

## **[DRAFT] RIIO-2 Re-opener Guidance and Application Requirements Document: Version 2**

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This document is directed at gas and electricity transmission network companies and gas distribution network companies (for the purposes of this document 'licensees').

The purpose of this document is to:

- Set out how the licensees must prepare their Re-opener applications in accordance with Special Condition 9.4 (Re-opener Guidance and Application Requirements Document) of the Gas Transporter and Electricity Transmission licences (which will be effective from 1 April 2021).
- Provide some guidance on the style and structure for Re-opener applications.

Version	Changes	Effective From
Version 1 – 26 February 2021	Final published version following consultation on draft document published 17 December 2020.	1 <sup>st</sup> April 2021

Version 2 – <a href="#">15 December 2021</a>	<ul style="list-style-type: none"> <li>• <a href="#">Addition of specific guidance- for the MSIP Re-opener</a></li> <li>• <a href="#">Clarification on cost information to be included in Re-opener applications</a></li> <li>• <a href="#">Clarification on the application of this Guidance to the LOTI and FIOC Re-openers</a></li> </ul>	<a href="#">tbc</a>
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## 1. Introduction

- 1.1 Re-openers are a type of RIIO uncertainty mechanism. Depending on their design, they allow Ofgem to adjust a licensee's allowances (in some cases up and in some cases down), outputs and delivery dates in response to changing circumstances during the price control period. Ofgem can do this by direction rather than by a statutory consultation. Re-openers may be cross sector, sector specific or bespoke to an individual licensee.
- 1.2 The Re-opener Guidance and Application Requirements Document licence condition<sup>1</sup> requires that licensees prepare their Re-opener applications in accordance with this document. This is in addition to the requirements set out in the individual Re-opener licence conditions.
- 1.3 This document sets out how the licensee must prepare its applications for Re-openers, including:
- the level of detail required in a Re-opener application
  - requirements to publish the Re-opener application
  - when it is appropriate to make redactions in published Re-opener applications
  - requirements to ensure senior leadership assurance of the application.
- 1.4 This document includes both general requirements that apply to all Re-opener applications to which this document applies (see Appendix 1) and specific requirements for individual Re-opener applications, which are set out in Appendices. As specifically provided for in the Re-opener Guidance and Application Requirements Document licence condition, this document may be amended by the Authority following the consultation process set out in the licence condition.
- 1.5 Failure to prepare an application in accordance with any of the relevant requirements may result in rejection of the application. Companies must ensure that their application complies with this document and any other licence requirements prior to submission.

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<sup>1</sup> Special Condition 9.4 in the GD, GT and ET Special Conditions.

- 1.6 Appendix 1 sets out the RIIO-2 Re-opener mechanisms for which applications must be prepared in accordance with this document.
- 1.7 Appendices 2 – [4-5](#) contain guidance and requirements for the preparation of applications for specific Re-opener mechanisms.

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## 2. Assurance and publication requirements

### Section summary

Provides details of the assurance, publication and redaction requirements for licensees' Re-opener applications.

### Assurance requirements

- 2.1 We require high-quality information from licensees in their Re-opener applications in order to carry out robust and timely assessments of those applications. To this end, licensees must make Re-opener applications that are accurate,<sup>2</sup> unambiguous, complete, and concise.<sup>3</sup>
- 2.2 All Re-opener applications must be accompanied by written confirmation from a suitable senior person within the company that the Re-opener application has been prepared and submitted, such that:<sup>4</sup>
- it is accurate and robust, and that the proposed outcomes of the Re-opener are financeable and represent good value for consumers
  - there were quality assurance processes in place to ensure the licensee has provided high-quality information to enable Ofgem to make decisions which are in the interests of consumers
  - the application has been subject to internal governance arrangements and received sign off at an appropriate level within the licensee. For example, this may be sign-off by the company board if appropriate.

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<sup>2</sup> We recognise that some aspects may need to be forecast or rely on outside parties or factors. Accuracy means accurate insofar as the licensee can reasonably ascertain.

<sup>3</sup> Emphasis on keeping the core narrative brief, while presenting proportionate evidence and justification for the proposed adjustment, but avoiding duplication and superfluous information and narrative.

<sup>4</sup> These requirements are similar to our letter to the CEOs of licensees on 4 June 2019 - <https://www.ofgem.gov.uk/publications-and-updates/companies-provide-assurance-ahead-riio2-business-plan-submission-deadline>

- 2.3 A point of contact must be provided for each Re-opener application, including name, position, email, and phone number.

## **Publication and redaction requirements**

- 2.4 Subject to paragraphs 2.5 and 2.6, the licensee must, within five working days of submitting a Re-opener application to Ofgem, publish its complete application in a prominent place on the company website, in such a manner that relevant stakeholders can easily locate the application.
- 2.5 Subject to paragraph 2.6 a licensee must publish its Re-opener application in its entirety making only necessary redactions. Where redactions are made, we expect companies to publish an explanation for the redaction. We recognise that redactions may be appropriate for reasons including:
- confidentiality
  - commercial sensitivity
  - security.
- 2.6 Where publishing an application would pose a risk to national security, the application should not be published at all and no explanation of the lack of publication needs to be published. This may be the case with applications relating to:
- Cyber resilience information technology and operational technology Re-openers and
  - Physical security Re-openers.



## 3. Requirements for the content of Re-opener applications

### Section summary

Sets out requirements on what information a Re-opener application must contain and the standards it must meet.

### Introduction

- 3.1 Any Re-opener application must clearly provide the Authority with answers to the following questions:
  - Why an adjustment is justified
  - What that adjustment should be.
- 3.2 The various Re-opener licence conditions prescribe the minimum sets of information that an application must contain to assist us in answering these two questions. This document, and in particular this chapter, sets out further detail on the required content that must be included in any Re-opener application.
- 3.3 Each application must include a table that maps out which sections of the application relate to individual requirements as set out in the relevant Re-opener licence condition and Chapter 3 of this document.
- 3.4 There may be some Re-opener applications where licensees will not be able to provide the required information listed within this document. In such instances, the licensee must provide a justification for not providing all of the required information. We will consider whether there is sufficient information to progress a Re-opener application in the absence of all the required information on a case-by-case basis.
- 3.5 This chapter should be read in conjunction with the relevant mechanism-specific appendices to this document.

