

Cadent

Your Gas Network

09 December 2019

Appendix 01.00 Navigating our Plan



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1. Introduction

This document acts as a navigation guide for our Plan:

- We draw together the guidance that Ofgem has provided on the contents of RIIO-2 business plans (including through letters, consultation and decision documents and the guidance documents). It explains how and where we have addressed these comments;
- We provide an account of the way that our plan has changed through successive versions; and
- We list the contents of our plan.

2. How our Plan addresses Ofgem’s detailed requirements

The guidance provided by Ofgem on the contents of the business plan documentation is set out in the Business Plan Guidance document published on 31 October 2019 (OG), in the Gas Distribution appendix to the SSMD (GD) the Sector Specific Methodology Decision (SSMD) and a letter from Dermot Nolan to the network company CEOs. The table below summarises Ofgem’s guidance, explains how we have addressed Ofgem’s requirements, and notes items highlighted as being “minimum requirements” by Ofgem.

Table 2 Ofgem requirements

| Minimum Req’t? | ID | The Plan should ... | In which chapter is this requirement addressed | | | | | | | | | | | | Where and how we address this requirement | Detailed guidance: the plan should ... | Source Reference | | |
|---------------------------------|------|--|--|---|---|---|---|---|---|---|----|----|----|--|---|---|---|---|------------------|
| | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | | | | |
| Track record | | | | | | | | | | | | | | | | | | | |
| Min | G001 | Explain RIIO-1 delivery (outputs and incentives). | | | ■ | | | | | | | | | | | Chapter 4 (sections 4.2 - 4.6). | Explain delivery against RIIO-1 output targets and incentive mechanisms. | OG2.3 | |
| Min | G002 | Explain customer service levels and how well different customers groups have been served. | | | ■ | | | | | | | | | | | Chapter 4 (see Table 04.01, Figure 04.01, Figure 04.02) and Table 04.03. | Explain the level of service provided to customers in RIIO-1, and what steps were taken within the period to improve service provision. Explain how well different groups of customers have been served over the RIIO-1 period – eg customers in particular regions/circumstances. | OG2.3 | |
| Min | G003 | Explain how expenditure has differed from allowances (and why). | | | ■ | | | | | | | | | | | Chapter 4 (section 4.3). | Explain how expenditure has differed from allowances set at the outset of RIIO-1. Explain what factors contributed to differences between allowances and expenditure and how these factors have been considered in preparing the RIIO-2 Business Plans. | OG2.3 | |
| Min | G004 | Explain RORE returns. | | | ■ | | | | | | | | | | | Chapter 4 (section 4.4). | Explain the returns companies earned over the RIIO-1 period, and key drivers behind these returns. These should be expressed in terms of RORE. | OG2.3 | |
| Min | G005 | Explain distributed profits. | | | ■ | | | | | | | | | | | Chapter 4 (section 4.6). | Explain the level of profit payment distributed to investors over the RIIO-1 period. | OG2.3 | |
| Min | G006 | Explain how consumers will be protected from additional or delayed costs. | | | ■ | | | | | | | | | | | Chapter 4 (section 4.5). | Explain how the company identifies and avoids any impact on consumer bills, such as impacts related to additional or delayed costs caused by RIIO-1 performance, such as deferral of work. | OG2.3 | |
| Business plan commitment | | | | | | | | | | | | | | | | | | | |
| | G007 | Explain how pay and rewards will be aligned to commitments. | | | | | | | ■ | | | | | | | Chapter 7 (section 7.5, part 5) and Appendix 07.05. | Explain how you will align the structure of pay and reward within the organisation to the delivery of commitments set out in their Business Plans, including on accuracy of data provided. | OG2.4 | |
| Min | G008 | Explain the level of board assurance (accurate, ambitious, efficient, robust, financeable and good value for money for consumers). | ■ | | | | | | | | | | | | ■ | ■ | Chapter 2 records our board commitment. Chapter 11 and Appendix 11.01 sets out our assessment of financeability. Chapter 12 and Appendix 12.00 (Our Assurance Framework) explains our assurance process, including the attendance by our board at CEG meetings, and includes our board assurance statement. | Explain what level of assurance is provided by sufficiently independent directors that the plan and associated costs have been tested for accuracy, ambition and efficiency. Business Plans must clearly demonstrate that the Board is satisfied that the licensee is financeable on both a notional and actual capital structure basis (using Ofgem’s working assumptions for cost of capital and incentive outperformance). On 4 June 2019, Dermot Nolan wrote to our CEO to clarify that Ofgem expects our “full Board to take responsibility for ensuring the Business Plan is in the interests of consumers”, that we should “ensure Board-level oversight and acceptance of the Plan” and that “boards are responsible for the plans submitted”. Dermot’s letter also extended board assurance to include “robust”, “financeable” and “represents good value for money for customer”. | OG2.4 and OG3.28 |
| | G009 | Explain output reporting. | | | | | ■ | ■ | | | | | | | | Chapter 6 for our wholes system commitments. Chapter 7 and all Appendices in the range 07.02.04 – 07.05 (output cases). | Explain outline how you will report on the delivery of Business Plan commitments. | SSMD 3.11 | |

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| | G010 | Explain how stakeholder groups will hold us to account. | | | | ■ | | | | | | | | | Chapter 5 and Appendix 05.01 (Stakeholder Engagement Strategy) set out our ongoing stakeholder engagement commitment. Chapter 7 sets out our commitments. Chapter 8 (section 8.7) and Appendix 08.01 set out our commitment to report on initiatives to promote competition. | Explain the ongoing role of stakeholder groups in holding companies to account. | SSMD 3.11 |
| Giving consumers a stronger voice | | | | | | | | | | | | | | | | | |
| Min | G011 | Set out the way plans were designed through enhanced engagement. | | | | ■ | | | | | | | | | Chapter 5 and all of the appendices to Chapter 5. | Set out how plans have been designed using enhanced engagement processes. | OG2.6 |
| Min | G012 | Include evidence of the timely appointment and appropriate governance of the CEG. | | | | ■ | | | | | | | | | Chapter 5 (section 5.13) and Appendix 05.07 (CEG membership). | Include evidence of appointment of company specific groups – including timely appointment of groups, governance arrangements at appointment and on an ongoing basis, among other things as described in the enhanced engagement guidance document. | OG2.6 |
| Min | G013 | Include evidence of effective engagement with the CEG and R2CG. | □ | □ | □ | ■ | □ | □ | □ | □ | □ | □ | □ | □ | Chapter 5 (section 5.13 and 5.14) summarises our engagement with the CEG. Appendix 01.01 (How we have responded to CEG and R2CG feedback) explains our response to feedback. This is also evidenced in the Challenge Log published by the CEG (Appendix 05.08). Throughout the plan, we reference where the CEG has impacted on our thinking – see, for example, Chapter 8 (innovation) and Chapter 6 (Net Zero). | Include evidence of effective engagement with the Customer Engagement Groups and the RIIO-2 Challenge Group. | OG2.6 |
| Min | G014 | Include evidence of robust and high-quality stakeholder engagement. | □ | □ | □ | ■ | □ | ■ | □ | □ | □ | □ | □ | □ | Chapter 5 and all the appendices to Chapter 5. Chapter 7 explains our engagement insight and what we have done with it. Throughout the plan, we highlight where engagement has impacted on our thinking. | Include evidence of robust and high-quality engagement with stakeholders by the company in designing the plan. | OG2.6 |
| Min | G015 | Be published on the company's website. | | | | | | | | | | | | | We will publish our plan and explain any redacted information once we have reviewed the contents for commercially sensitive information. | To facilitate stakeholder engagement ahead of the open hearing, publish the final December Business Plan on the company website. The plan should be published in as full a form as possible. Where information is excluded, the reasons for such exclusions should be clearly and comprehensively set out in an explanatory statement published alongside the plan. For example, if information is redacted on grounds of commercial confidentiality, we would expect to see an explanation of the commercial interest that would be prejudiced by disclosure. | OG2.6 |

