

Guidance

~~RIIO-2 Environmental Reporting Guidance Version 1.0~~

~~Publication date:~~ 2 March 2021

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Environmental Reporting Guidance - Draft

Publication date: 16/12/2025

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This RIIO-2 Environmental Reporting Guidance document is published as a working draft. It is subject to development and amendment. It should not form the basis of any expectation or reliance.

This guidance covers the Annual Environmental Report (AER) that is a licence obligation introduced as part of the RIIO-2 gas transmission, for the RIIO-3 Price Control Period. This document sets out both the qualitative Environmental Reporting Guidance and quantitative Key Performance Indicator (KPI) Table.

This document is targeted at electricity transmission, gas transmission and gas distribution price control.

This document is for the gas transmission, electricity transmission and gas distribution

licensees, and interested stakeholders, who want to know about the requirements for publishing the AER. The Guidance sets out a template for AER that the licensee should use as a basis for its AER. The template covers the structure and content, including the topics to be covered, and the preferred reporting methodologies that the transmission and gas distribution licensees should be working to adopt over the course of RIIO-2.

Guidance

network operators (licensees), as well as their stakeholders. The document outlines the scope, purpose, structure, and preferred methodologies for licensees to follow when producing their AER.

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1. Introduction

Context

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Context

Ofgem is the Office of Gas and Electricity Markets, which regulates the gas and electricity industries in Great Britain. Our principal objective is to protect the interests of existing and future gas and electricity consumers. Consumers' interests are taken as a whole, including their interests in the reduction of greenhouse gases and in the security of the supply, and in the fulfilment of relevant statutory objectives when we are carrying out our functions as the gas and electricity regulator of Great Britain.

We work in various ways to protect the interests of consumers and one way in which we do so is by regulating the network companies through price controls. We set price controls to specify the services and level of performance that the network companies must provide for users and consumers and to restrict the amount of money that the network companies can recover through network charges over the length of a price control period.

~~1. Introduction~~

~~on~~

Background

- 1.1 ~~In December 2020 we~~ published our ~~RIIO-2~~ Final Determinations for the ~~transmission and gas distribution~~ ~~RIIO-3~~ price ~~controls~~ ~~control in December 2025.~~¹ These set out the key elements of the price control from 1 April ~~2021~~ ~~2026~~ to 31 March ~~2026~~ ~~2031~~. This included a licence obligation for the ~~gas transmission, electricity transmission and gas distribution licence holders~~ ~~licensees~~ to publish an Annual Environmental Report (AER) ~~under Special Condition 9.1 (SpC 9.1).~~

Annual Environmental Report Obligations

- 1.2 ~~Special Condition 9.1 (SpC 9.1)~~ The purpose of the AER is to provide a yearly update to stakeholders on the licensee's progress in delivering their Environmental Action Plan (EAP) Commitments as set out in their RIIO-3 Business Plan. The EAPs are licensees' strategies for how they propose they will mitigate the impact of their business on the environment. The AER will also allow stakeholders to monitor licensees' performance in specified environment-related aspects of its price control and enable comparability of performance between licensees where possible.

~~1.1.—This Environmental Reporting Guidance (“Guidance”) has been developed to help the licensee comply with its obligation in SpC 9.1 of the gas transmission (GT), electricity transmission (ET) and gas distribution (GD) licences require the licence holder (licensee) to prepare and publish an AER. The licensee must prepare their AER in accordance with the Environmental Reporting Guidance (Guidance).~~

~~1.2.—This document constitutes the Environmental Reporting Guidance referred to in Part B of SpC 9.1 and~~

¹ 'We', 'Ofgem' and the 'Authority' are used interchangeably in this document and refer to the Gas and Electricity Markets Authority.

may be amended in accordance with the process described in SpG 9.1.11.

What is the purpose of the Guidance

1.3.—This Guidance is to help the licensee comply with their licence obligation to publish an AER. We have included in chapter 3 of this Guidance a template for the structure, content and key performance indicators (KPIs) to ensure that the licensee’s AER focuses on material environmental matters, is relevant, easy to understand, accurate and, where possible, is comparable across licensees.

1.21.3 The AER will ensure each licensee is held accountable on a yearly basis for implementing their delivering its RIIO-23 Environmental Action Plan Commitments, their its approach to environmental management, and their its environmental performance during RIIO-2 the Price Control Period.

1.4.—We consider that this will enhance the reputational incentives on the licensee and provide accountability and transparency for stakeholders that the licensee is delivering against their RIIO-2 Environmental Action Plan Commitments.

1.31.4 Where defined words and expressions are used in this Guidance, they are capitalised and have the same meaning as in [SpC 1.1](#) of the ET, [GD and GT](#) ~~and GD~~ licences.

Structure

1.5 The AER comprises two distinct sections, a qualitative section (AER Commentary) and a quantitative section (AER KPI Table). Further guidance on this structure can be found in Chapter 2, while the content of each section can be found in Chapters 3 and 4.

Compliance

1.6 Licensees are required by SpC 9.1 to prepare an AER in accordance with this Guidance.

1.7 For the avoidance of doubt, this Guidance is subordinate to the licence. This document does not change any definition or obligations contained within the licence and in the event of any ambiguity over this Guidance the licence will take precedence.

1.8 This document in no way relieves affected parties, including licensees, from their responsibility to ensure ongoing compliance with legislation including competition, data protection, environment and consumer protection laws.

Initial publication and amendment of this guidance

1.9 This Guidance is issued and amended in accordance with the procedure set out in SpC 9.1.11 and 9.1.12 of the licence.

2. General instructions and requirements

Section summary

This section sets out the general instructions and requirements licensees must follow when preparing their AER.

Purpose of the AER

~~1.42.1~~ The purpose of the AER is to provide a yearly update to interested stakeholders on:

- the licensee's progress in achieving the ~~EAP~~ Environmental Action Plan Commitments set out in their RIIO-~~2 Environmental Action Plan~~,¹³ EAP;
- their performance in specified environment-related aspects of their price control;¹⁴ and
- ~~an annual update on~~ the environmental impacts of the network.

Principles for reporting

~~1.52.2~~ The licensee should apply the following When compiling the AER, licensees must adhere to several key principles when collecting and reporting on environmental impacts which are set out in the AER paragraphs 2.3-2.9.²

~~1.62.3~~ **Relevant:** Ensure the data collected and reported reflects the relevant environmental impacts of the company for the impact categories specified within this Guidance.

~~1.72.4~~ **Quantitative:** Ideally performance is measured¹⁵ and compared over time¹⁶, and to a target designed to reduce a particular impact or achieve a positive outcome. In this way the effectiveness of ~~the licensee's EAP Commitments~~, environmental policies and management systems can be evaluated and validated. Where appropriate, each environmental impact in ~~chapter 3~~ Chapter 4 of this Guidance ~~proposes~~ Sets out the ~~measures~~ metrics to be used for that

² These have been drawn from accounting principles and the internationally recognised Greenhouse Gas Protocol Corporate Accounting and Reporting Standard from the World Resources Institute and World Business Council for Sustainable Development, known as the "GHG Protocol Corporate Standard"

subject area. Quantitative information ~~should~~must be accompanied by a narrative, explaining its purpose, impacts, and giving comparators where appropriate.

¹In the price control review for RIIO-2, we adopted a cross-sector environmental framework. As part of this, the gas transmission, electricity transmission and gas distribution companies had to include an Environmental Action Plan (EAP) as part of their Business Plan. The companies included proposals in their EAPs to improve their environmental performance or mitigate the adverse impact of network activities on the environment.

²Drawn from accounting principles and the internationally-recognised Greenhouse Gas Protocol Corporate Accounting and Reporting Standard from the World Resources Institute and World Business Council for Sustainable Development, known as the “GHG Protocol Corporate Standard”

by a narrative, explaining its purpose, impacts, and giving comparators where appropriate.

~~1.4.1. Qualitative:~~ If quantitative data cannot be included for a relevant environmental impact because, for example, data is not available and/or KPI development is ongoing, the licensee should include a qualitative explanation. This should cover the materiality of the environmental impact, changes in impact compared to the previous year, and whether the licensee has plans to report quantitative data or a KPI in a future AER.

1.82.5 Accuracy: Seek to reduce uncertainties in reported figures where practical. Achieve sufficient accuracy to ensure confidence as to the integrity of the reported information.

1.92.6 Completeness: Quantify and report on all the sources of relevant environmental impact within the reporting boundary that have been defined in this Guidance. Disclose and justify any specific exclusions.

1.102.7 Consistent: Licensees to use Use common methodologies to allow for meaningful comparisons of environmental impact data over time with regards to the performance of the licensee and in comparison to other licensees. Document any changes to the data, changes in the reporting boundary, methods, or any other relevant factors.

1.112.8 Comparable: Report data using accepted objective KPIs across the licensees (as specified in this Guidance). If no KPI exists then the licensee should use appropriate The narrative to explain their methodology part of a report provides the opportunity for a licensee to discuss any tensions that exist between providing comparable data and reporting. Licensee-specific KPIs. Use of accepted KPIs will help stakeholders to compare performance across licensees companies.

1.122.9 Transparent: Address relevant issues in a factual and coherent manner, keeping a record of all assumptions, calculations, and methodologies used. Internal processes, systems and procedures are important, and the quantitative data will be greatly enhanced if accompanied by a description of how and why the data are collected. Report on any relevant assumptions and make appropriate references to methodologies and data sources used.

Reporting boundary

1.5.— A licensee that forms part of a larger corporate group must provide a brief introduction outlining the structure of the group. The commentary must detail which companies are within the reporting boundary for the purpose of the AER.

1.6.— If primary data is collected for a corporate group and then apportioned to the licensee then the licensee must explain the methodology.

Report type and availability

1.7.— Ideally, the licensee's AER would be a single document and should aim to be no longer than 50 pages in length (excluding appendices). A licensee's AER can form a part of a broader report or existing report, as long as the AER component of that report is clearly presented as the licensee's AER, and is prepared in accordance with this Guidance.

1.8.— In cases where a corporate group covers multiple licensees, a single AER can be published for the group. For example, a SGN report could cover SGN Scotland and SGN Southern as the licensees in the SGN group. This Guidance specifies where information must be provided at the individual licensee level. An AER prepared for a corporate group may be longer in length than for a single licensee, but should not be as long as the total length if each licensee were to report individually.

In accordance with SpC 9.1.6, the AER must be published on each licensee's Report structure

2.10 The licensee's AER will consist of two distinct sections: an AER Commentary and an AER KPI table. The AER Commentary will provide the narrative around how the licensee has performed against its environmental obligations over the Regulatory Year, whereas the AER KPI Table will evidence the AER Commentary and present numerical evidence of performance.

2.11 Licensees must strive towards utilising the KPI table to its fullest extent. The KPI table should be the primary location of all quantitative information.

2.12 In some instances, it is expected that key data from the AER KPI Table may be used in the AER Commentary to support the narrative. Similarly, licensees may have data in addition to that found in KPI table they wish to include in their AER, which is also permitted.

