this project so no financial adjustment was requested for this HVP.

NPg

- 4.12 NPgY reported that their HVP “Doncaster” overspent the ED1 HVP allowance but that when assessed with the combined DPCR5, the ED1 allowance and the total expenditure for this HVP, NPgY should receive £3.44m of additional allowances.

Proposed adjustment values

- 4.13 We have implemented the methodology as provided in Annex D of the Closeout Methodologies Decision.
- 4.14 Using the information provided by the DNOs in their data submissions, we have established the value of efficiently incurred expenditure recoverable through the HVP mechanism³⁹ across all outstanding claims.
- 4.15 The following input, Table 9, is proposed to be made to the relevant licensee input tab.

Table 9: Proposed adjustment values

Licensee	ED1 TOTAL
LPN	22.07
SPN	14.49
NPgY	0.00
TOTAL	36.56

- 4.16 The proposed adjustments in Table 9 are different to the adjustments proposed by the DNOs in their PAS (Table 8).
- 4.17 We reiterate that the RIIO-ED1 Price control being 'closed out' covers only spending relating to the ED1 price control. Therefore any forecast expenditure for ED2 should be included in the ED2 price control and assessed as part of the ED2 closeout process.

UKPN

- 4.18 The proposed adjustment for LPN is based on the underspend of three separate HVP projects described in paragraph 4.10 (first bullet point). There was only a

³⁹ Following the tests for adjustment set out in paragraphs A1.2 and A1.3 of CRC 3F of the ED1 Licence.

single aggregated HVP allowance published in the licence for LPN and we have accepted their claim for these three HVPs to be aggregated in our assessment. The proposed adjustment for LPN in Table 9 excludes ED2 forecast expenditure.

- 4.19 There is no proposed adjustment for EPN as noted in paragraph 4.10 (second bullet point).
- 4.20 The proposed adjustment for SPN is for the HVP "PO Route Rebuild" which excludes £9.14m of ED2 forecast expenditure.⁴⁰ As a result of excluding the ED2 forecast expenditure, as noted in paragraph 4.10 (third bullet point), the underspend exceeds the deadband and materiality threshold resulting in the proposed adjustment. The approach is based on our current view that the ED1 Licence is not the appropriate mechanism for considering ED2 forecast expenditure.

SSES

- 4.21 The SSES HVP "Bicester" has reported an underspend against the HVP allowance (£3.33m) and no financial adjustment is required.

NPgY

- 4.22 The NPgY HVP "Doncaster" project started in DPCR5 and continued into ED1. This project spanned two price controls and, based on the DPCR5 closeout⁴¹, we are now applying closeout for this project in its totality in ED1. Whilst this approach is not prescribed in either DPCR5 or ED1 we believe that there is a clear justification for using the "whole life" approach when making this decision. The Closeout Methodologies Decision does emphasise the need for examination of the differences between a DNO's allowance and their expenditure (and it

⁴⁰ Our approach is based on the view that the text of 3F paragraph 8a "...based on information about the actual or forecast level of efficient expenditure" relates to within the ED1 price control period and therefore excludes any ED2 forecast.

⁴¹ [DPCR5 Close out: Consultation on proposed adjustments | Ofgem](#): see appendix 3.

being well justified), the overall approach we believe is reasonable and is in consumers' interests. Combining the DPCR5 and ED1 allowances and expenditure for the HVP "Doncaster" resulted in an overspend of £3.44m and no financial adjustment is required.

Further assessment

- 4.23 In accordance with the Closeout Methodologies Decision, we have assessed the above DNO's performance under the closeout methodology for HVPs to evaluate if the Licensee's expenditure has been efficiently incurred during ED1.
- 4.24 We have also conducted an engineering evaluation of the projects. We do not propose to make any changes to the proposed adjustment values shown in the table above as a result of our engineering assessment.
- 4.25 Finally, we have assessed the interactions between the above ED1 proposed reopener and the Network Asset Secondary Deliverables targets. We note that for SPN the delivery of their only contributing HVP output cannot be claimed until the existing tower line is decommissioned. Although the delay means that SPN did not deliver their forecast HVP risk reduction in asset replacement, we do not consider this to form an 'output gap'. As it will be completed in ED2 and it did not materially contribute to overall delivery of target, it is appropriate to recognise that this will result in a delay in risk reduction into ED2. We therefore do not propose to make any proposed adjustments as part of the ED1 closeout assessment.
- 4.26 In terms of the other HVP projects, we have found no occurrence of failure to deliver against the required outputs and therefore there is no related value to be netted off the proposed adjustments as set out in the Closeout Methodologies Decision.
- 4.27 Further detail can be found in the datafile accompanying this publication.

Minded-to position

- 4.28 The minded- to adjustment values are shown below in Table 10. Further details of the adjustment values for the PCFM will be provided in our Decision.

Table 10: Minded-to adjustment values

Licensee	ED1 TOTAL
LPN	22.07
SPN	14.49

- 4.29 The above minded-to position does not consider the operational treatment of applying the calculation of adjustments through the PCFM. The process of adjustment and calculation will be separately discussed and developed as part of the process in support of the Annual Iteration Process. We will continue to further liaise with the relevant experts taking this process forward and will provide further update in our Decision.

Other considerations

- 4.30 Special Condition CRC 3F of the ED1 Licence included the following text:

"The Authority may only give Notice of its intention to make a relevant adjustment in respect of High Value Project Costs ... and only during the following application windows:

(a) for High Value Project Costs the application window at the end of the Price Control Period that opens on 1 December 2023 and closes on 31 December 2023;"

- 4.31 A literal reading of the text would indicate that there is no opportunity for the Authority to notify or execute a potential adjustment to allowed expenditure for HVPs as part of the ED1 closeout process at this stage because the application

window for providing notice of such an intention falls only between 1 December 2023 and 31 December 2023.

