

RIIO-1 NOMs Closeout: Draft Determinations for ET, GT, and GD

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Contact	Neill Guha, Head of Asset Risk & Resilience
Team:	Network Price Control Operations
Telephone	020 7901 2000
Email:	neill.guha@ofgem.gov.uk

We¹ are consulting on our RIIO-1 NOMs Closeout assessment for the electricity transmission (ET), gas transmission (GT), and gas distribution (GD) sectors, and our Draft Determinations (DD) resulting from this assessment. We welcome responses from all stakeholders.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at [Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations). If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

¹ The terms 'we', 'us', 'our' refer to the Gas and Electricity Markets Authority. Ofgem is the office of the Authority.

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1. Introduction

Background to RIIIO-1 Network Output Measures (NOMs)

- 1.1. NOMs are mechanisms that provide a means to monitor and assess the network management outcomes that network companies deliver. They represent the service delivery resulting from companies' asset interventions, and can be considered as a forward-looking indicator of network performance. In RIIIO-1, these cover specified asset management activities, primarily replacement and refurbishment.
- 1.2. We set out the arrangements related to NOMs in the licences for all gas and electricity networks. As part of this, licensees had been set delivery targets. Licensees are obliged to deliver these targets (or an equivalent) taking into account risk trade-offs. Material deviation from these targets is subject to financial adjustments under a NOMs incentive mechanism. The licensees are therefore incentivised to deliver the targets, but have the flexibility to amend work programmes and to make appropriate asset management decisions that are both based on the latest information and which are in the interests of consumers.
- 1.3. The Draft Determinations published in this document relate to the electricity transmission (ET), gas transmission (GT), and gas distribution (GD) network sectors. Similar mechanisms apply to the electricity distribution (ED) sector. However, the electricity sector's RIIIO price control cycle is at a two-year lag to the other sectors, and we therefore expect to publish Draft Determinations for ED NOMs in 2024. The Draft Determinations in this document therefore relate to the following network companies/licensees:

Table 1 – Draft Determinations Networks/Licensees

Sector	Group	Network	Network Short Name
ET	National Grid	National Grid Electricity Transmission plc	NGET
	Scottish and Southern Energy	Scottish Hydro Electric Transmission plc	SHET
	SP Energy Networks	SP Transmission plc	SPT
GT	National Grid	National Grid Gas plc	NGGT
GD	Cadent	Cadent Gas Limited - East of England	EoE
		Cadent Gas Limited - London	Lon
		Cadent Gas Limited - North West	NW
		Cadent Gas Limited - West Midlands	WM
	Northern Gas Networks	Northern Gas Networks Limited	NGN
	Scotia Gas Network	Scotland Gas Networks plc	Sc
		Southern Gas Networks plc	So
	Wales & West Utilities	Wales & West Utilities Limited	WWU

How have NOMs been set out in the RIIIO-1 Licences?

1.4. NOMs policy and its implementation has been in development between Ofgem and the licensees for a number of years and has evolved and matured during RIIIO-1. Due to the differing stages of industry practice and timings of the price controls for the network sectors, NOMs policy has been set out in different ways in the sectoral RIIIO-1 licences².

- For the Electricity Transmission sector, the licence specifies **Network Replacement Outputs** relating to the position at the end of the price control period. This constitutes a matrix specifying the target number of units, per asset category, that fall within a replacement priority³ group remaining on the system at the end of the price control, taking account of load-related asset changes by excluding them.
- For the Gas Transmission sector, the licence specifies **Network Replacement Outputs** relating to the position at the end of the price control period. This

² The RIIIO-1 NOMs requirements were defined within the following license conditions for each sector: Electricity Transmission (ET): SpC 2L & 2M; Gas Transmission (GT): SpC 7D & 7E; Electricity Distribution (ED): SLC 51 & CRC 5D; Gas Distribution (GD): SpC 4G & 4H.

³ Replacement Priority (RP) is an indication of the risk of an asset failing and hence its relative priority for replacement compared to other assets of the same type. RP reflects a network companies' assessment of the health and criticality of the asset as scored against Asset Health and Criticality Indices. There are four Replacement Priorities, from RP1 (the highest priority) to RP4 (the lowest priority).

constitutes a matrix specifying the target number of units, per asset category, that fall within a replacement priority group remaining on the system at the end of the price control.

- For the Gas Distribution sector, the licence specifies **Network Outputs** relating to the position at the end of the price control period with and without interventions. These are specified in a Workbook and are related to achieving a target level of risk mitigation. This change in total risk, or risk delta, is confined to investment in certain asset categories. Mechanisms outside of NOMs will set minimum investment levels for some assets, such as for the gas mains replacement programme.

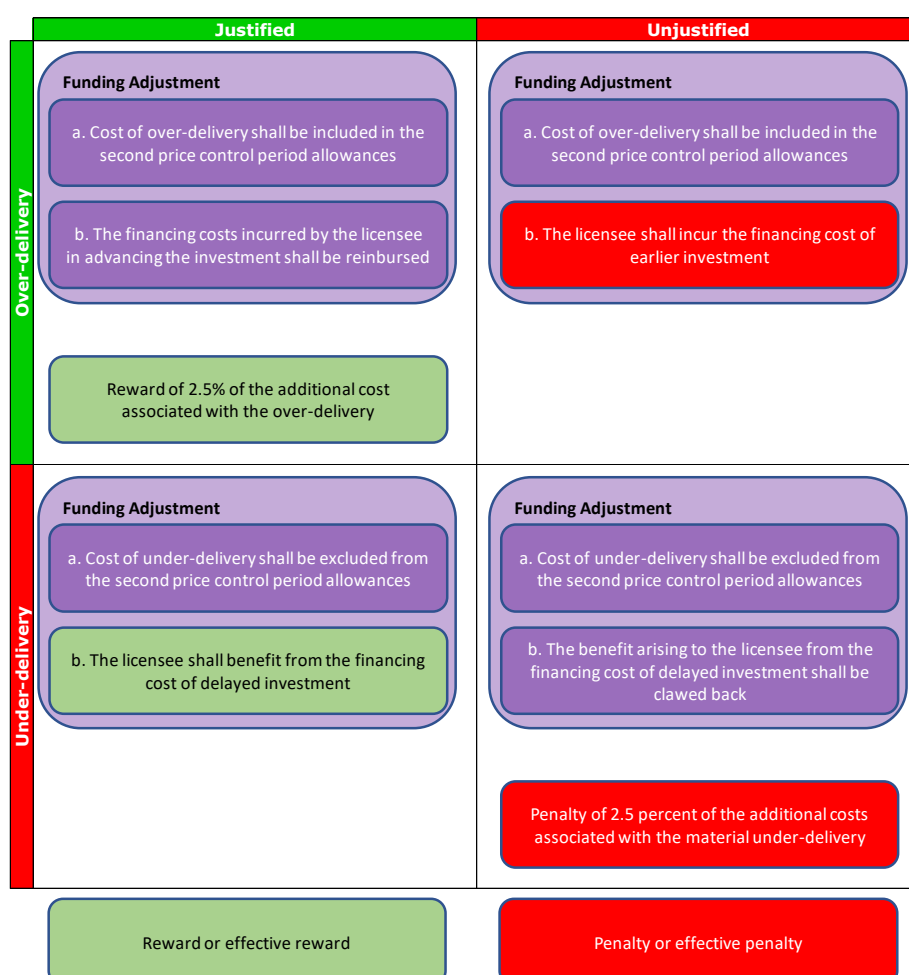
- 1.5. For each of the sectors a rebasing exercise was undertaken, during the RIIO-1 period, to translate the NOMs targets as set out in RIIO-1 Final Proposals for each of the sectors into a monetised risk target⁴ for the end of the price control. All licensees will be assessed against these monetised risk targets.
- 1.6. The transmission sectors are assessed against an absolute level of network monetised risk, while the distribution sectors are assessed against a defined level of monetised risk reduction. For transmission, the NOMs incentive mechanism will reward justified delivery of a lower absolute risk compared to target, and penalise unjustified delivery of a higher absolute risk compared to target. For gas distribution, the NOMs incentive mechanism will reward justified over-delivery of risk reduction and penalise unjustified under-delivery of risk reduction.
- 1.7. The NOMs 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 NOMs 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.

⁴ Monetised risk is a utility function that creates a 'common currency' across different asset classes so that comparisons can be made using monetary values for asset risk. It is measured in risk pounds (£).

The RIIO-1 NOMs Incentive Methodology

- 1.8. The latest RIIO-1 NOMs Incentive Methodology was published on 18 June 2021⁵. The Methodology sets out the principles and processes for determining any funding adjustments and rewards or penalties due to network licensees under the NOMs Incentive Mechanism. A licensee may be due a positive or negative funding adjustment and potential rewards or penalty under the Mechanism if it has over-delivered or under-delivered against its NOMs targets, and depending on whether the over-delivery or under-delivery was justified or unjustified. Figure 1 provides an illustrative summary of how the funding adjustments and rewards and penalties apply in different delivery scenarios.

Figure 1 – RIIO-1 NOMs Incentive Mechanism

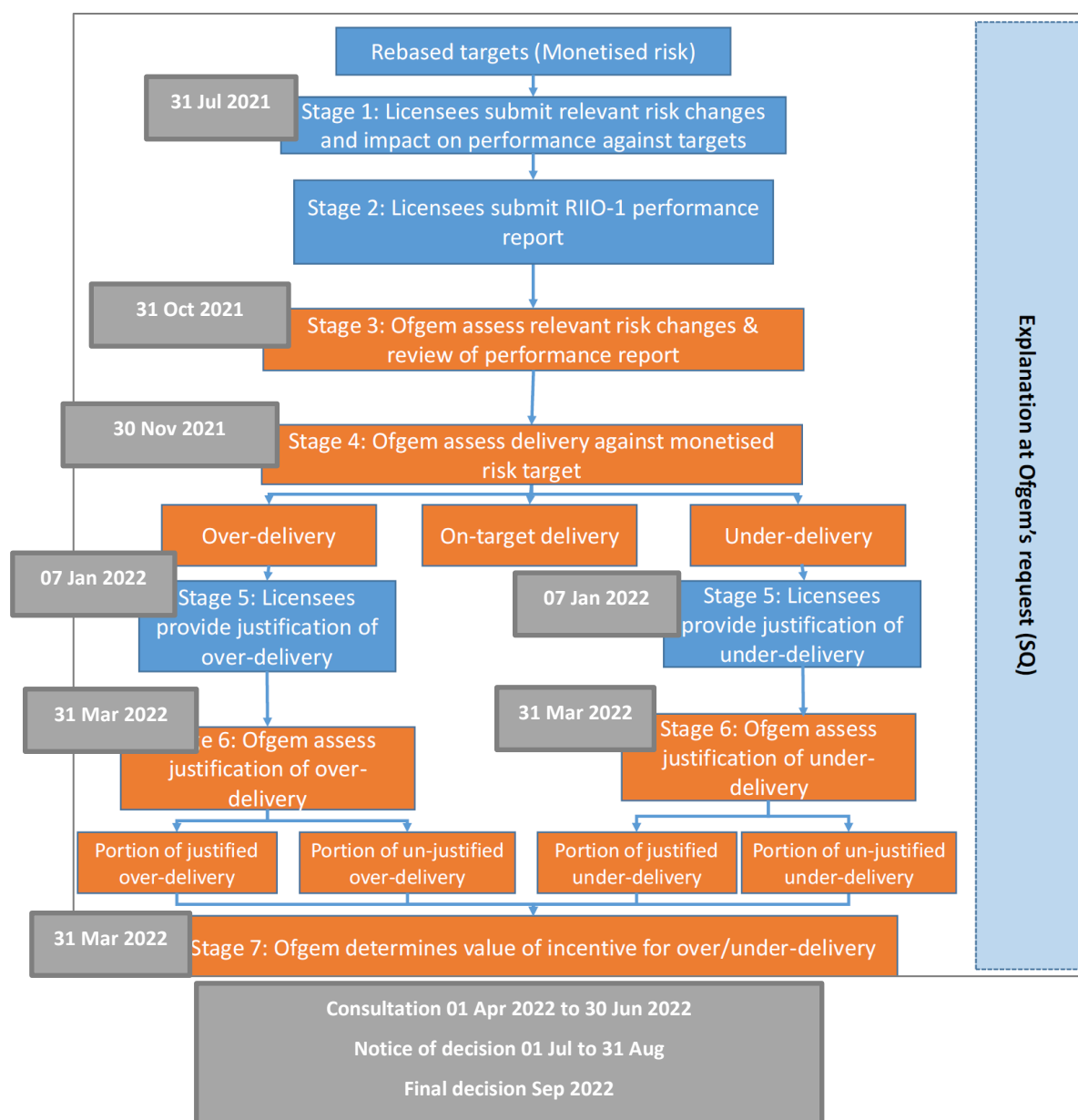


⁵ <https://www.ofgem.gov.uk/publications/direction-changes-network-output-measures-noms-incentive-methodology>

RIIO-1 NOMs Closeout Process

- 1.9. The assessment process for the NOMs incentive follows the same common process across the three sectors.
- 1.10. Figure 2, below, which is taken from the RIIO-1 NOMs Incentive Methodology, provides an overview of the RIIO-1 NOMs closeout process.
- 1.11. ET, GT, and GD licensees submitted their NOMs closeout reports and data to us in two stages:
- **Stage 1/2 Submission:** By 31 July 2021 – all licensees submitted their reports and data providing their views on their performance against their NOMs targets,
 - **Stage 5 Submission:** By 14 January 2022 – all licensees that we determined had not delivered on-target (within a deadband) were entitled to submit justification cases and their estimates of the costs associated with over-delivery or under-delivery.