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| Min | G016 | Set out the approach to ongoing engagement and associated commitments. | | | | ■ | | | | | | | | | Chapter 5 (section 5.17 and 5.18). Appendix 05.01 (Stakeholder Engagement Strategy). | Set out the company's approach to ongoing engagement in RIIO-2, including a strategy for engagement as well as a set of commitments to deliver the strategy. This approach should: <ul style="list-style-type: none"> be strategic and proportionate, including how the company's approach reflects the particular circumstances of the company's geographic regions and its various network users, both domestic and industrial be inclusive of all stakeholders, including consideration of hard-to-reach groups as well as the needs of both existing and future consumers be responsive to stakeholder needs, including how the company will maintain an up-to-date understanding of stakeholders' needs as well as how it will ensure views are captured and incorporated into the day-to-day operation of the business be ambitious, including how the company has established performance commitments which are appropriate, well-evidenced and stretching be transparent, including how the company will measure progress against its commitments as well as any consequences for non-delivery of commitments deliver outcomes that network users and society value at a price they are willing to pay. The plan should provide evidence that costs associated with the delivery of commitments are efficient and provide value for money. This should include consideration of resource commitments to support engagement demonstrate senior-level buy-in and that engagement runs through all levels of the organisation incorporate and builds on the best practice methods learned in RIIO-1 and considers best practice methods employed in other industries. | OG2.7, 2.8 |
| | G017 | Show engagement with LAEPs. | | | | | ■ | ■ | | | | | | | Chapter 6 (section 6.4), Chapter 7.4, Appendix 07.04.00 (Detailed Environmental Action Plan). | Given the potential benefits associated with LAEPs, we are interested in any information companies can provide in their business plan on how they are already, or are planning to, co-ordinate with other local stakeholders on an ongoing basis to support the creation of shared LAEPs. (However, Ofgem are we are not imposing a requirement to produce LAEPs on networks in their Business Plan submissions and we will not take into account their activity in this area in our of whether minimum requirements have been met). | OG2.57- 2.58 |
| Meeting the needs of consumers and network users | | | | | | | | | | | | | | | | | |
| Min | G018 | Set out outputs and their treatment (LOs, ODIs and PCDs). | | | | | ■ | ■ | | | | | | | Chapter (particularly section 7) and, all of the appendices associated with Chapter 7. Chapter 6 (section 6.5) for whole system thinking commitments. | Set out the outputs the company will deliver in the RIIO-2 price control period and how it will do this (ie deliver against LOs, ODIs and PCDs). | OG2.12 |
| Min | G019 | Identify planning and resourcing requirements. | | | | | | ■ | | | | | | | Chapter 7 (section 7.2 to 7.4) includes consideration of deliverability for commitments in every customer priority area. See also all appendices associated with Chapter 7. | Identify planning and resourcing requirements associated with outputs, especially where the level of activity looks to increase significantly from historical levels. | OG2.12 |

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| | G020 | Address Ofgem's requirements for bespoke outputs. | | | | | | ■ | | | | | | Chapter 7 (section 7.2 to 7.4), Appendix 07.01.00 and all appendices associated with Chapter 7. | <p>Ensure that bespoke proposals:</p> <ul style="list-style-type: none"> reflect the network services that existing and future consumers/network users and/or wider stakeholders require are as complete as possible in capturing the activities and costs of the company are measurable and reportable allow comparison of performance across companies, where there is sufficient commonality where relevant, capture the long-term nature of outputs. set stretching targets which are well-evidenced and deliver clear outcomes/outputs deliver clear consumer value. <p>And provide justification that the bespoke output:</p> <ul style="list-style-type: none"> is best dealt with through the price control, rather than through a government body responsible for the public interest in that area (eg Highways Authorities for matters relating to the occupation of the highway) is backed by robust evidence and justification (such as cost-benefit analyses) and demonstrate value for money for existing and future consumers is consistent with the value that consumers will receive from a proposed new service level and, by extension, the potential associated reward and/or penalty, and the extent to which these are symmetrical, in terms of value and likelihood of outcome recognises the extent to which an independent measure of the existing level of service that consumers receive is available and the degree to which the target level being proposed represents an improvement on this takes account of the level of service provided by other companies/comparators (where available) recognises the activities (and indicative cost) associated with achieving the targeted level of service includes proposals for licence conditions and/or penalties if performance falls below existing service levels. | OG2.16, 2.17 |
| Min | G021 | Set out asset health, criticality and replacement priorities. | | | | | ■ | | ■ | | | | | <p>We set out our approach to managing asset health in Chapter 7 (section 7.2) and Appendix 09.00. Our investments cases (at Appendices 09.01 - 09.40) explain the choices made for different categories of asset.</p> <p>Ofgem has substantially modified proposed NARMS methods and tables during the development of our plan. This has impacted on our ability to respond to this requirement.</p> | <p>Set out the company's views on asset health, criticality and replacement priorities at:</p> <ul style="list-style-type: none"> the start of the price control period, effectively reflecting their view on the asset health and risk of assets on the network the end of the price control period with no intervention, effectively reflecting their view on asset degradation over the period the end of the price control period with intervention. | OG2.18 |
| Min | G022 | Explain long-term risk objectives, strategies and anticipated benefits. | | | | | | | | ■ | | | | Appendix 09.00 sets out overall asset strategy. See also Appendices 09.01 - 09.40 (investment cases). | Explain their long-term risk objectives and strategy, as well as the long-term benefits delivered by their proposed interventions. | OG2.18 |
| Min | G023 | Set out evidence-based monetised risk objectives. | | | | | ■ | | ■ | | | | | Chapter 7 (section 7.2) and Appendices 09.01 - 09.40 (investment cases). | Set out monetised Risk objectives which must be informed by stakeholder engagement and cost-benefit analysis (CBA), and demonstrate that selected investment options efficiently both meet their stakeholder-driven objectives and deliver sufficient net benefit for existing and future consumers. | OG2.19 |
| Min | G024 | Include workforce planning, informed by Trade Union engagement. | | | | | ■ | | | | | | | Chapter 7 (section 7.2) and Appendix 07.02.03 (workforce resilience). | Demonstrate how companies will develop a modern, diverse, high quality, well-trained workforce fit for the future. We consider that these plans should focus on improving inclusion, diversity and equality, improving workforce satisfaction, motivation and productivity, upskilling and multi-skilling, and ensuring the health, safety and wellbeing of the workforce. These plans should be informed by company engagement with the company CEGs/UGs, Trade Unions and other relevant stakeholders. | OG2.20, 2.21 |