- 4.32 After careful consideration, we have decided to proceed with notification of our intent to make potential adjustments to the HVP projects identified in the section above. We consider there is a sufficient basis to do so, even with the restrictive reading of CRC 3F and the surrounding documentation.
- 4.33 The rationale for our proposed approach is based on the following points.
- Firstly, the methodology decision emphasises the need for efficiency and examination of the differences between a DNO's allowance and their expenditure being well justified. When considered alongside the Authority's principal objective⁴², we consider that conducting an efficiency assessment on expenditure is in consumers' interests. A decision not to perform an assessment, and potentially allow consumers to bear additional costs over and above what would otherwise be deemed to be an efficient level, is counter to our fundamental objective to protect the interests of existing and future consumers. We consider it is appropriate and reasonable to pursue an assessment beyond the window.
 - Secondly, there are mitigating factors that contributed to the original application timeline prescribed in CRC 3F not being met. When the narrow window was originally established in the ED1 Licence (in relation to the parameters and timescale of an assessment of HVP) it was with the motivation to conduct and conclude an assessment as close to the end of the previous price control period as possible. Some years later, this aspiration was, however, undermined by the extraordinary circumstances and unprecedented pressures that energy consumers and the sector have faced over the last eighteen months.⁴³ Given the fast-moving nature of

⁴² [Energy Act 2023 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2023/1/section/1)

⁴³ The continued impact of the Covid pandemic and the events in Ukraine are two major examples driving significant volatility in the energy markets. The resultant pressure on wholesale gas prices, in particular, placed the energy market under unprecedented strain and resulted in measures brought in at pace (e.g. reform of the price cap) to make the retail market more adaptable and to improve financial resilience across the sector.

events, our work programme has been subject to significant change to ensure we remained flexible and responsive to the challenges. The result was an overhaul of our organisational programme of work and a significant re-prioritisation exercise which changed our strategic focus towards stabilising the energy sector, protecting consumers and supporting government energy security proposals. The impact was most keenly felt in the closeout arena with a decision to re-prioritise resource and delay the associated assessment and RIIO-1 closeout process across all four energy sectors (ET, GT, GD and ED).

- Thirdly, despite the strategic challenges noted above, we have sought to minimise the impact of any delay and initiated the process of closeout across each sector as soon as practicable. The original intention remains to implement the adjustments resulting from the closeout assessment through the November AIP process. This deadline has not changed despite the delay to our assessment process and we expect to conclude the closeout process for the electricity distribution sector in a shorter timeframe to the transmission and gas distribution sectors. Our commitment to this is demonstrated by the prompt action taken to publish this minded-to-position.

4.34 Taken together, we consider the above factors demonstrate that our regulatory intent has remained focused on providing a transparent and stable framework. We are committed to following the assessment process and to fully closeout the arrangements at the end of the RIIO-1 period in a manner that will avoid creating more complicated arrangements.

5. Network Asset Secondary Deliverables

This section explains our proposed adjustments for secondary deliverables within the RIIO-ED1 period. This chapter applies to all DNOs.

Summary of Closeout Methodology

- 5.1 As part of the RIIO-ED1 price control review, each DNO provided forecasts of their asset health and criticality positions 'with intervention' and 'without intervention'. We used these to set out the improvements in asset health and criticality required of each DNO's asset base during the price control. This is referred to as the Network Asset Secondary Deliverables (NASD) Target Risk Delta.
- 5.2 Each DNO forecast was based on their own specific assessment methodology. It was recognised that it would be beneficial for the DNOs to report performance using a common framework to enable us to monitor companies' performance on a consistent basis and ensure long-term delivery and value for money. Therefore, the price control settlement included a Licence condition to mandate the development of a common methodology for asset health, criticality and monetised risk. The DNOs worked together to develop the Common Network Asset Indices Methodology (CNAIM), which was initially approved by the Authority on 1 February 2016.
- 5.3 The NASD targets are derived from a range of activities. It is recognised that circumstances can change, and to reflect this possibility, licensees are permitted to trade off monetised risk between types of intervention and asset categories in order to deliver an equivalent or better outcome to the NASD target. If the overall outcome results in a material variation from the monetised risk target, it is for licensees to justify why they have deviated from the target, and how the overall delivery equates to an equivalent or better deal for consumers.
- 5.4 Within the Network Outputs Measures (NOMs) Incentive Methodology⁴⁴ we specified that upper and lower materiality thresholds should be used when

⁴⁴ [network_output_measures_noms_incentive_methodology .pdf \(ofgem.gov.uk\)](#)

assessing compliance with the overall network target also known as a deadband. Within DPCR5 and for RIIO-ED2 we set a deadband that $\pm 5\%$ of the target. We did not set a deadband within RIIO-ED1 but proposed to use $\pm 5\%$ maintaining consistency with other price control periods within ED but also other sectors. It was our view that the robustness of the data justified this threshold.

- 5.5 Information on the delivery performance against NASD targets across RIIO-ED1 for each licensee is summarised in the table below.

Table 11: RIIO-ED1 delivery performance against NASD targets

	RIIO-ED1 target	RIIO-ED1 Delivery	Percentage of NASD Target achieved
ENWL	-11,511,292	-11,853,566	103%
NPgN	-10,566,356	-10,620,187	101%
NPgY	-9,396,061	-9,678,248	103%
WMID	-17,228,200	-21,083,013	122%
EMID	-12,530,218	-15,771,872	126%
SWEST	-9,816,502	-12,276,614	125%
SWEST	-16,310,684	-17,662,103	108%
LPN	-9,142,667	-9,499,815	104%
SPN	-8,438,716	-8,768,401	104%
EPN	-11,460,979	-11,942,842	104%
SPD	-6,882,744	-7,438,983	108%
SPMW	-10,131,380	-9,717,115	96%
SSEH	-6,402,507	-6,872,333	107%
SSES	-16,303,618	-16,656,889	102%

Proposed adjustment values

- 5.6 We have implemented the methodology as provided in Annex C of the Closeout Methodologies Decision.
- 5.7 Upon review of companies' submissions, we propose to make no adjustments to any DNO group. Our assessment of the evidence provided suggests that discrepancies between the target and delivery sits within the expected deadband and we have established that all licensees have delivered their NASD target in RIIO-ED1. We have reviewed where DNOs have overdelivered against their targets. We consider this outperformance to be in the interest of consumers.