## Gas Distribution sector

- 3.6 In the Gas Distribution sector, a single owner may operate a number of separate distribution networks under either a single licence or number of separate licences. In either case a single Re-opener application relating to all the distribution networks for which an adjustment is being sought must be submitted. The application must include sufficient detail to permit adjustment of the relevant terms for each individual distribution network. Consequently with respect to activities that may be delivered centrally for a number of distribution networks, for example HR services, costs should be allocated proportionally to each distribution network in accordance with the same principles applied in complying with other regulatory reporting requirements.<sup>5</sup>
- 3.7 Where a materiality threshold exists, it is applied at the level of the individual distribution network.<sup>6</sup>

## Needs case and preferred option

- 3.8 All Re-opener applications must include a needs case whether or not this is a specified requirement of the relevant Re-opener licence condition or Re-opener Guidance.
- 3.9 The needs case must contain the following:

### Alignment with overall business strategy and commitments

- 3.10 The application must include a clear statement of how the proposed expenditure aligns with the licensee's future business strategy, including consideration of how it relates to the licensee's RIIO-2 licence or other statutory obligations and, if relevant, its RIIO-3 business plan.

### Demonstration of needs case / problem statement

- 3.11 The application must include a clear statement as to the need for the proposed expenditure or the problem the licensee is trying to address in the context of its

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<sup>5</sup> Special Condition 9.9 in the GD Special Conditions.

<sup>6</sup> The value of the materiality threshold for each distribution network is set out in Special Condition 1.1 of GD Special Conditions

significance for consumers and network assets. The affected consumers / assets must be identified and the associated risk being addressed quantified, where possible.

- 3.12 As well as demonstrating the needs case, the application must also provide the rationale for the level of expenditure proposed and why this level should be regarded as being efficient.

Consideration of options and methodology for selection of the preferred option

- 3.13 The application must include a clear description of the long and short list of options considered and the selection process undertaken to reach the preferred option. This must include the following, subject to paragraph 3.4:
- a clear description of the various options considered, setting out the key features of each option, this should include options considered that did not make the final shortlist
  - a 'do minimum' option to act as a counterfactual to demonstrate the financial impact of no additional investment or programme expenditure taking place
  - an option to delay proposed capital expenditure recognising the option value of such delay
  - a market-based option, where there is a valid market-based option (for example the use of commercial arrangements such as the use of interruptible contracts as an alternative to network reinforcement)
  - a clear statement of the criteria used to assess the various options and the assessment of each option against these criteria
  - a brief description of the process used to select the options: either the internal process (for which relevant documents should be included) or the existing industry process
  - an appropriate sensitivity analysis, using relevant statistical or other techniques
  - a clear summary of any Cost Benefit Analysis / Engineering Justification that should be carried out in accordance with paragraphs 3.21 and 3.22 below
  - a justification for the proposed timing of additional expenditure.

The preferred option

- 3.14 The application must include a clear description of the preferred option, sufficient to allow us to make an informed decision on if the preferred option is suitable. This must include all of the following, subject to paragraph 3.4:

- a clear description of the key features of the preferred option including how that option will address the issues set out in the demonstration of needs case / problem statement
- a clear statement of the benefits to customers, both quantitative and qualitative, of the preferred option
- a clear description of the scenario on which the preferred option is predicated
- a clear statement of the key benefits of the preferred option along with any drawbacks identified
- a register of the various assets or programmes of work that will be impacted by implementation of the preferred option
- evidence of the technical feasibility of the preferred option, using technical annexes as appropriate.

3.15 The application must include a clear statement as to any project delivery and monitoring plan for the preferred option. This must include:

- a project delivery programme including provisional dates and key milestones
- a consideration of whether the licensee has access to sufficient resources to ensure timely delivery
- a description of mitigation measures that can be taken to address potential deviation from the project delivery plan
- a description of reporting mechanisms to monitor delivery and measure outcomes (this might include the introduction of a new Price Control Deliverable).

## **Stakeholder engagement and whole system opportunities**

3.16 The application must include an explanation of how stakeholder engagement contributed to the identification and design of the preferred option. This stakeholder engagement may be limited to those categories of stakeholder who are materially impacted by the choice of preferred option. Where there are opportunities to collaborate with other networks on whole system issues, this must be reflected in the analysis and evidence provided.

3.17 Stakeholder engagement may not be necessary where there is not a material impact on stakeholders, or where the application is driven by statutory obligations. In these circumstances a brief explanation of why stakeholder engagement was not considered appropriate must be provided.

3.18 Stakeholder engagement will not be necessary where it would pose a risk to national security, specifically applications related to:

- Cyber resilience information technology and operational technology Re-openers and
- Physical security Re-openers.

## Cost information

3.19 When the adjustment sought relates to the level of allowances, a Re-opener application must include sufficient cost information to provide:

- the evidence to justify why the expenditure is additional to that already provided for by baseline allowances, or that will be provided through other mechanisms
- evidence to justify why the level of costs is efficient. Please note, the efficient level of costs will be determined at the time of any determination of a Re-opener application.

3.20 The cost evidence included in the Re-opener application must be provided in accordance with the following requirements, subject to paragraph 3.4:

- on the same cost basis as allowances in the licence<sup>7</sup> (2018-19 prices)
- on a gross basis including both direct and indirect costs except where the Re-opener mechanism is listed under the opex escalator term, where only direct costs should be included
- in excel format with all data tables etc. clearly labelled and set out in a logical manner, including, where appropriate, instructions on the operation of workbook functionality
- in a sufficient level of detail to clearly demonstrate how overall values were derived and in a way that can be easily replicated, including the use of transparent formulae
- in a way that is easily comparable with other benchmarks, where applicable, or other data provided by the licensee to Ofgem
- with all relevant assumptions and sources of data used provided and clearly justified

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<sup>7</sup> Special Condition 1.1 in the GD, GT and ET Special Conditions.

- with key cost drivers explicitly identified and justified
- with uncertainties in forecast cost levels and any potential mitigations clearly identified. These uncertainties should form the basis of any sensitivity analysis using appropriate techniques and, where appropriate, a register of these uncertainties must be included
- with outturn data for similar projects, and a risk register for the specific project, for any allowances requested for project risk
- to demonstrate that cost efficiency measures have been identified and their impact fully accounted for
- to demonstrate additionality (ie demonstrating the additional expenditure required in addition to that already provided through baseline allowances, or that will be provided through other mechanisms).