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| Min | G025 | Include a Business IT Security and Cyber Resilience Plan. | | | | | | ■ | | | | | | | Chapter 7 (section 7.2) and Appendix 07.02.00 (Business IT security plan) and 07.02.01 (Cyber resilience plan). | <p>Include a Business IT Security Plan (which would be considered BAU expenditure) – focused primarily on cyber security for business systems.</p> <p>Include a Cyber Resilience Plan – which is incremental expenditure focused primarily on Production Systems Operational Technology (OT), in response to the Network and Information Systems Regulations 2018 (“NIS Regulations”).</p> <p>(To demonstrate how companies will take appropriate and proportionate technical and organisational cyber security measures to manage risks posed to the security of the network and information systems on which their essential services depend, and to prevent and minimise the impact of incidents on these essential services.)</p> <p>(Ofgem is not expecting these to include general technology refresh, or end of life replacement. Ofgem would expect such projects to form part of more general system investment plans, which should already include appropriate cyber security protection.)</p> <p>(Include efficient, appropriate and proportionate costs to deliver necessary enhancements to the cyber security and resilience of the systems used to operate essential services. Current risks, vulnerabilities, threats and mitigation options are expected to be documented, together with the relative benefits of the options considered.)</p> <p>(IT Security measures for the business domain are generally considered out of scope. However, Ofgem will consider crossover within the Cyber Resilience Plan, where an associated risk is highlighted, for example around the interconnection between business IT and OT.)</p> <p>(Include efficient, appropriate and proportionate costs to deliver necessary enhancements to the cyber security and resilience of the systems used to operate essential services. Current risks, vulnerabilities, threats and mitigation options are expected to be documented, together with the relative benefits of the options considered.)</p> | OG2.22, 2.23, 2.27 - 2.29 |
| Min | G026 | Demonstrate how we will address the Physical Security Upgrade Programme. | | | | | | ■ | | ■ | | | | | Chapter 7 (section 7.2) and Appendix 09.12 (Security Interventions National Cat2a). | Demonstrate how companies will meet any ongoing requirements of the Physical Security Upgrade Programme (PSUP). As discussed in our SSMD, companies must submit any costs relating to PSUP as part of their Business Plans, as a (confidential) PCD. | OG2.31 |
| Min | G027 | Focus on environmental impact areas. | | | | | | ■ | | | | | | | Chapter 7 (section 7.4), Appendix 07.04.00 (our Environmental Action Plan) and Appendices 07.04.04 to 07.04.08. | <p>Focus on environmental impact areas:</p> <ul style="list-style-type: none"> decarbonising the energy networks – with a focus on business carbon footprint and embedded carbon in networks reducing networks' other environmental impacts ie pollution to local environment; resource waste; biodiversity loss; and other adverse local effects that are specific to each sector supporting the transition to an environmentally sustainable low-carbon energy system. | OG2.32 |
| Min | G028 | Provide an Environmental Action Plan (EAP). | | | | | | ■ | | | | | | | Appendix 07.04.00 (Detailed Environmental action Plan) and summarised in Chapter 7.4. | <p>Provide an Environmental Action Plan which should:</p> <ul style="list-style-type: none"> include a robust methodology that has been used to assess the environmental impacts of the company's network and Business Plan in RIIO-2 to inform its EAP. The assessment methodology should set out: <ul style="list-style-type: none"> a comprehensive review of the significant environmental impacts arising from its network the opportunities and challenges for addressing material impact areas an options analysis to identify value for money impact reduction initiatives evidence that consideration of impacts was coordinated with the company's wider business planning processes and decisions evidence that wider stakeholders have been involved in the assessment clarify their long-term overall targets/objectives for the network's environmental impacts, which might be longer-term than the RIIO-2 period include an assessment of the network's potential environmental impacts in RIIO-2, in comparison to its current impacts set out clear links between the impact areas it has prioritised for in the EAP, action in RIIO-2 and how these are linked to the company's long-term environmental targets/objectives set out the role the company envisages playing in supporting the low carbon energy transition set out the deliverables, outputs or environmental benefits the company proposes to deliver from implementing the EA. | OG2.33, 2.34 and OG Appendix 2 |

Modernising Energy Data

| Minimum Req't? | ID | The Plan should ... | In which chapter is this requirement addressed | | | | | | | | | | Where and how we address this requirement | Detailed guidance: the plan should ... | Source Reference | | |
|--|------|--|--|---|---|---|---|---|---|---|----|----|---|--|---|---|---------------|
| | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | | | 12 | |
| | G029 | Develop and publish digitisation strategy. | | | | | | ■ | | | | | | | Chapter 7 (section 7.2) and Appendix 07.02.02 (Data and digitalisation strategy). | <p>Showcase how they are leading change and delivering progressive modernisation of Britain's national infrastructure. Digitisation strategies (which should be made public in December) need to:</p> <ul style="list-style-type: none"> • Enable current and future users of the network system to access, understand and challenge the strategies itself. • Be based on collaboration between companies. • Address the following themes: <ul style="list-style-type: none"> ○ Actions being taken to align with the recommendations of the Energy Systems Data Task Force. ○ Consideration of making available metadata (which is data that describes and gives information about other data) ○ Workforce planning with respect to ensuring digital, data and technology capabilities, demonstrating that these have a credible path to being in place to meet the needs of the digitalisation strategy now and in the future ○ Approaches to user engagement and feedback on the digitalisation strategy ○ Approaches to continuously improving the digitalisation strategy ○ Reporting their current understanding of user needs (eg new data needs; existing data improvement needs) ○ Delivery plans to meet users' needs: cost, benefit, options, validation, prioritisation ○ Preferred corporate ways of working when delivering digital and data services ○ How network digitalisation is being coordinated between network companies ○ How digitalisation strategies are contributing to and aligning with wider initiatives, such as, but not limited to: the Centre for Digital Built Britain¹⁰ (including the Gemini Principles, the Digital Framework Taskforce Roadmap, digital twins and the Information Management Framework); the wider National Infrastructure Commission agenda; and the National Data Strategy¹² and UK Digital Strategy¹³ ○ Energy system digital architecture needs and associated delivery plans ○ Preferred corporate digital and data best practices, such as to realise user needs-driven data visibility, data interoperability and implementation of the EDTF recommendation that energy system data is presumed open. | OG2.38 – 2.45 |
| Enabling whole system solutions | | | | | | | | | | | | | | | | | |
| Min | G030 | Set out approach to enabling whole system solutions. | | | | | ■ | | | | | | | | Chapter 6 (section 6.4 and 6.5, in particular) | <p>Provide information on their approach to enabling whole system solutions in their Business Plan. This should include:</p> <ul style="list-style-type: none"> • plans and processes for joint planning with other network companies and/or the system operator (and evidence of that already undertaken) • evidence of effective identification and adoption of potential whole system solutions and approaches, reflecting how they have taken account of the impacts and opportunities of their actions for the wider system (and the wider system for them), and accounted for those in their cost benefit analyses • a demonstration of long-term whole system thinking and value for consumers and the wider society, including identification of uncertainties and mitigation • quantification of the impact of activities which coordinate with, or generates benefits for, any broader area of the economy or society • justified and costed proposals for whole system outcomes and solutions. Such activities must demonstrate: <ul style="list-style-type: none"> ○ they meet all the same requirements for 'non-whole system' activities (costs, engineering justifications, etc), and how uncertainty mechanisms, including reopeners, could support them. Companies should apply proportionality when submitting whole system CBA. For example, smaller or simple projects following the standard CBA template, whereas larger or more complex projects requiring bespoke analytical approaches ○ that there are net benefits for their sector's consumers and their type, eg lower bills, reduced environmental damage, improved reliability and service ('gas sector' includes the firms responsible for gas transmission, distribution, and system operation). ○ The distribution of costs and benefits over time should also be demonstrated (ie for existing and future consumers) ○ The value – and methodologies for calculation – of the activity for other sectors, towards achieving broader goals (eg, decarbonisation), and for other aspects of the economy (eg, telecommunications) ○ The level of coordination and potential provisional agreements that have already been secured to support these proposals, including a justification that the split of costs and benefits between the company and the whole system partner(s) are appropriate ○ Why a market solution cannot be utilised to produce this result, and that all options have been considered on a level playing field ○ That the activity is not BAU, and expenditure which sets the activity as above BAU should be clearly identified and delineated ○ How changes already made in the RIIO-1 operating period – in response to changing market conditions, stakeholder expectations, or potential licence changes – and outlines how these practices will be embedded and improved in RIIO-2. | OG2.48 – 2.51 |