6. Link Box Volume Replacement

This section explains our proposed adjustment to RIIO-ED1 baseline allowances associated with the volume of Link Box Replacement Delivered within the ED1 price control period. This chapter applies to SPMW and SPN only.

Summary of Closeout Methodology

- 6.1 The RIIO-1 framework for electricity distribution networks included a number of uncertainty mechanisms for costs that were uncertain at the time of establishing the final determinations. This included re-opener mechanisms, which enabled adjustments (up or down) to DNO allowances to accommodate costs associated with specific uncertain cost categories. These mechanisms were set out in special condition CRC 3F⁴⁵ of the ED1 Licence.
- 6.2 Link Box Costs⁴⁶ was one such uncertain cost category, specifically the costs incurred or expected to be incurred by the licensee in efficiently managing the asset risk associated with Link Boxes (LB).
- 6.3 In November 2017, we published a decision⁴⁷ to make a positive adjustment to SP Manweb's (SPMW⁴⁸) and to make no adjustment to South Eastern Power Networks Plc's (SPN⁴⁹) opening level of allowed expenditure for Link Box Costs.

Table 12: Link Box Replacement Volumes - agreed delivery profile

	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	Total
SPN	242	242	449	812	971	1074	1074	1209	6073
SPMW	307	1186	625	625	625	625	625	625	5243

⁴⁵ Charge Restriction Condition 3F: Arrangements for the recovery of uncertain costs.

⁴⁶ The term "Link Box Costs" means costs incurred, or expected to be incurred, by the licensee in efficiently managing the asset risk associated with Link Boxes. The definition is set out in CRC 3F.

⁴⁷ Further detail can be found here: [Decision to revise allowed expenditure for Link Box Costs | Ofgem](#)

⁴⁸ £23.4m to deliver the agreed volume of Link Boxes by the end of the RIIO-1 period.

⁴⁹ To deliver 5,243 Link Boxes by the end of the RIIO-1 period.

- 6.4 The November 2017 decision also confirmed our intention to review volume delivery as part of the closeout process and to make any necessary adjustments to income levels as part of the closeout review process.
- 6.5 Furthermore, an overall materiality threshold applies in respect of relevant adjustments for Link Box Costs for the purpose of closeout. The materiality threshold for each licensee is specified in the Table 8.6 of the PCF Handbook⁵⁰
- 6.6 In terms of closeout, we are therefore permitted to make a provisional determination as to whether an adjustment to allowed expenditure should be made where the licensee has not delivered its Allowed Link Box Replacement Volumes⁵¹, subject to the materiality threshold being met.
- 6.7 Any proposed adjustment will be calculated using the volume not delivered multiplied by the unit cost values specified in Table 8.5 of the PCF Handbook.
- 6.8 For the avoidance of doubt, where the Licensee has delivered its Allowed Link Box Replacement Volumes⁵², no adjustment to allowed expenditure will be made.
- 6.9 We note that SPEN inferred from the language used in our 2017 decision and other documentation that any decision made through the ED1 closeout process on the value of the potential adjustment can be symmetrical in nature⁵³. We do not agree with this interpretation for the reasons noted above; where the delivered replacement volumes are met or exceed the allowed volumes, then no adjustment will occur in the ED1 closeout process.

⁵⁰ [ED2 Price Control Financial Handbook \(ofgem.gov.uk\)](https://www.ofgem.gov.uk/price-controls/ed2-price-control-financial-handbook)

⁵¹ Actual RIIO-ED1 Link Box Replacement Volumes - Allowed RIIO-ED1 Link Box Replacement Volumes is <0.

⁵² Actual RIIO-ED1 Link Box Replacement Volumes – Allowed RIIO-ED1 Link Box Replacement Volumes ≥ 0.

⁵³ Our 2017 decision stated: “We intend to monitor the delivery of the programme and if required make any necessary adjustments through the RIIO-ED1 closeout process.” Furthermore, paragraph 8.46 of the ED2 PCFH states: “The Authority will factor any adjustments into its determination of the UCLB values...” While SPEN agrees that no upside volumetric adjustment can be made it considers that, based on references to “any adjustment”, that the closeout process can factor any adjustments arising from UCLB values and it is therefore within our ability to apply symmetrical adjustments to SPENs ED1 costs.

RIIO-1 closeout process

- 6.10 Having considered the licensee's closeout submission and the responses to requests for further information raised during the assessment period, we applied the following assessment steps:

STEP 1: compared the information provided by the licensee on Actual Link Box Replacement Volumes with the Allowed Link Box Replacement Volumes (outlined in Table 12 above)⁵⁴;

STEP 2: determined whether the costs incurred fall within the definition of Link Box Costs and have been incurred during the Price Control Period (ie. between 1 April 2015 and 31 March 2023);

STEP 3: checked that the costs are not recoverable from a third party; and

STEP 4: confirmed the proposal by each licensee represents an efficient level of expenditure.

- 6.11 Finally, we checked whether the overall materiality threshold has been passed in accordance with the value prescribed in the PCF Handbook.

Proposed adjustment values

- 6.12 We have implemented the methodology as provided in Section 5 of our Closeout Methodologies Decision and paragraphs 8.38 to 8.47 of the PCF Handbook.
- 6.13 Using the information provided by the DNOs in their data submissions, we are proposing no revision to the UCLB⁵⁵ value in the PCFM for both SPMW and SPN as both met the allowed volume target.