Figure 2 – RIIO-1 NOMs Closeout Process



1.12. Further details on RIIO-1 NOMs Closeout Process can be found in the RIIO-1 NOMs Incentive Methodology v2.2 document.

On what are we consulting?

1.13. It should be noted that as all licensees reported an over-delivery against their NOMs targets⁶. This document has been written with this in mind and therefore most sections do not discuss the hypothetical under-delivery scenarios.

1.14. We are consulting on our Draft Determinations in respect of the following:

1. The performance of each licensee against its NOMs targets, including the value of the deadband applicable to each sector (Chapter 2),
2. Our valuation of funding adjustments (associated costs) related to over-delivery (Chapter 3),
3. Our assessment of the justification cases and rewards/penalties related to over-delivery (Chapter 4),
4. The final RIIO-1 NOMs incentive values and inputs to the Price Control Financial Model (PCFM) (Chapter 5).

Consultation questions

1.15. We are seeking stakeholders' views in relation to the six questions below. Information to allow respondents to give informed answers to the questions can be found in the chapters indicated. We also welcome other general views related to this consultation, and request that respondents provide as much explanation and supporting evidence as is necessary for us to understand their responses.

Question 1: Do you agree with our proposed valuation of the deadband for the electricity transmission, gas transmission, and gas distribution sectors?
[Chapter 2]

⁶ Cadent NW reported an under-delivery of c. 3%. However, overall Cadent reported an over-delivery of 1.8%.

- Question 2: Do you agree with our proposed assessment of the licensees' performance against their RIIO-1 NOMs targets? [Chapter 2]
- Question 3: Do you agree with our proposed assessment of associated costs for NGET, SPT, and SHET? [Chapter 3]
- Question 4: Do you agree with our proposed decision to determine SPT's over-delivery fully justified? [Chapter 4]
- Question 5: Do you agree with our proposed determination in respect of the value of the reward/penalty due to SPT in respect of its over-delivery? [Chapter 4]
- Question 6: Do you agree with our proposed Price Control Financial Model (PCFM) treatment of the proposed funding adjustment and reward/penalty elements of the NOMs Incentive Mechanism, and for the proposed process for directing the PCFM values? [Chapter 5]

Summary of our Draft Determinations

1.16. Our Draft Determinations are summarised in Table 2 below.

Table 2 – Summary of our Draft Determinations

Sector	Deadband	Network	Performance versus deadband	Funding Adjustment	Justification for over-delivery/ under-delivery	Reward	Total Incentive Value
		Units:		£m		£m	£m
ET	± 5%	NGET	Over-delivery	0	N/A	N/A	0.00
		SHET	Over-delivery	0	N/A	N/A	0.00
		SPT	Over-delivery	15.72	100%	0.39	16.11
GT	± 5%	NGGT	On-target	N/A	N/A	N/A	0.00
GD	± 10%	EoE	On-target	N/A	N/A	N/A	0.00
		Lon	On-target	N/A	N/A	N/A	0.00
		NW	On-target	N/A	N/A	N/A	0.00
		WM	On-target	N/A	N/A	N/A	0.00
		NGN	On-target	N/A	N/A	N/A	0.00
		Sc	On-target	N/A	N/A	N/A	0.00
		So	On-target	N/A	N/A	N/A	0.00
		WWU	On-target	N/A	N/A	N/A	0.00

Supporting information published as part of these Draft Determinations

1.17. To allow stakeholders to understand our Draft Determinations we have published the following material:

- **RIIO-1 NOMs DD Data File** – this is an Excel file that contains all the tables within this document as well as the workings underlying the values in the tables. The majority of the source data is taken directly from the licensees’ RIIO-1 NOMs Closeout Data Submissions.
- Individual licensees’ final **RIIO-1 NOMs Data Submissions** – these are the Excel data files containing the licensees’ submitted performance and (where relevant) cost data.
- Individual licensees’ **narrative documents** – the main documents submitted by licensees to support their submissions.

1.18. Please note that due to commercial confidentiality it has been necessary to redact some of the data/information in the published material.

How to respond

- 1.19. 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 by the closing date of 15 July 2022.
- 1.20. We've asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can providing reasons and evidence to support your response where possible.
- 1.21. We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations.

Your response, data and confidentiality

- 1.22. 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.
- 1.23. 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 parts can be published. We might ask for reasons why.
- 1.24. If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the UK's withdrawal from the European Union ("UK GDPR"), 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. Please refer to our Privacy Notice on consultations, see Appendix 4.
- 1.25. 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 won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

General feedback

1.26. 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:

1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6. Any further comments?

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

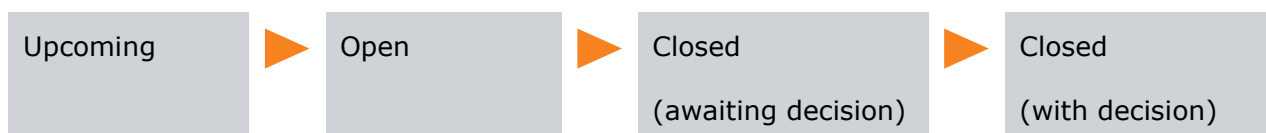
How to track the progress of the consultation

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.

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Notify me +

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:



2. RIIO-1 NOMs performance assessments

Consultation Questions

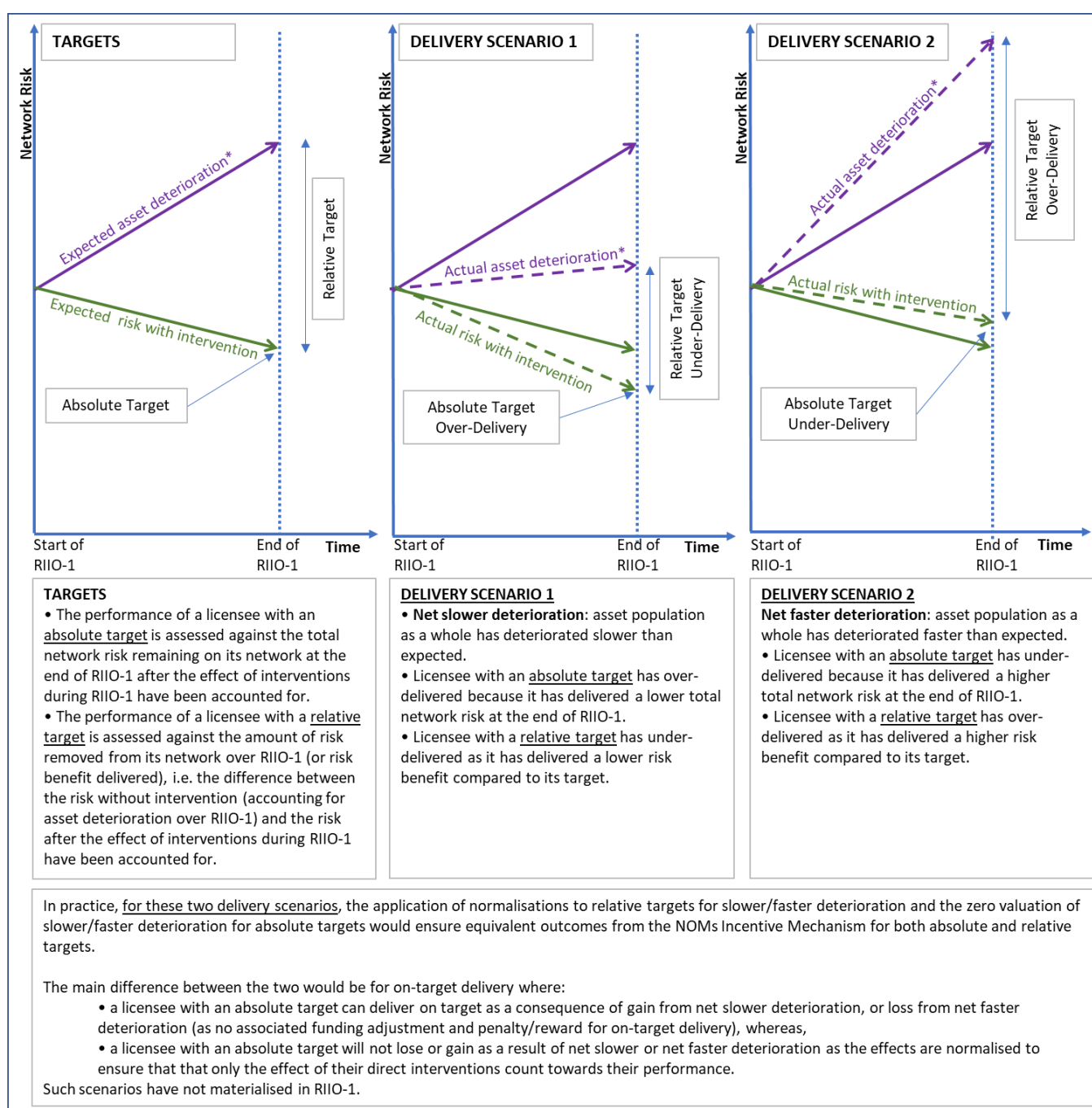
Question 1: Do you agree with our proposed valuation of the deadband for the electricity transmission, gas transmission, and gas distribution sectors?

Question 2: Do you agree with our proposed assessment of the licensees' performance against their RIIO-1 NOMs targets?

RIIO-1 NOMs Targets

- 2.1. For RIIO-1, network companies were set individual targets related to the risk of asset failure. All sectors had end of period targets, meaning that they related to the risk outcomes expected to be achieved at the end of the price control period. These targets represented the risk outcomes that were expected (at the time of target setting) to be achieved if the licensees carried out all of the interventions they were funded to deliver over the course of the RIIO-1 price control period with all other factors remaining equal. However, the basis for defining the targets varied across sectors. Electricity transmission and gas transmission had **absolute targets**, i.e. the target represented the total risk expected to remain on a network after the network company had carried out all its funded interventions. Gas distribution network companies had **relative targets**, i.e. the target represented the total risk expected to be removed from a network (or risk benefit delivered) through the network company's funded interventions. Figure 3, below, illustrates the relationship between absolute and relative targets.

Figure 3 – Illustration of relationship between absolute and relative targets



2.2. Table 3 below gives the targets for each of the ET, GT, and GD licensees. It should be noted that the risk values are derived from individual sector and company NOMs Methodologies so therefore cannot necessarily be directly comparable in their raw form.

Table 3 - RIIO-1 NOMs Targets

Sector	Network	Type of target	Target (R£m)
ET	NGET	Absolute	1,029
	SHET	Absolute	1,167
	SPT	Absolute	4,972
GT	NGGT	Absolute	5.838
GD	EoE	Relative	34.18
	Lon	Relative	30.11
	NW	Relative	29.62
	WM	Relative	20.41
	NGN	Relative	65.10
	Sc	Relative	362.2
	So	Relative	76.93
	WWU	Relative	50.10

How do we measure performance?

2.3. Network companies' RIIO-1 NOMs performance is measured by comparing the actual risk outcome at the end of the RIIO-1 against the target value, either absolute or relative.

- For absolute targets, a network company has over-delivered against its target if, at the end of RIIO-1, the actual risk on its network is lower than the target level,
- For relative targets, a network company has over-delivered against its target if, at the end of RIIO-1, the risk benefit delivered through interventions is higher than the target level.

2.4. For the purpose of implementing the RIIO-1 NOMs Incentive Mechanism, before we can determine a network company's level of performance, we need first to determine:

1. The total monetised risk value of any normalisations (or **Relevant Risk Changes**) that are necessary to ensure like-for-like comparability between target and actual monetised risk values,

2. The value of the materiality threshold (or **deadband**) around the target. A licensee delivering within the deadband is considered, for the purpose of the RIIO-1 NOMs Incentive Mechanism, to have delivered on-target.

These two elements are further explained below.

