

Guidance

RIIO-ED2 Environmental Reporting Guidance

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This document sets out our draft RIIO-ED2 Environmental Reporting Guidance and template for the Annual Environment Report (AER).

This document is targeted at electricity distribution network operators (DNOs), as well as their stakeholders. The document outlines the scope, purpose, and specific guidance for DNOs to follow when producing their Annual Environment Report.

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1. Introduction

Context and related publications

- 1.1 We published our Final Determinations for the RIIO-ED2 electricity distribution price control in November 2022.¹ These set out the key elements of the price control from 1 April 2023 to 31 March 2028. This included a licence obligation for the Distribution Network Operators (DNOs) to publish an Annual Environmental Report (AER) under special condition 9.1 (SpC9.1).
- 1.2 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-ED2 Business Plan.² EAPs are each DNOs’ strategy for how they propose they will mitigate their impact of their business on the environment. The AER will also allow stakeholders to monitor DNOs’ performance in specified environment-related aspects of its price control and enable comparability of performance between DNOs where possible.
- 1.3 This Environmental Reporting Guidance (“Guidance”) has been developed to help the licensee comply with their licence obligation in SpC9.1 of the Electricity Distribution licence to publish an AER. Licensees must prepare their AER in accordance with this Guidance.
- 1.4 The AER will ensure each licensee is held accountable for delivering its RIIO-ED2 EAP Commitments, their approach to environmental management, and their environmental performance during the RIIO-ED2 price control.
- 1.5 Where defined words and expressions are used in this Guidance, they are capitalised and have the same meaning as in SpC1.2 of the Electricity Distribution licence.
- 1.6 The AER is comprised of 2 different sections. First, there is a qualitative reporting methodology designed for an effective communication of the Licensee’s performance against relevant environmental objectives over the last year. Guidance on how this should be structured and its content can be found in Chapter 3. The second part of the AER is a quantitative report, with guidance on how these figures should be calculated and reported available in Chapter 4.

¹ [RIIO-ED2 Final Determinations | Ofgem](#)

² Para 3.147 – 3.177 Core Methodology [RIIO-ED2 Final Determinations | Ofgem](#)

- 1.7 We have included a template for the structure and content of the AER Key Performance Indicator (KPI) Table in Annex 1 of this Guidance.³ 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.

Compliance

- 1.8 Licensees are required by SpC9.1.4 to prepare an AER in accordance with this Guidance.
- 1.9 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 the Guidance Document, the licence will take precedence.
- 1.10 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

- 1.11 This Guidance is issued and amended in accordance with the procedure set out in SpC1.3 of the electricity distribution licence.

Your feedback

- 1.12 We are consulting on this in accordance with Special Condition 1.3 and Special Condition 9.1 of the Electricity Distribution Licence to gather views and feedback on our proposal.
- 1.13 We welcome views on our proposed draft of the Environmental Reporting Guidance document and in particular your comments on the areas listed below.
- the type of information about the licensee’s implementation of their EAP commitments that is proposed in the draft Guidance?
 - the structure and content of the AER that is proposed in the draft Guidance?
 - the metrics to be included in the KPI template that are proposed in the draft Guidance – particularly where there it is a novel area and or there is not yet a common reporting approach across DNOs?

³ ‘We’, ‘Ofgem’ and the ‘Authority’ are used interchangeably in this document and refer to the Gas and Electricity Markets Authority.

- 1.14 If commenting on specific parts of the Guidance or KPI template, we would prefer respondents to specify the paragraph or cell number doing so.
- 1.15 Responses should be sent by email to Dafydd.burton@ofgem.gov.uk by **16 March 2023**.
- 1.16 We normally publish all responses on our website. However, if you do not wish your response to be made public then please clearly mark it as not for publication. We prefer to receive responses in an electronic form so they can be placed easily on our website.
- 1.17 Subject to consultation responses, we intend for this document to come into effect at the start of RIIO-ED2 on 1 April 2023.

2. General instructions and requirements

Section summary

This section sets out the general instructions and requirements DNOs should follow when preparing their Annual Environment Report.