⁵⁴ The assessment of delivery against this mechanism is the volume of link box additions that have been installed across the ED1 period, ie. 5629 for SPN and 6130 for SPMW.

⁵⁵ As noted in Table 1: Categories of cost related to uncertain cost activities and associated PCFM Variable Values in CRC 3F, this term relates to uncertain Link Box Costs values.

7. Specified Street Works Costs

This section explains our proposed adjustment to RIIO-ED1 baseline allowances associated with the delivery of Specified Street Work activity.

Summary of the Closeout Methodology

- 7.1 The network activities undertaken by DNOs sometimes require work to be conducted on roads and highways to access their assets; this is referred to as street works. When DNOs carry out street works, they must comply with the relevant legislation and incur costs in doing so.
- 7.2 We allowed efficient costs for street works as part of the RIIO-ED1 price control where permit schemes had already been implemented and 12 months of cost data was available. However, we included a reopener within the price control to provide an opportunity to request additional funding in the event of increased uptake of these schemes and other areas of street works legislation.
- 7.3 In May 2019, we received submissions from eight licensees (across five DNO groups) seeking an adjustment to their allowed expenditure for Specified Street Works Costs (SSWC). We undertook a cost efficiency assessment of SSWC and released additional funds for EPN (£9.94m), EMID (£7.9m), NPgY (8.9m), SPMW (£8.2m) and ENWL (£9.7m)⁵⁶.
- 7.4 At high-level our assessment was based on the following building blocks:
- The use of a benchmark to assess whether unit costs were efficient;
 - To inform the calculation of the benchmark, we determined which cost categories we would consider in our unit cost assessment and which costs we would consider on a case-by-case basis;
 - The application of an efficiency adjustment on forecast costs; and
 - A methodology to forecast permit volumes.⁵⁷

⁵⁶ https://www.ofgem.gov.uk/sites/default/files/docs/2019/10/riio-ed1_reopener_decision_-_specified_street_works_costs_new.pdf

⁵⁷ For more detail on the 2019 assessment see Ofgem (18th October 2019), RIIO-ED1 Reopener Decision – Specified Street Works Costs.

- 7.5 For this iteration of the re-opener, we remained for the most part consistent with the approach used for the 2019 SSWC re-opener decision. This is not only to ensure that iterations of the same re-opener have a consistent methodology, but also because most DNOs derived their funding requests as adjustments to the funding obtained in 2019. As per the 2019 SSWC re-opener decision, we then have:
- Excluded permit variations from the volumes to which the unit cost is applied;
 - Excluded 2020-2023 permit variations from the unit cost calculations; and
 - Applied a 3% efficiency challenge.
- 7.6 While consistency with the 2019 SSWC decision guided our approach, we have amended the methodology in targeted instances where there was a very strong case for change. Compared to 2019, we note that the level and quality of information provided through the annual Regulatory Reporting Process (RRP) has improved and provides a more reliable and granular source of information for street works costs (relative to the data sources used in support of the 2019 claims). Outturn costs and volumes are also now available for all years of ED1.
- 7.7 We have therefore decided to utilise the RRP outturn information for all years of ED1 where possible, rather than on the 2020-2023 volume forecasts we made in 2019.
- 7.8 Compared to 2019, there is also a larger number of licensees that requested additional funding through the SSWC re-opener. We have then extended the benchmarking exercise to all licensees that have requested additional SSWC funding, either in 2019 or as part of this closeout. These are: ENWL, EMID, WMID, SWEST, NPGY, NPGN, SPMW and EPN.
-

Summary of DNOs revenue adjustment requests

7.9 In July 2023, we received submissions from four DNOs across five licensees requesting an adjustment to their expenditure allowances in relation to SSWC. We summarise these requests in Table 13.

Table 13: Summary of DNOs funding requests

DNO	Licensee	Requested adjustment	2016-2023 outturn	2019 re-opener adjustments	Materiality Threshold
UKPN	EPN	1.59	11.53	9.94	9.70
NGED	EMID	4.37	12.28	7.89	5.70
NGED	WMID	7.37	7.37	-	5.70
SPEN	SPMW	1.06	9.29	8.22	5.80
NPG	NPgN	8.53	8.53	-	4.49

7.10 Actual volumes of work for EPN have been higher than those anticipated as part of the 2019 re-opener. According to UKPN, these higher volumes, together with an increase in the associated unit cost justify an £11.53m street works re-opener allowance over ED1. As this exceeds the additional funding given as part of the 2019 iteration of the re-opener (£9.94m), UKPN is asking additional funding for the difference (£1.59m).

7.11 NGED is requesting £11.74m of SSWC funding (£4.37m for EMID and £7.37m for WMID) to reflect higher than forecasted volumes of work and an updated view of the efficient unit cost. As for UKPN, funding requests reflect the difference between outturn costs over ED1 and additional funds released as part of the 2019 re-opener (£7.9 for EMID only).

7.12 SPMW is requesting additional funding of £1.06m. As part of the 2019 iteration of the re-opener, SPMW was granted £8.2m of additional funds for street works.

Actual street works costs over ED1 amounted to £9.29m, so SPMW is now asking to recover the portion of actual costs that exceeded the 2019 re-opener allowance.

7.13 DNOs have developed their funding requests relying on different methodologies:

- UKPN and NGED updated Ofgem's 2019 SSWC benchmarking analysis, amending the methodology in a number of areas (e.g. treatment of permit variations, application of efficiency challenge, time period covered);
- NPG undertook a different benchmarking exercise comparing its actual unit costs to those estimated for other DNOs;
- SPEN did not undertake a comparative assessment and requested actual costs incurred for SSWC.