Covid delayed schemes

- 2.5. A small number of SPT and SHET schemes experienced short delays in completion due to pause in delivery as a result of the Covid-19 pandemic. The schemes were resumed at the earliest opportunity, and were all commissioned at the first available outage window. We have treated these schemes as delivered by the end of RIIO-1 for the purpose of closing out the RIIO-1 NOMs Incentive Mechanism. The following schemes have been treated as complete:

SHET

- Fort Augustus to Quoich Overhead Line Replacement
- Inveraray to Port Ann Overhead Line Replacement

SPT

- Kaimes 275kV Switchgear Replacement
- Chapelcross 132kV Switchgear Replacement
- St Andrews' Cross Transformer Replacement

Relevant Risk Changes

- 2.6. In order to be able to compare targets and delivery on a like-for-like basis we need to account for changes in some factors that were assumed at the time of target setting to be constant. Network companies provided their view of appropriate Relevant Risk Changes through their RIIO-1 Closeout Data Template. The Relevant Risk Changes were split out into the following categories⁷:

⁷ See Appendix 6 to the RIIO-1 NOMs Incentive Methodology for further details on Relevant Risk Change requirements: <https://www.ofgem.gov.uk/publications/direction-changes-network-output-measures-noms-incentive-methodology/>

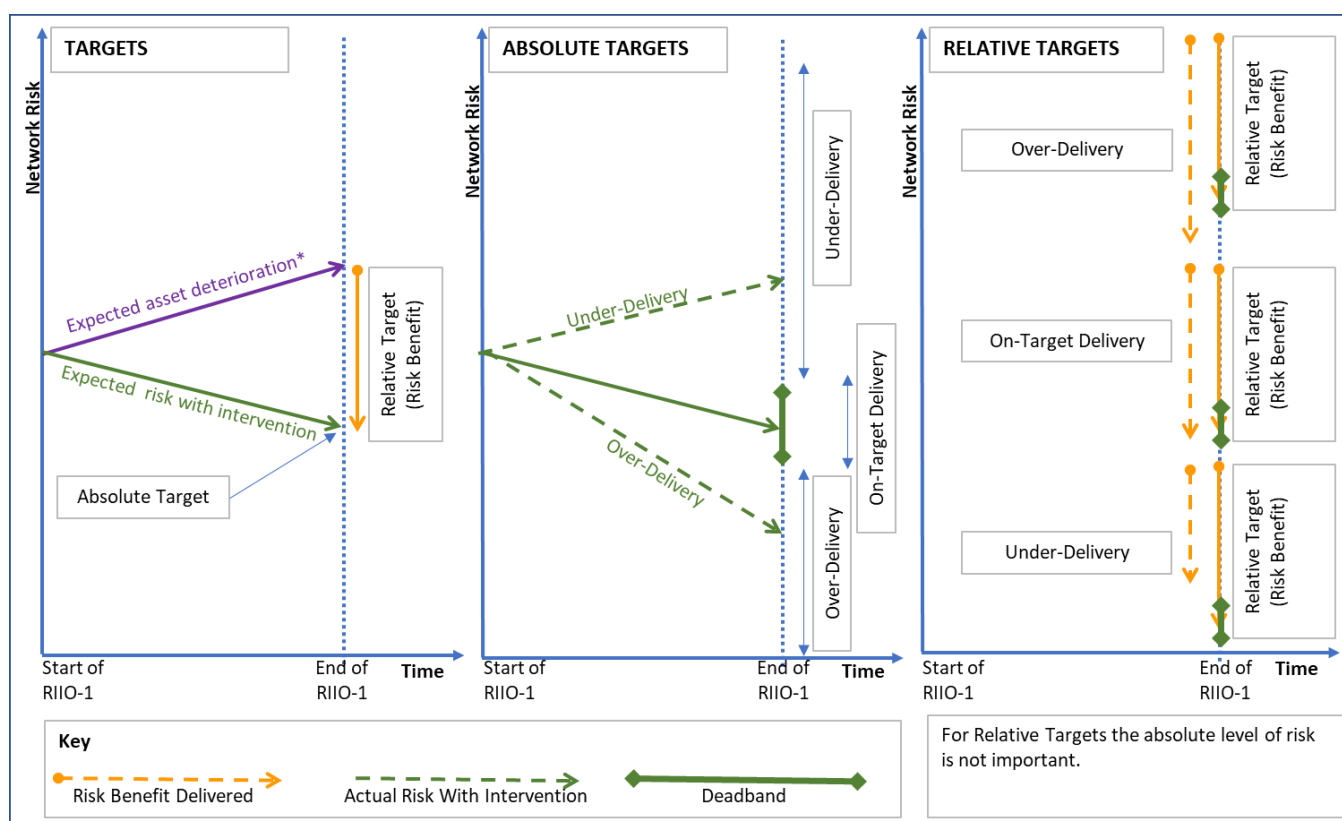
1. Data Cleanse
2. Methodology Change
3. Consequence of Failure (CoF) Changes
4. Pre-RIIO-1 work true-up
5. Slower/ Faster Deterioration (GD only)
6. Impact of Change in Asset Base Over RIIO-1
7. Covered by Other Mechanism

- 2.7. It should be noted that while ET and GT were required to report the effect of slower/faster deterioration, it is not considered a relevant risk change for the purpose of the RIIO-1 NOMs Incentive Mechanism. The effect of slower/faster deterioration counts towards an ET/GT company's delivery. However, when we come to determining the associated cost of over-delivery, the delivery attributable to slower/faster deterioration is valued at zero.

Deadband value

- 2.8. We stated in the RIIO-1 NOMs Incentive Methodology that we would apply materiality thresholds (deadband) to the different types of target that each network sector has (i.e. absolute or relative), and that will be applied at the network level to facilitate monetised risk trading across asset categories/types of intervention.
- 2.9. Network companies delivering within the deadband are considered to have delivered on target, and any over-delivery or under-delivery is measured from the upper or lower bounds of the deadband. See illustration in Figure 4, below.

Figure 4 – Application of deadband to absolute and relative targets



2.10. In the RIIIO-1 NOMs Incentive Methodology, we set out our principles for determining the materiality threshold, stating that the deadband would be set following consideration of:

1. The robustness of the input data,
2. The range of uncertainty around the data,
3. The dependency on assumptions,
4. The extent of the numerical value of outputs, over the entire RIIIO-1 period reflects the licensees' effort to deliver consumer value.

2.11. With these considerations, we explored quantitative methods to calibrate a deadband, including methods that considered:

- the magnitude and variation in Relevant Risk Changes reported by licensees,
- the variation in unit risk benefit for individual asset categories,
- the sensitivity of modelled risk values to assumptions.

However, we were unable to find a robust quantitative method that we were sure took account of all relevant uncertainties, and that did not ultimately rely on subjective views and assumptions that could be validated.

- 2.12. Some of the main qualitative considerations in relation to the four consideration principles set out in the RIIO-1 NOMs Incentive Methodology are set out below. Taken in aggregate these considerations informed our qualitative view that a deadband of at least 10% was appropriate:

The robustness of the input data

- 2.13. We accept that many licensees have made great strides in improving their asset data over the course of RIIO-2, and that these improvements mean that in many cases the input data used to derive actual monetised risk delivered is much more robust than the target input data. However, in order to carry out reliable performance assessment, input data used to derive both target and delivery must be suitably robust. We must therefore also consider the fact that the original targets were set before the monetised risk methodologies were developed and that the rebasing process in the middle of RIIO-1 (that converted the original targets to monetised risk ones) involved significant volumes of inferred input data to fill gaps created by mismatches in the data inputs needed for the original targets and those needed for the new monetised risk targets.

The range of uncertainty around the data

- 2.14. Even if the uncertainty related to the quality of the input data were to be disregarded, an important consideration is that the longer duration of RIIO-1 (eight years) compared to RIIO-2 (five years) would suggest comparatively greater uncertainty in forecasts in RIIO-1. This would further suggest that a larger RIIO-1 deadband is required to capture the uncertainty around targets. In RIIO-2 we set the deadbands at 2% of relative target for ET and GT, and at 5% of relative target for GD. While there are differences in the mechanisms between RIIO-1 and RIIO-2 and in how the deadband operates, this adds to the qualitative case for a relatively high RIIO-1 deadband.

The dependency on assumptions

- 2.15. As explained above, in order to make like-for-like comparison between targets and delivered monetised risk it was necessary to apply a number of normalisations. Unlike in RIIO-2, where we will collect data on an ongoing basis through the network

companies' annual regulatory submission, for RIIIO-1, the focus on methodology development and rebasing meant that the normalisation estimates were not routinely derived, and that a greater number of assumptions was required for closeout than would have otherwise been the case. While we have no doubt that the assumptions that were applied improved comparability between targets and delivery, the greater number of assumptions nonetheless reduced our confidence in comparing delivery against targets.

The extent of the numerical value of outputs, over the entire RIIIO-1 period, reflects the licensees' effort to deliver consumer value.

2.16. Please see Appendix 2 for comparison of monetised risk and intervention volume delivery for each network company spit by asset category. It is clear that there is significant mismatch⁸ across the sectors when we compare monetised risk over-delivery/under-delivery against intervention volume delivery. This is not necessarily unexpected or a concern as network companies might justifiably alter their plans to interventions delivering higher or lower risk benefits. However, it is not possible to separate how much of the observed mismatch is attributable to network companies' deliberate strategic actions, and how much is attributable to non-strategic factors such as differences in modelling assumptions or to chance selection of assets delivering higher or lower risk benefit.

Cases for 5% deadband

On 16 September 2021 we informed licensees of our 'minded to' position to set the deadband at 10% for all sectors and challenged them to suggest a quantitative approach and/or provide further evidence to justify a 5% deadband. Given that all networks reported an over-delivery⁹ and the zero valuation of slower/faster deterioration, a deadband of 10% would mean that no licensees would be due additional funding or reward under the RIIIO-1 NOMs Incentive Mechanism. We therefore felt it was appropriate to place the onus on licensees to demonstrate that they had earned additional funding and a potential reward.

⁸ By mismatch we mean a situation where for a given asset category there is an over-delivery on monetised risk associated with an under-delivery (or on-target delivery) on intervention volumes or vice versa.

⁹ Cadent NW reported an under-delivery of c. 3%. Overall Cadent reported an over-delivery of 1.8%.

- 2.17. Cadent, SGN, WWU, NGET, and NGGT all accepted the 10% deadband and confirmed at an early stage that they would not be making a case for a lower one.
- 2.18. We engaged extensively with the three remaining network companies (NGN, SHET, and SPT) on their cases for a lower deadband to be applied.
- 2.19. NGN argued that its application of normalisations had improved comparability between its target and delivery to a level justifying a lower deadband than other GDNs. Although we agree with the logic that NGN has applied to normalisations, there is not enough evidence to justify a lower deadband for NGN than for other GDNs. Additionally, the significant volume under-delivery for some asset categories, and the fact the bulk of NGN's monetised risk over-delivery is through Mains category where the very large monetised risk over-delivery (51% monetised risk over-delivery) is not associated with a volume over-delivery of a similar magnitude (2% volume over-delivery) makes it impossible to conclude that the numerical value of outputs, over the entire RIIO-1 period, reflects NGN's effort to deliver consumer value. As a result, our proposed decision is to set a **10% (of relative target) deadband for the GD sector**.
- 2.20. SPT provided an additional report (Quantification of Uncertainty in RIIO-1 NOMs Closeout¹⁰), in which it mapped out the areas of material uncertainty in comparisons between its targets and the delivery of those targets. Although the report does not address all areas of uncertainty, such as uncertainty introduced through imperfect modelling assumptions, it sufficiently demonstrates that these uncertainties are not material when making comparison between SPT's targets and its delivery. Additionally, unlike other licensees, SPT's monetised risk over-delivery is broadly associated with a clear over-delivery on volumes. These two pieces of evidence are sufficient to conclude that its over-delivery reflects SPT's effort to deliver consumer value (see Appendix 2) and our proposed decision is therefore to set a **5% (of absolute target) deadband for the ET and GT sectors**.
- 2.21. Although setting a 5% deadband for all ETOs would move SHET into an over-delivery scenario and would increase NGET's over-delivery, in practice it would have no effect on the outcome of the RIIO-1 NOMs Incentive Mechanism. This is because the zero valuation of certain delivery elements (namely the effect of slower/faster deterioration

¹⁰ Published on our website alongside this consultation.

and SHET's OHL Fittings delivery) means that neither NGET nor SHET would qualify for additional funding (and potential reward). See Chapter 3 below for further explanation.

- 2.22. As NGGT's reported delivery is within 0.1% of its target, there is no practical difference between a 5% and 10% deadband.
- 2.23. SHET argued that ETOs should be set individual deadbands equivalent to 5% of an implied relative target. This would have meant a deadband of 0.7% of absolute target applied to SHET. However, due to zero valuation of the elements mentioned above, even a 0.7% absolute deadband would not be sufficient for SHET to qualify for additional funding (and for a potential reward). We agreed with SHET that we would consider any further case that it could make for a 0.7% deadband as part of its Stage 5 submission. However, we stressed that we would only consider such a case in the event that it provided sufficiently convincing evidence that its OHL Fittings should not be zero valued and hence that a 0.7% would lead to a different NOMs Incentive Mechanism outcome than a 5% deadband. SHET's Stage 5 submission did not contain sufficient evidence to allow us to alter our position on its OHL Fittings delivery. We therefore did not consider any further arguments for a lower deadband and confirm our proposed decision to set the deadband for the ET sector at 5% of absolute target.

Performance Assessment Results

- 2.24. Table 4 below summarises the results of our performance assessment. On the basis of this assessment all three ETOs qualified for the next stage. However, only SHET and SPT chose to make Stage 5 submissions. As previously discussed, NGET did not make a Stage 5 submission, as zero valuation of slower/faster deterioration meant that it would not receive any additional funding through the NOMs Incentive Mechanism.