- 2.13 Where the reporting methodology of certain environmental areas is not well developed (eg embodied carbon, Scope 3 Business Carbon Footprint (BCF) emissions, and biodiversity) this is reflected in the AER KPI Table guidance. Additional numerical reporting is encouraged, where possible, as part of the AER Commentary. This is to allow less developed areas of reporting to be presented alongside the improvements in the reporting of these fields giving stakeholders additional context. Should common reporting methodologies be developed within-period, we will consider the merits of amending the Guidance in accordance with SpC 9.1.14 to reflect such developments.
- 2.14 We have included a template for the structure and content of the AER KPI Table in Appendix 1 of this Guidance. This is to ensure that the licensee's AER KPI Table focuses on material environmental matters, is relevant, easy to understand, accurate and, where possible, comparable across licensees.
- 2.15 In cases where a corporate group covers multiple licensees, a single document is acceptable, but the corporate structure must be defined, and the performance of each licenced area must be clearly identifiable in the report for each environmental commitment.
- 2.16 There is no strict limit on the length of the AER. The licensee should include the level of detail needed for stakeholders to be able to engage with the contents, while at the same time remaining accessible. Generally, as guidance, the AER KPI Table section may not typically exceed 5 pages, while the AER Commentary section may not typically exceed 45 pages. We will keep this under review and may provide further guidance on this if we consider it necessary.

Reporting date and Regulatory Year

- 1.9.—The AER for the Regulatory Year commencing 1 April 2026 must be published on the licensee's website:

Reporting date

- ~~1.13~~ 2.17 On, or before, 1 by 31 October 2022 and yearly by each subsequent 1 October, the 2027. The licensee must publish their AER for the reporting subsequent reports by 31 October in each year.

Reporting year

~~1.14~~2.18 The licensee's AER must include information and data for the preceding ~~financial~~
~~year~~Regulatory Year of RIIO-2 (1 April to 31 March).~~3.~~

Scope of the AER

~~2.19~~ ~~The AER should provide stakeholders with a reasonable~~ The Guidance sets out the broad scope of the AER. There may be instances where the licensee wishes to go beyond this Guidance where the licensee considers it to be appropriate to do so. Industry practice and legislative requirements may also evolve over time, with regards to environmental reporting, and we expect licensees to consider these developments and their impact on the AER.

~~1.15~~ ~~2.20~~ The AER must provide stakeholders with a detailed picture of the licensee's environmental activities. This includes reporting on progress in implementing the licensee's EAP ~~Commitments,~~ commitments and ~~their meeting its~~ EAP targets, where applicable. The licensee ~~should~~ must also use the AER to demonstrate to stakeholders what steps or activities ~~they have~~ it has undertaken to manage, and, if possible, reduce, ~~their~~ its environmental impact more generally.

~~1.10.~~—The structure, content and KPIs described in this Guidance ~~should~~ must be the basis for the licensee's AER. ~~Most of the specified categories and KPIs are mandatory reporting requirements for the licensee's AER. However, there are some impact areas and KPIs that we consider it is desirable that the licensee include, but are not essential. These are stated in the chapter 3 as optional. We encourage the licensee to include these KPIs in their AER in order to provide a fuller overview on the environmental aspects and impacts of the licensee's network activities.~~

~~1.11.~~—This Guidance sets out the broad scope of the AER. There may be instances where the licensee may make enhancements to their AER reporting where they consider that it is appropriate to do so. Over time, industry practice may evolve with regards to environmental reporting, and we expect licensees to consider these developments in their AER.

~~1.16~~ ~~2.21~~ A licensee may make enhancements to ~~their~~ its AER, going beyond those specified in this Guidance. Where a licensee does so for an aspect of ~~their~~ its AER that relates solely to ~~their~~ its activities, ~~we expect~~ the licensee ~~to~~ must explain the change in reporting, figures and/or parameters used. ~~If the development or change is applicable to other licensees, then we expect the licensees to work together at a sector level to determine the appropriate consistent reporting practice.~~

~~1.12.~~—Below are some illustrative examples.

2.22 Where a licensee changes their reporting methodology including their KPIs, we expect the licensee to explain the change in the AER Commentary, including outlining the figures and/or parameters used.

2.23 Below is some further guidance on what could constitute changes to reporting methodology and KPIs:

- A licensee may include additional discretionary content where this is in response to ~~their~~^{its} stakeholders' interests, or to address bespoke elements of ~~their~~^{its} EAP commitments.
- A licensee may also report in ~~their~~^{its} AER on additional environmental impacts that are company or regionally specific to it (ie are relevant to the licensee but are not so relevant for the sector as a whole). ~~In doing so, the~~^{In doing so, the licensee must follow the principles set out in paragraphs 2.3–2.9 and explain its methodology for reporting the impact.}

~~licensee should follow the principles set out in paragraph 2.2 and explain their methodology for reporting the impact.~~

- ~~If two or more licensees in a sector identify~~ If a licensee identifies a common environmental aspect/impact they consider is a material omission from the AER, the licensees may include this in their respective AERs ~~as long as they agree if there is sector-wide agreement and adopt a consistent reporting methodology, including KPIs.~~
- Similarly, if ~~two or more licensees consider~~ a licensee considers that a KPI specified in ~~chapter 3~~ Chapter 4 of this Guidance needs further development, the licensees ~~should~~ may work ~~together with other licensees~~ to determine and ~~agree~~ propose the most appropriate metric. In such cases, the licensee ~~should~~ groups must disclose and explain in ~~their~~ its AER any specific exclusions, as well as ~~their~~ its plans for reporting the KPIs in future. ~~Ofgem will consider if a change requires updating the guidance in response to any new evidence proposed.~~
- Conversely, the licensee might be unable to include all of the KPIs that are specified in this Guidance in ~~their~~ its AER, particularly in the early ~~years~~ Regulatory Years of ~~RHO-2~~ the Price Control Period, because the underlying data is not available, or KPI development is ongoing or due to geographical differences, etc. In such cases, the licensee ~~should~~ must disclose and explain any specific exclusions, and ~~their~~ its plans for reporting the KPIs in future if they are material to the licensee's network.

2.24 Effects from alterations to external figures such as Global Warming Potential (GWP)

~~equivalency ratings must be presented by licensees in such a way that it is clear where a change has been made. When affected, licensees must update all figures with the latest methodology to ensure consistency.~~

~~1.17~~ 2.25 The licensee may also include in ~~their~~ its AER links to other publicly available documents and include summaries of key information.

~~2. Annual Environmental Report template~~

~~Section summary~~

~~This section sets out a template for the structure, the environmental impact areas and KPIs that should form the basis of the licensee's AER.~~

1. Introduction

~~Who we are~~

~~In this~~

3. AER Commentary

Section summary

This section provides guidance that licensees must follow when preparing the licensee AER Commentary.

Introduction

- 3.1 The AER Commentary enables licensees to showcase and provide contextual information and analysis of the categories in the AER KPIs as described in Chapter 4, and enables licensees to add and report on wider issues or achievements relevant to the AER not contained in the KPIs.
- 3.2 The AER Commentary is expected to have sub-headings as set out below. It is not intended to be an exhaustive list as licensees are free to add additional information or context if desirable, though the structure should be followed as closely as possible for ease of comparison.

AER Commentary section headings (Commentary- and KPI-related)

Executive summary

- 2.1.—This section should give an the broad overview of the company and the environmental context it operates. Aim for a maximum of two pages.

Managing Director/Chief Executive message

- 2.2.—This section should set out a statement or commentary by a senior leader in the company on the key achievements of preceding regulatory year, and areas for improvement. Aim for one page.

Our environmental responsibilities

- 1.183.3 This section should summarise the licensee's role in looking after the environment AER Commentary sections detailed below, including external and internal drivers, its strategy for delivering an environmentally sustainable network and alignment with relevant environmental goals. Aim for a maximum of four pages: any headline figures and key findings.

Dashboard indicators

2.3.— Each licensee must include a section covering key environmental performance indicators. It is desirable, but not essential, that the licensee include all the indicators listed below where these are relevant for their sector. We indicate where it is optional for the licensee to report on an indicator. Aim for a maximum of four pages:

No.	Impact and KPI	Unit
I.1	<i>Contribution to energy system decarbonisation</i>	
I.1.1	Annual addition of low carbon and renewable energy capacity connected to the network—OPTIONAL for GT & ET	Standard cubic metres per hour (SCMH)—gas MW—elec
I.1.2	Annual investment in ongoing innovation activities that are primarily supporting decarbonisation and/or protecting the environment—OPTIONAL for all	£m
I.2	<i>Climate change impacts</i>	
I.2.1	Licensee's long-term greenhouse gas reduction target, aligned with a science-based methodology, and where possible validated externally such as with the SBTi or equivalent	% reduction against baseline
I.2.2	Annual change in licensee's business carbon footprint excluding losses/shrinkage in comparison to its end of RIIO-2 target	%
I.2.3	Annual change in Insulation and Interruption Gas emissions (ET only)	%
I.2.4	Annual change in compressor emissions (GT only)	%
I.2.5	Annual change in total shrinkage (GD only)	%
I.3	<i>Resource use and waste</i>	
I.3.1	Annual total waste (office, network depots, construction)	tonnes
I.3.2	Fate of waste: reduced, prepared for re-use, recycled, other recovery, to landfill	% of total waste
I.4	<i>Sustainable procurement</i>	
I.4.1	Proportion of suppliers meeting the licensee's environmental supplier code or equivalent	% of
I.5	<i>Local environment</i>	
I.5.1	Annual investment in schemes to enhance/restore local environmental quality	£m
I.5.2	Land area being treated in schemes to enhance/restore local environmental quality	hectares
I.5.3	Net change in biodiversity units from network development projects granted planning consent in the year that impact the local environment	% change
I.5.4	Number of reportable environmental incidents—OPTIONAL for all	Number

EAP Commitments and environmental impacts

EAP Commitments

~~2.4.—The licensee must include a table listing all their RIIO-2 EAP Commitments. The table should set out for each EAP Commitment:~~

~~3.4 While licensees have flexibility within the Executive Summary to provide information on what may be relevant in any given Regulatory Year, the Executive Summary must include references to a table listing all the commitments in their RIIO-3 EAPs. As this table may be lengthy in nature it may be included as part of the Executive Summary or as an Annex to the AER, which is a presentational choice for the licensee. The table must set out for each EAP commitment:~~

- one sentence description ~~of the EAP commitment;~~
- ~~2.4.1.—one sentence summary of the expected benefit or outcome~~
- ~~key milestones for implementing the EAP Commitment~~commitment over the course of ~~RIIO-2~~the Price Control Period;
- ~~a red/amber/green~~any associated milestones and targets for the relevant Regulatory Year and RIIO-3 period;
- ~~a Red/Amber/Green (RAG) status indicator on progress against the implementation milestones in RIIO-2, where:, and a quantified performance figure against any target where possible, where for the former~~
- red indicates progress against milestones is at significant risk and highly likely to be missed;
- amber indicates progress is delayed but likely to be achievable before the end of the ~~price control period~~Price Control Period; and
- green indicates progress against ~~the implementation~~milestones is on track:; and

2.4.2. a brief explanation (ie one to two sentences) for any amber or red indicator