3.21 [Further guidance on how to deliver meet these requirements can be found in the Infrastructure and Projects Authority Cost Estimating Guidance, which is a best practice approach to producing project Cost Estimates<sup>8</sup>. This best practice guide is aligned with the approach that Ofgem expects companies to follow this guidance when generating cost estimates for RIIO projects and programmes.](#)

## Cost benefit analysis (CBA) and engineering justifications

3.22 Both Cost Benefit Analysis and Engineering Justifications Papers are important sources of evidence that can be included in an application. Where they are provided, they must:

- be consistent with published guidance and recognised best practice, for example the Green Book<sup>9</sup> and the Spackman discounting approach
- demonstrate evidence of structured options development, including consideration of whole system options and non-network options, where applicable, against a baseline scenario which involves the minimum level of intervention that would be required to remain compliant with all applicable regulation

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<sup>8</sup> [Infrastructure and Projects Authority Cost Estimating Guidance: a best practice approach for infrastructure projects and programmes to producing project Cost Estimates](#)

<sup>9</sup> [HM Treasury Central Government Guidance on Appraisal and Evaluation](#)

- demonstrate the value of projects across different scenarios, and include an explicit consideration of (quasi) option values<sup>10</sup> of deferring the investment
- be clearly linked to the Re-opener application, where applicable, with sensitivity to changes in input parameters assessed, for example future energy scenarios
- act as a robust decision support tool, and be open to scrutiny and challenge in conjunction with other appropriate means of justification for investment decisions
- be transparent about which risks, costs and benefits have neither been considered nor monetised as part of the analysis
- be transparent about the assumptions, inputs and rationale for the decisions, calculations and results arrived at.

3.23 Ofgem published sector specific guidance on both Cost Benefit Analysis and Engineering Justification Papers<sup>11</sup> in September 2019. That guidance and any subsequent updates, must be followed when including either decision tool in a Re-opener application.

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<sup>10</sup> Guidance on this option value from Ofgem can be found in our [Strengthening strategic and sustainability considerations in Ofgem decision making](#), and [Real Options and Investment Decision Making papers](#) and annexes.

<sup>11</sup> [RIIO-2 Final data templates and associated instructions and guidance](#) – September 2019

## 4. Guidance on the style and structure of Re-opener applications

### Section summary

Provides guidance on how to structure and present the key components of a Re-opener application.

### Style & Structure of Application

- 4.1 Re-opener applications should follow a style and structure that clearly and concisely sets out the evidence that licensees wish to present in support of their request to have allowances or other price control parameters adjusted.
- 4.2 Re-opener applications should follow a logical structure that aligns with the various requirements set out in the relevant Re-opener licence condition and in this document. The application should consist of a core narrative that concisely sets out all the relevant evidence that we require to make an informed decision. Further detailed analysis and technical information including Cost Benefit Analysis and Engineering Justification Papers should be set out in clearly identified annexes. Where evidence derived in the annexes is relied upon in the core narrative this should be clearly identified and the core narrative should include a specific reference to where the derivation is presented.
- 4.3 In addition to the requirement to include a table that maps which sections of the application relate to individual requirements set out in the relevant Re-opener licence condition and Chapter 3 of this document,<sup>12</sup> a table of contents and glossary of terms should be included as part of the application.
- 4.4 The core narrative should be clear and concise in the presentation of all the relevant evidence required to make an informed decision. The emphasis should be on the proportionate presentation of evidence avoiding duplication and superfluous

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<sup>12</sup> Paragraph 3.3 of this document.



information or narrative. The narrative should focus on quantifiable and objective evidence rather than subjective or qualitative assertion.

- 4.5 When determining the proportionate amount of evidence presented with respect to any particular issue relevant factors should include:
- materiality of the issue with respect to the overall decision
  - the complexity of the issues being considered
  - the quality of evidence being considered
  - the level of certainty about the future
  - interaction with other relevant considerations.
- 4.6 The core narrative should be drafted according to the principles of Plain English.<sup>13</sup> As far as possible defined terms should have the same meaning as they have in the relevant licence and or Final Determinations. Data tables should be clearly and precisely labelled.
- 4.7 While the purpose of the annexes is to present detailed analysis and technical information, the same principles with respect to the clear and concise presentation of evidence should apply.
- 4.8 Specific requirements with regard to the structure of specific Re-opener applications may be provided in individual appendices for specific Re-openers.

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<sup>13</sup> Plain English Campaign [www.plainenglish.co.uk](http://www.plainenglish.co.uk)

## Appendices

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## Appendix 1: Complete list of RIIO-2 ET, GT & GD Re-openers

Below is a full list of RIIO-2 ET, GT and GD Re-openers, as defined in the licence<sup>14</sup>. This document applies in all cases unless otherwise stated in this table. Where an appendix is mentioned this should be read in conjunction with the main document.

List of Cross Sector Re-openers (all network companies in ET, GT and GD)		
Cyber Resilience Operational Technology	Special Condition 3.2 (ET, GT and GD)	Appendix 4
Cyber Resilience Information Technology	Special Condition 3.3 (ET, GT and GD)	Appendix 4
Physical Security (PSUP)	Special Condition 3.4 (ET, GT and GD)	
Net Zero	Special Condition 3.6 (ET, GT and GD)	This document does not apply - Authority triggered only
Non-operational IT Capex	Special Condition 3.7 (ET, GT and GD)	Appendix 2
Coordinated Adjustment Mechanism	Special Condition 3.8	Appendix 3

List of Gas Transmission Sector Re-openers (NGGT)		
Net zero pre-construction work and small net zero projects	GT Special Condition 3.9	Please also refer to separate Net Zero Pre-construction and Small Net Zero Projects Re-opener document
Bacton terminal site redevelopment	GT Special Condition 3.10	
Compressors emissions	GT Special Condition 3.11	
King's Lynn subsidence	GT Special Condition 3.12	
Funded incremental obligated capacity	GT Special Condition 3.13	<del>This document does not apply</del> Chapter 2 of this document applies – for further Guidance on application preparation please see separate Funded Incremental Obligated Capacity Re-opener Guidance document
Asset health	GT Special Condition 3.14	
Quarry and Loss development claim costs	GT Special Condition 3.17	
Pipeline diversions costs	GT Special Condition 3.17	

<sup>14</sup> Special Condition 1.1 in the GD, GT and ET Special Conditions.