Table 4 – Outcome of Ofgem’s RIIIO-1 NOMs Closeout Performance Assessment

Sector	Network	Pre-Normalised Target (R£m)	Normalisations (R£m)	Normalised Target (R£m)	Delivery (R£m)	Delivery versus normalised target (%)	Deadband (%)	Performance versus deadband (%)	RIIO-1 NOMs Incentive Mechanism Performance Outcome
ET	NGET	1,029	-342	687	440	+36.0%	± 5%	+31.0%	Over-delivery
	SHET	1,167	57	1,223	1,122	+8.3%	± 5%	+3.3%	Over-delivery
	SPT	4,972	-1,264	3,708	3,421	+7.7%	± 5%	+2.7%	Over-delivery
GT	NGGT	5.838	-0.310	5.528	5.531	-	± 5%	-	On-target
GD	EoE	34.18	-0.16	34.02	34.06	+0.1%	± 10%	-	On-target
	Lon	30.11	0.00	30.11	32.61	+8.3%	± 10%	-	On-target
	NW	29.62	-0.72	28.90	29.02	+0.4%	± 10%	-	On-target
	WM	20.41	0.11	20.52	19.92	-3.0%	± 10%	-	On-target
	NGN	65.10	-6.97	58.13	62.73	+7.9%	± 10%	-	On-target
	Sc	362.2	0.0	362.1	364.2	+0.6%	± 10%	-	On-target
	So	76.93	-0.6	76.31	77.31	+1.3%	± 10%	-	On-target
	WWU	50.10	-1.73	48.37	51.08	+5.6%	± 10%	-	On-target

2.25. Please note that the data and calculations underlying these assessments can be found in the ‘RIIO-1 NOMs DD Data File’, and in the individual licensees’ data submissions, which have been published alongside this consultation.

3. Associated cost of over-delivery assessment

Consultation Questions

Question 3: Do you agree with our proposed assessment of associated costs for NGET, SPT, and SHET?

Associated cost assessment process

3.1. Licensees proceeding to Stage 5 were required to provide their view of the associated costs as part of their submission. The licensees were required to derive their submitted costs in accordance with an agreed methodology following our review of the licensees' previously submitted methodology proposals. Following our review we informed the three licensees that proceeded to Stage 5 of the following:

- NGET: we agreed that, as the proposed zero valuation of over-delivery resulting from net slower deterioration (see below) means that it would not qualify for a funding adjustment, NGET would not make a Stage 5 submission.
- SHET: we informed SHET, at a bilateral meeting on 27 September 2021, that its proposed methodology did not contain sufficient detail for us to take a view on its suitability. We further informed it that should it choose to make a Stage 5 submission, and in the case of an assessment being required, that we would determine its associated costs having considered any relevant further cost methodology and cost data submitted as part of its Stage 5 submission.
- SPT: we informed SPT that we agreed with the general approach it proposed for determining its associated costs and that we were happy for it to apply the proposed methodology for the purpose of making its Stage 5 submission.

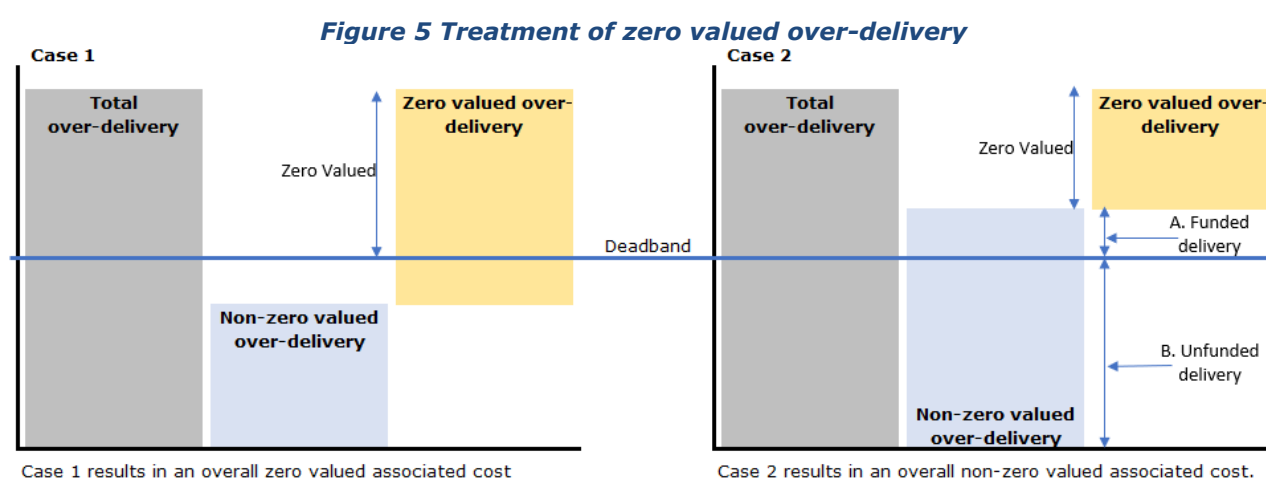
General valuation approach

3.2. General valuation approach is aligned with the indicative assessment as per worksheet '1.1 Performance Calculation for Absolute Targets' in the RIIO-1 NOMs Closeout Data Template. There are two main steps as set out below. Please note that only the over-delivery scenario is set out as all three network companies delivering outside the deadband are in an over-delivery scenario:

1. Calculate the **gross associated costs** (full associated cost of over-delivery)

Network companies that have over-delivered only receive additional funding for any non-zero valued delivery above the dead upper threshold. However, as it is not possible to identify specific elements of over-delivery above the upper threshold it is necessary to first value the entire over-delivery (gross associated costs) before apportioning an appropriate amount (net associated costs) to the element above the deadband upper threshold.

In order to appropriately value the over-delivery it is necessary to first determine how much of the over-delivery should be zero valued. The licensee will only receive additional funding for any remaining element of over-delivery above the deadband, after the zero valued over-delivery has been accounted for. This is illustrated by the two cases in Figure 5 below. In **Case 1** the licensee does not qualify for a funding adjustment as there is no remaining element of over-delivery above the deadband upper threshold once the zero valued over-delivery has been accounted for. In **Case 2** the licensee qualifies for a funding adjustment as there is a remaining element of over-delivery above the deadband upper threshold once the zero valued over-delivery has been accounted for.



2. Calculate the **net associated costs** (associated cost of over-delivery above deadband upper threshold)

The net associated cost (funding adjustment) is calculated based on the proportion of non-zero valued over-delivery above the deadband upper threshold, as per **Equation 1** below:

Equation 1

$$[\text{Funding adjustment}] = [\text{Gross associated costs}] \times \frac{\text{A. Funded Delivery}^*}{\text{A. Funded Delivery} \times \text{B. Unfunded Delivery}^*}$$

** See Case 2 in Figure 5 above*

NGET valuation

- 3.3. The monetised risk value of NGET's deadband is \pm R£34m (\pm 5% of its R£687m target).
- 3.4. NGET's total over-delivery was +R£247m, of which R£216m, related to net slower deterioration, is zero valued. This leaves R£31m non-zero valued delivery, which does not exceed the deadband threshold (equivalent to **Case 1** in Figure 5 above) and NGET's over-delivery therefore does not qualify for additional funding through the RIIO-1 NOMs Incentive Mechanism.

SHET valuation

- 3.5. The monetised risk value of SHET's deadband is \pm R£61m (\pm 5% of its R£1,223m target).
- 3.6. SHET's total over-delivery was +R£101m, all of which is zero valued. The zero valued delivery relates to:
- Net slower deterioration (R£47m), and to
 - OHL Fittings delivery (R£59m) as SHET has been fully funded through its RIIO-1 settlement for any OHL Fittings interventions and non-zero valuation would amount to double funding (see Appendix 3 for further explanation).

This means that SHET's over-delivery is equivalent to **Case 1** in Figure 5 above and does not qualify for additional funding through the RIIO-1 NOMs Incentive Mechanism.

SPT valuation

- 3.7. The monetised risk value of SPT's deadband is \pm R£185m (\pm 5% of its R£3,708m target).
- 3.8. SPT's total over-delivery was +R£287m, which R£16m is zero valued. The zero valued delivery relates to:

- Net slower deterioration (R£14m), and to
- Further data cleanse identified since its Stage 1/2 submission (R£2m).

This leaves R£271m non-zero valued delivery, and a net amount of R£86m above the deadband (equivalent to **Case 2** in *Figure 5 above*).

3.9. We have accepted SPT's valuation of its over-delivery (SPT explained its methodology for deriving its associated cost in Chapter 2 of its Stage 5 Submission Addendum), which valued its total over-delivery at £52.57m. 29.9% of this total is above the deadband upper threshold (as per Formula 1 above) and gives a total **funding adjustment due to SPT of £15.72m**.

3.10. We have accepted SPT's proposed methodology as well as the associated costs it submitted without any adjustments. There are two main reasons for this:

1. The methodology applies an approach similar to the one that we have adopted for RIIO-2, i.e. it has calculated a Unit Cost of Risk Benefit¹¹ (UCR) for each asset category and applied these to its over-delivery.
2. SPT has taken a conservative approach to estimating the associated cost of its over-delivery. SPT's methodology calculates two UCR values for each asset category: a UCR based on its baseline allowances and targets, and a UCR based on its outturn incurred costs and outturn risk benefits delivered. For over-delivery categories it chooses the lower UCR and for under-delivery categories it chooses the higher UCR. This approach results in an estimated valuation of SPT's over-delivery that is lower than alternative estimation options.

3.11. Table 5 provides a summary of the associated cost assessment results.

¹¹ UCR is calculated by dividing the cost of intervention associated with delivering risk benefit by the value of risk benefit delivered. UCR is expressed in £/R£.

Table 5 – Summary of associated cost assessment results for SPT

Asset Category	Allowances			Delivery			Over/Under-Delivery		
	Allowances	Risk Benefit of Interventions	Unit Cost of Risk Benefit (UCR)	Expenditure	Risk Benefit of Interventions	Unit Cost of Risk Benefit (UCR)	Over-delivery/ Under-delivery	UCR Applied	Associated Cost of Over-delivery/ Under-delivery
Units:	£m	R£m	£/R£	£m	R£m	£/R£	R£m	R£m	£/R£
Circuit Breaker	Redacted	Redacted	Redacted	Redacted	Redacted	Redacted	5.5	3.8	21.1
Transformer	Redacted	Redacted	Redacted	Redacted	Redacted	Redacted	0.5	3.5	1.6
Reactors	Redacted	Redacted	Redacted	Redacted	Redacted	Redacted	0.1	11.9	1.0
Underground Cable	Redacted	Redacted	Redacted	Redacted	Redacted	Redacted	-0.0	18.2	-0.4
OHL Conductor	Redacted	Redacted	Redacted	Redacted	Redacted	Redacted	-3.4	0.2	-0.7
OHL Fittings	Redacted	Redacted	Redacted	Redacted	Redacted	Redacted	333.6	0.1	39.8
OHL Towers	Redacted	Redacted	Redacted	Redacted	Redacted	Redacted	-48.9	0.2	-9.8
Total	Redacted	Redacted	Redacted	Redacted	Redacted	Redacted	287.3		52.6

Summary of associated cost assessment results

3.12. Table 6 below provides a summary of the associated cost assessment. The next step is to assess the justification case for any licensees that have potential to earn a reward related to their over-delivery. As the only licensee to qualify for a proposed funding adjustment, SPT is the only licensee to progress to the justification assessment stage.

Table 6 – Summary of associated cost assessment results

Metric	Units	NGET	SHET	SPT
Target and deadband				
Target	£Rm	687	1,223	3,708
Deadband		± 5%	± 5%	± 5%
Deadband Monetised Risk Value	£Rm	± 34	± 61	± 185
Over-delivery				
Zero-valued over delivery	£Rm	+216	+101	+16
Over-delivery within deadband	£Rm	+31	-	+185
Over-delivery above deadband upper threshold	£Rm	-	-	+86
Total Over-Delivery	£Rm	+247	+101	+287
Associated costs				
Zero-valued over delivery	£m	0.00	0.00	0.00
Over-delivery within deadband	£m	N/A	290.10	36.85
Over-delivery above deadband upper threshold	£m	N/A	0.00	15.72
Total Over-Delivery (as per licensee's submission)	£m	N/A	290.10	52.57
Funding adjustment				
Over-delivery case (see Figure 5)		Case 1	Case 1	Case 2
Licensee due funding adjustment?		No	No	Yes
NOMs Incentive Mechanism Funding Adjustment	£m	-	-	15.72

4. Justification and reward assessment

Consultation Questions

Question 4: Do you agree with our proposed decision to determine SPT's over-delivery fully justified?

Question 5: Do you agree with our proposed determination in respect of the value of the reward/penalty due to SPT in respect of its over-delivery?