Proposed adjustment values

7.14 The results of our benchmarking assessment are summarised in Table 14.

7.15 As EPN benchmarked costs for ED1 are lower than funds released in 2019, our minded to position is to not adjust allowances further. As our modelled costs are higher than SPMW outturn costs for SPMW, we are releasing only £1.06m requested by SPMW, consistently with the 2019 methodology⁵⁸.

7.16 For NGED, our minded to position is to release additional funding of £11.08m, a reduction of £0.66m to the value requested.

⁵⁸ https://www.ofgem.gov.uk/sites/default/files/docs/2019/10/riio-ed1_reopener_decision_-_specified_street_works_costs_new.pdf, see paragraph.2.9. "Unless justified in the DNO's submission, we applied the lower of the licensee's submitted costs and our benchmarked costs when setting proposed allowances for each of the remaining Regulatory Years in the RIIO-ED1 period."

7.17 For NPg, our minded to position is to release £6.88m of funding based on our assessment of outturn costs over the period.

Table 14: Summary of proposed adjustment values

DNO	Licensee	Ofgem proposal	Request
UKPN	EPN	-	1.59
NGED	EMID	4.05	4.37
NGED	WMID	7.03	7.37
SPEN	SPMW	1.06	1.06
NPG	NPgN	6.88	8.53

7.18 The above minded-to position does not consider the operational treatment of applying the calculation of adjustments through the PCFM. The process of adjustment and calculation will be separately discussed and developed as part of the process in support of the AIP. We will continue to further liaise with the relevant experts taking this process forward and will provide further update in our Decision.

8. Your response, data and confidentiality

Consultation stages

Stage	Date
Consultation Open	7 June 2024
Consultation closes (awaiting decision). Deadline for responses	2 August 2024
Responses published and under review	Autumn 2024
Decision	30 September 2024

How to respond

- 8.1 We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document's front page. We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations.

Your response, data and confidentiality

- 8.2 You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.
- 8.3 If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you do wish to be kept confidential and those that you do not wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.
- 8.4 If the information you give in your response contains personal data under the General Data Protection Regulation 2016/379 (GDPR) and domestic legislation

on data protection, the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000.

- 8.5 If you wish to respond confidentially, we'll keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We will evaluate each response on its own merits without undermining your right to confidentiality.

General feedback

- 8.6 We believe that consultation is at the heart of good policy development. We welcome any comments about how we've run this consultation. We'd also like to get your answers to these questions:
- Do you have any comments about the overall process of this consultation?
 - Do you have any comments about its tone and content?
 - Was it easy to read and understand? Or could it have been better written?
 - Were its conclusions balanced?
 - Did it make reasoned recommendations for improvement?
 - Any further comments?

- 8.7 Please send any general feedback comments to stakeholders@ofgem.gov.uk

How to track the progress of the consultation

- 8.8 You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website. [Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations).
- 8.9 Once subscribed to the notifications for a particular consultation, you will receive an email to notify you when it has changed status. Our consultation stages are: (a) Upcoming, (b) Open, (c) Closed (awaiting decision), and (d) Closed (with decision).

How to track the progress of the consultation

You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website. Choose the notify me button and enter your email address into the pop-up window and submit.

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Upcoming > **Open** > **Closed** (awaiting decision) > **Closed** (with decision)

Appendices

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Appendix 1 – LRR methodology

- A1.1 Our assessment of the LRE was centred around the following steps, in line with the methodology set out in the 2019 ED1 closeout decision and the conditions CRC 3G of the licence:
- a) **Efficiency assessment of submitted outturn costs and under/overspend** against ED1 allowances;
 - b) **Assessment of non-traditional solutions** submitted by DNOs;
 - c) **Application of a materiality test** to determine whether DNOs under/overspend is sufficiently large to trigger any adjustment under LRR;
 - d) **Assessment of the interaction between materiality test and TIM** to determine any amount that needs to be returned to consumers when the test is triggered.
- A1.2 As per the Closeout Methodologies Decision, the onus is on network companies to submit information demonstrating the efficiency of outturn costs.⁵⁹ We have then taken a top-down approach for our efficiency assessment, challenging or validating companies views on efficient outturn costs through SQs and qualitative analysis. Using information from the RRP's we have cross checked whether companies' closeout submissions were in line with the wider annual reporting and investigated any discrepancy.
- A1.3 The assessment of non-traditional solutions is an essential step of the LRR methodology and for determining whether the materiality test is passed or not. The Closeout Methodologies Decision and special condition CRC3G of the ED1 Licence both discuss how monetary avoided costs arising from companies' deployment of non-traditional solutions should be "protected" (i.e. they should not

⁵⁹ Ofgem (17 December 2019), Decision on the closeout methodologies for RIIO-ED1, para. 2.4.

be shared with consumers for the purpose of the closeout), to preserve companies' incentives to innovate. The level of underspend that is subject to the materiality assessment is then reduced to account for these savings.

A1.4 We have then undertaken a deep-dive analysis of each of the saving/avoided cost claim submitted by DNOs to determine (i) whether these meet the criteria of non-traditional solution set out in the Closeout Methodologies Decision and license and (ii) what is the correct estimated quantum of savings. As discussed in Section 1, our assessment highlighted how a number of non-traditional solutions claimed by DNOs did not meet, partially or in full, Ofgem's definition of non-traditional solutions.

A1.5 Having established the quantum of DNOs avoided costs due to non-traditional solutions, we have run the materiality test to determine whether companies' under/overspend have been material enough to trigger adjustments under the LRR.

A1.6 The materiality test is built around a comparison between ED1 allowances, efficient outturn costs accounting for non-traditional solutions, and a "materiality threshold" made of a company-specific materiality amount and 20% of the ED1 allowance. If under/overspend exceeds the materiality threshold, the LRR is triggered and Ofgem can determine any adjustments to how much is clawed-back/shared with consumers.