<b>List of Electricity Transmission Sector Re-openers (NGET SHET SPT)</b>		
Visual impact mitigation	ET Special Condition 3.10	
Large Onshore Transmission Investments (LOTI)	ET Special Condition 3.13	<del>This document does not apply</del> <u>Chapter 2 of this document applies – for further guidance on application preparation</u> please see separate Large Onshore Transmission Investments Re-opener Guidance document
Medium Sized Investment Projects (MSIP)	ET Special Condition 3.14	<u>Appendix 5</u>
Pre-Construction Funding (PCF)	ET Special Condition 3.15	
Access Reform Change	ET Special Condition 3.16	This document does not apply - Authority triggered only

<b>List of Gas Distribution Re-openers (Cadent SGN NGN WWU)</b>		
Net zero pre-construction work and small net zero projects	GD Special Condition 3.9	Please also refer to separate Net Zero Pre-construction and Small Net Zero Projects Re-opener document
Fuel Poor Network Extension Scheme (FPNES)	GD Special Condition 3.14	This document does not apply - Authority triggered only
HSE policy	GD Special Condition 3.17	
Tier 1 Stubs Repex policy	GD Special Condition 3.18	
Heat policy and energy efficiency	GD Special Condition 3.19	
Diversions and Loss of development claims policy	GD Special Condition 3.20	
Multi occupancy buildings (MOBs) safety	GD Special Condition 3.21	
New large load connection(s)	GD Special Condition 3.22	
Smart meter rollout costs	GD Special Condition 3.23	
Specified streetworks costs	GD Special Condition 3.24	

<b>List of Bespoke Re-openers</b>		
SF6 Asset Intervention (NGET)	ET Special Condition 3.27	
Subsea cable repairs (SHET)	ET Special Condition 3.28	
Uncertain non-load projects (SPT)	ET Special Condition 3.29	
Fibre Wrap replacement (NGET)	ET Special Condition 3.31	
Civil Related Works (NGET)	ET Special Condition 3.32	
Tower Steelworks and Foundations (NGET)	ET Special Condition 3.33	
Tyne Crossing project (NGET)	ET Special Condition 3.34	
Bengeworth Road GSP project (NGET)	ET Special Condition 3.35	This document does not apply - Authority triggered only

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## Appendix 2: Non-operational IT (IT) Capex Reopener Application Guidance

This document should be used as guidance to assist licensees in preparing their RIIO-2 non-operational IT capex re-opener applications. This Appendix provides guidance as to the types of evidence and level of detail that licensees must include when submitting non-operational IT capex re-opener applications of a value greater than £0.5m, relating to the needs case and cost information. There may be some projects/solutions where licensees will not be able to provide the necessary level of details listed within this Appendix. In such instances, licensees must provide a justification for not providing all of the necessary information. We will consider if such explanations/submissions are sufficient for the re-opener application on a case-by-case basis.

### Needs Case

#### Alignment with overall business strategy and commitments

- 1.1 Non-operational IT capex re-opener applications must include details on organisational context, strategy, and business alignment.
- 1.2 Licensees must provide a description of its overall strategy and current operations covering non-operational IT capex investments. The licensee must provide a description of:
  - IT strategy
  - Evidence within the IT strategy of the role it plays in facilitating the business to achieve its business objectives
  - Overall IT plan dependencies.

#### Demonstration of needs case

- 1.3 For non-operational IT capex re-opener applications, licensees must provide a problem statement which sets out:
  - A description of the need, requirements and capabilities that will be maintained and/or enhanced through the investment
  - A description of relevant risks and an explanation of why the current controls that licensees have in place to mitigate risk are insufficient, may become insufficient or consumer benefits can be realised through improvements.

- The opportunities that it proposes to address.

1.4 For Non-operational Capex IT projects that were included in a licensee's Business Plan and for which a needs case and justification were assessed as being appropriate, but for which no allowance has been provided to date, there is no requirement to provide an updated needs case and licensees should reference the materials previously submitted.

### **Options Selection**

#### Consideration of project options and methodology of how preferred project option was selected

1.5 For non-operational IT capex re-opener applications, licensees must set out:

- The methodology and/or standard(s) used to select preferred option
- What other projects/controls were or will be considered during project selection
- Why the preferred project/option has been or will be selected.

#### Preferred project option details

1.6 For non-operational IT capex re-opener applications, licensees must include the information set out in paragraphs 1.7 to 1.11 below in relation to, (i) the description of the project, (ii) technical feasibility and consumer benefits, and (iii) project delivery and monitoring.

#### *Description*

1.7 The licensee must demonstrate that it has undertaken:

- The project scope, including which assets are in scope
- The proposed project/option, including general objectives of the project, applicability, and prioritisation
- Project / work stream targeted for intervention within this re-opener application
- How the preferred project will improve the operational capability of the network
- How addressing the problem statement described above will assist the licensee in meeting its business objectives
- How the preferred project reduces risk or creates opportunity for cost efficiency or operational improvements on the network.

#### *Technical feasibility and consumer benefit*

- 1.8 The licensee must demonstrate that it has carried out an appropriate risk mitigation exercise and that the proposed investments submitted to Ofgem as part of the re-opener application are commensurate to the level of risk.
- 1.9 The licensee must provide sufficient justification as detailed in this Appendix of the need to invest its requested amount in non-operational IT capex for the projects highlighted in the previous section.

*Project delivery and monitoring*

- 1.10 The licensee must provide a detailed description of project delivery plans including, but not be limited to:
- Detailed project schedule, (e.g. activity milestones for project delivery, personnel on-boarding, training, etc.)
  - Governance structure of each project, (e.g. project roles, responsibilities and the resources required)
  - Key performance indicators to be used to monitor the progress of the project.
- 1.11 Where an agile delivery methodology is being used, licensees must also provide the following details:
- A description and use of a mature agile methodology/process that allows all stakeholders to understand how they will contribute to the successful delivery of a product, service, project or software with clear milestones. An example of this would be the Governments Digital Service (GDS) Standard <https://www.gov.uk/service-manual/service-standard>
  - A description of the governance structure of the teams (e.g. SCRUM team), and how these teams interface with other stakeholders or teams such as legal, governance etc.
  - A description of how monitoring, lessons learned and improvements will be tracked e.g. retrospectives, show and tell, sprint planning, etc
  - A description of how performance will be monitored, including real users of the service whether external or internal
  - A description of how project constraints, dependencies, priorities and risks will be tracked/managed including for example, information reflected in a prioritised backlog
  - Key performance indicators to be used to monitor the progress of the project.



## Cost information

### Breakdown and justification of costs

#### Consideration of options

1.12 For non-operational IT capex re-opener applications, the licensee must:

- Provide justification for the need and amount of allowance required per project, demonstrating consideration against the requirements and capabilities that will be maintained and/or enhanced through the investment.
- Provide a description of the various options that were considered (eg by performing cost benchmarking, previous tenders or contract information, etc), and rationale for the preferred option to be presented.

#### Breakdown of costs of preferred option

1.13 For non-operational IT capex re-opener applications, the licensee should include the following cost information in its re-opener application:

- The overall costs of the licensee's IT non-operational capex project portfolio proposed for a re-opener
- Delineation of the costs per project.