- 4.1. Where a licensee has over-delivered and we have determined that the licensee is eligible for a proposed funding adjustment the next step is to assess the licensee's justification for its over-delivery. Any elements of the over-delivery that we determine to be,
- a. Justified over-delivery: the licensee would receive a reward equal to 2.5% of the associated costs.
 - b. Unjustified under-delivery: the licensee would be liable for the financing costs associated with the earlier investment (effectively a penalty).
- 4.2. The bulk of SPT's over-delivery is attributable to the Inverkip rationalisation scheme, with minor elements due to SPT's requirement to address operational issues associated with two specific types of circuit breaker (see Table 7 below).

Table 7 – SPT Over-delivery and under-delivery factors

Metric	Units	Risk Benefit
Under-delivery factors		
Scheme substitutions	£m	-66
Data cleanse (zero valued)	£m	-7
Total over-delivery factors	£m	-73
Over-delivery factors		
Inverkip rationalisation scheme	£m	+334
Operational issues	£m	+11
Net slower deterioration (zero valued)	£m	+14
Data cleanse (zero valued)	£m	+2
Total over-delivery factors	£m	+361
Total delivery		
Net over-delivery	£Rm	+287

- 4.3. SPT submitted engineering justification papers and cost benefit analysis to support its justification cases. Following review of the material SPT provided, we are satisfied that SPT's over-delivery is a result of economic and efficient decisions that SPT has taken over RIIO-1, and we are therefore of the view that the entirety of its over-delivery is justified. Appendix 5 provides further rationale for this assessment.
- 4.4. As a result of its justified over-delivery we propose that SPT should receive a reward of 2.5% of the proposed funding adjustment. The results of our justification and penalty reward assessment are summarised in Table 8 below.

Table 8 – NOMs Incentive Mechanism Rewards/Penalty for SPT

Metric	Units	SPT
Justified Over-delivery		
% of over-delivery justified		100%
Incentive Rate		2.5%
Associated cost of over-delivery	£m	15.72
Reward associated with justified over-delivery	£m	0.39
Unjustified Over-delivery		
% of over-delivery unjustified		0%
Financing clawback associated with unjustified over-delivery	£m	0.00
Total reward/penalty value		
	£m	0.39

5. RIIO-1 NOMs incentive values and RIIO-2 PCFM inputs

Consultation Questions

Question 6: Do you agree with our proposed Price Control Financial Model (PCFM) treatment of the proposed funding adjustment and reward/penalty elements of the NOMs Incentive Mechanism, and for the proposed process for directing the PCFM values?

- 5.1. In order for SPT to receive the proposed additional RIIO-1 funding and reward, these would be treated as legacy adjustments within the RIIO-ET2 Price Control Financial Model (PCFM). The proposed funding adjustment and reward would form part of the Legacy Adjustment to Revenue (LAR_t) term. However, we are proposing that the treatment and process around the two elements of the mechanism would vary.

Funding adjustment for over-delivery

- 5.2. We propose that the funding adjustment is included as part of the Legacy MOD (LMOD_t) value. The proposed NOMs funding adjustment element of LMOD_t would be calculated by modifying SPT's RIIO-1 Asset Replacement Capex (ARC_t term)¹² by annually profiling the total funding adjustment value over the 8-years of RIIO-1 and adding them to the ARC_t term. In accordance with the RIIO-1 NOMs Incentive Methodology, the proposed additional allowances would be profiled to SPT's actual incurred ARC expenditure. See Table 9 below.
- 5.3. We are intending to consult later in the year (likely August or September) on proposed modifications to the RIIO-2 Price Control Financial Handbooks¹³ that will be necessary to implement all proposed adjustments included in LMOD_t. Implementation of the proposed adjustments to ARC will be covered by the later consultation and subsequent decision.

¹² Please note in the event of any necessary application of adjustment to GT or GD licences the associated costs would be applied to the equivalent RIIO-1 allowances category or split across applicable RIIO-1 allowances in appropriate proportions, e.g. for GD split between Repex and Other Capex.

¹³ The current ET2 Price Control Financial Handbook can be found here: <https://www.ofgem.gov.uk/sites/default/files/2021-11/ET2%20PCFH%20C01.pdf>. Chapter 8 provides more explanation on the treatment of legacy adjustments.

Table 9 – SPT revised Asset Replacement Capex (ARC) allowances (2020/21 prices)

Metric	PCFM Term	Units	Regulatory year ending								RIIO-1 Total
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	
Original RIIO-1 Allowances	ARC	£m	56.53	58.22	60.97	74.72	87.41	94.34	104.09	82.67	618.95
Actual RIIO-1 Expenditure	ARC	£m	85.81	72.42	36.40	66.96	60.37	60.19	61.25	70.98	514.38
Associated cost of over-delivery		£m	2.62	2.21	1.11	2.05	1.85	1.84	1.87	2.17	15.72
Final RIIO-1 Allowances	ARC	£m	59.15	60.43	62.08	76.77	89.26	96.18	105.96	84.84	634.67

Reward for justified over-delivery

- 5.4. Special Condition 7.10 of the ET, GT, and GD licences sets out the process for directing the RIIO-1 Network Outputs close out term (NOCO_t) term, which forms part of LAR_t. We are proposing that the NOCO_t term include only the reward and penalty elements (as explained above the proposed funding adjustment element will be treated as part of LMOD).
- 5.5. SpC 7.10 requires that, before directing the value of NOCO_t, the Authority will publish on the Authority's Website:
- the text of the proposed direction;
 - the reasons why it proposes to issue the direction; and
 - a period during which representations may be made on the proposed direction, which will not be less than 56 days.
- 5.6. The RIIO-1 NOMs Incentive Methodology indicated that we would consult on the text of the direction later in the year, at the same time as we consult on changes to PCFH. However, we have decided, for efficacy purposes, to include it as part of this consultation. The text of the proposed direction has therefore been published as required by SpC 7.10 in Appendix 6, and this consultation document and supporting material constitute the reasons for the proposed issuing of the direction. To allow us to include notice of the direction in this consultation, we have increased its length to 56 days, from the 28 days set out in the RIIO-1 NOMs Incentive Methodology.
- 5.7. Table 10, below, gives the annual NOCO_t values, which have been equally profiled across the five years of RIIO-1. In the event that we had determined any portion of the over-delivery to be unjustified, the NOCO_t would also include clawback of financing costs.

Table 10 – RIIO-1 Network Outputs close out term (NOCO_t)

Metric	PCFM Term	Units	Regulatory year ending					RIIO-2 Total
			31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026	
Reward for justified over-delivery		£m	0.08	0.08	0.08	0.08	0.08	0.39
Financing clawback for unjustified over-delivery		£m	0.00	0.00	0.00	0.00	0.00	0.00
RIIO-1 Network Outputs close out value	NOCot	£m	0.08	0.08	0.08	0.08	0.08	0.39

Appendices

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Appendix 1 - Glossary

Please see Appendix 7 of the RIIO-1 NOMs Incentive Methodology, Version 2.2, which was published on 18 June 2021: https://www.ofgem.gov.uk/sites/default/files/2021-06/riio-1_nomsincentivemethodology_v2.2_clean.pdf

Appendix 2 - Monetised risk and volume delivery compared

Table 11 - Electricity Transmission

Asset Category	Metric	Volume Units	NGET		SHET		SPT	
			Volumes	M. Risk	Volumes	M. Risk	Volumes	M. Risk
Circuit Breaker	Target	No.	312.5	138.4	28.5	148.2	100.0	45.8
Circuit Breaker	Delivery	No.	675.0	108.4	24.5	153.8	126.0	39.3
Circuit Breaker	% Over-Delivered	No.	+116.0%	+21.7%	-14.0%	-3.8%	+26.0%	+14.2%
Transformer	Target	No.	140.5	193.6	16.0	69.6	18.0	69.4
Transformer	Delivery	No.	90.0	197.1	16.0	57.9	21.5	68.0
Transformer	% Over-Delivered	No.	-35.9%	-1.8%	-	+16.8%	+19.4%	+2.0%
Reactors	Target	No.	21.0	19.9	-	9.2	8.0	1.8
Reactors	Delivery	No.	13.5	24.3	5.0	2.9	8.0	1.7
Reactors	% Over-Delivered	No.	-35.7%	-22.1%	N/A	+68.6%	-	+4.5%
Underground Cable	Target	km	97.3	38.3	14.7	17.3	9.1	55.8
Underground Cable	Delivery	km	81.6	40.7	17.6	16.7	10.4	55.9
Underground Cable	% Over-Delivered	km	-16.2%	-6.3%	+19.4%	+3.0%	+13.7%	-0.0%
OHL Conductor	Target	km	963.9	166.9	927.1	178.9	707.7	181.3
OHL Conductor	Delivery	km	1,874.6	123.6	564.3	204.1	812.6	180.5
OHL Conductor	% Over-Delivered	km	+94.5%	+25.9%	-39.1%	-14.1%	+14.8%	+0.4%
OHL Fittings	Target	km	2,670.1	130.0	-	242.6	707.7	3,027.3
OHL Fittings	Delivery	km	3,284.5	161.6	912.8	183.1	776.3	2,715.4
OHL Fittings	% Over-Delivered	km	+23.0%	-24.3%	N/A	+24.5%	+9.7%	+10.3%
OHL Towers	Target	km	-	-	-	557.4	1,231.0	326.5
OHL Towers	Delivery	km	-	-	321.5	550.2	1,026.0	373.5
OHL Towers	% Over-Delivered	km	N/A	N/A	N/A	+1.3%	-16.7%	-14.4%
Total	Target	km	N/A	687.1	N/A	1,223.1	N/A	3,707.9
Total	Delivery	km	N/A	655.7	N/A	1,168.8	N/A	3,434.4
Total	% Over-Delivered	km	N/A	+4.6%	N/A	+4.4%	N/A	+7.4%

Colour key

Over-delivery

Under-delivery

Table 12 - Gas Transmission (1 of 3)

Asset Category	Metric	Volume Units	NGGT	
			Volumes	M. Risk
Cladding	Target	No.	33.0	0.0
Cladding	Delivery	No.	7.0	0.0
Cladding	% Over-Delivered	No.	-78.8%	-146.3%
After coolers	Target	No.	3.0	0.0
After coolers	Delivery	No.	-	0.0
After coolers	% Over-Delivered	No.	-100.0%	-233.4%
Air Intake	Target	No.	29.0	0.0
Air Intake	Delivery	No.	19.0	0.0
Air Intake	% Over-Delivered	No.	-34.5%	-28.9%
Exhausts	Target	No.	29.0	0.0
Exhausts	Delivery	No.	17.0	0.0
Exhausts	% Over-Delivered	No.	-41.4%	-205.0%
Boundary Controllers	Target	No.	10.0	0.0
Boundary Controllers	Delivery	No.	3.0	0.0
Boundary Controllers	% Over-Delivered	No.	-70.0%	+12.6%
Cab ventilation	Target	No.	28.0	0.0
Cab ventilation	Delivery	No.	13.0	0.0
Cab ventilation	% Over-Delivered	No.	-53.6%	-17.1%
Fuel tanks & bunds	Target	No.	7.0	0.0
Fuel tanks & bunds	Delivery	No.	37.0	0.0
Fuel tanks & bunds	% Over-Delivered	No.	+428.6%	+39.1%
Compressor	Target	No.	16.0	0.1
Compressor	Delivery	No.	19.0	0.1
Compressor	% Over-Delivered	No.	+18.8%	+19.4%
Cathodic Protection	Target	No.	254.0	0.0
Cathodic Protection	Delivery	No.	70.0	0.0
Cathodic Protection	% Over-Delivered	No.	-72.4%	-71.0%
Electrical - including standby generators	Target	No.	166.0	0.0
Electrical - including standby generators	Delivery	No.	20.0	0.0
Electrical - including standby generators	% Over-Delivered	No.	-88.0%	-52.3%
Electrical - safe shutdown	Target	No.	125.0	0.0
Electrical - safe shutdown	Delivery	No.	71.0	0.0
Electrical - safe shutdown	% Over-Delivered	No.	-43.2%	+75.9%
Filters and Scrubbers (incl. Condensate Tanks)	Target	No.	271.0	0.0
Filters and Scrubbers (incl. Condensate Tanks)	Delivery	No.	182.0	0.0
Filters and Scrubbers (incl. Condensate Tanks)	% Over-Delivered	No.	-32.8%	-300.0%
Fire and gas detection	Target	No.	51.0	0.0
Fire and gas detection	Delivery	No.	15.0	0.0
Fire and gas detection	% Over-Delivered	No.	-70.6%	-4.0%
Fire Suppression	Target	No.	15.0	0.0
Fire Suppression	Delivery	No.	18.0	0.0
Fire Suppression	% Over-Delivered	No.	+20.0%	+20.0%
Flow or pressure regulator	Target	No.	77.0	0.3
Flow or pressure regulator	Delivery	No.	16.0	0.3
Flow or pressure regulator	% Over-Delivered	No.	-79.2%	-14.8%
Gas analyser	Target	No.	48.0	0.0
Gas analyser	Delivery	No.	73.0	0.0
Gas analyser	% Over-Delivered	No.	+52.1%	+46.3%
Gas Generator	Target	No.	22.0	0.1
Gas Generator	Delivery	No.	39.0	0.1
Gas Generator	% Over-Delivered	No.	+77.3%	+43.1%