2.5. Ideally, the recommended length of this section is no longer than five pages.

Table 1—Status update on EAP commitments

EAP commitment	Description and expected benefit	Target year	Implementation milestones	RAG indicator	Status update

Environmental impacts

~~2.6.—The licensee must include each of the environmental impacts specified in this remainder of this chapter in its AER, unless otherwise specified. **Where applicable, each environmental topic should include the following:**~~

~~2.6.1.—A short introduction, that provides some context of the materiality of the environmental area:~~

~~2.6.2.—A status update on the implementation of any RIIO-2 EAP Commitments and targets, Price Control Deliverables, Output Delivery Incentives and Uncertainty Mechanisms that are relevant to the topic area:~~

~~2.6.3.—Measures of impact or activity as specified, including annual time series data where this is available:~~

~~2.6.4.—Measures of performance trends such as intensity ratios or normalised data as specified in the following sections:~~

~~2.6.5.—Additional KPIs or qualitative narrative where this is in response to the licensee's stakeholders' interests or to address bespoke elements of the licensee's EAP Commitments:~~

~~2.6.6.—Tables as specified below, and we also encourage the licensee to also use visuals such as charts to show actual performance relative to the target performance level for the end of RIIO-2:~~

~~2.6.7.—A short narrative on performance in reporting year that explains any changes in level and trends:~~

~~2.6.8.—One or two relevant case studies:~~

Decarbonisation

Biomethane and other low carbon gas connections (GD only)

~~2.7.—The gas distribution licensees must report on the following:~~

- 2.7.1. Connections data for the reporting year, including a breakdown of the different gases that are included in 'Other green gas' as per Table 2.
- 2.7.2. A summary of licensees' green gas connections processes and awareness of ongoing issues, as well as the overarching strategy to address these.
- 2.7.3. Relevant internal KPIs in relation to green gas connections.
- 2.7.4. An update on ongoing work to improve and standardise low carbon gas connections methodologies including collaborative efforts across networks.
- 2.7.5. Engagement events with relevant stakeholders in the reporting year and any learnings of best practice. Licensees should also outline any upcoming stakeholder events in the forthcoming year and the objectives of these.

Table 2—Connections activity for low carbon sources of gas

Unit		2021/22	2022/23	2023/24	2024/25	2025/26
Biomethane connections						
Enquiries	Number					
Connection studies	Number					
Capacity of connection studies	SCMH					
Connections	Number					
Capacity connected	SCMH					
Volume (energy value) of biomethane injected	GWh					
Average monthly flow rate (all connections) ³	SCMH					
Other green gas						

³ Irrespective of connection date.

Enquiries	Number			
Connection studies	Number			
Capacity of connection studies	SCMH			
Connections	Number			
Capacity connected	SCMH			
Volume (energy value) of other green gas injected	GWh			
Average monthly flow rate (all connections) ⁴	SCMH			

Biomethane and other low carbon gas connections (GT only)

2.8.—The gas transmission licensee must report on connections in the reporting year, including a breakdown of the different gases that are included in ‘Other green gas’ as per Table 3.

Table 3—Connections activity for low carbon sources of gas

Unit		2021/22	2022/23	2023/24	2024/25	2025/26
Biomethane connections						
Enquiries	Number					
Connections	Number					
Capacity connected	SCMH					
Average monthly flow rate	SCMH					
Volume of biomethane injected	GWh					

⁴ Irrespective of connection date.

Other green gas				
Enquiries	Number			
Connections	Number			
Capacity connected	SCMH			

Connecting low carbon generation (ET only) - optional

2.9.—The electricity transmission licensees may report on the following:

2.9.1.—New connections of renewable and low carbon generation to the licensee's network in the reporting year:

2.9.2.—Low carbon generation as a percentage of total generation connected to the licensee's transmisson network:

2.9.3.—The number of connection offers accepted:

2.9.4.—The average time the licensee took to develop and issue a generation connection offer for customers:

2.9.5.—The licensee's score from the Quality of Connections ODI survey:

Table 4—Low carbon generation connections activity

Unit		2021/22	2022/23	2023/24	2024/25	2025/26
New-low carbon generation connections	MW					
Low carbon share-of generation	%					
Average-time to-issue connection offer	Days					
Connection offers-accepted	Number					

Quality of Connections OBI score	Score (1-10)			
Quality of Connections OBI Target				

Innovating for decarbonisation and to protect the environment – optional

2.10.—It is desirable, but not essential, for the licensee to report on up to three ongoing innovation projects or activities that are contributing positively to the low carbon transition, and/or to protecting the environment. This should summarise:

2.10.1.—the issue or barrier that the innovation aims to address:

2.10.2.—what has been achieved in the year:

2.10.3.—the expected benefits of the innovation:

2.10.4.—the timescales and next steps:

Table 5—Innovating to support the low carbon transition and to protect the environment

Innovation	Issue or barrier	Annual achievements	Expected benefits	Timescales

2.11.—The interpretation of innovation activities in this question can be taken broadly. For example, this could range from the first of a kind trial, through to the roll out of an innovation:

Climate change impact

Business carbon footprint – scope 1 and scope 2

- The licensee must clearly state their long-term Science-Based Target, or equivalent target, for greenhouse gas reduction.⁵ In addition, the licensee must state the reduction target for their scope 1 and 2 business carbon footprint (BCF) excluding losses/shrinkage at the end of RIIO-2 of the RAG rating (which may be interpolated from their SBT or equivalent long-term target expanded on elsewhere in the AER Commentary).

3.5 The Executive Summary should be as accessible as possible both in content and in the language used.

Business Carbon Footprint (BCF)

3.6 The AER must cover Scope 1, 2 and 3 emissions. Scope 1 covers direct emissions from owned or controlled sources. Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the licensee. Scope 3 includes all other indirect emissions that occur in a licensee's value chain.

3.7 The licensee must report on all Scope 1 and Scope 2 emissions on an "from its operations. Licensees must include in the AER Commentary further context regarding their activities and progress to reduce Scope 1 and 2 emissions (eg operational control" basis, ie transport emissions reduction).

1.193.8 Licensees must report all emissions from operations on which the licensee has authority to introduce and implement its operating policy on all Scope 3 emissions where possible, including any updated screening tests (in line with relevant Greenhouse Gas (GHG) Protocol guidance covering all upstream and downstream categories).³ We acknowledge that Scope 3 reporting is still a developing area, but we expect licensees' reporting to have developed and be aligned where possible over the previous Price Control Period.

2.12. Reporting should be in total tCO₂e in the following areas:

2.12.1. Building energy use

³ Guidance | GHG Protocol

~~2.12.2. Operational transport~~

~~2.12.3. Fugitive emissions~~

~~2.12.4. Fuel combustion~~

~~2.13. ET In cases where licensees must are unable to report on transmission losses⁶ and GD licensees must report on shrinkage.~~

~~2.14. All the relevant BCF scope 1 and 2 emissions at licensee level must be reported in the AER using the relevant data from the regulatory reporting pack.⁷~~

~~⁶An equivalent target to a SBT is a greenhouse gas reduction target that is aligned with the climate change science goals elements of limiting global warming to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit warming to 1.5 degrees.~~

~~1.203.9 ⁶Some licensees may have included this as scope Scope 3 emissions and are welcome to report this in, they must outline why reporting is not possible, the challenges in developing a reporting methodology, and their scope 3 section instead. programme and milestones to improve their reporting (ie coverage and quality).~~

~~⁷The regulatory instructions and guidance (RIGs) for RIIO-2 have not yet been published. The current RIGs for GD can be found here: <https://www.ofgem.gov.uk/publications-and-updates/direction-make-modifications-regulatory-instructions-and-guidance-rigs-riio-gd1-version-70> and for ET here:~~

Table 6—Scope 1 and 2 emissions

Emissions-in tCO2e	Specific area	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Building-energy use	Building—electricity						
	Building—other fuels						
	Substation electricity						
Operational transport	Road						
	Sea						
	Air						
Fugitive emissions	HGs						
Fuel-combustion	Diesel						
	Gas						
Electricity-losses/Gas shrinkage							
Total-excluding losses/shrinkage							
Total-including shrinkage/losses							

2.15.—The licensee should also include the following charts:

2.15.1.—A stacked column chart to showing the composition of total scope 1 and 2 emissions excluding losses/shrinkage over time. This chart should include the licensee’s BCF target for the end of RIIO-2:

<https://www.ofgem.gov.uk/publications-and-updates/direction-modify-regulatory-instructions-and-guidance-rigs-riio-et1-version-72> and for GT here: <https://www.ofgem.gov.uk/publications-and-updates/direction-modify-regulatory-instructions-and-guidance-rigs-riio-gt1-version-72>

2.15.2.  A column chart showing the evolution over time of the CO₂e intensity of an operational mile travelled expressed in kgCO₂/mile.⁸

- 3.10 In addition to reporting methodology developments, licensees must also report on any Scope 3 emissions reduction strategy or actions currently applied or to be potentially applied in future.
- 3.11 Our RIIO-3 Business Plan Guidance set out that licensees must, where possible, adopt a science-based emissions reduction target to reduce its emissions by a date to be specified by the licensee. The targets must be based on the latest scientific consensus, reflecting the actions deemed necessary to meet the goals of the Paris Climate Agreement. Licensees must therefore report on progress against their targets. We encourage network companies to go further than the positions established in the business planning process, and to establish and report on targets for their Scope 3 emissions if not already included within their science-based target scope.
- 3.12 Licensees must take all reasonable actions to reduce controllable GHG emissions and offsetting, where applicable, must only be used for residual emissions in line with SBTi guidance where possible and using a reasonable equivalent where not. International GHG offsetting should not be relied upon and therefore should not be reported in the AER. The reporting of any domestic offsetting measures must be transparent, including an explanation as to why the emissions could only be offset as opposed to reduced or removed.

Electricity Transmission Losses (ET only)

- 3.13 We acknowledge the complexity of this area and the strong stakeholder support for action. Each licensee indicated in its RIIO-3 business plan that despite efforts to reduce losses, total losses (TWh) on their networks are expected to increase during the Price Control Period due to network expansion (although reduced in terms of tCO₂e).
- 3.14 We aim to target losses in an effective way to make a positive contribution to reduce levels of losses due to both the environmental and system impact. Licensees, through their AER, must outline the following and, where relevant, any external sources of data:
- Annual transmission losses from the licensee's transmission network (in TWh, as a percentage of total electricity transmitted, and in tonnes of CO₂e), with commentary on any performance changes and trends;

- Peak transmission losses from the licensee's transmission network in the Regulatory Year (MW), with commentary on the impact of peak trends across the Price Control Period on system costs;
- A short narrative on the actions or interventions in the Regulatory Year that the licensee completed from (or in addition) to its Losses Strategy and the expected benefit of those;
- How they have collaborated and shared best practice across the sector (including with NESO) to establish and develop an improved framework for reducing system losses, as well as assessing and reporting; and
- How they have considered losses when replacing assets (ie with the use of low loss equipment or considering larger cables where the incremental cost is small relative to the long-term saving in losses).

3.15 During the Price Control Period, we expect licensees to innovate and find cost effective ways to better manage losses.