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| | | | | | | | | | | | | | | | | Where a company has not identified any potential opportunities for proposed whole system outcomes and solutions, we expect to see evidence of their engagement and attempts to discover such opportunities. | | |
| Provide required information in support of uncertainty mechanisms | | | | | | | | | | | | | | | | | | |
| | G031 | | | | | | | | | | | | | | ■ | Chapter 10 and Appendix 10.00 for a summary of our approach and proposals. Appendices 10.01 to 10.15 (uncertainty mechanisms) for the case for each mechanism. | Provide information in support of proposed uncertainty mechanisms, including the items listed in Table 1, including: <ul style="list-style-type: none"> The nature of the uncertainty (is the issue / risk regionally specific or industry-wide)? Information about who bears the risk (customer / company) and whether this is appropriate. Information about the materiality of the risk and how likely is it that the risk will materialise? Justification for an uncertainty mechanism (UM). Consideration of why other mechanisms are not suitable (eg volume driver, logging up or cost pass-through) Explanation of how our proposed mechanism work (in sufficient detail to allow implementation). Account of the benefits and drawbacks of the mechanism, including the materiality of these drawbacks, demonstrating benefits outweigh drawbacks. Consideration of how the mechanism delivers value for money (vfm). Summary of how the associated costs have been treated in the BPDts. | OG2.60 |
| Driving efficiency through Innovation ... | | | | | | | | | | | | | | | | | | |
| Min | G032 | Include an innovation strategy. | | | | | | | | | | | | | ■ | Chapter 8 (section 8.1 to 8.6). See also Appendix 08.00 (Detailed innovation strategy). | Set out the high-level innovation activities planned for RIIO-2, this must evidence: <ul style="list-style-type: none"> a strong strategic approach to the company's innovation activities, which builds upon industry-wide challenges and industry-wide strategic direction how they will consider, and mitigate if necessary, the potential impacts of their innovation activities on consumers in vulnerable situations consideration of whole system approaches as potential solutions to the barriers being addressed how plans for RIIO-2 build on past projects completed by itself and others, considering lessons learned from these past projects plans for third-party involvement in the company's innovation activities, demonstrating how they will increase third party involvement in their innovation activities and ensure full consideration of third party innovation ideas. They may, for example, include plans for independent consideration of which third-party innovation ideas to take forward plans to collaborate and disseminate innovation learnings with other network companies and other interested bodies a framework for rolling out proven RIIO-2 innovation into the business during the course of the RIIO-2 price control how they propose to monitor the benefits of planned RIIO-2 innovation and reduce costs in other areas during the course of RIIO-2 using this innovation (We are not asking companies to set out all the specific innovation projects they plan to do with their totex allowance. Instead we want to understand the high-level innovation activities (ie. the areas and themes they seek to focus on) companies are planning for RIIO-2 using their totex allowance and the processes they have in place for identifying these ideas. [OG2.69]) | OG2.70 |
| Min | G033 | Describe steps to roll out proven innovation (including that led by other companies). | | | | | | | | | | | | | ■ | Chapter 8 (section 8.1 to 8.6) and Appendix 08.00 (Detailed innovation strategy). | Describe the steps that they are taking to ensure that previously proven innovation is rolled out into BAU and how the benefits of these are reflected in the company's proposed expenditure for RIIO-2. This will include innovation trials that they have participated in, as well as ones that have been led by other companies. | OG2.71 |
| | G034 | Include a case for roll out allowance. | | | | | | | | | | | | | ■ | Chapter 8 shows innovation we are taking forward. We have not identified the need for any additional totex allowances. | Include a case for any additional totex allowance necessary for RIIO-2 to roll out previously proven innovation. | OG2.72 |

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| Min | G035 | Set out level and structure of required NIA funding. | | | | | | | | | | | | | ■ | | | | Chapter 8 (section 8.6.3.2) and Appendix 08.00 (Detailed innovation strategy). | Set out the level of NIA funding they require. They should explain why the innovation in question cannot be funded from the totex allowance. We would like companies to include high-level areas of focus for NIA spending, rather than individual projects, and how much additional funding they believe is necessary for each of these areas of focus, together with the value/benefits they anticipate this may generate. As part of this, companies should set out the desired structure of their proposed RIIO-2 NIA and how much risk they are willing to take on themselves against their NIA. For example: <ul style="list-style-type: none"> whether they seek an annual allowance or an allowance over the length of RIIO-2 the compulsory contribution they are willing to make towards RIIO-2 NIA projects or against their overall allowance any other wider features they seek to propose to support their allowance, such as reopeners to reassess the level of NIA funding needed during the course of RIIO-2. By implication, companies should also: <ul style="list-style-type: none"> explain the extent to which they are undertaking other innovation as BAU activities the extent to which proposals incorporate the application of best practices the processes in place to roll out proven innovation into BAU and the evidence that they are already doing so the processes companies in place to monitor, report and track innovation spending and the evidence that they are already doing so. | OG2.74 – OG2.76 |
| Min | G036 | Contain whole system approaches as solutions to innovation barriers. | | | | | | ■ | | | | | | | ■ | | | Chapter 8 (section 8.6.1, page 121). See also Chapter 6 (section 6.3 – 6.4) and Appendix 08.00 (Detailed innovation strategy). | Contain consideration of whole system approaches as potential solutions to the barriers to innovation. | OG2.52 | |
| Driving efficiency through ... competition | | | | | | | | | | | | | | | | | | | | | |
| Min | G037 | List projects for late competition. | | | | | | | | | | | | | ■ | | | Chapter 8 (section 8.7.5) and Appendix 08.01 (Competition action plan). | Set out their best view of which projects meet the late model criteria for competition. Where the company sets out its view that a project in its Business Plan submission valued at over £100m does not meet the criteria for competition, the company should provide detailed reasoning through additional commentary. In presenting projects in their Business Plans, companies should also consider and indicate whether our approach to applying 're-packaging' would be appropriate for those projects. Companies should not seek to split larger, single projects into multiple smaller projects for the purpose of avoiding the high value criterion. | OG2.77 – OG2.79 | |
| Min | G038 | Flag projects for early competition and justify their treatment. | | | | | | | | | | | | | ■ | | | Chapter 8 (section 8.7.5) and Appendix 08.01 (Competition Action Plan). | Flag in their Business Plans system needs (or projects) which are valued at £50m or over. Indicate which flagged projects are not suitable for early competition, because: <ul style="list-style-type: none"> there is no reasonable probability of being addressed by an alternative solution (contestability test) subjecting these system needs or projects to early competition is not in the interests of consumers. For example, where the need or project is part of a wider programme of work and the separation of one aspect would make the overall programme more expensive for consumers. | OG2.81 – OG2.83 | |
| Min | G039 | Provide a native competition plan and monitoring approach. | | | | | | | | | | | | | ■ | | | Chapter 8 (section 8.7.5) and Appendix 08.01 (Competition Action Plan). | Provide a native competition plan which details how they will use competition to identify and reveal efficient costs, which complies with Ofgem's best practice guide except where these conflict with legal obligations (including the Utilities Contracts Regulations 2016 and Utilities Contracts (Scotland) Regulations 2016 (as amended or replaced; which implement the EU Directive 2014/25/EU). [OG2.84]. These best practice principles are: <ul style="list-style-type: none"> Utilisation of competitive processes for all procurements and projects, except where the potential benefits of doing so are outweighed by the costs. The competitive process must be robust, transparent and ensure equal treatment of potential bidders and protect information appropriately. The complexity of the competitive process used should be proportionate to the value and time-sensitivity of the project or system need in question. All information must be provided equally to all parties, and any conflicts of interest have to be appropriately managed. Licensees should be agnostic to technology and bidder type. Competitions should be structured to generate outcomes in the interests of existing and future consumers. | SSMD 10.129 | |
| Min | G040 | Outline communication on upcoming competitions. | | | | | | | | | | | | | ■ | | | Chapter 8 (section 8.7.5) and Appendix 08.01 (Competition Action Plan). | Outline the type of information they commit to share throughout the price control such that Ofgem and stakeholders have sight on upcoming competitive processes and can continually assess their performance against their commitments in their native competition plan. | OG2.86 | |