Table 12 – Gas Transmission (2 of 3)

Asset Category	Metric	Volume Units	NGGT	
			Volumes	M. Risk
Metering	Target	No.	47.0	0.0
Metering	Delivery	No.	32.0	0.0
Metering	% Over-Delivered	No.	-31.9%	+20.6%
Fuel gas metering	Target	No.	42.0	0.0
Fuel gas metering	Delivery	No.	14.0	0.0
Fuel gas metering	% Over-Delivered	No.	-66.7%	-1368.6%
Network control and instrumentation	Target	No.	198.0	0.0
Network control and instrumentation	Delivery	No.	116.0	0.0
Network control and instrumentation	% Over-Delivered	No.	-41.4%	+65.4%
Odourisation Plant	Target	No.	6.0	0.0
Odourisation Plant	Delivery	No.	1.0	0.0
Odourisation Plant	% Over-Delivered	No.	-83.3%	-110.0%
Pig Trap	Target	No.	151.0	0.0
Pig Trap	Delivery	No.	156.0	0.0
Pig Trap	% Over-Delivered	No.	+3.3%	+2.5%
Above Ground Pipe and Coating	Target	No.	313.0	0.0
Above Ground Pipe and Coating	Delivery	No.	82.0	0.0
Above Ground Pipe and Coating	% Over-Delivered	No.	-73.8%	-7.0%
Below Ground Pipe and Coating	Target	No.	1,635.0	4.3
Below Ground Pipe and Coating	Delivery	No.	2,034.0	4.2
Below Ground Pipe and Coating	% Over-Delivered	No.	+24.4%	+3.3%
Power turbine	Target	No.	14.0	0.2
Power turbine	Delivery	No.	15.0	0.2
Power turbine	% Over-Delivered	No.	+7.1%	+4.4%
Preheaters	Target	No.	34.0	0.0
Preheaters	Delivery	No.	18.0	0.0
Preheaters	% Over-Delivered	No.	-47.1%	-316.3%
Station process control system	Target	No.	17.0	0.0
Station process control system	Delivery	No.	16.0	0.0
Station process control system	% Over-Delivered	No.	-5.9%	-70.1%
Unit Control System	Target	No.	41.0	0.1
Unit Control System	Delivery	No.	23.0	0.1
Unit Control System	% Over-Delivered	No.	-43.9%	-38.1%
AntiSurge System	Target	No.	28.0	0.0
AntiSurge System	Delivery	No.	8.0	0.1
AntiSurge System	% Over-Delivered	No.	-71.4%	-60.5%
Starter motor	Target	No.	26.0	0.0
Starter motor	Delivery	No.	3.0	0.0
Starter motor	% Over-Delivered	No.	-88.5%	-46.9%
Vent System	Target	No.	22.0	0.0
Vent System	Delivery	No.	5.0	0.0
Vent System	% Over-Delivered	No.	-77.3%	-96.2%
Electrical variable speed drive	Target	No.	3.0	0.0
Electrical variable speed drive	Delivery	No.	-	0.0
Electrical variable speed drive	% Over-Delivered	No.	-100.0%	-328.8%
Locally actuated valves	Target	No.	680.0	0.0
Locally actuated valves	Delivery	No.	519.0	0.1
Locally actuated valves	% Over-Delivered	No.	-23.7%	-51.1%
Non Return Valve	Target	No.	56.0	0.0
Non Return Valve	Delivery	No.	11.0	0.0
Non Return Valve	% Over-Delivered	No.	-80.4%	-92.4%

Table 12 – Gas Transmission (3 of 3)

Asset Category	Metric	Volume Units	NGGT	
			Volumes	M. Risk
Remote Isolation Valves	Target	No.	256.0	0.1
Remote Isolation Valves	Delivery	No.	81.0	0.1
Remote Isolation Valves	% Over-Delivered	No.	-68.4%	+6.0%
Process valves	Target	No.	99.0	0.0
Process valves	Delivery	No.	192.0	0.0
Process valves	% Over-Delivered	No.	+93.9%	+13.4%
Slam shut	Target	No.	-	0.0
Slam shut	Delivery	No.	4.0	0.0
Slam shut	% Over-Delivered	No.	N/A	+1.3%
Total	Target	No.	N/A	5.5
Total	Delivery	No.	N/A	5.5
Total	% Over-Delivered	No.	N/A	-0.0%

Colour key
Over-delivery
Under-delivery

Table 13 – Gas Distribution (1 of 2)

Asset Category	Metric	Volume Units	EoE		Lon		NW		WM	
			Volumes	M. Risk	Volumes	M. Risk	Volumes	M. Risk	Volumes	M. Risk
LTS Pipelines	Target	km	1,223.6	0.0	216.8	0.0	429.8	0.1	222.3	0.0
LTS Pipelines	Delivery	km	1,321.7	0.0	62.6	0.0	312.4	0.0	42.9	0.0
LTS Pipelines	% Over-Delivered	km	+8.0%	+3.6%	-71.1%	-24.8%	-27.3%	-15.9%	-80.7%	-23.4%
Mains	Target	km	5,043.6	19.9	2,999.6	16.0	3,913.3	17.7	2,852.3	12.4
Mains	Delivery	km	4,880.0	19.7	2,713.1	16.3	3,527.9	16.1	2,650.6	12.0
Mains	% Over-Delivered	km	-3.2%	-1.0%	-9.6%	+1.8%	-9.8%	-9.0%	-7.1%	-3.5%
Services	Target	No.	245,069.0	4.7	175,071.0	6.1	229,785.0	5.4	170,027.0	4.0
Services	Delivery	No.	270,277.0	4.8	242,884.0	8.2	269,352.0	6.0	202,814.8	4.1
Services	% Over-Delivered	No.	+10.3%	+2.7%	+38.7%	+33.5%	+17.2%	+10.8%	+19.3%	+2.5%
Risers	Target	No.	712.0	0.2	7,540.0	3.2	246.0	0.2	209.0	0.2
Risers	Delivery	No.	904.0	0.3	6,142.0	3.0	967.0	0.4	667.0	0.6
Risers	% Over-Delivered	No.	+27.0%	+24.1%	-18.5%	-6.9%	+293.1%	+173.7%	+219.1%	+133.2%
Filters	Target	No.	302.0	2.3	177.0	1.0	169.0	1.0	208.0	1.1
Filters	Delivery	No.	405.0	2.7	109.0	0.7	137.0	0.8	134.0	1.0
Filters	% Over-Delivered	No.	+34.1%	+17.6%	-38.4%	-30.5%	-18.9%	-23.2%	-35.6%	-10.6%
Slamshut/ Regulators	Target	No.	627.0	4.1	227.0	1.1	362.0	2.5	469.0	1.7
Slamshut/ Regulators	Delivery	No.	579.0	3.2	161.0	1.0	274.0	2.2	296.0	1.1
Slamshut/ Regulators	% Over-Delivered	No.	-7.7%	-22.3%	-29.1%	-14.7%	-24.3%	-12.0%	-36.9%	-35.0%
Pre-heating	Target	No.	83.0	1.7	33.0	2.1	59.0	1.5	31.0	0.7
Pre-heating	Delivery	No.	86.0	2.6	63.0	2.9	94.0	2.6	30.0	0.9
Pre-heating	% Over-Delivered	No.	+3.6%	+49.9%	+90.9%	+41.3%	+59.3%	+76.8%	-3.2%	+27.3%
Odourisation & Metering	Target	No.	23.0	0.7	5.0	0.2	11.0	0.4	11.0	0.3
Odourisation & Metering	Delivery	No.	19.0	0.4	4.0	0.1	10.0	0.4	10.0	0.3
Odourisation & Metering	% Over-Delivered	No.	-17.4%	-33.9%	-20.0%	-29.9%	-9.1%	-4.5%	-9.1%	-3.9%
Governors	Target	No.	4,125.0	0.3	2,272.0	0.3	1,579.0	0.2	1,406.0	0.1
Governors	Delivery	No.	1,764.0	0.3	420.0	0.4	1,278.0	0.4	616.0	0.1
Governors	% Over-Delivered	No.	-57.2%	-22.5%	-81.5%	+20.5%	-19.1%	+143.3%	-56.2%	-43.6%
Total	Target	No.	N/A	34.0	N/A	30.1	N/A	28.9	N/A	20.5
Total	Delivery	No.	N/A	34.1	N/A	32.6	N/A	29.0	N/A	19.9
Total	% Over-Delivered	No.	N/A	+0.1%	N/A	+8.3%	N/A	+0.4%	N/A	-3.0%

Colour key
Over-delivery
Under-delivery

Table 13 – Gas Distribution (2 of 2)

Asset Category	Metric	Volume Units	NGN		Sc		So		WWU	
			Volumes	M. Risk	Volumes	M. Risk	Volumes	M. Risk	Volumes	M. Risk
LTS Pipelines	Target	km	262.1	0.0	18.0	345.3	31.5	0.0	798.4	0.1
LTS Pipelines	Delivery	km	550.0	0.3	15.1	345.5	30.8	0.0	835.4	0.3
LTS Pipelines	% Over-Delivered	km	+109.8%	+576.1%	-16.2%	+0.1%	-2.1%	-68.0%	+4.6%	+389.4%
Mains	Target	km	4,380.0	20.8	2,260.4	9.7	5,436.3	22.6	3,501.7	18.1
Mains	Delivery	km	4,484.6	31.5	2,280.6	9.2	5,609.3	22.2	3,427.8	18.7
Mains	% Over-Delivered	km	+2.4%	+51.3%	+0.9%	-4.8%	+3.2%	-1.7%	-2.1%	+3.2%
Services	Target	No.	247,458.0	6.0	107,067.7	0.4	401,161.1	6.9	201,675.0	8.6
Services	Delivery	No.	221,581.1	8.5	82,844.4	0.3	364,589.8	6.3	134,483.0	5.5
Services	% Over-Delivered	No.	-10.5%	+42.7%	-22.6%	-21.1%	-9.1%	-9.1%	-33.3%	-35.3%
Risers	Target	No.	83.0	0.0	1,666.0	0.5	5,868.0	2.1	743.0	0.2
Risers	Delivery	No.	231.0	0.1	1,494.0	0.3	5,764.0	1.7	766.0	0.2
Risers	% Over-Delivered	No.	+178.3%	+891.8%	-10.3%	-33.3%	-1.8%	-21.7%	+3.1%	+8.9%
Filters	Target	No.	26.0	2.9	27.0	1.7	23.0	24.7	70.0	5.3
Filters	Delivery	No.	40.0	1.8	28.0	0.4	47.0	31.8	75.0	7.6
Filters	% Over-Delivered	No.	+53.8%	-39.2%	+3.7%	-75.1%	+104.3%	+28.9%	+7.1%	+44.7%
Slamshut/ Regulators	Target	No.	32.0	1.0	30.0	2.8	47.0	10.7	107.0	7.4
Slamshut/ Regulators	Delivery	No.	22.0	0.7	67.0	3.7	45.0	9.2	139.0	7.8
Slamshut/ Regulators	% Over-Delivered	No.	-31.3%	-31.3%	+123.3%	+33.8%	-4.3%	-14.3%	+29.9%	+5.7%
Pre-heating	Target	No.	59.0	18.7	19.0	1.3	29.0	8.5	107.0	7.4
Pre-heating	Delivery	No.	49.0	11.8	22.0	4.2	57.0	5.4	148.0	8.7
Pre-heating	% Over-Delivered	No.	-16.9%	-36.8%	+15.8%	+229.4%	+96.6%	-36.9%	+38.3%	+16.8%
Odourisation & Metering	Target	No.	32.0	8.7	26.0	0.4	16.0	0.6	6.0	0.4
Odourisation & Metering	Delivery	No.	35.0	7.9	20.0	0.4	12.0	0.5	17.0	1.7
Odourisation & Metering	% Over-Delivered	No.	+9.4%	-8.5%	-23.1%	-1.4%	-25.0%	-11.6%	+183.3%	+333.9%
Governors	Target	No.	1,480.0	0.0	374.0	0.1	1,086.0	0.1	6,160.0	1.0
Governors	Delivery	No.	800.0	0.2	385.0	0.1	1,645.0	0.3	4,082.0	0.6
Governors	% Over-Delivered	No.	-45.9%	+382.1%	+2.9%	+35.0%	+51.5%	+80.5%	-33.7%	-39.8%
Total	Target	No.	N/A	58.1	N/A	362.1	N/A	76.3	N/A	48.4
Total	Delivery	No.	N/A	62.7	N/A	364.2	N/A	77.3	N/A	51.1
Total	% Over-Delivered	No.	N/A	+7.9%	N/A	+0.6%	N/A	+1.3%	N/A	+5.6%

Colour key

Over-delivery

Under-delivery

Appendix 3 – Zero valuation of SHET’s Fittings Delivery

- 1.1. As can be see from Table 14, below, the bulk of SHET’s over-delivery is related to over-delivery on OHL Fittings. This is because SHET’s RIIO-1 business plan did not explicitly state a volume of OHL Fittings interventions underlying its original NOMs target. At the time of rebasing (when original volume-based targets were converted to monetised risk targets) SHET incorrectly assumed zero OHL Fittings interventions and submitted its rebased targets on that basis. This has led to the outcome whereby any OHL Fittings intervention will come through as an over-delivery.