Sulphur Hexafluoride (SF₆) & Other Insulation and Interruption Gases (IIGs) – (ET Only)

3.16 Licensees must use the AER Commentary to provide supplementary information on the use of SF₆, an Insulation and Interruption Gas (IIG) that has an environmental impact due to its high GWP, as well as any other IIGs in use.⁴ This must include:

- Total IIG emissions (t/CO₂e) and leakage rate (%), with commentary on any yearly performance changes, and trends against reduction targets (Price Control Period and long-term);⁵
- Interventions in the previous Regulatory Year that the licensee has completed from its IIG emissions reduction strategy and their estimated impact on emissions;
- The volumes of each IIG currently installed on the licensees' Transmission System (with reference to each IIG's GWP) and the reasoning for any continued addition of SF₆ in the context of licensee commitments regarding the use of SF₆ alternatives;
- A high-level description of the likely future volumes of IIGs, including SF₆, on licensees' respective networks and any actions taken to minimise their SF₆ inventory;
- The use of Air-Insulated Switchgear (AIS) and other non-IIG alternatives to limit the addition and/or continued use of SF₆ on the network;
- The quantities of SF₆ added during installation, maintenance or servicing due to leakage;
- For decommissioned equipment, the measures taken to recover and dispose of any SF₆; and
- The use of virgin SF₆ and any actions taken to limit new SF₆ entering the Transmission System (ie leakage capture and recycling).

⁴ IIGs for the purpose of this report will include Sulphur Hexafluoride and all alternative IIGs deployed, provided they have a global warming potential.

⁵ IIG emissions data in the AER are to be reported on the same basis as the licensee's IIG methodology submitted to Ofgem under Part B of Special Condition 4.3 (Insulation and Interruption Gas emissions output delivery incentive) of the Transmission Licence.

3.17 We expect licensees to consider how IIG emissions reporting can be evolved over time, with aims for a common reporting methodology. This must include reporting on best practices and any update on collaborative work with other licensees to develop an improved framework for assessing and reporting on IIG emissions (ie improvements to the “top-up” leakage calculation methodology).

3.18 Licensees must use the AER Commentary to include an update on the development of alternative approaches to replace SF₆ assets with alternative equipment that is SF₆-free and comparatively environmentally sustainable.

Shrinkage (GT only)

~~1.21~~ 1.19 The gas transmission licensee must report on:

- Compressor ~~fuel usage:~~ **Fuel Usage (CFU)**: the energy used to run compressors to manage pressures within the gas transmission system. This can either be gas or electricity, depending on the power source for the specific compressor.
- Calorific ~~value shrinkage:~~ **Value Shrinkage (CVS)**: This is caused where multiple sources of gas with different calorific values are transported and delivered through different offtakes. When the energy is billed, the calorific value of all the gas is capped at a set quantity above the lowest calorific value, hence there will be some energy that has been delivered but not billed.
- Unaccounted for ~~gas:~~ **Gas (UAG)**: This is the remaining quantity of gas which is unallocated after ~~taking into account~~ **considering** all measured inputs and outputs from the system.⁹⁶
- Natural Gas Vented from all ~~Compressors:~~ **compressors, natural gas recompressed and natural gas vented during pipeline maintenance**. Natural Gas Vented should be calculated in accordance with the Greenhouse Gas Emissions Calculation Methodology.¹⁰⁷

~~1.22~~ 1.20 The gas transmission licensee must also report on the projects undertaken by the licensee to investigate the accuracy of measurements at **NTS National Transmission System**

⁶ The amount of gas (GWh) that remains unaccounted for after the Entry Close-out Date following the assessment of NTS Shrinkage performed in accordance with the Uniform Network Code which is the legal and contractual framework to supply and transport gas. Some of this gas is leakage.

⁷ The gas transmission licensee is required according to SpC 5.8 to maintain a GHG emission calculation methodology approved by the Authority.

(NTS) entry and exit points, and any activity related to investigation and analysis of data to identify causes of gas that is unaccounted for as above.

⁸ Helicopter miles where Shrinkage (GD only)

relevant should be reported separately:

⁹ The amount of gas (GWh) that remains unaccounted for after the Entry Close-out Date following the assessment of NTS Shrinkage performed in accordance with the Uniform Network Code⁹ which is the legal and contractual framework to supply and transport gas

¹⁰ The gas transmission licensee is required according to License condition 5.6 part E to maintain a GHG emission calculation methodology approved by the authority.

Table 7: Breakdown of GT Shrinkage (GT)

Unit		2021/22	2022/23	2023/24	2024/25	2025/26
Compressor fuel usage	GWh					
Calorific value shrinkage	GWh					
Unaccounted for gas	GWh					
Natural Gas vented from all compressors	Tonnes					

3.21 Licensees must use the AER Commentary to provide supplementary information on shrinkage reduction activities and projects including:⁸

- Pressure management;
- Gas conditioning; and
- Shrinkage activities funded through the relevant uncertainty mechanisms.

3.22 Commentary on individual projects must include:

- A summary of the shrinkage reduction activities that have taken place over the previous Regulatory Year;
- Commentary on how individual projects have been attributed to shrinkage reduction, including the percentage reduction each project achieved;
- An explanation in instances where licensees have not managed to reduce shrinkage in that Regulatory Year, including factors that effected this;
- An overview of the target shrinkage reduction licensees have set for the end of the Price Control Period including an update on their progress to achieving their targets; and
- A high-level description of the likely future modelled and observed (if available) volumes of shrinkage.

Advanced Leakage Detection and the Digital Platform for Leakage Analytics (GD only)

3.23 The following metrics have been added for RIIO-3 to track the rollout of Advanced Leakage Detection (ALD) and the Digital Platform for Leakage Analytics (DPLA). The GDNs must provide:

⁸ GDNs endeavour to reduce their shrinkage through activities such as pressure management, replacing old metallic pipes, and gas conditioning.

- the percentage of low pressure and medium pressure networks that have been surveyed using ALD technology during the regulatory year;
- commentary on each network's progress in rolling out ALD technology (both to meet HSE requirements and beyond);
- commentary on cross-GDN engagement on DPLA rollout to ensure consistency, calibration and continued sharing of insights;
- commentary on preparation for DPLA roll out (within years one and two for NGN, SGN and WWU);
- a Cadent-specific commentary to capture learnings from its rollout of the DPLA (Cadent only); and
- commentary on how they're assimilating these learnings into their DPLA rollout programmes (NGN, SGN and WWU only).

Biomethane and other low carbon gas connection (GD and GT only)

Shrinkage (GD only)

~~1.233.24~~ The gas distribution and transmission licensees must report on the following:

~~2.15.3. Annual levels of gas leakage from the distribution system, reflecting the volume of methane lost into the atmosphere from fugitive emissions and venting. These should reported as set out in Tables 8 and 9, including:~~

- A summary of licensees' green gas connections and injection processes and awareness of ongoing issues, as well as the overarching strategy to address these;
- Relevant KPIs in relation to green gas connections and injections, including enquiries received, connection studies completed, capacity connected/volumes injected; and
- Engagement events with relevant stakeholders in the Regulatory Year and any learnings of best practice. Licensees must also outline any upcoming stakeholder events in the forthcoming Regulatory Year and the objectives of these.

3.25 Gas distribution licensees must also provide an update on ongoing work to improve and standardise low carbon gas connections methodologies including collaborative efforts across networks.

Hydrogen blending (GD and GT only)

~~2.15.3.1. The volumes of gas lost from each source of leakage, expressed in GWh;~~

~~2.15.3.2. The leakage component of the overall shrinkage-ODI-R target; and~~

~~2.15.3.3. The tCO₂e volumes for the above values, using the conversion factor included with the table to reflect the GWP of unburned gas.¹¹~~

2.15.4. Annual volumes for the other sources of shrinkage (own use gas and theft), and associated tCO₂e volumes for these (using the given conversion factor for burned gas), as set out in Tables 10 and 11.

¹¹ This conversion factor is based on the GWP factor for methane that is currently available on the [BEIS website](#). We expect this figure to be amended during the price control period. If this occurs, we will consult on how this will affect the reported emissions.

2.15.5. Any activities undertaken during the year (other than theft investigations) that are expected to materially affect shrinkage volumes, but which are not reflected in the calculations of the Shrinkage & Leakage Model.¹²

Table 8: Leakage volumes

GWh	2021/22	2022/23	2023/24	2024/25	2025/26
Low-Pressure-Mains					
Medium-Pressure-Mains					
Services					
AGIs					
Interference					
Total					
Target-Total					

Table 9: Leakage emissions

Conversion factor: 1,226.42 tCO₂e/GWh¹³

tCO ₂ e	2021/22	2022/23	2023/24	2024/25	2025/26
Total					
Target-Total					

Table 10: Other shrinkage volumes

GWh	2021/22	2022/23	2023/24	2024/25	2025/26
Own-Use					
Theft					
Total					

¹² A definition for The Shrinkage and Leakage Model is contained in the gas distribution Licence. We consider changes of 1 GWh or more to be material, though licensees should also use their own judgement in determining this, and should explain their thinking.

¹³ The following assumptions are used to determine the quoted conversion factor:

CV MJ/m ³ natural gas:	39.6
% of CH ₄ in natural gas:	82.97%
Density of CH ₄ in kg/m ³ :	0.656
Global Warming Potential of CH ₄ in tCO ₂ e:	25
Proportion of CO ₂ in natural gas:	2.4%

Density of CO2 kg/m3:	1.98
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Table 11: Other shrinkage emissions

Conversion factor: 183.85 tCO₂e/GWh¹⁴

GWh	2021/22	2022/23	2023/24	2024/25	2025/26
Gwn-Use					
Theft					
Total					

Electricity transmission losses

~~1.24~~3.26 The electricity and transmission licensees must report on the following:

~~2.15.6. Annual transmission losses¹⁵ from the licensee’s transmission network in TWh, as a percentage of total electricity transmitted, and in tonnes of CO₂e.~~

- ~~A short narrative on the~~Supplementary information on hydrogen blending activities undertaken in the Regulatory Year including the number of blending connections; and
- An explanation on the impacts of hydrogen blending to the licensees shrinkage volumes, including the percentage reductions of shrinkage attributed to hydrogen blending in the Regulatory Year.

Supply chain management

3.27 Licensees must use the AER Commentary to discuss relevant sustainability metrics/KPIs demonstrating how suppliers proactively meet their environmental supplier codes (or equivalents). This may include, but is not limited to, factors such as decarbonisation, environmental protection and carbon awareness training.

~~2.15.7. Licensees must provide a description of actions or interventions in the reporting year that the licensee completed from its Losses Strategy¹⁶ and the expected benefit of those.~~

~~2.15.8. Any changes or revisions the licensee has made to its RHO-2 Transmission Losses Strategy.~~

Table 10 — Electricity transmission losses

Unit	2021/22	2022/23	2023/24	2024/25	2025/26
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Annual losses	TWh					
Share of total electricity	%					
CO2 emissions	TCO2e					

¹⁴ Source: BEIS Greenhouse Gas Reporting Conversion Factors 2020.