Principles for reporting

- 2.1 When compiling the AER, licensees should adhere to a number of key principles.⁴
- 2.2 The information reflected must be **relevant**, accurately reflecting the important stakeholders would need to understand the environmental impact a DNO has through its operations. Where appropriate, **quantitative** information should be provided for metrics where such data is available. This information should follow the guidance set out for the AER KPI Table (Chapter 4) and should also be reflected in the AER Commentary (Chapter 3) where additional context around this data can be provided. If quantitative data cannot be provided, **qualitative** information should be as clear and concise as possible allowing a broad an audience as possible to engage with the AER.
- 2.3 All information conveyed should be **accurate** and **complete**. Any assumptions or exclusions of data should be well documented and explained in the AER Commentary, as should the level of uncertainty surrounding certain metrics and the steps taken to reduce this uncertainty.
- 2.4 As the purpose of the AER is to provide stakeholders with a picture of the impact their DNOs have on the environment, **consistency** and **comparability** is important. To achieve this, DNOs should follow the Guidance , reporting according to the methodologies outlined where applicable and where no methodology currently exists working collaboratively to develop such a methodology.
- 2.5 To help **transparency** and provide stakeholders with confidence that the information is accurate, DNOs should ensure that relevant issues are reported in a factual and coherent manner, keeping a record of all assumptions, calculations, and methodologies used.

⁴ 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."

Report structure

- 2.6 The licensee’s AER will consist of two key documents: an AER Commentary and an AER KPI table. The Commentary will provide the narrative around how the Licensee has performed against their environmental obligations over the previous year, whereas the KPI table will evidence the Commentary and present numerical evidence of performance.
- 2.7 In cases where a corporate group covers multiple licensees, a single AER can be published for the group.
- 2.8 There is no limit on how long the AER should be. However, the licensee should take into account the level of detail needed for stakeholders to be able to engage with the contents, while at the same time remaining accessible. We will keep this under review and may consider further guidance on this if we consider it necessary.

Reporting date and regulatory year

- 2.9 The AER for the Regulatory Year commencing 1 April 2023 must be published on the licensee’s website by 31 October 2024. The licensee should publish subsequent reports by 31 October of each year.
- 2.10 The licensee’s AER must include information and data for the preceding Regulatory Year of RIIO-ED2.
- 2.11 For the final regulatory year of the RIIO-ED1 Price Control Period, DNOs must follow the requirements set out in Standard Licence Condition 47. This condition will cease to be in effect on 31 October 2023.

Scope of the AER

- 2.12 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 upon on the AER.
- 2.13 The AER should provide stakeholders with a reasonably detailed picture of the licensee’s environmental activities. This includes reporting on progress implementing the licensee’s EAP Commitments, and their EAP targets, where applicable. The licensee should also use the AER to demonstrate to stakeholders what steps or activities then have undertaken to manage, and if possible, reduce their environmental impact more generally.

- 2.14 The structure, content and KPIs described in this Guidance should be the basis for the licensee's AER. A licensee may make enhancements to their AER beyond those specified in this Guidance. Where a licensee does so for an aspect of their AER that relates solely to their activities, we expect the licensee to explain the change in reporting, figures and/or parameters used.
- 2.15 Where a licensee changes reporting methodology, we expect the licensee to explain the change in the AER Commentary, including outlining figures and/or parameters used. If the development or change is applicable to other licensees, then we strongly encourage licensees to work together at a sector level to determine the appropriate consistent reporting practice.
- 2.16 Below are some illustrative examples.
- A licensee may include additional discretionary content where this is in response to their stakeholders' interests, or to address bespoke elements of their EAP commitments.
 - A licensee may also report in their 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 licensee should follow the principles set out in paragraphs 2.2 to 2.5 and explain their methodology for reporting the impact.
 - If two or more licensees in a sector identify 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 and adopt a consistent reporting methodology.
 - Similarly, if two or more licensees consider that a KPI specified in Chapter 3 of this Guidance needs further development, the licensees should work together to determine and agree the most appropriate metric. In such cases, the licensee should disclose and explain in their AER any specific exclusions, as well as their plans for reporting the KPIs in future.
 - Conversely, the licensee might be unable to include all of the KPIs that are specified in this Guidance in their AER, particularly in the early years of RIIO-ED2, because the underlying data is not available, or KPI development is ongoing or due to geographical differences, etc. In such cases, the licensee should disclose and explain any specific exclusions, and their plans for reporting the KPIs in future if they are material to the licensee's network.
- 2.17 The licensee may also include in their AER links to other publicly available documents and include summaries of key information.