| Minimum Req't? | ID | The Plan should ... | In which chapter is this requirement addressed | | | | | | | | | | Where and how we address this requirement | Detailed guidance: the plan should ... | Source Reference | |
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| Min | G041 | Consider publicly committing to technological agnosticism. | | | | | | ■ | | | | | | Chapter 8 (section 8.7.2) and Appendix 08.01 (Competition action plan). | Consider publicly committing to an approach which embeds the principle of technological agnosticism. | OG2.88 |
| Min | G042 | Commit to best outcomes for consumers (including by the use of option values). | | | | | | ■ | | | | | | Chapter 8 (section 8.7.2) and Appendix 08.01 (Competition action plan). | Commit to a tender design and assessment approach which ensures the best outcomes for existing and future consumers, eg by using explicit considerations of option value, particularly for flexibility solutions. | OG2.89 |
| A consistent view of the future | | | | | | | | | | | | | | | | |
| Min | G043 | Consider a range of outcomes and actions | | | | | ■ | | ■ | ■ | | | | Chapter 6 (section 6.2 and 6.3), for scenarios. Chapter 9 (section 9.3 and 9.4), for the impact on our costs. Chapter 10 and Appendices 10.00 to 10.15 (for uncertainty mechanisms). | Consider a range of future outcomes and the different investments and activities required to support these. | OG3.1 |
| Min | G044 | Provide evidence in the event of divergence from the common view of the future. | | | | | | | ■ | ■ | | | | We have adopted the common view of the future as noted in Chapter 9 (section 9.4). Chapter 10 and all of the associated appendices set out how we propose to deal with uncertainty. | Provide evidence if their plans need to deviate from the common view of the future, and the most appropriate mechanism to allow expenditure allowances to adjust. | OG3.4 |
| | G045 | Set out preparations for decision on the future of heat. | | | | | ■ | | ■ | | | | | Chapter 6 in total and in particular section 6.3.1 (which summarises our plans for RIIO-2). All of the appendices to Chapter 6. Chapter 9 (section 9.4). | Set out how they are preparing for Government decisions on the future of heat. This should include consideration of decarbonisation scenarios in which gas distribution plays a significant role, and scenarios in which their role is considerably diminished. Consideration of these scenarios should include a description of the potential impact of Government decisions during RIIO-GD2 on their investment plans, which we would consider when developing a heat policy re-opener. | OF3.3 (footnote) |
| Cost information | | | | | | | | | | | | | | | | |
| Min | G046 | Provide cost information (drivers, options, justification, efficiency and innovation). | | | | | | ■ | ■ | | | | | Chapter 9 in total and Appendices 09.01 to 09.38 (investment cases). Chapter 8 for innovation. | Provide information: <ul style="list-style-type: none"> cost drivers consideration of options justification of costs, including the proposed profiling of costs how efficiency and innovation will be used to reduce costs. | OG3.10 |
| | G047 | Provide substantial evidence for costs higher than historical averages / trends. | | | | | | | ■ | | | | | Chapter 9 (sections 9.5 to 9.9) and Appendices 09.01 to 09.38 (investment cases), in particular Appendix 09.02 (Distribution Mains) and 09.04 (MOBs). | Provide substantial evidence for where overall forecasts of investment drivers, or the forecasts for individual line items, are higher than historical averages or trends. | OG3.5 |
| Min | G048 | Evidence how plans can flex to support the Net Zero target. | | | | | ■ | | ■ | ■ | | | | Chapter 6 (sections 6.2 and 6.3), for scenarios. Chapter 9 (section 9.3 and 9.4), for the impact on our costs. Chapter 9.10 (for uncertain costs). Chapter 10 and Appendices 10.00 to 10.15 (for uncertainty mechanisms). | Clearly propose and evidence how their Business Plans are able to flex to support achieving the Net Zero target in line with a range of pathways: <ul style="list-style-type: none"> identify where their baseline investment plan may impede the efficient achievement of any of a plausible range of pathways through which this target could be achieved, and propose how their Business Plans can flex to address these impediments and facilitate timely investments which support potential pathways. Companies should: <ul style="list-style-type: none"> carefully consider the need for investment in anticipation of need where such investment supports Net Zero pathways. Given the important role played by the energy sectors in achieving the Net Zero target, Ofgem will thoroughly consider proposals of this nature, outline their plans to coordinate with the UK government, devolved administrations, local government and relevant customers to more efficiently support the achievement of the Net Zero pathways show how they have considered, or will consider, the implications of macro scenarios at a local level. For example, when considering implications of plausible pathways in which the number of users of the gas network is considerably smaller than at present, gas network companies should consider which parts of their network would be most/least likely to be used in future. Companies should take into account local implications of different pathways in planning their activities. This could include prioritising investments over the RIIO-2 period, such as tailoring repex schedules to take into account the possibilities of use/decommissioning of the gas network. | OG3.6 – OF3.9 |
| Min | G049 | Clearly set out key RIIO-2 drivers. | | | | | | | ■ | | | | | Chapter 9.3. | Clearly set out the key drivers of expenditure for the RIIO-2 period - for example growth in demand, conditions of assets/utilisation, legislative requirement, and any other relevant drivers. | OG3.12 |