¹⁵ Measured as the difference between the units of electricity metered on entry to the licensee’s transmission system and the units of electricity metered on leaving that system;

¹⁶ All ET licensees submitted a Transmission Losses Strategy as part of their RIIO-2 Business Plans.

Insulation and Interruption Gas (IIG) emissions – ET only

2.16. The electricity transmission licensees must report on:

- 2.16.1. Annual IIG leakage from the licensee’s transmission network in tonnes of CO₂e and as a percentage of total inventory.¹⁷
- 2.16.2. Interventions in the year that the licensee has completed from its Insulation and Interruption Gas Reduction Strategy¹⁸, submitted as part of its EAP commitments, including an estimate of the impact of those activities on CO₂e emissions:

Table 11 – IIG emissions

IIG type		2021/22	2022/23	2023/24	2024/25	2025/26
Total IIG emissions	TCO ₂ e					
Licensee-to-specify-IIG emissions	TCO ₂ e					
Licensee-to-specify-IIG emissions	TCO ₂ e					
Leakage rate	%					
Interventions per annum	Number					
Estimated impact of interventions	TCO ₂ e avoided or abated					

¹⁷ IIG emissions data in the AER are to be reported on the same basis as the licensee’s IIG methodology submitted to Ofgem under Part B of Special Condition 4.3 (Insulation and Interruption Gas emissions output delivery incentive) of the Transmission Licence.

¹⁸ Some insulation and interruption gases (IIG) used in electricity switchgear can have a potent greenhouse gas warming potential. All ET licensees submitted a IIG Strategy to reduce emissions through asset management practices and taken to address and embed sustainable procurement of alternatives when commercially available.

Business carbon footprint – Scope 3 emissions¹⁹

2.17. – At the start of RIIO-2, the level and quality of reporting on scope 3 emissions will likely vary between sectors as well as between companies in the same sector. This is because of differences in coverage, ie the categories²⁰ that the licensees currently report on, the methodologies used to calculate scope 3 emissions, as well as the availability and quality of data. As a result, there is likely to be some variation across the licensees' scope 3 emissions reporting in the first few years of RIIO-2.

2.18. – Nonetheless, we expect all licensees' scope 3 emissions reporting to evolve and to improve over RIIO-2. Over the course of RIIO-2 we expect each licensee to:

2.18.1. – complete a screening exercise to identify the most relevant scope 3 emissions for their network

2.18.2. – develop a programme, based on its screening results, to improve the calculation of their scope 3 emissions, in terms of completeness, accuracy and quality, and

2.18.3. – to increase the coverage and quality of their annual on scope 3 emissions reporting.

Screening scope 3 emissions

2.19. – Ahead of the first AER, companies should complete a screening of their scope 3 emissions preferably in line with the GHG Protocol: Technical Guidance for Calculating Scope 3 Emissions (V1).²¹ We expect the screening to cover all upstream and downstream categories defined in the Protocol:

¹⁹ The GHG Protocol (see below) defines scope 3 emissions as all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions (p. 28). For network companies this includes for example contractors/ suppliers' transportation.

²⁰ The Greenhouse Gas Protocol [Technical Guidance for Calculating Scope 3 Emissions \(v1\)](#) identifies 15 reporting categories for scope 3 emissions:

²¹ Page 11 in the GHG Protocol [Technical Guidance for Calculating Scope 3 Emissions \(v1\)](#)

2.20.—Based on its scope 3 emissions screening results, the licensee must identify the upstream and downstream categories which are relevant to the company. The licensee should identify data issues (both in terms of gaps in coverage as well as quality) as well as material emissions (relative to overall scope 3 emissions):

Improvement programme

2.21.—It is desirable that the licensee should also outline in the AER its programme and milestones to improve its scope 3 emissions data quality over time. Improvement should focus on scope (for example coverage – % of contractors reporting) and/or quality (for example – moving from financial spend based data to the collation of emissions data for products and services provided by suppliers and contractors):

2.22.—We expect that by the second half of RIIO-2, the licensee’s calculation of all material scope 3 emissions will have improved significantly such that there is better consistency in the reporting methodologies used by the licensees across networks and sectors. The licensee should include progress updates on its reporting improvements in the AER, including updates on initiatives, change in policies, changes to approach to contractors etc.

2.23.—Where relevant and applicable, some licensee’s may also set, and report on, science based targets for scope three emissions during RIIO-2.²²

Reporting requirements in AER

2.24.—In the first AER, the licensee must include the results of the screening exercise. The licensee must present the results in appropriate data tables and in charts.

2.25.—The licensee also should include narrative on the material categories relevant to its network as well as a summary of the most significant issues it faces in calculating its scope three emissions. Supplementary information on the screening methodology, data used (financial spend vs emissions data), and any estimations or assumptions should be included in the AER as specified in the additional requirements below:

²² Companies that have a SBT for scope 1 and 2 emissions are required to set a SBT for their scope 3 emissions if the latter is 40% or more of their overall GHG emissions. Some licensee’s also have committed to set a SBT for their scope 3 emissions as part of their EAP.

2.26.—In addition, the licensee must outline its planned programme to improve its scope 3 emissions reporting.

2.27.—From the second AER onwards, licensees should report on their annual scope 3 emissions in the material categories that are most relevant to their network. We expect that scope 3 emission covering at least the first seven of the upstream categories will be included in the AER of all licensees.²³ Deviation from these categories should be explained.

2.28.—The licensee must present scope 3 emissions in appropriate data tables, with supporting visuals such as charts. For example, a stacked column chart to present the composition of total scope 3 emissions over time.

2.29.—Any significant changes in emissions between reporting years should be explained. If the reason is external to actual emissions such as changes to data source or coverage this should be clearly flagged.

2.30.—Changes to methodologies may also cause year on year changes, however we don't expect such changes to be made unless necessary. For transparency, and if possible, the licensee may re-state its scope 3 emissions based on updated methodology.

Excluded areas

2.31.—End user emissions are not required to be reported as part of this section; however licensees may chose to report on this.

2.32.—Emissions offsetting also is not required to be reported in this section. Licensees that wish to report in this area should do so in line with the GHG protocol for project accounting.

Reporting requirement: additional information

2.33.—Assumptions, methodologies and data sources used in the calculation of scope 3 emissions must be summarised in an appendix to the AER (see table directly below). Any changes to the methodology or data source should also be flagged clearly, for example as a

²³ We expect licensees to report on seven of the eight “upstream” categories in line with the GHG Protocol but recognise that the last scope 3 category includes “upstream leased assets” which may not be relevant to all licensees.

result of improvement of database from one year to another, or change from assumptions base to real data base as a result of improvements to the data collection process.

2.34. If the data collected is not complete (for example, if information is extracted from a portion of the activity – % of contractors or % of projects), this should be flagged as part of the methodology. The approach should be clearly explained and justified.

Appendix 1: Scope 3 categories: methodology, assumption and data source²⁴

Category	Methodology and assumptions	Data source	Confidence in data (completeness and accuracy): RAG rating
Purchased goods and services			
Capital goods			
Fuel and energy related activity ²⁵			
Upstream transportation and distribution			
Waste generated in operations			
Business travel			
Employee commuting			

2.35. Using Red Amber Green (RAG) rating to describe confidence in data: this is a qualitative measure and will be based on the licensee’s own confidence in the data it collates and reports. This can depend on coverage (eg. what % of contractors contribute to the data);

²⁴ This table only covers seven of the categories in the GHG protocol (scope 3 emissions). The licensee should add/amend as necessary to reflect its own relevant areas in line with guidance above.

²⁵ Not included in scope 1 or scope 2

the source (is it based on financial data which may be more indicative, or is the data provided by contractor), as well as maturity of the collation of data (are processes clear/new processes). We expect some changes over time as processes, coverage and/or accuracy in some areas will improve over time.

Embodied carbon²⁶

~~2.36. – Embodied carbon (EC) is defined in the UK Green Building Council as “The total greenhouse gas (GHG) emissions (often simplified to ‘carbon’) generated to produce a built asset. This includes emissions caused by extraction, manufacture/processing, transportation and assembly of every product and element in an asset”.²⁷~~

~~2.37. – Where applicable, the licensee must report in the AER on EC of new construction projects that have been completed in the reporting year.²⁸ Licensees within each sector should collaborate to ensure consistency in reporting methodology and reported units within the gas and electricity transmission sectors, and also within the gas distribution networks. We also expect some cross-sector consistency to develop throughout RHO-2.~~

~~2.38. – The licensee must report on their EC using bar charts. Charts should at least include annual EC. Reporting could also be against individual projects.~~

~~2.39. – Methodology and assumptions and data sources (see below) should clearly be set out in an annex.~~

~~2.40. – We recognise developing methodologies alongside other licensees, as well as developing appropriate database and/or training staff and/or contractors may take time, and thus we do not expect full data in the first and second years of the price control period, but we expect more information to be available as we progress through the price control period. Licensees should set out their plans and their progress in this area.~~

²⁶ We recognise that there may be overlap between elements of scope 3 emissions and embodied carbon (for example, transportation of materials by contractors) and thus these are reported separately and are not required to be “added up”

²⁷ Embodied carbon: developing a client brief: <https://www.ukgbc.org/wp-content/uploads/2017/09/UK-GBC-EC-Developing-Client-Brief.pdf>

²⁸ Projects where building started during the RHO-2 price control period.

2.41.—We recognise that licensees may chose to report only on new projects that reach a certain threshold (for example based on £m spend). This should be clearly flagged.

Embodied carbon: reporting on the “final design” versus “as built”

2.42.—There are two ways to estimate EC of a project: one is based on its “final design”, and the other is based on the way it was eventually constructed (“as built”). These estimations may differ as the “final design” of a project will not necessary match the final project “as built”. A project can often diverge from “final design” as a result of changes made to adjust and optimise construction work.

2.43.—The EC information of an “as built” project can sometimes be less reliable or complete because contractors and suppliers working on the project may not be in a position to report EC accurately. On the other hand, if suppliers are able to report this data, it could be more accurate as it is based on actual data rather than assumptions made at the design stage (for example, the amount of concrete actually used on a site could differ from that included in the final design).

2.44.—Where applicable, the licensees must report on the EC of a project based on “as built”. We also encourage licensees where possible to also report on estimated EC based on “final design” if this information is available. Commentary explaining the main drivers for difference between the two figures is welcome. If a licensee has a target for EC in new projects, it should clarify whether the target is for the “final design”, “as built” or both.

~~1.251.1.—Given the time lag between design and project completion, which can span over several years, both assessments of EC should be reported alongside each other when the project is completed in a reporting year.~~

2.45.—We recognise that some of the final designs have been completed during RIIO-1 while staff were not yet trained to collate relevant information, and thus acknowledge that this information may not be readily available.

2.46.—We note that some of the information will not be readily available to accurately assess EC, particularly for “as built” stage. Where this is the case, the licensee should seek information from suppliers, or if not available, from carbon databases such (ICE, DEFRA, etc.). Any assumptions should be clearly flagged in the report

2.47.— Some types of construction works such as street works may not include a detailed design stage and so the reporting of EC will only cover the “as built” measure.