3. AER Commentary

Section summary

This section provides guidance that DNOs should follow when preparing the AER Commentary.

Introduction

- 3.1 The AER Commentary is designed to enable licensees to showcase and provide contextual information and analysis of the categories in the AER KPIs as described in Chapter 4, whilst also being able 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

Executive summary

- 3.3 This section should give the broad outline of the other sections detailed below, including headline figures and key findings.
- 3.4 While licensees have flexibility within the executive summary to provide information on what may be relevant in any given year, the executive summary must include a table listing all the commitments in their RIIO-ED2 EAP. The table should set out for each EAP commitment:
- one sentence description of the EAP commitment
 - one sentence summary of the expected benefit or outcome key milestones for implementing the EAP commitment over the course of RIIO-ED2
 - a red/amber/green status indicator on progress against the implementation milestones
 - a brief explanation (one to two sentences) of the reasons for any amber or red indicator.
- 3.5 The Executive Summary should be as accessible as possible both in content and in the language used in order to maximise accessibility.

Business carbon footprint

- 3.6 The AER should 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 reporting company. Scope 3 includes all other indirect emissions that occur in a company's value chain.
- 3.7 The licensee must report on all Scope 1 and Scope 2 emissions on an "operational control" basis, ie report all emissions from operations on which the licensee has authority to introduce and implement its operating policy. Where necessary, licensees should use the AER Commentary to add further context around their activities to reduce Scope 1 and 2 emissions.
- 3.8 Licensees should outline, in respect of Scope 3, how they will develop a methodology for reporting emissions and any reduction strategy or actions currently applied or to be potentially applied in future. Licensees should also show their efforts to work collaboratively across industry to develop a common approach to reporting Scope 3 emissions.
- 3.9 Licensees should also outline in the AER Commentary its programme and milestones to improve its scope 3 emissions data reporting over time and such improvements should focus on scope and/or quality.
- 3.10 As improvements to scope 3 emission reporting are made we expect that a more consistent and comparable approach should be achieved during this Price Control Period. We encourage licensees to work collaboratively to achieve this outcome.
- 3.11 Our RIIO-ED2 Business Plan Guidance set out that DNOs should adopt a science-based target for the company to reduce its scope 1 and 2 BCF by 20xx, without relying on international GHG offsetting, that is in line with Net Zero.⁵ Licensees should therefore report on progress against their targets as accepted in our RIIO-ED2 Final Determinations.
- 3.12 DNOs should be taking all reasonable actions to reduce controllable GHG emissions and offsetting should only be used for residual emissions. As noted in paragraph 3.11, international GHG offsetting should not be relied upon and therefore not reported in the AER. The reporting of any offsetting measures

⁵ 20XX denotes that companies will need to specify a long term date to achieve the specified target. We would then expect companies to specify the associated RIIO-ED2 milestone.

should be transparent, including an explanation as to why the emissions could only be offset as opposed to reduced or removed.

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

3.13 Licensees should use the AER Commentary to provide supplementary information on the use of SF₆, an Insulation and Interruption Gas (IIG)⁶ that has an environmental impact due to its high global warming potential, as well as any other IIGs in use. This should include:

- The quantity and type of any SF₆ currently installed;
- 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;
- A summary of the interventions⁷ that have taken place over the previous year;
- The quantity and type of any other IIGs installed on the Licensees network (and where appropriate their global warming potential); and
- A forecast for future volumes of IIGs, including SF₆, on its respective network.

3.14 Licensees should consider how reporting can be evolved over time to enhance visibility of the issue with a view to incentivise the removal of SF₆ in future price controls or sooner.