A1.7 In formulae, LRR adjustments can be triggered if and only if:

$$(\max (\text{TLRRCF} - \text{TLRRCOV} , \text{TLRRCOV} - \text{TLRRCF})) > \text{MA} + (20\% \times \text{TLRRCOV})$$
where

- TLRRCF are DNOs outturn LRE expenditure inclusive of non-traditional solutions determined in step 2) and including closely associated indirect and DPCR4 spend and excluding related party margin;
- TLRRCOV is the ED1 allowance for load related expenditure as reported in the RRP;

- MA is the company-specific materiality amount set out in the licence.⁶⁰

A1.8 Our rejection of UKPN's and SSE's non-compliant claims for avoided costs increases the level of underspend that is subject to test. This translates into higher level of underspend needing to be shared with consumers through the TIM as part of the closeout process, in addition to what has already been shared annually during ED1. We present how our assessment translates into increased shared underspend with consumers in the Tables below.

⁶⁰ Chapter 3, Appendix 2. CRC 3G.

Appendix 2 – data tables

Table A2-1 Ofgem LRE closeout assessment for UKPN (£million 2012/13 prices)

Closeout Assessment	UKPN Submission: LPN	UKPN Submission: SPN	UKPN Submission: EPN	Ofgem Assessment: LPN	Ofgem Assessment: SPN	Ofgem Assessment: EPN
Costs						
Allowance (a)	£352.1	£216.4	£360.5	£352.1	£216.4	£360.5
Actuals (b)	£172.8	£120.1	£132.6	£172.8	£119.5	£132.3
Underspend c = (a – b)	£179.3	£96.3	£227.9	£179.3	£96.9	£228.2
Closeout reductions & non-traditional solutions						
Total d = (1+2+3+4)	£24.1	£16.9	£89.2	£17.8	£10.8	£65.0
Green recovery (1)	£4.7	£1.3	£31.8	£4.7	£1.3	£31.8
LV Visibility (2)	£1.2	£1.5	£3.0	£1.2	£1.5	£3.0
Innovative savings (3)	£7.0	£6.2	£42.2	£0.7	£0.1	£17.9
i. LPN Interconnection	£4.5	-	-	-	-	-
ii. Fun-LV	£0.1	-	-	-	-	-
iii. Load Blinding Relays	-	£6.0	£4.9	-	-	£2.1
iv. Load Share	-	-	£5.4	-	-	-
v. Flexible Connections	-	£0.1	£31.4	-	-	£15.4
vi. Timed Connections	£2.4	-	-	£0.7	-	-
vii. LBR for Busbar protection	-	£0.1	£0.4	-	£0.1	£0.4
Flexibility (4)	£11.3	£7.9	£12.3	£11.3	£7.9	£12.3
Materiality Test						
20% of Allowance (e) = a*0.2	£70.4	£43.3	£72.1	£70.4	£43.3	£72.1
Materiality Amount (f)	£7.4	£6.5	£9.7	£7.4	£6.5	£9.7

Consultation - RIIO-ED1 Closeout: Consultation on proposed adjustments

Threshold to trigger test (e) + (f)	£77.9	£49.8	£81.8	£77.9	£49.8	£81.8
Test Passed?	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Value of underspend below the threshold g = (c - e)	£108.9	£53.1	£155.8	£108.9	£53.7	£156.1
Interaction with TIM						
Sharing Factor	46.72%	46.72%	46.72%	46.72%	46.72%	46.72%
Initial assessment of total value to be returned to customers h = ((0.4672 x e) + g)	£141.8	£73.3	£189.5	£141.8	£73.8	£189.8
Total ED1 value to be returned to customers, protecting avoided costs i = (h - d)	£117.7	£56.4	£100.3	£123.9	£63.1	£124.9
Amount already returned to customers in period via operation of TIM j = (0.4672 x c)	£83.8	£45.0	£106.5	£83.8	£45.3	£106.6
Value to be returned to customers from closeout (i - j)	£33.9	£11.4	£0.0	£40.2	£17.8	£18.2

Table A2-2 Ofgem LRE closeout assessment for SSEN (£million 2012/13 prices)

	SSEN Submission: SSES	SSEN Submission: SSEH	Ofgem Assessment: SSES	Ofgem Assessment: SSEH
Costs				
Allowance (a)	£233.1	£131.0	£233.1	£131.0
Actuals (b)	£149.3	£87.8	£149.3	£87.9
Underspend c = (a – b)	£83.8	£43.2	£83.9	£43.3
Closeout reductions & non-traditional solutions				
Total d = (1+2+3)	£63.8	£19.8	£36.9	£1.3
Innovation Savings (1)	£36.9	£1.4	£36.9	£1.3
i. Isle of Wight ANM	£36.9	-	£36.9	-
ii. Logie Pert CMZ	-	£1.4	-	£1.3
ED1-ED2 Cross Over (2)	-	£16.3	-	-
Other Drivers (3)	£26.9	£2.1	-	-
Materiality Test				
20% of Allowance (e) = $a \times 0.2$	£46.6	£26.2	£46.6	£26.2
Materiality Amount (f)	£8.4	£4.5	£8.4	£4.5
Threshold to trigger test (e) + (f)	£55.0	£30.7	£55.0	£30.7
Test Passed?	FALSE	FALSE	FALSE	TRUE
Value of underspend below the threshold f = (c - e)	£37.2	£17.0	£37.2	£17.1
Interaction with TIM				
Sharing Factor	n.a.	n.a.	n.a.	43.53%
Initial assessment of total value to be returned to customers h = ((0.4353 x e) + g)	n.a.	n.a.	n.a.	£28.5
Total ED1 value to be returned to customers, protecting avoided costs i = (h - d)	n.a.	n.a.	n.a.	£27.2
Amount already returned to customers in period via operation of TIM j = (0.4353 x c)	n.a.	n.a.	n.a.	£18.8