1.14 For non-operational IT capex re-opener applications, licensees must provide the following information:

#### *Justification and efficiency of costs*

- Demonstrable evidence that the costs presented within the re-opener application are justified and efficient, similar to that provided under the original business plan and supporting IT annexes.
- Commitment to the use of good practice corporate governance ie a management structure that monitors and approves Programme and Project investments throughout project lifecycles. This is recognisable as a sequence of gate approvals as the project matures, its definition becomes more certain and potential risk events are understood and, where reasonable, mitigated. The maintenance and use of an accredited (e.g. ISO9001:2015) 'Business Management System' may provide the foundation for such a framework.

### *Requirement*

- An explanation of the purpose, scope and dependencies of the project. This includes overall Project to Programme relationship, project interdependencies and timeline. Business Analysis may be appropriate to identify the business need delivered by the proposed project and formally capture the project requirements in a solution agnostic manner.

### *Solution*

- A description of the proposed solution at an appropriate level of detail commensurate with maturity and stage of project approval.
- The framework, through comparison with the requirements, within which testing and acceptance will be conducted (Integrated Test Evaluation and Acceptance Plan (ITEAP)) and, post-delivery, how the delivery of the project benefits will be measured and verified (Benefits Realisation Management Plan (BRMP)).

### *Manage delivery*

- A costed plan for project delivery, principally a Project Management Plan in line with recognised (eg APM) good practice.
- Key management components in the plan include:
  - Reference to the programme and project purpose, project approval status and the licensee's internal IT project delivery governance framework.
  - A schedule (Gantt chart) that enables progress and spend to be monitored. The use of processes such as Earned Value Management, schedule risk management and milestones linked to a Programme schedule and dependent projects may be appropriate.
  - Project delivery organisation.
  - A Risk (and Opportunity) Management Plan detailing the identification, capture, analysis and regular monitoring and review of the Risk (and Opportunity) Register.

### *Monitor delivery*

- A description of the implementation of the Benefits Realisation Management Plan to record and report the delivery of the project benefits.

### **Level of detail of cost information**

- 1.15 A licensee must provide an evidence trail flowing from a robust Project Definition to a Work Breakdown Structure (WBS) that can be costed against stated estimating sources

and assumptions. There is an expectation that, as a project matures, the detail available to support each attribute will increase.

### **Assessment Process**

1.16 The requirements of this Guidance shall take precedence over any guidance document previously issued in relation to IT capex projects. The materials submitted must focus on the four assessment areas set out below: Project Justification; Project Definition; Project Resources and Cost Assurance.

#### **1.17 Project Justification**

- The licensee must explain why it considers there to be a compelling case for investment in the project based on delivered benefits. This could be the adoption of new technology; the provision of new customer focussed services; the replacement of obsolete existing in-service capabilities delivering increased efficiencies or customer-experience or reduced costs or risks.

#### **1.18 Project Definition**

- The re-opener application must address, commensurate with the maturity of the project, a schedule of the activities, and their interdependencies necessary to complete the project and a work breakdown structure that reflects the plan which can be resourced and then costed. The plan should also address the facilities and management structure to monitor, manage and authorise the venture including the means by which risks (and opportunities) will be captured, reviewed and managed.

#### **1.19 Project Resources**

- A detailed project plan to enable the definition of the resources necessary to achieve the plan. Resources in this context encompasses any costs that falls to the project e.g. manpower, software and hardware procurement, third party services, facilities and system design, development, testing, integration, documentation and training.

#### **1.20 Cost Assurity**

- A forecast of the project delivery costs derived by associating a 'cost per' estimate for each entry in the resource plan. Licensees must provide uncertainty and risk costs in the calculation of project delivery costs.

## Appendix 3: Coordinated Adjustment Mechanism (CAM) Re-opener Application Guidance

### Content of re-opener applications

- 1.1 The re-opener application should follow the Guidance in the main document unless indicated otherwise below. Additional points in this Appendix are to be taken as additional requirements to those in the main document.
- 1.2 Applications for this re-opener must come from a single licensee, which may be either the licensee who was originally assigned the responsibility and associated revenues for the output or project deliverable and is proposing to reallocate the CAM activity ('Network A') or the licensee proposing to carry out a new activity in order to solve the original issue with greater overall value to consumers ('Network B'). Applications must contain a statement of agreement on the content of the re-opener application between Network A and Network B which proposes to transfer responsibility for and associated revenue with the CAM activity.

### Needs case and preferred option

- 1.3 The requirements of Section 3, paragraph 3.8 – 3.15, in the main document do **not** apply to this re-opener.

#### Demonstration of needs case / problem statement

- 1.4 An application must provide a copy of the original justification, including the original needs case, for the existing planned activity that was submitted to the Authority, or through a recognised industry process (eg NOA).
- 1.5 An application must also provide the justification for the proposed alternative activity. This must include a CBA comparing the two activities, expected outputs and/or project deliverables related to the two activities, and year of delivery of the two activities.
- 1.6 The licensee must set out the overall value of the reallocation to the consumers of both Network A and Network B. The value comprises not only the quantifiable benefits (as set out below) but any additional value to consumers that is not necessarily quantifiable in financial terms such as benefits to the wider energy system and evidence of consumer support through stakeholder engagement.

- 1.7 The licensee must also demonstrate a net benefit to the relevant group(s) of consumers (further information on net benefits provided in paragraphs 1.15 – 1.24).
- 1.8 The application must set out the problem that the alternative activity is designed to solve, including context, sites, risks, and how the proposed reallocation of RIIO-1 or RIIO-2 price control funds is in the best interests of future and existing consumers.

## **Cost information**

- 1.9 Costs must be provided for both the existing planned activity and the proposed new activity.
- 1.10 We recognise that an agreement between two licensees to submit an application under this re-opener may incur costs related to the change of activity, such as foregoing potential gains under the Totex Incentive Mechanism, or adjustments to related outputs and/or project deliverables.
- 1.11 Where this is the case we acknowledge that networks may negotiate compensation between themselves to recover these costs. An application must also contain the amount and the rationale of any such arrangement made between the applying network and the partner network, or state that none such has or will be made. Any such amount need not be included in the CBA assessment.
- 1.12 The application must also set out which output conditions and/or performance-related payments will be affected by the change, for both the applying licensee and the Partner Licensee(s).

## **Cost benefit analysis (CBA) and engineering justifications**

- 1.13 The requirements of Section 3, paragraphs 3.21 – 3.22 in the main document do **not** apply to this reopener.
- 1.14 We expect licensees to use the 'Whole System Cost-Benefit Analysis' framework as developed by the ENA in order to show that the reallocation of the output for consumers is in the best interests of future and existing consumers, referring to the User Guide and Methodology documents also developed by the ENA to support the CBA

framework.<sup>15</sup> Licensees may make any relevant amendments or additions to this model as are indicated by the nature of the application, but must be clear where, and why, they have done so in their application.