2.48.— The licensee must set out clearly its plan and milestones to improve data collection from its supply chain, including any changes to policy and or procurement strategy, and report on its progress against this plan.

Methodology and reporting units

2.49.— To ensure consistency in reporting and use of terminology, methodologies and reporting for EC should be in alignment with Publicly Available Specification (PAS) 2080 where this is possible.²⁹

2.50.— The licensee should use tCO₂e/£m as the default embodied carbon reporting unit. When reporting on cables, overhead lines (OHL) and pipes³⁰ tCO₂e/km should be used. Additional reporting metrics can be considered. For example, tCO₂e/kV for substations may be used by ET and GT licensees. Linear assets may form part of a larger project which includes other asset types and therefore the whole project would use the “tCO₂e/£m” metric for consistency. However, the linear assets for this project should also be reported in a sub-table with the proposed “tCO₂e/km” metric.

2.51.— When reporting on progress against targets and/or reporting on initiatives to reduce or avoid embodied carbon, licensees should explain what actions have been taken — for example changes to design, material selection and/or optioneering.

Sustainable procurement, resource use and waste

Supply chain

2.52.— Sustainable procurement is a new area of reporting for RHO-2. We recognise that this may result in new information gathering systems needing to be established or further developed within the RHO-2 period, prior to full reporting in this area.

²⁹—“PAS 2080:2016 Carbon management in infrastructure” is a carbon management framework available for purchase online here: <https://shop.bsigroup.com/ProductDetail?pid=000000000030323493>.

³⁰—GT and GD licensees only.

2.53.— We think it is a challenge to establish common reporting metrics for supply chains that will vary by, for example, the products and services procured by each licensee. As a result, the comparability of reporting on supply chain procurement may be limited in the first few years of reporting.

2.54.— Nonetheless, this section should provide guidance where procurement contracts are to be renewed to further consider sustainability in company procurement processes, with a view to improve reporting in this area over RIIO-2. The metrics outlined below represent common areas of reporting on which the licensee will ideally provide information where this data is available to them, and focus on improving efforts to its capture data:

2.55.— For supply chain, the licensee should report on progress made in integrating environmental sustainability in their procurement practices where data is available, including³¹:

1.263.28 A description of the overarching strategy to address environmental sustainability in procurement and actions in the previous reporting year to embed this into practices/principles, such as developments to the licensee's supplier code³² code (or equivalent), KPIs, or pre-qualification questionnaires (PQQ) in tender processes.). This could/may also include collaborative work among network companies/licensees or actions taken following ISO guidelines.³³

2.55.1.— The percentage of suppliers (by value) meeting the licensee's environmental supplier code.

2.55.2.— The percentage of suppliers (by value) Licensees must elaborate on specific activities they have undertaken to promote sustainable procurement (activities and goals that have their own a tangible impact upon sustainability metrics or KPIs.

2.55.3.— Relevant internal KPIs in relation to sustainability in the supply chain.

³¹ ISO 20400 provides guidance to companies regarding integrating sustainability into procurement processes. ISO 14040 provides guidance to companies undertaking life cycle assessments.

³² Supplier codes of conduct ensure company suppliers have responsible and sustainable production processes.

³³ For, for example, ISO 14000 provides guidelines regarding environmental management systems, eco labelling, environmental auditing, performance evaluation and environmental aspects in product standards and life cycle assessments.

3.29 Relevant events by aligning with in the previous reporting year and any learnings of best practice, including engagement with stakeholders or case study outcomes. We think this is an area that will evolve over time and it may be useful for companies to provide further the UN Sustainability Goals).

1.273.30 Licensees may provide analysis on their supply chain and the goods and services procured from suppliers where data is available. 34 We welcome companieslicensees to include further information in their supply chain reporting that could include, for example, the key areas of expenditure (by value) in the previous reporting yearRegulatory Year and commentary on any known environmental impacts of or efforts to reduce this where this is possible.

Table 12 – Sustainable procurement performance indicatorsResource Use & Waste

Supply-chain	Unit	2021/22	2022/23	2023/24	2024/25	2025/26
Percentage-of suppliers-(by-value) meeting-licensee’s supplier code	%					
Percentage-of suppliers-(by-value) that-have-their-own sustainability-metrics or KPIs:	%					

Efficient resourceLicensees must use the AER Commentary to build upon and waste

2.56. There are strongfurther develop information and clear links between measuresmetrics around the production and disposal of waste as reporting matures. Companies must report on actions taken to improve resource efficiency and those to minimise waste. 35 We recognise for some licensees, this will be a new area of reporting that will evolve over time. We have therefore not mandated the methodology in which the licensee provides information, but expect that licensees are transparent on how they have collected data where this is available.

³⁴ Example guidance of a process that can be used to determine the environmental impacts of the supply chain can be found [here](#).

³⁵ WRAP and Zero Waste Scotland provide guidance to businesses in the UK with regard to looking at and improving resource efficiency:

2.57. – The licensee must report in their AER:

~~1.283.31~~ Actions it has taken to improve resource efficiency³⁶, (ie company use of materials), waste prevention and the diversion of waste from landfill.

~~2.57.1. – The key materials (maximum of 10) by value and/or mass³⁷ consumed directly by the company and where relevant, the supply chain. Licensees should comment on the environmental impact of materials where possible.³⁸~~

~~2.57.2. – The total metric tonnes of waste produced directly by the company within the reporting year. Companies may provide a breakdown of how they segregate the waste streams that contribute to this total where useful.³⁹~~

~~2.57.3. – The final destination of total waste reported, as allocated by the licensee in the reporting year – e.g. % reduced, % prepared for re-use, % recycled, % other recovery, % to landfill by weight, volume, or best available data.⁴⁰~~

~~1.293.32~~ We would like to see further development in this areas as reporting matures and encourage licensees to include Licensees may use their own metrics relevant to their organisations and reporting systems where this could be of interest to stakeholders, for example, in areas such as reuse and the circular economy. Licensees may also provide a description of actions taken to address and embed sustainable procurement principles.

~~Where~~ Visual Amenity (ET only)

3.33 Licensees must use the AER Commentary to report on activities relating to improving visual amenity. This is not strictly prescribed but can include associated themes such as stakeholder engagement and local aesthetic improvements for the local environment.

~~2.58. – In relation to Landscape Enhancement Initiative Projects (LEIP) in Electricity Transmission, the licensee reports on categories within resource use and waste, they should present must provide information in the formats that are most appropriate for them, such as data tables, visuals and charts. Licensees may also use a normalisation reporting unit on any LEIP for these figures where appropriate such as t/£m.~~

Table 13— Total waste

	2021/22	2022/23	2023/24	2024/25	2025/26
Total metric tonnes of waste					

³⁶ Defined as company use of materials.

³⁷ kg, litres or m³

³⁸ For example, whether materials are raw, renewable, recyclable, reuseable or repairable.

³⁹ For example, metal, wood, organics, dry mixed recyclables , hazardous, and/or general.

⁴⁰ Information on applying the Waste Hierarchy can be found [here](#).

produced directly by the company				
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Local environment

Climate change resilience – optional

2.59. –Based on feedback we have received from wider stakeholders about their interest in this topic, it would be desirable, but not essential, for the licensee to also report on its climate change resilience and adaptation activities. Where relevant, this could include reporting on:

- 2.59.1. –Physical asset protection interventions (the licensee to define physical protection categories relevant to their network in Table 14).
- 2.59.2. –A high level summary of research, monitoring and ongoing analysis undertaken by the licensee on the climate change risks across its network.

Table 14 – Climate change adaptation activities

Activities	2021/22	2022/23	2023/24	2024/25	2025/26
Licensee to define					
Licensee to define					

2.60. –Climate change resilience projects can be long term. Therefore, the licensee may decide to only periodically report as and when is new each preceding Regulatory Year. Such information is available.

Enhancing the local environment

2.61. –The licensee must report on the following:

1.303.34 – Schemes the licensee has initiated to enhance or restore environmental quality and/or biodiversity on network sites within the reporting year. This could MUST include land remediation schemes.

~~2.61.1. Schemes to enhance the environment in the local community (ie sites that are not owned by the licensee or its corporate group) that the licensee has initiated or contributed to within the reporting year.~~

~~Table 15 Schemes to enhance or restore local environmental value~~

Scheme name	Location	Description	Environmental benefit	Timescales

~~2.62. We would like to see all licensees move towards adopting a formal natural capital valuation (NCV) tool over the course of RIIO-2 to provide better information about the provision of ecosystem services from long-term land assets they hold. However, we note that NCV is an evolving methodology, and is also resource intensive to implement. Therefore, we consider it would not be proportionate to require every licensee to report a NCV of its land holdings in the AER.⁴¹~~

~~2.63. Only licensees that have an EAP commitment, an Output Delivery Incentive or a Consumer Value Proposition included in their RIIO-2 price control, that is directly linked to a measure of NCV, will be required to report on this measure. In such cases, we expect the licensee to include summary information on a portfolio basis for:~~

~~2.63.1. The type and condition of natural assets.~~

~~2.63.2. The type and quantity of ecosystem services – provisioning, regulating and cultural ecosystem services.~~

~~2.63.3. A valuation of the annual flow of ecosystem services.~~

~~2.63.4. A statement on any services excluded from the valuation because, for example, there isn’t an existing valuation methodology.~~

⁴¹ There is a big range in the size of land holdings held by the different licensees.

2.63.5. — A valuation of the natural capital assets.

2.64. — We note that some licensees have EAP commitments to work towards adopting a natural capital asset valuation tool over the course of RIIO-2 to incorporate this information in business planning process.⁴² We have set out some principles for the development of ecosystem and natural capital asset reporting in Appendix 1 to help guide convergence in the approaches taken by the licensees. We also encourage the licensees to provide updates on their progress developing and implementing these tools as part of their AER.

Biodiversity

2.65. — The licensee must report on the impact on biodiversity from network development projects that affect the local environment where, in the reporting year, the final design of a project receives external approval from a relevant planning authority.

2.66. — For applicable projects meeting the requirements of the preceding paragraph, the licensee must report on:

2.66.1. — The initial baseline assessment of biodiversity units.

2.66.2. — The post intervention assessment of biodiversity units.

2.66.3. — The total net percentage change in biodiversity.

Table 16 — Impact on biodiversity

Project description	Baseline units	Post-intervention units	Total net unit-change	Percentage net-change

⁴² We note that the BSI is developing a British Standard on natural capital accounting (BS 8632).

2.67.– It would be desirable, but not essential, for the licensee to also report on projects that affect the local environment that are not subject to external consents but instead proceed from within the licensee’s internal governance process for capital project delivery.

2.68.– Biodiversity units should be calculated using the latest DEFRA Biodiversity Metric for projects in England.⁴³ Adaptations to the DEFRA Biodiversity Metric may be necessary to ensure it is suitable for projects in Scotland and Wales. In such cases, the licensee should explain any modifications and provide links to further detail on these.

2.69.– We consider that it would be best practice for the licensee to also disclose the de-minimus area limits it considers are not appropriate for monitoring and reporting on in its AER.