Table 14 – Breakdown of SHET’s over-delivery by asset category

Asset Category	Normalised Target	Delivery excl. slower/ faster deterioration impact	Over-delivery	Percentage point contribution to over- delivery	% of total over delivery
Units:	R£m	R£m	R£m		
Circuit Breaker	148.2	153.8	-5.62	-0.5%	-10.3%
Transformer	69.6	57.9	11.70	+1.0%	+21.5%
Reactors	9.2	2.9	6.31	+0.5%	+11.6%
Underground Cable	17.3	16.7	0.51	+0.0%	+0.9%
OHL Conductor	178.9	204.1	-25.18	-2.1%	-46.4%
OHL Fittings	242.6	183.1	59.43	+4.9%	+109.4%
OHL Towers	557.4	550.2	7.16	+0.6%	+13.2%
Total	1,223.1	1,168.8	54.32	+4.4%	+100.0%

- 1.2. However, although SHET’s business plan did not explicitly state a volume of fittings intervention, the balance of evidence strongly suggests that the original intention was that any fittings work associated with reconductoring would be carried out within its existing funding provision. Therefore to value its OHL Fittings over-delivery at anything other than zero would amount to double funding.
- 1.3. Following review of SHET’s Stage 5 submission we wrote to it confirming our previously expressed intention to value its OHL Fittings interventions at zero. We arrived at this proposed conclusion following consideration of two sets of information.

Firstly, statements in SHET's RIIO-1 business plan to the effect that OHL Fittings interventions were funded as part of its OHL Conductor allowances; and secondly, the absence of potential for SHET to over-deliver on OHL Fittings under its original targets. We provided the explanations below to SHET on the 25 January 2022.

Statements contained in SHET's RIIO-1 business plan

1.4. SHET's RIIO-1 Unit Cost Justification Paper contained the following statement:

"Typically any reconductoring on our network is at a unit cost rate per km including insulators and fittings, generally based on 175mm² Lynx conductor". As SHET was fast-tracked in RIIO-1, its proposed costs were accepted without adjustments. This statement may be interpreted in one of two ways:

1. That allowance for replacement of all 927km of associated fittings was included in the allowances for the 927km of reconductoring in SHET's RIIO-1 plan
 - If this interpretation is correct then there is no case for a non-zero fittings valuation as SHET has already been funded for up to 927km of fittings replacement.
2. That an allowance for an assumed (non-zero) proportion of the potential total 927km of fittings replacement was included in SHET's reconductoring allowances.
 - In this case, two further questions arise:
 1. Within the OHL allowances, what proportion of the 927km total fittings volume was assumed to require replacement?
 2. What was the funding expectation if SHET's actual required fittings replacement volumes are above or below the volume assumed when deriving OHL allowed costs? Was the expectation that funding would be adjusted accordingly?

Assumed volume of fittings replacement funded through OHL allowances

1.5. In SHET's Stage 5 submission it cites the statement below from its response to RIIO-1 SQ no. RT1-Ph2-12 and infers from it that SHET was funded only for the 122km of fittings replacement associated with the three listed schemes:

Extract from SHET response to RIIO-1 SQ no. SQ RT1-Ph2-12

"Currently all schemes listed in [RIIO-1 Business Plan] table 4.20.1 are listed as reconductoring projects and as such will include reconductoring of all phase conductors due to common testing results and condition monitoring reports. The earth wire will

also be reconductored, or installed on the circuits which previously have had no earth wires. Fittings and insulators will be replaced on the Whistlefield – Dunoon, Shin – Cassley, and Tealing – Arbroath (which will also require Tower strengthening works) circuits. The condition of the other circuits will continue to be assessed prior to the project being authorised and full scope agreed to allow additional work to be included should there be any significant deterioration in the intervening years”

1.6. We disagree with SHET’s inference from this SQ response. Our assessment is that all that can be concluded from the statement above is that:

- the requirement for fittings replacement was confirmed on the three listed schemes, and
- the fitting replacement requirements on other schemes would be assessed at a later date.

1.7. We cannot conclude that:

- only 122km (or other <927km volume) of fitting replacements was factored into the OHL allowances, and if this was the case
- the expectation at the time was that funding would be adjusted to reflect outturn fittings replacement requirements.

SHET’s original volumes based NOMs targets

1.8. If we examine SHET’s original NOMs targets it is clear that the expectation was that no additional funding would be provided in the event of an outturn requirement to replace a higher volume of fittings than assumed in SHET’s OHL allowances.

1.9. The pre-rebasing NOMs targets are shown in Table 15 below. All fittings have been assigned as RP4 i.e. the lowest risk category. It was therefore not possible for SHET to have over-delivered on fittings and consequently no possibility of additional funding being provided for delivering a higher volume of fitting replacements than had been assumed in the plan. These targets suggest an original intent that all OHL Fittings replacements would be carried out utilising allowances embedded in the OHL allowances for SHET.

Our conclusion

1.10. Our conclusion is that - as it was not possible for SHET to over-deliver on OHL Fittings under its original targets – any over-delivery is simply an artifact of the rebasing process. The original RIIO-1 intent was that SHET would deliver any required volume

of OHL Fittings Replacements within its existing allowance provisions, with no funding adjustment (either positive or negative adjustments) if outturn replacement requirements were above or below any previously assumed volumes. A non-zero valuation of fittings interventions would therefore be against this original RIIO-1 intent, would amount to an alteration of the original RIIO-1 agreement that SHET and consumers signed up to, and would lead to double funding of SHET's OHL Fittings work¹⁴.

Table 15 - SHET's original volume-based targets and intervention volumes assumed at the time of rebasing to monetised risk targets

Asset Category	Units	Asset distribution based on Replacement Priority at March 2021				Asset Population	Intervention volume assumed at rebasing
		Replacement Priority (where RP1 is highest risk category)					
		RP1	RP2	RP3	RP4		
400kV Network							
400kV Circuit Breaker	Units	-	-	-	-	-	-
400kV Transformer	Units	-	-	-	-	-	-
400kV Reactors	Units	-	-	-	-	-	-
400kV Underground Cable	km	-	-	-	-	-	-
400kV OHL Conductor	km	-	-	-	-	-	-
400kV OHL Fittings	km	-	-	-	-	-	-
400kV OHL Towers	Units	-	-	-	-	-	-
275kV Network							
275kV Circuit Breaker	Units	1	-	-	81	82	1
275kV Transformer	Units	10	-	-	16	26	-
275kV Reactors	Units	-	-	-	7	7	-
275kV Underground Cable	km	-	-	-	4.3	4.3	-
275kV OHL Conductor	km	-	-	-	1,649.0	1,649.0	-
275kV OHL Fittings	km	-	-	-	1,649.0	1,649.0	-
275kV OHL Towers	Units	-	-	-	2,550	2,550	-
132kV Network							
132kV Circuit Breaker	Units	4	2	-	201	207	28
132kV Transformer	Units	2	8	1	141	152	16
132kV Reactors	Units	-	-	-	-	-	-
132kV Underground Cable	km	56.0	124.0	187.0	2,800.0	3,167.0	14.7
132kV OHL Conductor	km	-	-	9.6	83.6	93.2	927.1
132kV OHL Fittings	km	-	-	-	3,166.0	3,166.0	-
132kV OHL Towers	Units	-	-	-	8,462	8,462	-

¹⁴ Please note, as can be seen from

Appendix 4 – SPT justification assessment

- 1.1. Ofgem’s Engineering Hub reviewed the justification papers and supporting material in relation to SPT’s Inverkip Rationalisation Scheme and the interventions carried out in response to operational issues. We consider SPT’s investment decisions to be economic and efficient, and therefore justified, for the reasons set out below.

Inverkip rationalisation scheme

Driver

- 1.2. Inverkip 400kV substation was built in 1975 to facilitate the connection of the Inverkip oil fired power station. The substation became a major node on the 400kV transmission network as a result of the design required to accommodate the 2GW rated power station. While the station had been mothballed prior to the submission of the RIIO-T1 business plan, it retained its connection agreement until termination in March 2012, which unfortunately was received one month prior to the publication of the RIIO-T1 Final Proposals.
- 1.3. The RIIO-T1 proposal sought to replace the end-of-life 400kV circuit-breakers and all non-lead assets at the substation. In light of the termination of the connection agreement of the power station, these works did not proceed, which, in our opinion, was the correct economic and efficient course of action.
- 1.4. To conclude, there is no load driver requiring the need for these existing transmission assets. Furthermore, intervention due to poor asset health of the existing infrastructure at both the substation and the associated overhead line routes had been required for several years and is still possibly required depending on the outcome of the consultation.

Optioneering

- 1.5. The detailed analysis carried out by SPT has identified no load drivers (generation or demand), which necessitate the need to replace and maintain the existing assets for future connections.
- 1.6. Combined with the poor condition of the assets, there are only a small number of options available or worth investigating.

- Baseline - Re-build the substation in its original configuration as identified in the RIIO-T1 business plan. This is rejected. It was however retained as the counterfactual, with the formal disconnection of the generator removing the need for the 7 circuit-breaker arrangement.
- Rebuild the site as a double busbar configuration to comply with the NETS SQSS recommendation for MITS substations. Again, there is no driver to rebuild the site. This option was also rejected.
- Rationalise Inverkip substation and reconfigure the 400kV network, removing the ZN route and part of ZO route overhead lines whilst maintaining SQSS compliance. This option is proposed.

- 1.7. Based on the detailed analysis contained within the submission, it has been determined the most economic and efficient solution for consumers is to rationalise Inverkip Substation and reconfigure the 400kV network in this region.

Environmental Benefits

- 1.8. The removal of Inverkip 400kV substation and associated network reconfiguration enables the decommissioning of the entire ZN route and partial removal of the ZO route. It is not anticipated that the site will be reused in the future as currently there are no plans for renewable generation, onshore or offshore in the Inverkip area. Significant environmental benefits in terms of visual amenity will be realised as 42km of OHL circuits including 137 OHL steel towers would be removed along with the removal of the substation itself.

System Analysis

- 1.9. System security is mostly unaffected, and there is potential that the chosen solution would in fact result reduction in the overall fault rate in this locality and an overall positive outcome.
- 1.10. System stability studies indicate the remaining network, post rationalisation, remains compliant.
- 1.11. Fault Level studies indicate an increase. However, the removal of Inverkip increases the fault level and hence enhances the margins for the HVDC system.
- 1.12. System Harmonics studies and analysis were carried out to ensure the reconfiguration of the network with the Western Link HVDC system would maintain system harmonics. The results were within specified margins and well within G5/4 planning levels.

Conclusion

- 1.13. The conclusion of the optioneering exercise and recommendation by SPT is the reconfiguration of the 400kV network, decommissioning of Inverkip 400kV substation and the decommissioning and removal of approximately 42km of overhead line routes. It should be noted that once the OHL circuits have been removed, it would potentially reduce the likelihood that planning permission would be granted if the need ever arose to reinstate the circuits and route corridors.

Operational issues

SWG-05-089 Operational Issues with English Electric Frame 'r' 400kV Air Blast Circuit Breakers

Driver

- 1.14. The English Electric Frame 'r' 400kV Air Blast Circuit Breakers were installed at numerous sites in the 1970's. This breaker type has experienced numerous service and design issues leading to a variety of repairs. Furthermore, the breakers have also experienced a number of operational issues since entering service.
- 1.15. The operational issues detailed below describe the problems SPT has encountered directly on its network, but also witnessed on NGET's system.
- Disruptive failure due to hardened trip valve grease
 - Operating without Manufacturer's Specifications
 - Conditioning Air Failure
 - O ring Failure
 - High Resistance Joints
 - Polychlorinated Biphenyl in Grading Capacitors
- 1.16. Due to the age of the CBs, the OEM no longer provides any support for this type of breaker and there is also no aftermarket supply for SPT to call upon. For a number of these issues SPT has sought to find solutions to prolong their usage. However, fundamental design flaws have been identified with this breaker type making any re-engineering of component parts uneconomic or inefficient.

Environmental

- 1.17. SPT states that all of its current transformers fitted with this type of CB use SF6 as the insulator. This results in the component leaking, requiring annual top ups.

OEM support

- 1.18. Spares and technical support were withdrawn in 2016. SPT did adjust its spares inventory in light of this announcement to fulfil its maintenance requirement up to 2029. However, there were a number of components which couldn't be supplied or procured which are fundamental to the ongoing service of this asset. This means that a number of breakers cannot be maintained up to 2029.

Maintenance

- 1.19. The maintenance of these units is labour intensive, with a return to service typically taking two days due to the required testing.

Transmission Design Circular

- 1.20. There have been a number of TDCs issued throughout the assets life.