#### Demonstrating net benefits to consumers

- 1.15 An application must demonstrate that there is an expected net benefit to consumers as a result of the proposed change. Depending on the type of licensees making the re-opener application, licensees must identify relevant consumer groups affected, and the net benefit each is expected to gain.
- 1.16 For the CAM re-opener, 'electricity' is a sector, so that electricity transmission and electricity distribution consumers are considered to be a single sector consumer group.
- 1.17 Similarly, 'gas' is a sector, so that gas transmission and gas distribution consumers are considered to be a single sector consumer group.
- 1.18 An application submitted by any combination of only electricity licensees must demonstrate a net benefit for all its consumers considered as one group, and not as two distinct set of benefits allocated to each licensees' specific network consumers.
- 1.19 Similarly, an application submitted by any combination of only gas licensees must demonstrate a net benefit for all their consumers considered as one group, and not as two distinct sets of benefits allocated to each licensees' specific network consumers.
- 1.20 An application made by any combination of electricity and gas licensees (a cross sector application) must demonstrate a net benefit to both electricity and gas consumers.

#### Net benefits

- 1.21 For there to be a "net benefit", the relevant energy sector's consumers (ie gas consumers, or electricity consumers) must receive a net gain (that is quantifiable in financial terms). This must be as compared to the position immediately before the reallocation of price control revenues, even if that net benefit takes time to materialise.

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<sup>15</sup> These will be published on the Energy Networks Association website at <https://www.energynetworks.org/>

- 1.22 An application must only demonstrate that there is a net benefit to the relevant energy sector's consumers. The benefit to the relevant energy sector's consumers need not be the primary benefit as consumers of other energy sectors, or sectors outside of energy, may receive greater benefits from the reallocation of the output.
- 1.23 Benefits are not restricted to actual project costs or savings between the original activity and the proposed new activity. Benefits may also include non-financial benefits (such as environmental benefits, or the carbon cost) that can be quantified in financial terms calculated under approved methodologies, such as any relevant RIIO-1 or RIIO-2 Ofgem CBA model, or the Green Book.
- 1.24 These, and other, methodologies have been incorporated into the 'Whole System Cost-Benefit Analysis' framework developed by the ENA, which we expect applications to use. This covers the main societal, environmental, emissions reductions and financial benefit types, but where additional benefit categories are relevant to the specific application being made, we expect the application to include these in the rationale and CBA, and explain why they are relevant.

## Appendix 4: Cyber Resilience IT and OT re-opener application requirements

This appendix sets out the information that a licensee must provide when making a re-opener application under the cyber resilience OT licence condition or the cyber resilience IT licence condition.<sup>16</sup>

If a licensee considers it is not able to provide a piece of information set out in this appendix, it must, in its application, provide a reasonable explanation why.

The rest of this Appendix is in three parts: needs case; options assessment; and cost information.

### Needs case

- 1.1 This section sets out the information that must be provided on the needs case for the proposed funding request.

### Alignment with overall business strategy and commitments

- 1.2 Applications must include details on organisational context, strategy, and business alignment.
- 1.3 Applications must include, but need not be limited to, a description of:
- the licensee's overall business strategy
  - the licensee's cyber resilience strategy
  - how the cyber resilience strategy aligns with its business strategy
  - how the application aligns with previous/in-flight cyber resilience delivery (i.e. Improvement Plans<sup>17</sup> or RIIIO-1 activity)
  - internal and external dependencies affecting the proposals set out in the application

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<sup>16</sup> SpC 3.2 (Cyber resilience operational technology Re-opener, Price Control Deliverable and use it or lose it adjustment) and SpC 3.3 (Cyber resilience information technology Re-opener and Price Control Deliverable)

<sup>17</sup> Unless otherwise stated, defined terms in this appendix have the meanings given in the licensees' licences.



- the current and targeted security state and/or maturity of the licensee (e.g. National Cyber Security Centre (NCSC) Cyber Assessment Framework (CAF)<sup>18</sup> self-assessment<sup>19</sup>).

### **Demonstration of needs case**

1.4 Applications must include, but need not be limited to, a description of:

- relevant cyber risks and why current security and resilience control is insufficient
- the detailed risks posed to the network and consumers including details on threat, vulnerability, and impact
- the risk severity in terms of likelihood and impact for the inherent, residual (current), and target risk positions
- the services, systems, sites and assets that relate to the identified risks
- the licensee's risk tolerability and risk response decisions
- how the licensee calculated the level of cyber risk.

### **Options Selection**

1.5 This section sets out the information that must be provided on the options selection process.

#### Consideration of project options and methodology

1.6 Applications must include, but need not be limited to, the following:

- the methodology and/or standards used to support security and resilience management and decision making
- the methodology and processes on how cyber risks are assessed, managed, and responded to
- the security and resilience controls required to reduce risks to tolerable levels (and options considered)
- the targeted solutions and projects required to develop and implement the identified security and resilience controls (and options considered).

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<sup>18</sup> <https://www.ncsc.gov.uk/collection/caf/cyber-assessment-framework>

<sup>19</sup> CAF self-assessment is relevant only to OT Re-opener applications.

### Preferred option details

#### *Description*

1.7 Applications must set out, but need not be limited to, the following for each project contained within the application:

- the project scope, including which sites and assets are in scope
- the proposed project/option, including a Cost Benefit Analysis (CBA)<sup>20</sup>, general objectives of the project, sites applicability, and prioritisation
- site breakdown per project/work stream targeted for intervention within this re-opener application
- the security and resilience controls targeted for implementation as part of this project, and cross-referencing to the CAF outcomes or relevant standards
- project outputs, including the specific deliverables of each project (what specific products, solutions and technologies are being targeted for delivery)
- the security and resilience control links to current and targeted security state and/or maturity (e.g. CAF self-assessment).

1.8 Applications must include details of any site related to the application, including:

- site function and purpose
- site criticality rating and justification
- overview of the technological architecture and assets.

#### *Technical feasibility and consumer benefit:*

1.9 For applications the licensee must set out, but need not be limited to, the following:

- the relevant risks that will be influenced and mitigated through successful delivery of the project
- the inherent and residual (current) risk positions as well as the target risk positions for the end of the RIIO-2 period, based on successful delivery of the project

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<sup>20</sup> The CBA must include "do nothing" options.