Consultation - RIIO-ED1 Closeout: Consultation on proposed adjustments

Value to be returned to customers from closeout (i - j)	n.a.	n.a.	n.a.	£8.3
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Appendix 3 – Innovation offset engineering assessment

Innovation		Engineering view	Reject	Accept
UKPN	LPN Interconnection	Reject	We do not consider that LPN Interconnection solution meets the Licence definition of Innovative Solutions as the design philosophy underpinning the solution (demand groups fed by more than 2 HV feeders) existed in the LPN network prior to the start of ED1. Therefore, whilst we acknowledge that the solution does increase circuit utilisation relative to a conventional radial network, we do not consider the continued expansion of radial networks (i.e. splitting a demand group into two distinct demand groups each fed via two HV feeders) to be a valid counterfactual. We expect efficient licensees to consider and employ the most efficient design philosophy at each intervention.	
UKPN	FUN-LV	Reject	We do not consider that the installations under Fun-LV considered within this Performance Assessment Submission meet the Licence definition of Innovative Solutions. This is because all of the 13 schemes comprising this submission were initially installed, commissioned and operated as part of the Flexible Urban Networks - Low Voltage LCNF innovation trial which ran 1/2/2013 to 01/12/2016. Whilst we acknowledge that the retention of these schemes post Fun-LV trial closure does defer network reinforcement, we do not consider that sites forming part of	

			an innovation project can be considered Innovative solutions in this PAS.	
UKPN	Load Blinding Relays (LBR)	Accept with adjustment		We note that this Innovative Solution appears to be based on the roll out of a novel protection relay (load blinding relay) trialled as part of UKPNs Flexible Plug and Play Low Carbon Networks Fund project which concluded on 31/12/2023. We therefore consider that the solution meets the Licence definition of Innovative Solutions as it provides network capacity to facilitate the economic connection of Distributed Generation (DG). However, we are concerned that the use of load blinding to connect DG where directional overcurrent protection is used has become a "traditional solution"⁶¹ across the networks of UKPN within the ED1 period and is demonstrative of 'business as usual' (BAU) behaviour. We are therefore minded-to make adjustment to the submitted claim to reflect this. (This does not apply to the use of LBR for busbar protection).

⁶¹ [uk-power-networks-annual-nia-summary-2020-21.pdf \(energynetworks.org\)](#) see page 27

				2020/21 is proposed as the year of BAU, resulting in the removal of any scheme after 2020/21 from the claim. The impact is to remove all SPN schemes (the earliest of which is June 2021) and remove 3 EPN schemes (the remaining 4 are from regulatory year 2018/19). Overall, the proposed approach reduces the EPN value to be protected from clawback from £4.9m to £2.1m and reduces the SPN value to £0m.
UKPN	Load Blinding Relays for Busbar Protection	Accept		This Innovative Solution extends the applicability of load blinding relays to substation busbars that use rough balance or non-unit type protection, releasing network capacity for customers at the end of long feeders. We consider this solution meets the Licence definition of an Innovative Solution.
UKPN	Load Share	Reject	We do not consider that this scheme meets the Licence definition of an Innovative Solution as the scheme involves retention of the sole installation of the smart solution under UKPNs LoadShare Network Innovation Allowance innovation project. (Loadshare ran wholly within ED1: Sept '17 to May '19)	
UKPN	Flexible Connections	Accept with adjustment		We have accepted on the basis that Demand Side Response (DSR) / Demand Side Management (DSM) can be considered an Innovative Solution by virtue of having been considered a smart solution as part of the RIIO-ED1 smart solutions assessment. Flexible Connections, Timed Connections, ANM and Constraint Management Zones are all forms of DSR/DSM. However, we are concerned with the longevity of the benefits DSR/DSM solutions as in nearly all cases the traditional reinforcement is deferred, not

				avoided. We therefore consider the long term benefit to distribution network customers to be in the optioneering and timing of the reinforcement alone, and are minded to make adjustment to the submitted claim to reflect a value of ED1 savings from deferred reinforcements that we propose should be returned to consumers, as these reinforcements will be required in the future. Furthermore, we expect an efficient Licensee to embed proven smart solutions into their BAU activities as soon as practical. The pace at which DSR/DSM has developed and been adopted by customers and Licensee's alike during the ED1 period means that the application of solutions in the latter years of the ED1 control have been incorporated in the closeout claim, and qualify for offset treatment, due primarily to the length of the control period and despite some of the solutions demonstrative of BAU behaviour at the point of application within the ED1 period. We therefore consider that savings post the point of BAU implementation should be returned to consumers. 2020/21 is proposed as the year of BAU, which is supported by an uptake of flex connections within UKPN's networks at this point. The adjustment result in a reduction of the initial claim from £31.5m (post TIM) to £15.4m.
UKPN	Timed Connections	Accept with adjustment		We recognise that the solution was not in widespread use at the start of ED1, improves connection performance and, as a result, meets the innovative requirements specified in the ED1 RIGs. However, similar to the points raised above on flexible connections, we consider that the

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				application of this solution evolved into a BAU practice within the ED1 period. 2020/21 is proposed as the year of BAU. The adjustment result in a reduction of the initial claim from £2.4m (post TIM) to £0.7m.
SSEN	Isle of White ANM	Accept		The project was implemented prior to ANM being a BAU solution and meets the innovative requirements specified in the ED1 RIGs.
SSEN	Logie Pert CMZ	Accept with adjustment		This CMZ differs from other DSR/DSM solutions as the needs case is based upon high distributed generation output at a time of low demand, and is contracted until 2024. With demand forecast to grow across all future energy scenarios, this constraint is expected to be eliminated in the future, meaning that reinforcement could be deferred indefinitely. We therefore consider that the solution delivers long term benefit to consumers. However, we note that SSENs submission includes constraint payments for the years 2021 and 2022 only, whilst the CMZ is contracted until 2024. We consider the full contracted cost of the CMZ should be considered and hence the savings reduced by a further £74,000 (2023, 2024 contracted period)