3.15 We encourage DNOs to continue their collaborative work on the development of alternative approaches to replace SF₆ assets with alternative equipment that is free of greenhouse gases and environmentally sustainable.

Electricity Distribution Losses

3.16 As described in our Final Determination decision⁸, we acknowledge the complexity of this area and the difficulty in measuring electricity losses on the distribution network. All DNOs indicated in their losses strategy that despite efforts to reduce losses, total losses on their networks are expected to increase during RIIO-ED2, primarily due to the growth in distributed generation.

⁶ IIGs for the purpose of this report will include Sulphur Hexafluoride and all alternative IIGs deployed, provided they have a global warming potential.

⁷ Interventions will mean targeted actions that result in reduction of SF₆ emissions; licensee will report on the interventions through a narrative response including the SF₆ alternative arising.

⁸ Para 3.164 – 3.170 Core Methodology [RIIO-ED2 Final Determinations | Ofgem](#)

- 3.17 We still aim to target losses in an effective way to make a positive contribution to an efficient level of distribution losses. Therefore, licensees through their AER, should
- outline in the AER commentary how they have acted and continued to improve upon their Distribution Losses Strategies to increase transparency to stakeholders on their direct actions to manage distribution losses;
 - outline how they have shared best practice across the sector to establish and develop an improved framework for assessing and reporting losses during RIIO-ED2;
 - outline how they have considered losses when replacing assets (ie with the use of low loss equipment for example or considering larger cables where the incremental cost is small relative to the long term saving in losses); and
 - use the AER Commentary to detail activities around losses and interventions which are either not reported in the KPIs or which add context to the data supplied in the KPIs (Chapter 4).
- 3.18 We encourage DNOs to continue their collaborative work on the development of alternative approaches to replace SF₆ assets with alternative equipment that is free of greenhouse gases and environmentally sustainable.

Embodied Carbon

- 3.19 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.
- 3.20 Licensees should provide an update on collaborative work and shared best practice in developing a common approach for measuring and assessing embodied carbon with a long-term aspiration to reduce embodied carbon content of new projects. On this basis, methodologies and reporting for embodied carbon should be in alignment with Publicly Available Specification (PAS) 2080 where this is possible.

Supply chain management

- 3.21 Supply chain management or sustainable procurement is a new area of reporting for RIIO-ED2. We recognise that this may result in new information gathering systems needing to be established or further developed within the RIIO-ED2 period.

- 3.22 Licensees should use the AER Commentary to discuss relevant sustainability metrics/KPIs demonstrating how suppliers proactively meet their environmental supplier code. This may include, but is not limited to, factors such as decarbonisation, environmental protection, carbon literacy training etc.
- 3.23 Licensees should provide a description of the overarching strategy to address environmental sustainability in procurement and actions to embed practices, such as developments to the licensee’s supplier code (or equivalent), KPIs, or pre-qualification questionnaires (PQQ). This could also include collaborative work among licensees or following ISO guidelines.

Sustainable Resource Use & Waste

- 3.24 Licensees should use the AER Commentary to build upon and further develop information and metrics around the production and disposal of waste as reporting matures. We encourage licensees to include their own metrics relevant to their organisations and reporting systems where this could be of interest to stakeholders- eg in areas such as reuse and the circular economy. Licensees could also consider discussion of overarching strategy to reduce waste and how this may be applied in other fields eg procurement.

Visual Amenity and Noise Pollution

- 3.25 Licensees should use the AER Commentary to report on activities relating to improving visual amenity and/or reducing noise pollution. This is not strictly prescribed but can include associated themes such as stakeholder engagement, local aesthetic improvements for the local environment etc.