| Minimum Req't? | ID | The Plan should ... | In which chapter is this requirement addressed | | | | | | | | | | | | Where and how we address this requirement | Detailed guidance: the plan should ... | Source Reference | | |
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| | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | | | | |
| Min | G050 | Justify the need for new investment. | | | | | | | | | | | ■ | | | | See Appendices 09.01 – 09.38 (investment cases). | Justify the need for new investment, including: <ul style="list-style-type: none"> the different options considered for meeting future network requirements, including the cost of “doing nothing” and of “deferral” options and the associated cost benefit analysis (CBA); these options should include, where appropriate, the availability of potential market solutions to the system need, and whether any ‘whole system’ solutions are available. Options which are supported by LAEPs (where available) might provide a higher level of evidence for options discounted at this stage, full reasoning, detailing key assumptions and selection criteria given for exclusion; the reasons for the timing of investment under the different options considered, including expected outputs (eg the delivery of an increment in boundary capacity transfer, the delivery of an electricity link, a gas pipeline) related to the investment and year of delivery; the risk of underutilisation/stranding that new investments/existing might face in the future. In considering these risks, and in justifying additional investment, networks may consider any outputs from LAEPs that can inform understanding of the ongoing utilisation of the asset. | OG3.13 |
| Min | G051 | Include evidence on efficiency, efficiency assumptions, regional and company-specific factors and highlight uncertain costs. | | | | | | | | | | | ■ | ■ | | ■ | Chapter 9 – section 9.2 (for efficiency), section 9.10 (for uncertain costs) and Chapter 10 (for uncertainty mechanisms). See also Appendices 09.20, 09.21, 9.39 and 9.40 (for efficiency) and Appendices 10.00 to 10.15 (for uncertainty cases). Chapter 12 (assurance) and Appendix 12.00 (Assurance framework). | Include: <ul style="list-style-type: none"> evidence of the efficiency of their costs, for example as compared to historical benchmarks and/or benchmarking with national and international comparators details of assumptions and justification for projected changes in the efficient levels of unit costs over time (ie ongoing efficiencies) caused by improvements in project delivery, technological innovation, procurement efficiencies, etc a clear rationale for any associated assumptions they consider we should use when assessing costs. For example, robust and transparent justification for the extent to which regional and company-specific factors determine material (higher and lower) cost variations details of the activities and indicative costs that are directly funded through totex allowances and are associated with achieving service levels details of which categories of expenditure are more uncertain and more difficult to forecast using historical/independent benchmarks. Where this is the case, we expect companies to consider mechanisms that mitigate risk associated with uncertainty, and/or other evidence to justify their submitted costs. | OG3.14 |
| Min | G052 | Set out monitoring and mitigations for underutilised assets. | | | | | | ■ | | | | | | ■ | ■ | | Chapter 6 and Chapter 9 (section 9.4.1). Chapter 10 for our approach to managing uncertainty. | Set out the monitoring and mitigation they will put in place to reduce the risk of underutilised assets. For new assets (ie those assets that companies are planning to invest in and have included in business plans) that face a risk of underutilisation, network companies should ensure before undertaking the investment they have clear evidence of need, such evidence might include LAEPs | OG3.15 |
| Min | G053 | Explicitly identify and incorporate drivers which may reduce costs. | | | | | | | | | | | | ■ | | | Chapter 9 (sections 9.3 – 9.5). | Explicitly identify and incorporate drivers which may reduce required network expenditure. | OG3.5 |
| Min | G054 | Show how we are consistent with the low point of ENA scenario ranges. | | | | | | | | | | | | ■ | | | Chapter 9 (section 9.4). | Design baseline revenues around parameters which are no greater than the lowest point of the ranges provided in the ENA Scenario Working Group report. Where a network’s planning exceeds these points, an explicit and proportionate justification for this deviation must be provided (and that their combined assumptions are consistent). | OG3.5 |
| Min | G055 | Be capable of being flexed for high outcomes. | | | | | | | | | | | | | ■ | | Chapter 10 and Appendices 10.00 to 10.15 (for uncertainty mechanisms). | Be capable of being flexed, where necessary, to meet high outturns (eg by proposing relevant uncertainty mechanisms). | OG3.5 |
| Min | G056 | Demonstrate the mapping between expenditure and ODIs / PCDs. | | | | | | | ■ | | | | | ■ | | | Chapter 7 (section 7.2 – 7.5). Appendices in the series 07.02 – 07.04 (output cases). Chapter 9 (section 9.5). | Demonstrate how expenditure forecasts map onto relevant ODIs and PCDs. | OG3.16 |

| Minimum Req't? | ID | The Plan should ... | In which chapter is this requirement addressed | | | | | | | | | | | | Where and how we address this requirement | Detailed guidance: the plan should ... | Source Reference | | |
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| | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | | | | |
| Min | G057 | Provide an assessment of efficient costs. | | | | | | | | | | | ■ | | | ■ | Chapter 9 (section 9.2) and Appendices 09.20, 09.21, 9.39 and 9.40 (for efficiency). See also Chapter 12 and Appendix 12.00 (Our Assurance Framework). | Provide an assessment of what constitute efficient costs as part of their submissions (Ofgem will consider the evidence provided when undertaking our own assessment of the submission). Companies are expected to provide: <ul style="list-style-type: none"> a justification of the efficiency of their costs, for example as compared to historical benchmarks and/or benchmarking with national and international comparators; details of assumptions and justification for projected changes in the efficient levels of unit costs over time (i.e. ongoing efficiencies) caused by improvements in project delivery, technological innovation, procurement efficiencies clear justification for any associated assumptions they consider Ofgem should use when assessing costs. For example, robust and transparent justification for the extent to which regional and company-specific factors determine material (higher and lower) cost variations. Details of the activities and indicative cost that are directly funded through totex allowances and are associated with achieving service levels. Explanation of how cost-saving efficiencies and innovation through RIIO-1 have helped to reduce costs in RIIO-2. | OG3.14 |
| Min | G058 | Include and justify assumptions on ongoing efficiencies. | | | | | | | | | | | ■ | | | | Chapter 9 (section 9.2) and Appendix 09.39 (Frontier Productivity Growth). | Include assumptions on ongoing efficiencies and how these assumptions were derived. Set out the expenditure categories or activity costs to which an ongoing efficiency assumption has been applied, along with evidence of how these assumptions have been derived. This information should align with the data provided in the BPDTs, including: <ul style="list-style-type: none"> any proposed comparator industries for the purpose of cost assessment, along with a justification for those proposed an explanation of how any historic data has been used to derive efficiency forecasts, including a justification for the time period selected and how forecasts capture enduring effects from efficiencies generated in previous price controls a comparison of efficiency forecasts against efficient gains realised in previous periods interactions with innovation funding (past and future) interactions between ongoing efficiency forecasts and output quality. The information should align with the data provided in the BPDTs | OG2.63, SSCD p41 |
| Min | G059 | Provide CBAs. | | | | | | | | | | | | | | | See submitted CBA templates. | Provide CBAs to justify cost projections, which should: <ul style="list-style-type: none"> be consistent with published guidance and recognised best practice, for example the Green book 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 demonstrate the value of projects across different scenarios, and include an explicit consideration of (quasi) option values (see Ofgem guidance) of deferring the investment ; this might include the consideration of the outputs of jointly developed GDN/DNO LAEPs be clearly linked to the Business Plan, where applicable, with sensitivity to changes in input parameters assessed, for example future energy scenarios act as a robust decision support tool, 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 not been considered and non-monetised as part of the analysis. Be transparent about assumptions, inputs and rationale for decisions, calculations and results. | OG3.21 |
| Min | G060 | Provide RPE information. | | | | | | | | | | | ■ | | | | Chapter 9 (section 9.11) and Appendix 09.22 (Real Price Effects). | For RPEs, provide the following information: <ul style="list-style-type: none"> the input costs for which the Ofgem measure of general output price inflation (ie CPIH) is a poor proxy, along with justification for why the expenditure categories (eg direct opex) to which these input costs relate, and to what extent. We expect companies to consider the practical implications of their proposals, and in doing so show that each RPE is material relative to both totex and our measure of general output price inflation. This information should align with the data provided in the Business Plan Data Templates (BPDTs) evidence to support all proposed RPEs, including clear evidence of a sustained and material deviation between input costs and our measure of general output price inflation proposed indices for any proposed RPEs, along with evidence to support their use in indexation and justification for their selection over alternatives forecasts for any proposed indices, along with evidence of how these have been derived an explanation of any RPE cost profiling effects proposed throughout the price control. | OG2.61 |