Visual amenity schemes in designated areas (ET only)

2.70.– The electricity transmission licensees must report annually on the following: Table 17–

Visual amenity schemes in designated areas

Unit		2021/22	2022/23	2023/24	2024/25	2025/26
Removal of overhead lines	km					
Non-technical mitigation projects started in year	number					
Non-technical mitigation project	£m					

⁴³– A new version of the DEFRA Biodiversity Metric (3.0) is expected to be released in the spring and is likely to remain a stable version for at least 3 years.

Oil top ups from fluid-filled cables and transformers (ET only)

~~2.71.~~ It desirable, but not essential, that the electricity transmission licensees report on oil top ups of:

- ~~the Designated Area for each project;~~
 - ~~a short description of each project;~~
 - ~~the benefits each project is seeking to achieve; and~~
 - ~~the expected beneficiaries of each project.~~
- ~~2.71.1.~~ ~~Fluid filled cables,~~Filled Cables (FFCs) and

Transformers: (ET only)

Table 18 — Oil top-ups

	2021/22	2022/23	2023/24	2024/25	2025/26
Oil-in-service (litres)					
Cable-oil-top-up (litres)					
Transformer-oil top-ups (litres)					

3.35 Licensees must provide additional context around the number and leak rates of their FFCs and Transformers, including the impact these leaks have on the environment. Licensees must also provide details of any activities to reduce or mitigate the impact of such leaks.

Environmental incidents ~~optional~~

~~1.31~~3.36 It is desirable but not essential that the licenseeLicensees must also report on:

- the number and type of environmental incidents which it has reported as required to the relevant environmental regulatory authority (eg Environmental Agency, Scottish Environmental Protection Agency) in the ~~year~~Regulatory Year.

2.71.2. — the action taken by environmental regulators ~~across the following~~
categories:

2.71.2.1. — ~~Warning Letters;~~

- ~~Formal~~ in relation to warning letters, ~~formal~~ undertakings, ~~Enforcement~~ enforcement notices, monetary penalties, and prosecution.

2.71.2.2. — ~~Prosecution.~~

Table 19 – Reportable Environmental incidents AER Commentary section headings (Commentary-only)

Embodied Carbon

- 3.37 Physical infrastructure assets are a significant source of the UK’s carbon emissions. If the UK is to achieve its net zero ambitions, it is critical that the carbon lifecycle of infrastructure assets, including construction, maintenance, decommissioning and disposal, is significantly decarbonised.
- 3.38 Embodied carbon (EC) is defined in the UK Green Building Council as “The total greenhouse gas (GHG) emissions (often simplified to ‘carbon’) generated to produce a built asset. This includes emissions caused by extraction, manufacture/processing, transportation and assembly of every product and element in an asset”.⁹
- 3.39 Licensees should work together to ensure consistency in measuring and reporting methodology (ie reported units). They must provide an update on any collaborative work and shared best practice in developing a common approach, with a long-term aspiration to reduce embodied carbon content of new projects. On this basis, methodologies and reporting for embodied carbon must be in alignment with industry standards (for example Publicly Available Specification (PAS) 2080) where this is possible.¹⁰
- 3.40 The licensee must report on embodied carbon on new construction projects (projects where building started during the RIIO-3 Price Control Period) within the AER Commentary where it is possible to do so.
- 3.41 The licensee must report on both estimated embodied carbon of a new construction project at “final design” and “as built” if possible. Given the time lag between design and project completion, which can span over several years, both assessments of EC should be reported alongside each other when the project is completed in a reporting year.

⁹ Embodied Carbon - Practical Guidance - UKGBC - UK Green Building Council

¹⁰ PAS 2080 - carbon management in infrastructure | The Carbon Trust

- 3.42 If a licensee has a target for the embodied carbon in new projects, it must clarify whether the target is for the design stage or as built, or both. Some types of construction works, such as street works, may not include a detailed design stage and so assessment of embodied carbon will only refer to “as built”.
- 3.43 Where it is possible to quantify the amount of embodied carbon associated with a new construction project, the licensee must use tCO₂e/£m as the default embodied carbon reporting unit. When reporting on cables, overhead lines (OHLs), and pipes tCO₂e/km must be used. Additional reporting metrics may be considered. For example, tCO₂e/kV for substations/compressor stations may be used by ET/GT licensees. These figures (if available) must be presented in an accessible manner in the AER Commentary.
- 3.44 Given the reporting methodology for embodied carbon is not developed to a level that allows comparable and consistent reporting, the figures reported must be provided in the AER Commentary as opposed to the KPI Table. As the quality and standardisation of reporting improves over the course of the Price Control Period, we will consider amending this Guidance.
- 3.45 When reporting on progress against targets and/or reporting on initiatives to reduce or avoid embodied carbon, licensees must explain what actions have been taken – for example changes to design, material selection and/or optioneering.

Biodiversity and Natural Capital

- 3.46 Licensees must report on biodiversity in the AER Commentary to detail projects which protect and/or enhance biodiversity. This should include, but is not limited to, any biodiversity baselining and implementation of measurement approaches over the course of the Price Control Period and any specific actions taken in order to enhance biodiversity.
- 3.47 Biodiversity units must be calculated by the licensee using the latest DEFRA Biodiversity Metric for projects in England, and appropriate equivalent in Scotland and Wales (the licensee should explain any modifications and provide links to further detail on these). Similarly, any changes in the use of metrics should be shared and explained in the AER Commentary.
- 3.48 The AER Commentary should include reference to:
- The achievement of 10% Biodiversity Net Gain (BNG) or regional equivalent legislative target on projects where applicable;
 - The implementation of biodiversity governance strategies included in the licensees’ EAP;
-

- The biodiversity intervention delivery approach and output for the Regulatory Year (ie onsite, offsite or other forms of delivery);
- Any changes in approach to the governance of biodiversity strategies and the delivery of biodiversity interventions; and
- Other environmental activities (in addition to BNG) that aim to mitigate and/or reduce their impact on natural habitats and the local environment that may be of interest to stakeholders.

3.49 Reporting on biodiversity is not required under the AER KPI Table. This is so that any figures regarding biodiversity can be presented alongside the relevant context provided by the narrative. This context is especially important given the geographical differences between the licensees' areas and the divergence in reporting information. As such, all relevant figures and information regarding biodiversity must be reported in an accessible way in the AER Commentary.

Climate Change Resilience and Adaptation Reporting

3.50 There is increasing stakeholder interest in how licensees are responding to climate-related risks. As such, climate change resilience and adaptation reporting will be mandatory in RIIO-3. We recognise this represents a step change from previous years, where such reporting was optional. Licensees must complete this reporting to the best of their ability, even where methodologies are still maturing.

3.51 Over the course of the Price Control Period, the level and quality of reporting on climate change resilience and adaptation reporting will likely vary between licensees due to the differences in coverage.

3.52 Reporting should focus on strategic and narrative updates, demonstrating how climate resilience is being embedded into long-term planning and operations. Licensees must include:

- Progress on climate scenario planning, including how climate data modelling and future scenarios are being used to inform network planning;
- Adaptation pathways,¹¹ including their strategic approach to resilience, how they identify thresholds, triggers and the methodology used;
- Stress Testing for high-impact, low probability events (HILP), including descriptions of methodology and the outcomes;
- Case studies of climate related incidents, illustrating impacts, responses, lessons learned and how these inform future decisions; and

¹¹ The climate guidance relating to Stress Testing, Climate Change Metrics and Indicators and Adaptation Pathway for RIIO-3 have not yet been published.

- Integration of climate resilience incidents into operations and innovation.

3.53 Licensees may also include:

- Physical asset protection interventions; and
- A high-level summary of research, monitoring, and ongoing analysis of climate risks across the network undertaken by the licensee.

3.54 Licensees will report on a high-level basis as part of their reporting and must include a clear overview of the licensee's current position on climate resilience. They should present the work they have done, any supporting studies or other relevant climate information they have gathered across the annual period, the main outcomes and findings of this, and how they will use this information to inform work in the next Regulatory Year.

3.55 Licensees must also provide any justification for omissions where requested information has not been provided, and references to related reports including but not limited to Adaptation Reporting Power, Task Force on Climate-Related Financial Disclosures.

3.56 Licensees may use an annex at their discretion to submit relevant information or data.

Wider Environment & Other Activity (optional)

3.57 Licensees may also report on other projects that affect their operational areas. Licensees can detail activities not captured above which are wider ranging but nonetheless relevant to the AER. This might include (but is not restricted to) activities such as community and stakeholder engagement.

3.58 Licensees may also use this section of the AER Commentary to relate how such activities align with their EAP commitments.

Regional Energy Strategic Planning (GD only)

3.59 We require the GDNs to provide commentary in the AERs on work undertaken to inform the Regional Energy Strategic Plans (RESPs), including:

- stakeholder engagement;
- modelling; and
- any other coordination activities undertaken to contribute to the process of RESP development.

4. AER Key Performance Indicators (KPI) Table

Section summary

This section provides guidance that licensees should follow when preparing the AER KPI Table.

Introduction

- 4.1 Each licensee must include a section covering all the KPIs listed below. Where the licensee has no relevant data and communicates this in the AER Commentary, the KPI value may be “N/A” for certain years. The KPIs should be reported at the licensee level. The figures to be reported in this section will follow both our general instructions in this Guidance and follow the AER KPI Table, a blank version of which is published as Appendix 1 to this Guidance. These figures should form the evidence and basis for some of the content included in the AER Commentary in Chapter 3.
- 4.2 Regarding presentation, we encourage licensees to present the completed AER KPI Table as an Annex to the AER Commentary. This does not diminish the importance of the AER KPI Table as a standalone aspect of the publication, however we consider that by ensuring both the AER Commentary and KPI Table are kept together, stakeholders will find navigation of both easier.
- 4.3 Where possible, licensees must include information on all KPIs for the four Regulatory Years preceding the current Regulatory Year for the purposes of comparative analysis. Where changes to methodology or lack of historical data prevent this, any reasoning should be explained in the AER Commentary, a footnote to the KPI Table, or a supporting methodology document (at the licensees’ stylistic discretion).

AER KPI Table section headings

Contextual Metrics

- 4.4 Licensees must include contextual metrics outlining the size and scope of the company.
- 4.5 Licensee’s must include information pertaining to the Regulatory Year, including:
- Annual revenue and capex;
 - Number of employees;
 - Total network line length (km); and
 - Number of connections.