- a detailed list of project constraints, project risks and dependencies (i.e. dependence on IT Cyber/Business as usual (BAU) projects, alignment with broader site maintenance activities)
- details of any underpinning technical feasibility evidence relating to the project and description of how this reduces the delivery risks of the project. Technical feasibility evidence may include, but need not be limited to, research and development outputs, proof of concepts and demonstrations, and design work.

#### *Project delivery and monitoring*

1.10 Applications must include, using the licensees own project delivery methodology, the following:

- a detailed project plan and timelines (e.g. Gantt chart)
- a detailed project schedule, including activity milestones for project delivery, personnel on-boarding, training, etc.
- the governance structure of each project, including project roles and responsibilities and number of resources required
- the organisational structure of the cyber security team and demonstration of capacity and capability to deliver the plan
- the fundamental components that are being used to measure delivery of the cyber resilience plan (i.e. risk reduction to the business/consumers/ stakeholders)
- a description of how project delivery will be assessed for targeted risk reduction and how assurances will be sought for the effectiveness of delivered security and resilience controls
- a description how project constraints, dependencies, priorities, risks and similar matters will be tracked/managed, for example whether they will be reflected in a prioritised backlog, risk and/or issues log
- a description of how performance will be monitored, including key performance indicators to be used to monitor the progress of the project.

## **Cost information**

1.11 This section sets out the information that must be provided on costs.

### **Breakdown and justification of costs**

#### Consideration of options

- 1.12 The licensee must provide information to justify the need and amount of allowance required per project, demonstrating consideration against the targeted risk reduction and site prioritisation.
- 1.13 The licensee must also provide a description of the various options that were considered (i.e. by performing cost benchmarking, previous tenders or contract information) and the rationale for the selection preferred option.
- 1.14 The licensee must provide information to demonstrate consideration of the expected lifetime of security and resilience controls in the context of a changing threat landscape.

Breakdown of costs of preferred option

- 1.15 Applications must set out, but need not be limited to, the following:
- the overall costs of implementing the proposals contained in the applications
  - source information used to build up the costs for each application
  - a breakdown of the overall baseline costs for the applications per year
  - a breakdown of the capex and opex costs of the overall costs per year
  - a breakdown of the capex and opex for the overall costs for each project
  - for each project, a breakdown of the costs for each site which is in scope in terms of capex and opex costs and volume and unit costs (wherever applicable).
- 1.16 Applications must set out, but need not be limited to, the following:
- the current overall Cyber IT/OT running costs as well a breakdown of the current Cyber IT/OT running costs for each site
  - the future overall Cyber IT/OT running costs as a result of project implementation as well a breakdown of the future Cyber IT/OT running costs for each site
  - where an agile delivery methodology is being used:
    - estimated team cadence e.g. who will be included on each project
    - estimated burn down charts
    - scrum team cadence costs and key external stakeholder costs.

Justification and efficiency of costs

- 1.17 The licensee must provide a description of the sourcing approach, such as procurement or tendering, to be adopted and demonstrate how this process supports cost efficiency.

1.18 For projects at an early stage of development that have not entered their sourcing approach, an application must include:

- source information for the baseline costs, supplemented with uncertainty costs based on assessed delivery risk
- source information for the licensee's approach to cost estimation, which may include a qualitative or quantitative explanation of a baseline cost element (e.g. probabilistic P50 value)
- a cost comparison analysis against the market or benchmarking
- a description of how and when cost uncertainty will be reduced as the project proceeds towards initiation and throughout delivery.

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## **Appendix 5: MSIP (SF<sub>6</sub> Asset Intervention) Re-Opener Guidance**

### **Introduction**

- 1.1 This appendix sets out additional information that a licensee must provide when submitting an application under Special Condition 3.14: Medium Sized Investment Projects Re-opener and Price Control Deliverable (MSIPREt) in relation to an SF<sub>6</sub> Asset Intervention. The licensee must also comply with the requirements of SpC 3.14 and with the Guidance in the main document.
- 1.2 If a licensee considers it is not able to provide a piece of information set out in this appendix, it must explain why. We will consider if such explanations/submissions are sufficient for the re-opener application on a case-by-case basis.
- 1.3 We expect the licensee to engage with Ofgem during the development of its application.
- 1.4 In our RIIO-2 Final Determinations (FD), we set out our expectation that a licensee could only make one submission within RIIO-ET2 under the SF<sub>6</sub> Asset Intervention MSIP reopener<sup>21</sup>. However, we may consider more than one submission during RIIO-2 where a compelling need is established, such as the delivery of a TO's Science Based Target or net-zero strategy, and where a TO's previous submission(s) have been of high quality.
- 1.5 The rest of this appendix is structured as follows: the SF<sub>6</sub> Intervention Plan; modelling SF<sub>6</sub> leakage; modelling asset interventions; and, SF<sub>6</sub> leakage model governance.

### **Needs Case and Option Selection**

- 1.6 This section sets out the information that must be provided on the needs case for the proposed funding request.

#### **SF<sub>6</sub> Intervention Plan**

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<sup>21</sup>[https://www.ofgem.gov.uk/sites/default/files/docs/2021/02/final\\_determination\\_nget\\_annex\\_revised.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2021/02/final_determination_nget_annex_revised.pdf), Table 12: Areas covered by the MSIP re-opener

1.7 An SF<sub>6</sub> Asset Intervention MSIP application should be underpinned by a well-justified SF<sub>6</sub> Intervention Plan to reduce SF<sub>6</sub> emissions and remove SF<sub>6</sub> equipment from the transmission system.

1.8 A well-justified SF<sub>6</sub> Intervention Plan will:

- explain the Plan's expected contribution to the licensee's strategy for achieving their Net Zero targets: NGET (2050), SHET (2045) and SPT (2045);
- explain the decision making methodology used to select SF<sub>6</sub> assets for intervention and optimise the timing of those interventions;
- identify the asset interventions required for reducing SF<sub>6</sub> emissions and removing SF<sub>6</sub> equipment (and the options considered);
- set out the key milestones and timing for implementing the Plan, which is likely to cover multiple price control periods;
- demonstrate a balance between the expected current and future costs of emission abatement and asset removal;
- highlight any interactions between the Plan and other mechanisms in the current price control;
- highlight internal and external factors that could affect the Plan.

### **Modelling SF<sub>6</sub> leakage**

1.9 We expect the licensee will model/forecast SF<sub>6</sub> leakage from its transmission system to inform and justify its SF<sub>6</sub> Intervention Plan. We set out below our general expectations on the modelling/forecasting approach.