Polychlorinated biphenyls (PCBs)

- 3.26 PCB contamination is defined under the requirements of the Environmental Protection (Disposal of Polychlorinated Biphenyls and other dangerous Substances) (England and Wales) (Amendment) Regulations 2020 and The Environmental Protection Act 1990 Amendment (Scotland) Regulations 2020.
- 3.27 Due to the difference in the nature of the assets that are contaminated, Licensees should separate their reporting between ground mounted transformers (GMTs), pole mounted transformers (PMTs) and others.
- 3.28 PMTs are not normally included in routine oil sampling and testing due them being sealed at time of manufacture and inaccessible due to their location. A “Statistical Cohort” approach, developed with the ENA and Environment Agency

(EA) has been adopted DNOs for PMTs and is populated by test results from all UK DNOs. PMTs are therefore categorised into three cohorts:

- Red – These are assets which have been tested and have been confirmed or are statistically likely to be contaminated with PCBs;
- Amber – These are assets which may contain PCBs; and
- Green – These are assets which have been tested and have been confirmed or are statistically likely not to be contaminated with PCBs.

3.29 Licensees should use the AER commentary to report on their activities to identify if assets do or are statistically likely to contain PCB contamination (thus moving them from the unknown amber cohort into the red or green cohort), as well as efforts and interventions made in order to remove contamination from the network, ensuring that the report is accessible to stakeholders.

3.30 Licensees may also use this narrative chapter to expand further on the types of particular interventions reported in their AER KPIs (Chapter 4).

Biodiversity and/or Natural Capital

3.31 Licensees should 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 RIIO-ED2.

Fluid Filled Cables

3.32 Licensees should provide additional context around the number and leak rates of their Fluid Filled Cables, including the impact these leaks have on the environment. This section of the Commentary should build around the numerical reporting of Fluid Filled Cables in the KPI Table.

Wider Environment & Other Activity

3.33 Licensees are encouraged to also report on other projects that affect their distribution 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 or stakeholder engagement.

3.34 Licensees should also use this section of the Commentary to relate how such activities align with their Environmental Action Plan (EAP) commitments.

4. AER Key Performance Indicators (KPI template)

Section summary

This section provides guidance that DNOs should follow when preparing the AER KPI template.

Introduction

- 4.1 Each licensee must include a section covering all the Key Performance Indicators (KPIs) listed below. The figures to be reported in this section will follow both our general instructions in this Guidance and follow the template, a blank version of which is published alongside 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 document, however we do believe by ensuring both the Commentary and KPI Table are kept together that stakeholders will find navigation of both easier.

Business Carbon Footprint

- 4.3 Business carbon footprint scopes 1 and 2 will be reported year on year but may not have reduction targets; the total baseline reduction target will be reported as 'Total Scope 1 and 2 Emissions'. DNOs can provide further detail and commentary if appropriate in the AER Commentary.
- 4.4 Annual change in licensee's business carbon footprint in comparison to the target for the end of RIIO-ED2 as set out in the licensee's approved EAPs. This includes:
- Operational Transport (%);
 - Building energy usage (%);
 - Substation energy (%);
 - Fuel combustion from temporary generation (%); and
 - Fugitive emissions (e.g., from SF₆) (%)
- 4.5 The licensee must report on all Scope 1 and 2 emissions on an "operational control" basis, i.e., report on all emissions from operations on which the licensee has authority to introduce and implement through its operating policy.
- 4.6 The licensee will report the total Scope 1 and 2 emissions in two categories: one including losses and one excluding losses.

- 4.7 The licensee should also include the following charts:
- A stacked column chart to show the composition of total scope 1 and scope 2 emissions excluding losses over the RIIO-ED2 period in tCO₂e. This chart should include the licensee’s BCF target for the end of RIIO-ED2 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 buildings and substations, in kilowatt-hours.
- 4.8 The licensee will report progress in accurately measuring scope 3 emissions.⁹
- 4.9 Over the course of the RIIO-ED2 Price Control, the level and quality of reporting on scope 3 emissions will likely vary between licensees due to the differences in coverage, , ie the categories¹⁰ that the licensees currently report on, the methodologies used to calculate scope 3 emissions, and methodologies used to calculate scope 3 emissions, as well as the availability and quality of data.
- 4.10 We expect all licensees’ scope 3 emissions reporting to improve over RIIO-ED2. Over the course of RIIO-ED2 we expect each licensee to:
- Complete a screening exercise to identify the most relevant scope 3 emissions for their Distribution System;
 - 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
 - Increase the coverage and quality of their annual on scope 3 emissions reporting.
- 4.11 Licensees may wish to amplify or provide a narrative response in the AER Overview or Commentary if appropriate.
- 4.12 Before the publication of the first AER, the licensee should complete a screening of its scope 3 emissions in line with the GHG Protocol: Technical Guidance for Calculating Scope 3 Emissions (V1).¹¹ We expect screening to cover all upstream and downstream categories defined in the Protocol.