| Minimum Req't? | ID | The Plan should ... | In which chapter is this requirement addressed | | | | | | | | | | | | Where and how we address this requirement | Detailed guidance: the plan should ... | Source Reference | | |
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| | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | | | | |
| | G061 | Justify any anticipatory expenditure. | | | | | | | | | | | ■ | ■ | | | Chapter 10 and the associated appendices explain how we propose to deal with uncertain expenditure. See also Chapter 9 (section 9.7 and 9.8). | In the case of proposed anticipatory expenditure, clearly address the following points: <ul style="list-style-type: none"> what operational or capital solutions a company proposes investing in why, in the company's view, the investment(s) is highly anticipatory in nature why investing now, rather than at some point in the future will deliver benefits for bill payers how the company proposes the risks and rewards of any highly anticipatory investments are shared appropriately, being clear: <ul style="list-style-type: none"> which parties will carry the financial risk if a forecast requirement does not materialise the level of risk that should be borne by the bill payer how the bill payer will be insulated against any additional risk the levels of return the company should receive the beneficiaries of the investment and the proportion of benefits why the proposed investment should be considered as separate to the other licensable operations of the business. | OG2.65 |
| Financial information | | | | | | | | | | | | | | | | | | | |
| Min | G062 | Include a completed Business Plan Financial Model. | | | | | | | | | | | | | | | We have provided a completed Business Plan Financial Model. | Included a Business Plan Financial Model completed in accordance with Ofgem guidance, including incorporating Ofgem's working assumptions for cost of capital. For analysis presented in the plan, such as scenarios or tables of values, companies should use the Business Plan Financial Model. | OG3.23, OG3.26 |
| | G063 | Include a (notional and actual) financeability assessment, including target ratings and remedial actions. | | | | | | | | | | | | | ■ | | Chapter 11 (sections 11.1 to 11.7) and Appendix 11.01 (Financeability). | Include a financeability assessment for both the notional and actual company, including target ratings. [OG3.26] and that follows the guidance published in March 2019. If any financeability challenges are identified then the Business Plan should clearly set out, in detail, what these challenges relate to and efforts made to address them. | OG3.28, OG3.29 |
| Min | G064 | Clearly set out financial projections for RIIO-2. | | | | | | | | | | | | | ■ | | Chapter 11 and we have provided a completed Business Plan Financial Model. | Clearly set out financial projections for RIIO-2. | OG3.27 |
| Min | G065 | Clearly set out target ratings, financial ratios and qualitative factors. | | | | | | | | | | | | | ■ | | Chapter 11 (sections 11.3 and 11.4). Appendix 11.01 (Financeability). | Clearly set out target ratings and the key financial ratios and qualitative factors used to assess maintenance of those target ratings. | OG3.27 |
| Min | G066 | Clearly set out the results from stress tests. | | | | | | | | | | | | | ■ | | Chapter 11 (sections 11.4 to 11.6) and Appendix 11.01 (Financeability). | Clearly set out: <ul style="list-style-type: none"> results of the Ofgem-suggested set of common stress test scenarios with results clearly explained. an explanation of any additional stress test scenarios, including rationale, results and commentary of results. | OG3.27 |
| Min | G067 | Clearly set out capitalisation and depreciation rates and (customer) evidence / to support any adjustments. | | | | | | | | | | | | | ■ | | Chapter 11 (section 11.8) and Appendices 11.00 and 11.01 (Financeability). | Clearly set out proposed capitalisation and depreciation rates, including evidence for any adjustments to capitalisation or depreciation rates required for financeability or bill smoothing purposes. This includes the level of customer support for such adjustments (and/or consideration of customer preferences). | OG3.27 |
| Min | G068 | Clearly set out dividend and equity issuance policy and strategy. | | | | | | | | | | | | | ■ | | In Chapter 7 (section 7.4), we have committed to transparency on reporting. We also report on our dividends paid in the Regulatory Financial Performance Report. Our dividend and equity issuance policy is set out in Appendix 11.01 (Financeability). | Clearly set out the company's dividend and equity issuance policy and strategy. | OG3.27 |

| Minimum Req't? | ID | The Plan should ... | In which chapter is this requirement addressed | | | | | | | | | | | | Where and how we address this requirement | Detailed guidance: the plan should ... | Source Reference | | |
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| | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | | | | |
| Min | G069 | Demonstrate a clear understanding of financial risk and evidence risk management. | | | | | | | | | | | | | ■ | | Chapter 11 and Appendix 11.01 (Financeability). | Demonstrate a clear understanding of financial risk and evidence of risk management measures. This must include: <ul style="list-style-type: none"> a clear explanation of the assumptions underpinning company risk and scenario analysis and description of how risk analysis takes into account company actions for mitigating downside risks an assessment of overall risk of the Business Plan and realistic and well-justified proposals for notional gearing that the plan is financeable on both a notional and actual capital structure basis, or that all applicable measures to aid financeability have been considered, including robust supporting evidence and justification robust justification for any proposed company-specific alternative cost of capital estimates (for example for RAV-weighted debt index for networks with unusual RAV growth profiles), including customer support for any such alternatives. | OG3.28 |
| Presentation and structure of plans | | | | | | | | | | | | | | | | | | | |
| | G070 | Be concise whilst presenting proportionate evidence and justification for expenditure and outputs. | | | | | | | | | | | | | | | Our evidence is summarised in our main (200-page) plan. Supporting evidence is provided in Appendices, models and data templates. We summarise the main points from our plan in Chapter 2. | Be concise – no longer than 200 pages excluding BPDs, Investment Packs and the BPFM - with the emphasis on keeping the core narrative as short as possible, while presenting proportionate evidence and justification for the proposed expenditure and outputs. | OG4.1 |
| | G071 | Ensure the core narrative contains all relevant information. | | | | | | | | | | | | | | | As can be seen from this appendix, this is the case. | To the fullest extent possible, ensure that the core narrative contains all information relevant to Ofgem's assessment of the plan. | OG4.2 |
| | G072 | Clearly signpost Annexes. | | | | | | | | | | | | | | | We provide hyperlinks within the main (200-page) and clear references to all appendices. We have adopted a structure that is easy to follow. This appendix (01.00) provides a mapping to Ofgem requirements. | Annexes should be clearly signposted and referenced within the core Business Plan text. | OG4.2 |
| | G073 | Ensure annexes are clear and readable. | | | | | | | | | | | | | | | We have worked hard to ensure the appendices are readable. | Ensure annexes are as clear and readable as the rest of the Business Plan. | OG4.3 |
| | G074 | Be clearly written and readable. | | | | | | | | | | | | | | | We have worked hard to make the plan readable. | Be clearly written, with considerable emphasis on making them as easy to read as possible (avoiding small font sizes). | OG4.3 |
| | G075 | Contain easily identifiable information and a mapping to Ofgem's requirements. | | | | | | | | | | | | | | | This Appendix 01.00 provide a mapping to Ofgem requirements and we summarise the high-level mapping between Ofgem requirements and our plan in Chapter 1. | Contain easily identify material that will be relevant to our assessment. Therefore, plans should cover each of the sections set out in this document. These should be clearly labelled so that we are able to access all of the information that we require in each of these areas. Companies should try to ensure that the information relevant to each assessment area is presented in its relevant chapter or section (rather than spread throughout the plan, for example). Where it is not possible to include all information relevant to an assessment area within its own single chapter or section (for example where a supplementary annex is required), companies will need to clearly identify where in the plan the relevant material is located. Therefore, each plan should include a table that maps information on these key areas to relevant parts of the plan. | OG4.4 – OG4.6 |
| | G076 | Be effectively cross-reference. | | | | | | | | | | | | | | | Our plan contains hyperlinks between chapters. | Effectively cross-reference between different sections. | OG4.7 |
| | G077 | Include hyperlinks. | | | | | | | | | | | | | | | Where practical, we have provided references to data tables, | Wherever possible, include hyperlinks when referencing any of the data tables, annexes or any further detail which is explored elsewhere in the plan as far as practical. | OG4.7 |
| | G078 | Clearly link the data tables to the narrative. | | | | | | | | | | | | | | | Our data table commentary provides a link between the tables and the narrative (see Appendix 01.03). | As far as practical, clearly link data in the narrative to the relevant data table number (and hyperlink wherever possible). For each data table there should also be a link to where in the main narrative this data is discussed. For some data tables this may be more than one part of the plan that describes the data. | OG4.8 |
| | G079 | Only submit separate regional business plans in exceptional circumstances. | | | | | | | | | | | | | | | We have not submitted a separate regional plan. | Only submit separate Business Plans, or separate elements of its Business Plan, for each area in exceptional circumstances, and the company should clearly demonstrate why this is merited. We do not expect there to be any repetition. | OG4.9 |
| | G080 | Include 'snapshot' tables | | | | | | | | | | | | | | | We provide snapshot tables (see Appendix 01.02) | Include completed 'snapshot' tables alongside the Business Plan, including the October drafts. | OG4.10 |