1.10 The modelling/forecasting of SF<sub>6</sub> leakage should be developed for the asset (functional) level and at points of an asset's life cycle. Ideally, there will be alignment with asset categories used in the Regulatory Reporting Pack (RRP) or in other RIIO-ET2 mechanisms such as the Network Asset Risk Metric (NARM). Where asset categories are unable to be made consistent, with RRP or NARM asset categories, a clearly defined relationship should be made to the RRP asset categories.

- 1.11 Forecast leakage should be based on defined asset characteristics, such as (but not restricted to); asset type, age, condition, leakage history, location, gas holding and any other explanatory variables that are appropriate. We welcome further discussions with the licensee on the definition and appropriateness of asset characteristics to be used when developing modelling forecast leakage.
- 1.12 The modelling approach should be designed to allow aggregation of leakage to the network level. It should also include functionality to forecast leakage in the short term and longer term that aligns, for example, with the licensee's Science Based Net Zero target year.
- 1.13 Forecast models should be based on historic leakage rate data for the relevant asset type. Where data does not exist, is limited in the number of years for which it is available, or is not robust, a clearly defined methodology to assume asset leakage should be agreed with Ofgem, during the development of the forecast models and prior to the submission of an MSIP application.
- 1.14 The model of SF<sub>6</sub> leakage should be suitably validated. The validation should aim to robustly test the modelling assumptions, input data and any other element of the model that may impact the final outputs. While undertaking this process, we suggest that the licensee calibrates their modelling output accuracy based on their validation results. The licensee should include a section within the model documentation of their application on their validation approach and testing results.
- 1.15 The sensitivity of the model to assumptions or aspects of their SF<sub>6</sub> forecast leakage methodology should be explored and, if possible, quantified. This is important for understanding the accuracy of the forecasting and any potential decision-making risks.
- 1.16 Whilst we are expecting SF<sub>6</sub> to be the primary focus of this type of modelling, we would advise licensees to consider how the model could be extended to include other Insulation and Interruption Gases (IIGs).
- 1.17 Documentation of the SF<sub>6</sub> leakage methodology, including assumptions and validation results, should be submitted to Ofgem alongside the MSIP submission. This will form part of our ongoing governance of the SF<sub>6</sub> abatement workstreams.

### **Analysis of SF<sub>6</sub> asset interventions**

- 1.18 We expect licensees to develop scenario analysis of intervention works, demonstrating impact at both the asset category level and the network level.



1.19 For this scenario analysis, we expect credible SF<sub>6</sub> abatement benefits associated with each intervention category to be set out. The current intervention categories we envisage are:

- **Asset Replacement** – this is an activity undertaken by a network company to remove an existing asset(s) and install a new asset. The asset replacement activity includes:
  - the installation of replacement assets,
  - the dismantling of existing assets where activity this is undertaken as part of the asset replacement works.
- **Asset Refurbishment** – this is a one-off activity undertaken on an asset that is deemed to be close to end-of-life or is otherwise requiring intervention that extends the life of that asset or restores its functionality. This activity does not result in the recording of a new or disposed asset in the licensee's Asset Register. Refurbishment can include the replacement or reconditioning of components of an asset.
- **Retro-Fill** – this is a one-off activity to modify an asset to work to original or similar specification using an alternative IIG to SF<sub>6</sub>. This activity does not result in the recording of a new or disposed asset in the Asset Register.
- **Maintenance & Repair** – this is any activity required or assumed to be necessary to achieve the expected life of an asset.
- **Removal** – this is the permanent removal of an asset from the network, not including removals carried out as part of a replacement or refurbishment activity.
- **Addition** – this is the addition of a new asset to the network, not including additions carried out as part of a replacement or refurbishment activity.

1.20 We have aligned the definitions of the intervention categories above to the NARM intervention categories; however, we welcome further discussions to define these more closely to SF<sub>6</sub> asset interventions.

1.21 We expect licensees to present a clear view of how intervention scenario analysis can be used to identify asset candidates that would benefit from each of the intervention categories listed above.

### **SF6 Leakage Model Governance**

1.22 Licensees are expected to maintain a reasonable level of ongoing governance of their SF<sub>6</sub> leakage model and the subsequent interactions to the SF<sub>6</sub> Intervention Plan. We suggest that a review is completed annually to ensure that the base data, assumptions, and modelling are kept up to date.

1.23 As part of our assessment of MSIP submission, we will consider ongoing arrangements a licensee has undertaken to govern their SF<sub>6</sub> Leakage models.

1.24 In this review, we suggest that the licensee considers the following elements;

- **SF<sub>6</sub> leakage rates data:** the data that underpins the leakage modelling is continually updated from the networks data capturing processes over that year. This should also be used to validate any assumptions with the model, specifically on assumed benefits related to the determination of intervention benefits.
- **Global data:** the data which is determined external to the licensee's control (i.e. the Global Warming Potential of SF<sub>6</sub>).
- **Assumptions within the modelling:** any assumptions that have been used in the modelling to improve the accuracy or operation of the model.
- **Validation results:** any validation results that may require further calibration of model methodologies or assumptions.

1.25 Within a licensee's associated documents on the modelling of SF<sub>6</sub> leakage, the licensee must indicate the regularity of its review and the intended governance of the model.

1.26 Ofgem will require a submission of SF<sub>6</sub> leakage modelled outputs alongside the SF<sub>6</sub> Asset Intervention MSIP re-opener application. Ofgem will also be requesting detail on the SF<sub>6</sub> leakage modelled outputs for developing RIIO-ET3 policies. Therefore, we suggest licensees maintain an up-to-date SF<sub>6</sub> leakage model and associated documentation.

1.27 Whilst Ofgem will not require an annual updates on changes to any modelling, we would expect licensees to conduct ongoing review and updates. For any additional SF<sub>6</sub> Asset Intervention MSIP submissions, made in RIIO-2 after January 2022, Ofgem will require licensees to provide a complete view of any changes made to their SF<sub>6</sub> leakage

models. This will also include an updated validation exercise and a narrative on how accuracy has been improved since the previous modelling version.

## **Cost information**

1.28 This section sets out the information that must be provided on costs.

### **Breakdown and justification of costs**

#### Consideration of options

1.29 The licensee must provide information to justify the need and amount of allowance required.

1.30 The licensee must also provide a description of the various options that were considered and the rationale for the selection preferred option.

#### Breakdown of costs of preferred option

1.31 Applications must set out, but need not be limited to, the following:

- the overall costs of implementing the proposals contained in the applications
- source information used to build up the costs for each application
- a breakdown of the overall baseline costs for the applications per year
- for each project, a breakdown of the costs for each site in terms of costs and volume and unit costs.

1.11.32 Ofgem will supply a CBA template for cost and options to be submitted.