⁹ The GHG Protocol 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. For network companies this includes for example contractors/ suppliers’ transportation.

¹⁰ The Greenhouse Gas Protocol Technical Guidance for Calculating Scope 3 Emissions (v1) identifies 15 reporting categories for scope 3 emissions.

¹¹ Page 11 in the GHG Protocol Technical Guidance for Calculating Scope 3 Emissions (v1).

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

Sulphur hexafluoride (SF₆) & Other IIGs

4.14 The licensee will report on:

- The total number of assets that contain SF₆;
- The total number of assets which contain alternatives to SF₆;
- Total leakage of SF₆ in kg;
- Annual change in licensee's SF₆ leakage rate as percentage of SF₆ bank against end of RIIO-ED2 target; and
- Interventions¹² undertaken by the licensee in the preceding Regulatory Year that have been completed from its SF₆ Management Strategy, committed to as part of its EAP.

4.15 The licensee will report on the characteristics of alternative IIGs on the network, including the number of assets, the amount of the IIG present in kg, the Global Warming Potential of the IIG (taken from the latest BEIS publication of UK Greenhouse Gas Emissions¹³) and the leakage in kg of this IIG. This 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 template. The reasoning for the decision to use the alternatives deployed and any additional nuance should be included in the AER Commentary.

Electricity distribution losses

4.16 The licensee must report:

- Annual distribution losses from the licensee's Distribution System in GWh, as a percentage of total electricity distributed, and in tCO₂e;
- The target for the losses by the end of the RIIO-ED2 period in 2028;
- Annual interventions¹⁴, reported by number;

¹² 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.

¹³ [UK greenhouse gas emissions: other technical reports - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/672222/uk-greenhouse-gas-emissions-other-technical-reports-2020.pdf)

¹⁴ Interventions in this context mean targeted activities with a discernible impact on reducing electricity losses.

- The impact of interventions reported in megawatt hours and tonnes of CO₂e; and
- The targets and impact of interventions by the end of the RIIO-ED2 period in 2028.

Embodied carbon

- 4.17 While we recognise that measuring the embodied carbon associated with a project may be a new activity, we consider it is important given the contribution it makes to the UK's carbon emissions.
- 4.18 The licensee should report on embodied carbon on new construction projects within the AER where it is possible to do so. Licensees should work together to ensure consistency in reporting methodology and reported units. This follows similar requirements for electricity transmission, as well as in gas, which have been in place since 2021 so we expect some cross sector consistency may develop.
- 4.19 The licensee must report on both estimated embodied carbon of a project at final design and as built if possible. If a licensee has a target for embodied carbon in new projects, it should 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 detailed design stage and so assessment of embodied carbon will only refer to "as built". Methodology and assumptions and data sources should clearly be set out in the AER Commentary supporting this information.
- 4.20 Where it is possible to quantify the amount of embodied carbon associated with a project, the licensee should use tCO₂e/£m as the default embodied carbon reporting unit. When reporting on cables and or overhead lines, tCO₂e/km should be used.

Supply chain management

- 4.21 The Licensee will report on:
- The percentage of suppliers (by value) meeting the licensee's environmental supplier code. Suppliers mean supplier activity which make up a minimum 80% of licensee annual spend; and
 - The target for how many suppliers meet the licensee's supplier code will be for the end of RIIO-ED2 in 2028.
- 4.22 Licensees can build upon this report in a narrative response in the AER Commentary to report on any sustainability metrics/KPIs (defined as activities

and goals that have a tangible impact upon sustainability, for example by aligning with the UN Sustainability Goals) to demonstrate how suppliers meet the environmental supplier code.