BCF

- 4.6 The licensees must report on BCF Scopes 1 and 2 year-on-year in both location-based and market-based methodology, and both including and excluding Transmission Losses (ET) or Shrinkage (GD/GT).
- 4.7 The total baseline reduction target will be reported in line with the licensee’s SBTi target approved as part of the RIIO-3 business planning process. If the licensee also has variations and/or specific Scope targets, these targets should also be included in the space indicated. Licensees can provide further detail and commentary as appropriate in the AER Commentary.
- 4.8 Licensee’s must report on their BCF (in tCO₂e emitted) as set out in the licensee’s approved EAP, including:
- Operational Transport;
 - Building energy usage including substation/compressor station energy;
 - Fuel combustion from temporary generation;
 - Fugitive emissions (eg SF₆) - please note that the GWP of SF₆ (and other IIGs) should be taken from the latest DESNZ publication of UK GHGs;¹² and
 - Losses or shrinkage.
- 4.9 The licensee must report on all Scope 1 and 2 emissions on an “operational control” basis (ie report on all emissions from operations carried out as part of the licensee’s authorised business).
- 4.10 The licensee should also include the following charts:
- A stacked column chart and, if the licensee desires, a pie chart to show the composition of total Scope 1 and Scope 2 emissions excluding losses over the Price Control Period in tCO₂e. This chart should include the licensee’s BCF target for the end of the Price Control Period displayed by a downward sloping trend line;
 - A column chart showing the evolution over time of the CO₂e intensity of an operational km travelled expressed in kgCO₂e/km; and
 - A stacked column chart showing the evolution over time of the energy consumption at Licensee operational and non-operational sites, in kilowatt-hours.
- 4.11 The licensee must report on all available Scope 3 emissions and outline less developed areas in the note’s column where appropriate.
- 4.12 Carbon offsetting is to be reported separately to the Scope 1 and 2 emissions, as part of the KPI Table BCF tab, below the input sheet for Scope 1 and 2 emissions. This reporting must not include international offsetting.

¹² <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

Shrinkage (GT only)

4.13 The gas transmission licensee must report on the following:

- Compressor fuel usage by fuel (GWh);
- Calorific value shrinkage (GWh);
- Unaccounted for gas (GWh), including metering errors and leakage;
- Venting from all compressors (tCO₂e);
- Saved gas recompressed from pipeline maintenance work (tCO₂e); and
- Leaked gas during maintenance work (tCO₂e).

Shrinkage (GD only)

4.14 The licensee must report on modelled shrinkage using metrics tCO₂e and GWh on the following parameters, using the Shrinkage and Leakage model:

- Annual levels of gas leakage from the distribution system, reflecting the volume of methane lost into the atmosphere from fugitive emissions and venting;
- The volumes of gas lost from each source of leakage (low pressure mains, medium pressure mains, services, AGIs, interference);
- The leakage component of the licensee's overall shrinkage target;
- The tCO₂e volumes for the above values, using a conversion factor to reflect the GWP of unburned gas;¹³
- Annual volumes for the other sources of shrinkage (own use gas and theft);
- Any activities undertaken during the Regulatory Year (other than theft investigations) that are expected to materially affect shrinkage volumes, but which are not reflected in the calculations of the Shrinkage & Leakage Model;¹⁴
- Gas conditioning activities impact on shrinkage volumes;
- Pressure management impact on shrinkage volumes; and
- Repex on shrinkage volumes.

4.15 Once available, the licensee must also report using observed measures of shrinkage in the metrics tCO₂e and GWh on the parameters listed above.

Biomethane and other low gas connections (GD and GT only)

4.16 The gas distribution and gas transmission licensees must report connections data for the Regulatory Year, including a breakdown of the different gases that are classified as other green gas. This should include:

- The number of enquiries in the Regulatory Year;

¹³ Conversion factor 1373tCO₂e/GWh. The following assumptions are used to determine the quoted conversion factor: CV MJ/m³ natural gas: 39.6; % of CH₄ in natural gas: 82.97%; Density of CH₄ in kg/m³: 0.656; Global Warming Potential of CH₄ in tCO₂e: 28; Proportion of CO₂ in natural gas: 2.4%; Density of CO₂ kg/m³: 1.98.

¹⁴ A definition for The Shrinkage and Leakage Model is contained in the gas distribution Licence. We consider changes of 1 GWh or more to be material, though licensees should also use their own judgement in determining this, and should explain their thinking.

- The number of connection studies;
- The capacity connected in standard cubic meter per hour (SCMH);
- The number of connections;
- The volume (energy value of biomethane injected) in GWh; and
- GD licensees should also include the average monthly flow rate (in SCMh) for all connections irrespective of connection date.

Hydrogen blending (GD and GT only)

4.17 The gas distribution and transmission licensees must report on the following parameters:

- The volume (energy value of hydrogen blending) in GWh;
- The number of blending sites;
- The capacity blended in SCMh; and
- Blending ratio (%) of hydrogen in the gas mix.

SF₆ & Other IIGs (ET only)

4.18 The licensee must report on the following parameters:

- Total IIG emissions¹⁵ (t/CO₂e) – reported as a total against the end of the Price Control Period target, and as each IIG individually.
- The volumes of each IIG currently installed on the licensees' Transmission System (with reference to the GWP of each IIG);
- SF₆ leakage rate as percentage of bank (in line with the IIG Methodology Statement) against the end of the Price Control Period target;
- Leakage rate of non-SF₆ alternative IIGs on the licensees network;
- The total number of assets that contain IIGs;
- The number of IIG assets replaced (per annum);
- The number of SF₆ alternative assets;
- Percentage of assets containing SF₆ (as a % of bank);
- SF₆ leakage rate as percentage of bank at the start of the Regulatory Year against the end of the Price Control Period target;
- Amount of virgin and recycled SF₆ (in kg) reintroduced and/or added to the network;
- Interventions¹⁶ undertaken by the licensee in the preceding Regulatory Year that have been completed; and
- Impact of interventions, meaning the emissions avoided or abated (in t/CO₂e) due to the interventions defined above.

¹⁵ IIG emissions data in the AER are to be reported on the same basis as the licensee's IIG methodology submitted to Ofgem under Part B of Special Condition 4.3 (Insulation and Interruption Gas emissions output delivery incentive) of the Transmission Licence.

¹⁶ Interventions in this context will mean targeted actions that result in reduction of SF₆ emissions; licensees will report on the interventions through a narrative response including the SF₆ alternative arising.

4.19 Regarding the use of alternative IIGs on the network. Reporting should be repeated and distinct for each alternative IIG on the network. The name of each of alternative IIG should be clearly set out within the AER KPI Table.

Electricity Transmission Losses – (ET Only)

4.20 The licensee must report on the following for electricity transmission losses:

- Annual transmission losses from the licensee's Transmission System in TWh, as a percentage of total electricity transmitted, and in tCO₂e;
- The target for the losses by the end of the Price Control Period;
- Annual interventions,¹⁷ reported by number;
- The impact of interventions reported in megawatt hours and tonnes of CO₂e (per annum); and
- The targets and impact of interventions by the end of the Price Control Period.

Supply Chain Management

4.21 The licensee must report on:

- The percentage of suppliers (by value) meeting the licensee's environmental supplier code showing progress towards the target to have 80% of suppliers (by value) signed up over the Price Control Period.

Sustainable Resource Use and Waste

4.22 The licensee must report in the AER KPI table on Resource Use and Waste consistent with GRI standards (excluding Streetworks) according to waste destination (separated as Non-Hazardous/Non-Special and Hazardous/Special):¹⁸

- Total Waste Produced directly by licensee (tonnes);
- % Reused/Recycled;
- % Energy from Waste;
- Total % Sent to Landfill;
- Total % Other (where applicable); and
- Total % of Waste diverted from Landfill (excluding compliance waste, defined as waste that must legally be disposed of to landfill).

4.23 Any waste that does not fall under the three typical categorisations of waste treatment (recycle/reused, energy from waste and landfill) may be categorised as 'Other (where

¹⁷ Interventions in this context mean targeted activities with a discernible impact on reducing electricity losses.

¹⁸ According to the Environmental Protection Act 1990 and other regulations and or relevant legislation. For example, waste with hazardous properties which may render it harmful to human health or the environment is called special waste in Scotland. Elsewhere in the UK and the EC, special waste is referred to as hazardous waste and managing and regulating it is essential to minimise any effects on the environment.

applicable)’. Any additional context or reasoning for the destination of some of the licensee’s waste may be provided in the AER Commentary, and licensees are required to explain the treatment of any waste categorised as ‘Other’ in the AER Commentary.

Visual amenity (ET only)

4.24 The licensee must report on the following:

- the number of LEIPs commenced in the Regulatory Year (#);
- the amount of funding it expects to be allocated to each LEIP started (£/m).

Fluid Filled Cables and Transformers (ET only)

4.25 The licensee must report the volume of fluid (oil) used to top up cables and transformers as a percentage of volume in service against the volume recorded at the start of the Price Control Period (used as the baseline):

- ‘Oil in Service’ means fluid included in the cables, transformers and associated on-network storage tanks;
- ‘Cable Oil Top up’ means the amount of oil added during the Regulatory Year to applicable cables;
- ‘Transformer Oil Top up’ means the amount of oil added during the Regulatory Year to applicable transformers;
- ‘Removal of FFC’ means removal from network or where cables are sealed;
- ‘Leak reduction’ means reduction against the baseline leakage at the beginning of the Price Control Period;
- ‘Oil recovered’ means the oil recovered from leakage; and
- Licensees are required to provide context around their fluid filled cables KPIs in their AER Commentary.

Environmental incidents

		2021/22	2022/23	2023/24	2024/25	2025/26
Licensee to define incident type	Number					
Licensee to define incident type	Number					
Licensee to define action-(if needed)	Number					

Statement on scope and quality of data

2.72.—In this section, the licensee must include some narrative about the scope and quality of the data and information included in its AER.

Scope

2.73.—The licensee must advise on the completeness of the specified information in the AER, where this has not already been done so in the other sections of the AER. If there are any data gaps for any of the specified environmental topics within the licensee’s reporting boundary, it should explain the reasons for the omission.

Quality

2.74.—The licensee must outline the data assurance process it has undertaken on the specified data and information published in the AER. The licensee should also highlight whether or not the AER or some of the information reported in the AER has received an independent external assurance review. Although not essential, we would encourage the

licensee to do so, and to include the associated external review statement as an appendix to the AER.

2.75.—The licensee should also highlight if it has made any changes to the collection, estimation and reporting of performance data contained in the AER, where this has not already been done so in the other sections of the AER.

Appendix 1

Principles for the development of natural capital reporting^N

1.1. Include land assets that the company has management control over. May also include impact on assets beyond those in direct control, where practical.

1.2. Adopt a geographic and habitat-based approach.

1.3. Identify indicators of habitat based on suitability for describing natural capital and measuring change. Select datasets that most closely depict the preferred indicators.

1.4. Evaluate both extent and quality of physical natural asset to derive a natural capital asset register.

1.5. Align ecosystem service categories on the Common International Classification of Ecosystem Services (CICES) (consistent with the approach taken by the Office of National Statistics).

1.6. Identify the relative significance of the ecosystem services derived from land assets.

1.7. Adopt an integrated (or hybrid) assessment of the benefits from all service categories ie both quantitative and qualitative.

Indicate the degree of confidence for final estimated values.

4.26 The licensee may report on:

- The number and type of environmental incidents which it has reported to the relevant environmental regulatory authority (eg Environmental Agency, Scottish Environmental Protection Agency) in the Regulatory Year.

Appendix 1 – AER KPI Table

A1.1 The AER KPI Table is published on the Ofgem website alongside this Guidance.

A1.2 In circumstances where reporting standards have changed, such as GWP factors, the details must be given in the notes column and expanded upon in the commentary section if necessary. Both figures should be reported on in the given Regulatory Year with the previous figure being displayed in red as demonstrated below.

1.8.