Ofgem conclusions

- There are numerous valid issues highlighted by SPT within the document, most of which if left unchecked could lead to catastrophic failure and potential injury / death, to a member of the public or staff.
- Further, the outage risk as a result of failure or increased maintenance intervals is no longer acceptable.
- Lack of OEM support and aftermarket supply proves prohibitive to future maintenance and usage.
- Ofgem engineering colleagues agree with SPT's conclusion that these circuit breakers are at the end of their serviceable life.

SWG-05-108 Operational Issues with [REDACTED]

Driver

- 1.21. The [REDACTED] were installed at Mossmorran 132kV Substation. The assets are subject to several technical problems, which have led to the assets being considered at the end of their serviceable life.

1.22. The operational issues detailed below describe the problems SPT has encountered directly at its substation.

- Mechanism Issues
- SF6 Gas Leaks
- Fault Level

Environmental

1.23. SPT states that these breakers are becoming increasingly problematic due to SF6 leakage. The circuit breakers have their SF6 levels topped up regularly. The common cause of gas leaks on this circuit breaker is moisture ingress. To address this issue the CB requires significant repair and overhaul which further carries significant risk of compromising the asset itself.

Fault Levels

1.24. The network fault level at Mossmorran 132kV substation exceeds the fault rating of the circuit breaker. To manage this issue the operator splits the substation running arrangement, which leads to a reduced operability at the site.

OEM support

1.25. The OEM currently can only provide a limited refurbishment on the circuit breaker. The ability to refurbish the circuit breaker is limited by the inability to replace the nitrogen accumulator or back up cylinders. These components are the most problematic element of the circuit breaker from an SPT perspective. This therefore makes refurbishment of these assets unviable.

Maintenance

1.26. The maintenance of these units is labour intensive, with a return to service typically taking 24hrs due to the requirement to replace the circuit breakers hydraulic fluid.

Transmission Design Circular

1.27. There have been a number of TDCs issued throughout the asset's life.

Ofgem conclusion

- There are a number of valid reasons highlighted by SPT within the document.
- Further, the outage risk combined with a complete rebuild and the technical issues relating to the CB's mechanism cannot be satisfactorily resolved, making maintenance not financially viable. There isn't an enduring economically viable solution.
- SPT advises that it will replace with a non SF6 equivalents, which aligns with Ofgem engineering and the removal of SF6 off the networks.
- Replacement with a higher rated breaker should increase the operability of the substation.
- Ofgem engineering colleagues agree with SPT's conclusion that these circuit breakers are at the end of their serviceable life.

Appendix 6 – Draft text of direction on NOCO_t

Electricity Transmission Licensees

National Grid Electricity Transmission plc ("NGET")

SP Transmission plc ("SPT")

Scottish Hydro Electric Transmission plc ("SHET")

Gas Transmission Licensee

National Grid Gas plc ("NGGT")

Gas Distribution Licensees

Cadent Gas Limited ("Cadent")

Northern Gas Networks Limited ("NGN")

Email: xx@ofgem.gov.uk

Scotland Gas Networks plc ("SGN Scotland")

Southern Gas Networks plc ("SGN Southern")

Wales & West Utilities Limited ("WWU")

Date: [date to be confirmed]

Direction on the value of NOCO_t under Part C of Special Condition 7.10 (Close out of RIIO-1 Network Outputs) of the Electricity Transmission licence

1. Each of the companies to whom this Direction is addressed (each a "Licensee" and together the "Licensees") is the holder of one of the following licences (the "licence"):
 - an Electricity Transmission licence granted or treated as granted under section 6(1)(b) of the Electricity Act 1989 (the "Electricity Act"),
 - a Gas Transporter licence granted or treated as granted under section 7 of the Gas Act 1986 (the "Gas Act").
2. In RIIO-1, Network Output Measures (NOMs) were the principal means by which the Gas and Electricity Markets Authority ("the Authority")¹⁵ monitored and assessed the Licensee's network management outcomes. The electricity transmission licensees were set Network Output targets to be delivered by the end of the RIIO-1 period. These targets along with the principles governing the financial incentives around over-delivery and under-delivery of these targets were set out in the following RIIO-1 licence conditions:
 - Special Condition 2M of the Electricity Transmission Licence
 - Special Condition 7E of Gas Transmission Licensee's Gas Transporter Licence,

¹⁵ The "Authority", "Ofgem", "we" and "our" are used interchangeably in this document. The Office of Gas and Electricity Markets (Ofgem) supports the Authority in its day-to-day work.

- Special Condition 4H of the Gas Distribution Licensees' Gas Transporter Licence.
3. On 18 June 2021, the Authority published the RIIO-1 NOMs Incentive Methodology¹⁶, which set out in more detail the basis on which it will consider performance under the NOMs incentive mechanism and how it will quantify any associated incentive adjustments to RIIO-2 revenues.
 4. All Licensees have submitted reports to the Authority in compliance with paragraph 7.10.3 of SpC 7.10, and (where required) paragraph 7.10.4 of SpC 7.10. These reports were consistent with the requirements of the NOMs Incentive Methodology.
 5. The Authority reviewed the licensees' submissions, and on 20 May 2022 published a consultation on its Draft Determinations in relation to the licensees' performances under the NOMs incentive mechanism and on the associated incentive adjustments to RIIO-2 revenues.
 6. The Authority received [number to be confirmed] responses during the 56-day consultation period, which ended on [date to be confirmed]. Summary of the responses and explanation of the Authority's views and responses to them are set out in Appendix 1.

Now Therefore –

7. Pursuant to Part C of Special Condition 7.10 of the Electricity Transmission licence, the Authority hereby directs the RIIO-1 Network Outputs closeout term (NOCO_t) as specified in the attached Schedule.
8. This document constitutes notice of the Authority's reasons for the Direction as required by section 49A of the Act.

¹⁶ RIIO-1 NOMs Incentive Methodology v2.2, published on 18 June 2021:
<https://www.ofgem.gov.uk/publications/direction-changes-network-output-measures-noms-incentive-methodology>

.....

[Name of authorised officer to be confirmed]

Duly authorised on behalf of the Authority

XX XX 2022

Schedule to the Authority's Direction dated [XX] 2022

RIIO-1 Network Outputs closeout term (NOCO_t) for NGET (2018/19 Prices)

Metric	PCFM Term	Units	RIIO-1 (for information)								RIIO-2				
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026
Original RIIO-1 Allowances	ARC	£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Actual RIIO-1 Expenditure	ARC	£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Associated cost of over-delivery		£m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Final RIIO-1 Allowances	ARC	£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Reward for justified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
Financing clawback for unjustified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
RIIO-1 Network Outputs close out term	NOCot	£m									0.00	0.00	0.00	0.00	0.00

RIIO-1 Network Outputs closeout term (NOCO_t) for SHET (2018/19 Prices)

Metric	PCFM Term	Units	RIIO-1 (for information)								RIIO-2				
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026
Original RIIO-1 Allowances	ARC	£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Actual RIIO-1 Expenditure	ARC	£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Associated cost of over-delivery		£m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Final RIIO-1 Allowances	ARC	£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Reward for justified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
Financing clawback for unjustified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
RIIO-1 Network Outputs close out term	NOCot	£m									0.00	0.00	0.00	0.00	0.00

RIIO-1 Network Outputs closeout term (NOCO_t) for SPT (2018/19 Prices)

Metric	PCFM Term	Units	RIIO-1 (for information)								RIIO-2				
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026
Original RIIO-1 Allowances	ARC	£m	54.44	56.07	58.72	71.96	84.19	90.86	100.24	79.62					
Actual RIIO-1 Expenditure	ARC	£m	82.64	69.75	35.06	64.49	58.15	57.97	58.99	68.36					
Associated cost of over-delivery		£m	2.53	2.13	1.07	1.97	1.78	1.77	1.80	2.09					
Final RIIO-1 Allowances	ARC	£m	56.97	58.20	59.79	73.93	85.96	92.63	102.05	81.71					
Reward for justified over-delivery		£m									0.08	0.08	0.08	0.08	0.08
Financing clawback for unjustified over-delivery		£m									0.00	0.00	0.00	0.00	0.00
RIIO-1 Network Outputs close out term	NOCot	£m									0.08	0.08	0.08	0.08	0.08

RIIO-1 Network Outputs closeout term (NOCO_t) for NGGT (2018/19 Prices)

Metric	PCFM Term	Units	RIIO-1 (for information)								RIIO-2				
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026
Original RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Actual RIIO-1 Expenditure		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Associated cost of over-delivery		£m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Final RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Reward for justified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
Financing clawback for unjustified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
RIIO-1 Network Outputs close out term	NOCot	£m									0.00	0.00	0.00	0.00	0.00

RIIO-1 Network Outputs closeout term (NOCO_t) for Cadent – East of England (2018/19 Prices)

Metric	PCFM Term	Units	RIIO-1 (for information)								RIIO-2				
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026
Original RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Actual RIIO-1 Expenditure		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Associated cost of over-delivery		£m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Final RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Reward for justified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
Financing clawback for unjustified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
RIIO-1 Network Outputs close out term	NOCot	£m									0.00	0.00	0.00	0.00	0.00

RIIO-1 Network Outputs closeout term (NOCO_t) for Cadent – London (2018/19 Prices)

Metric	PCFM Term	Units	RIIO-1 (for information)								RIIO-2				
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026
Original RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Actual RIIO-1 Expenditure		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Associated cost of over-delivery		£m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Final RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Reward for justified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
Financing clawback for unjustified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
RIIO-1 Network Outputs close out term	NOCot	£m									0.00	0.00	0.00	0.00	0.00

RIIO-1 Network Outputs closeout term (NOCO_t) for Cadent – North West (2018/19 Prices)

Metric	PCFM Term	Units	RIIO-1 (for information)								RIIO-2				
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026
Original RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Actual RIIO-1 Expenditure		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Associated cost of over-delivery		£m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Final RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Reward for justified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
Financing clawback for unjustified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
RIIO-1 Network Outputs close out term	NOCot	£m									0.00	0.00	0.00	0.00	0.00

RIIO-1 Network Outputs closeout term (NOCO_t) for Cadent – West Midlands (2018/19 Prices)

Metric	PCFM Term	Units	RIIO-1 (for information)								RIIO-2				
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026
Original RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Actual RIIO-1 Expenditure		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Associated cost of over-delivery		£m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Final RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Reward for justified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
Financing clawback for unjustified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
RIIO-1 Network Outputs close out term	NOCot	£m									0.00	0.00	0.00	0.00	0.00

RIIO-1 Network Outputs closeout term (NOCO_t) for NGN (2018/19 Prices)

Metric	PCFM Term	Units	RIIO-1 (for information)								RIIO-2				
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026
Original RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Actual RIIO-1 Expenditure		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Associated cost of over-delivery		£m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Final RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Reward for justified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
Financing clawback for unjustified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
RIIO-1 Network Outputs close out term	NOCot	£m									0.00	0.00	0.00	0.00	0.00

RIIO-1 Network Outputs closeout term (NOCO_t) for SGN Scotland (2018/19 Prices)

Metric	PCFM Term	Units	RIIO-1 (for information)								RIIO-2				
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026
Original RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Actual RIIO-1 Expenditure		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Associated cost of over-delivery		£m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Final RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Reward for justified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
Financing clawback for unjustified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
RIIO-1 Network Outputs close out term	NOCot	£m									0.00	0.00	0.00	0.00	0.00

RIIO-1 Network Outputs closeout term (NOCO_t) for SGN Southern (2018/19 Prices)

Metric	PCFM Term	Units	RIIO-1 (for information)								RIIO-2				
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026
Original RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Actual RIIO-1 Expenditure		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Associated cost of over-delivery		£m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Final RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Reward for justified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
Financing clawback for unjustified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
RIIO-1 Network Outputs close out term	NOCot	£m									0.00	0.00	0.00	0.00	0.00

RIIO-1 Network Outputs closeout term (NOCO_t) for WWU (2018/19 Prices)

Metric	PCFM Term	Units	RIIO-1 (for information)								RIIO-2				
			31 Mar 2014	31 Mar 2015	31 Mar 2016	31 Mar 2017	31 Mar 2018	31 Mar 2019	31 Mar 2020	31 Mar 2021	31 Mar 2022	31 Mar 2023	31 Mar 2024	31 Mar 2025	31 Mar 2026
Original RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Actual RIIO-1 Expenditure		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Associated cost of over-delivery		£m	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Final RIIO-1 Allowances		£m	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Reward for justified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
Financing clawback for unjustified over-delivery		£m									N/A	N/A	N/A	N/A	N/A
RIIO-1 Network Outputs close out term	NOCot	£m									0.00	0.00	0.00	0.00	0.00

Appendix 1

Summary of consultation responses

[To be added following close of consultation]

Appendix 7 – 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.

3. With whom we will be sharing your personal data

We do not intend to share your personal data with any third parties.

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

Your personal data will be held for six months after the project, including subsequent projects or legal proceedings regarding a decision based on this consultation, is closed.

5. 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.

6. Your personal data will not be sent overseas

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

8. Your personal data will be stored in a secure government IT system.

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