Sustainable Resource use and waste (produced directly by Licensee)

4.23 The licensee must report in the AER on Resource Use and Waste (excluding Streetworks) according to waste destination (separated as Non Hazardous/Non Special and Hazardous/Special):

- Total Waste Produced directly by licensee (tonnes);
- % Recycled/Reused;
- % Energy from Waste;
- Total % Sent to Landfill;
- Total % Other (where applicable); and
- Total % diverted from Landfill

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

Fluid Filled Cables

4.25 The licensee will report the volume of fluid (oil) used to top up cables as a percentage of volume in service against the start of the RIIO-ED2 Price Control (used as the baseline):

- 'Oil in Service' will mean fluid included in the cables and associated on-network storage tanks;
- 'Cable Oil Top up' will mean the amount of oil added during the reporting year;
- 'Removal of FFC' can mean removal from network or where cables are sealed;
- 'Leak reduction' will mean reduction of leakage compared to previous regulatory year;
- 'Oil recovered' will mean the oil recovered from leakage; and
- Licensees are required to provide context around their fluid filled cables KPIs in their AER Commentary as this is an area that will be relatively unknown to a number of stakeholders.

Visual amenity and noise pollution

- 4.26 Visual amenity will be reported as the removal of overhead lines (by km) over the course of the RIIO-ED2 period which fall under the category of visual amenity projects.
- 4.27 Noise pollution will be reported as the number complaints related to noise each year received and in addition the subset of these complaints that led to an intervention within that year – ie where the complaint has required an intervention beyond initial investigation and where there has been an outcome – such as the complaint being upheld and mitigation/remedy applied.

Polychlorinated biphenyls (PCBs)

- 4.28 Licensees should report on the number of PCB contaminated assets removed over the previous year for Pole Mounted Transformers (PMTs), Ground Mounted Transformers (GMTs) and Other.
- 4.29 In addition, Licensees should report on the following for PMTs:
- The total number of Amber Cohort assets on their network – Assets that may contain PCBs and are yet to be tested or belong to a cohort where sufficient sample testing remains outstanding;
 - The total number of Red Cohort assets on their network – Assets that are known or are statistically likely to be contaminated with PCBs;
 - The reduction in Amber Cohort assets over the previous year – Assets that have been tested and now are known or are statistically likely to either be contaminated or not be contaminated with PCBs;
 - The number of the Amber Cohort assets that were tested over the previous year that resulted in PCB contamination being detected – i.e., the increase in Red Cohort assets over the previous year; and
 - The number of PCB contaminated assets removed over the previous year – i.e. the number of Red Cohort Assets removed from the previous year without accounting for the increase from detections this year.

Biodiversity

- 4.30 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 either:
- external approval from a relevant planning authority,

- or sanction to proceed from within the licensee’s internal governance process for capital project delivery in cases where external planning consent is not required for a project.

4.31 The licensee must report on:

- the initial baseline assessment of biodiversity units
- post intervention assessment of biodiversity units
- the total net percentage change in biodiversity.

5. Mid period review

Section summary

This section sets out our intention to carry out a review of DNO's progress in delivering their Environmental Action Plans (EAPs) during RIIO-ED2.

- 5.1 Our RIIO-ED2 Final Determinations confirmed our plans to complete a mid-period review in order to assess DNO's performance in delivery their EAPs, and to give more exposure to the AER ODI-R performance. This will be led by Ofgem and be informed by the AERs submitted by DNOs to that date (plus any further information which we consider would be necessary to inform the review).
- 5.2 We think there would be merit in being able to make comparisons between licensees in order to identify examples of best practice, but we recognise that the ability to draw direct comparisons may be limited due to differences in how different licensees report, and or the areas which they may focus on at any given time.
- 5.3 We will also use this to assess progress made in adopting a common approach to measuring and reporting in areas such as SF6 and losses and set out any further changes we think may be required. We will engage with DNOs and stakeholders to ensure they have the opportunity to input to this process and we will work collaboratively to ensure a positive outcome for customers.
- 5.4 Licensees will not be expected to produce a mid-period review of their own.

Appendices

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1	AER KPI template	1

Appendix 1 – AER KPI template

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