Appendix 4 – definitions

RIIO-ED1 regulatory instructions and guidance: Annex A – Glossary

Innovative Solutions

A working group will determine the definition of Innovative Solutions. Until such time as the working group can provide definitions, only solutions that meet one of the following criteria can be defined as Innovative Solutions:

- has been trialled by any DNO as part of an LCNF, NIC, NIA, or IFI innovation project during DPCR5 or RIIO-ED1.
- was considered a smart solution as part of the RIIO-ED1 smart solutions⁶² assessment.
- involves the application of technology, systems or processes not in widespread use at the beginning of RIIO-ED1 to provide long term direct benefits to distribution network customers through:
 - o improving the utilisation or provision of network capacity for demand or generation (including demand side solutions)
 - o improving the management of asset condition to reduce lifetime costs
 - o increasing the DNO's ability to manage network performance, safety or security, or
 - o improving the level of service provided to network customers.

Direct benefits can include improvements in economic performance, environmental benefits, safety, quality of service, reliability, and/or resilience.

RIIO-ED1 regulatory instructions and guidance: Annex J – Environment and Innovation

E6 – Innovative Solutions

4.9. This worksheet is used to capture information about the Innovative Solutions deployed on or in support of the network throughout the RIIO-ED1 price control period, as well as informing on solutions deployed during DPCR5. This information will allow Ofgem to monitor ongoing innovation rollout.

⁶² The final list of solutions the DNOs collectively identified as smart is shown in Table 11.1 of ED1 draft determination document: https://www.ofgem.gov.uk/sites/default/files/docs/2014/07/riio-ed1_draft_determination_expenditure_assessment.pdf.

4.10. The costs and volumes associated with this worksheet are embedded in the relevant activities in the Costs and Volumes Reporting Pack and feeds through to the C1 worksheet and the PCFM.

4.11. Only solutions that meet the definition of Innovative Solution may be included in this worksheet. The information about the solutions should only include enablers that are used specifically for each solution. Wider, general enablers (e.g. smart meter IT systems, other IT system upgrades) should not be included. Each solution should be supported either by a completed RIIO-ED1 CBA or an appropriate alternative tool or methodology to derive the Estimated Gross Avoided cost and impacts (as listed in paragraph 4.12). Where an alternative tool or methodology is used to produce the relevant figures for this worksheet, DNOs should justify this in the commentary and provide a detailed explanation of the tool or methodology used.

4.12. For worksheet E6, this guidance applies to the impacts listed below:

- MVA released
- Estimated Gross Avoided cost
- Estimated Losses impact
- Estimated CI impact
- Estimated CML impact
- Other Estimated GHG Emissions
- Estimated Impact on Fatalities
- Estimated Impact on Major Injury
- Estimated Impact on Oil Leakage.

4.13. DNOs only need to provide estimates of the impacts where relevant, ie where they are material. Estimates should be provided whether positive or negative. An explanation of how these figures are derived should be provided in line with paragraph 4.11.

Solution Type

4.14. The solutions must be placed into one of the categories. Category selection should be based on the intended outcome of applying the solution. A short description of each Innovative Solution should be written in place of 'Add description of innovative solution'. The descriptions will be determined by a Working Group to provide consistency between DNOs. Until such time as the Working Group can provide descriptions, DNOs may use their own description for each solution.

4.15. The definitions of each category are as follows:

Increase network capacity/utilisation:

This relates to Innovative Solutions where the intended outcome is to provide additional network capacity, remove capacity constraints or operate the networks in a manner where existing assets allow more power to flow through them.

Improve asset life cycle management

This relates to Innovative Solutions where the intended outcome is to provide improved asset life cycle management processes. This includes asset management decisions tools, improvements to condition analysis, novel techniques for monitoring assets and novel techniques and processes for extending the life of assets.

Improve network performance

This relates to Innovative Solutions where the intended outcome is to minimise the disruption to customers as a consequence of faults on network assets. This includes reducing the number of customers interrupted and the duration of supply interruptions, improvements to fault location techniques, improved information and knowledge of customers affected, and improvements to power quality.

Improve vegetation management

This relates to Innovative Solutions where the intended outcome is to have better processes for vegetation management. This includes methodologies for identifying vegetation clearance requirements and techniques for vegetation clearance.

Improve safety

This relates to Innovative Solutions where the intended outcome is to reduce the likelihood of third party access to, or theft of, distribution network assets or improve the safety of networks.

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Improve environmental impact

This relates to Innovative Solutions where the intended outcome is to reduce the environmental impact of DNO activities. This includes processes for managing environmental issues and changes to asset composition/construction.

Improve Connection Performance

This relates to innovative solutions related to improving the speed and cost of connection to distribution networks.

Appendix 5 – 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. i.e. a consultation.

4. With whom we will be sharing your personal data

(Include here all organisations outside Ofgem who will be given all or some of the data. There is no need to include organisations that will only receive anonymised data. If different organisations see different set of data then make this clear. Be as specific as possible.)

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 (be as clear as possible but allow room for changes to programmes or policy. It is acceptable to give a relative time e.g. 'six 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 (Note that this cannot be claimed if using Survey Monkey for the consultation as their servers are in the US. In that case use “the Data you provide directly will be stored by Survey Monkey on their servers in the United States. We have taken all necessary precautions to ensure that your rights in term of data protection will not be compromised by this”.

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. (If using a third party system such as Survey Monkey to gather the data, you will need to state clearly at which point the data will be moved from there to our internal systems.)

10. More information For more information on how Ofgem processes your data, click on the link to our “[ofgem privacy promise](#)”.