| Minimum Req't? | ID | The Plan should ... | In which chapter is this requirement addressed | | | | | | | | | | | | Where and how we address this requirement | Detailed guidance: the plan should ... | Source Reference |
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| | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | | |
| Min | G081 | Include Business Plan Data Tables | | | | | | | | | | | | | We have provided a full set of data tables for each of our regions. | Complete the requested data tables, including NARMS and CBA templates. For analysis presented in the plan, such as scenarios or tables of values, companies should use the Business Plan Data Tables. | OG3.23 |
| | G082 | Provide models and tools | | | | | | | | | | | | | Appendix 11.01 describes the tools and models we have used. These are the LiMo model provided by Ofgem and our Regulatory Financial Model. All tables in the business plan are referenced to LiMo or Cadent Regulatory Financial Model. Inputs to the BPFM have been linked to the corresponding BPDT where applicable. | Any other models or tools used to produce alternate or supplementary analysis, such as bill impacts, should be submitted with, and clearly cross-referenced to, the Business Plan. Where applicable, inputs to the BPFM should be linked to the corresponding BPDT. | OG3.23 |
| Consumer value proposition | | | | | | | | | | | | | | | | | |
| | G083 | Set out the consumer value proposition | | | | | | | ■ | | | | | | Chapter 7 (section 7.1) and Appendix 07.01.00 (Our consumer value proposition). | Set out the ways in which the plan goes beyond the minimum requirements and how this will lead to benefits for consumers. The CVP must be summarised clearly within the Business Plan. However, it may draw upon material that is embedded within each of the relevant areas that contribute towards the CVP. Companies should seek to provide a monetised value to consumers for each proposal forming part of the CVP. Companies should set out any methodology employed in determining this monetised value, along with any underlying data used in its calculation. Proposals forming a part of a company's CVP should be clearly and unambiguously identified as such. Companies could include within their CVP proposals for: <ul style="list-style-type: none"> • service quality levels that are higher than existing levels and delivered at the same or lower cost • bespoke outputs in aspects of service provision that are not currently reflected in the existing framework of outputs • commitments for stakeholder engagement, which could take the form of bespoke outputs, likely to result in measurable positive outcomes for consumers • well-justified initiatives in the Environmental Action Plan to reduce the environmental impacts of the network that will result in measurable outcomes that are valued by consumers • uncertainty mechanisms that highlight risks to consumers of which Ofgem would not otherwise have been aware • an innovation strategy likely to drive forward energy system thinking and address consumer vulnerability • whole system approaches likely to drive forward the industry – including proposals for data sharing • strategies and implementation plans likely to deliver positive impacts for consumers in vulnerable situations, including use of the consumer vulnerability use it or lose it allowance in gas distribution • the company's commitment to an above-BAU approach to sharing information and data with relevant parties to facilitate greater whole system coordination • the content of their digitisation strategy • outputs from LAEPs. | OG5.13, OG5.14, OG5.17, OG5.18 OG2.44, OG2.58 |
| Minimum Requirements (completeness) | | | | | | | | | | | | | | | | | |
| Min | G084 | Contain all required material. | | | | | | | | | | | | | This Appendix (01.00) evidences the fact that we have addressed all of Ofgem's minimum requirements. | Contain all the material detailed in Appendix 1 of the the Business Plan Guidance. | OG5.8 |
| Min | G085 | Be clear and understandable. | | | | | | | | | | | | | We consider this to be the case. | Be presented in a clear and understandable manner. | OG5.8 |
| Min | G086 | Be timely. | | | | | | | | | | | | | We have complied with all Ofgem timelines at all stages of the business plan process. | Be presented in line with the timetable for submissions. | OG5.8 |
| Min | G087 | Comply with DAG. | | | | | | | | | | | | | We have followed the DAG process and submit an Irregular NetDAR alongside our plan (see Appendix 01.04). | Comply with Ofgem's Data Assurance Guidance (DAG). | OG5.8 |

| Minimum Req't? | ID | The Plan should ... | In which chapter is this requirement addressed | | | | | | | | | | | | Where and how we address this requirement | Detailed guidance: the plan should ... | Source Reference |
|---------------------------------------|------|---|--|---|---|---|---|---|---|---|----|----|----|---|--|---|------------------|
| | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | | |
| Min | G088 | Be subject to enhanced engagement. | | | | ■ | | | | | | | | | Chapter 5 and Appendices 01.01 (for our response to CEG and R2CG feedback), 05.01 to 05.07 (for detail on our engagement approach) and 05.08 for the CEG challenge log (to be published by the CEG). | Demonstrate how the plan has been tested, challenged and developed using the enhanced engagement process. | OG5.8 |
| Min | G089 | Track changes between versions of our Plan. | | | | | | | | | | | | | This Appendix 01.00 tracks the changes between the successive versions of our plan. | Include a clear explanation of what has changed in the Business Plan from 1 July to 1 October to the final submission to Ofgem on 9 December. | OG5.8 |
| Min | G090 | Have regard to guidance on presentation and structure | | | | | | | | | | | | | As far as practical, we have sought to apply Ofgem's guidance to the maximum extent practical. | Have regard to Ofgem guidance on the presentation and structure of Business Plans. | OG5.8 |
| Minimum Requirements (quality) | | | | | | | | | | | | | | | | | |
| Min | G091 | Be sufficiently evidenced. | □ | □ | □ | ■ | □ | ■ | □ | ■ | ■ | ■ | □ | The main plan and supporting appendices set out our evidence base. In particular, Chapter 5 and Chapter 7 set out our willingness to pay assessments, acceptability testing and economic arguments. The appendices to Chapters 5 and 7 provide supporting evidence. The appendices to Chapter 9 (investment cases) provide evidence in support of our spend. Chapter 10 and its appendices set out our proposals for uncertainty mechanisms and provide supporting evidence. Chapter 11 and supporting appendices set out financeability. | Be sufficiently evidenced, including evidence of consumer expectations and willingness to pay. | OG5.9 | |
| Min | G092 | Have a credible plan for delivery. | | | | | | ■ | | | | | ■ | Chapter 7 (sections 7.2 to 7.5) summarises our delivery plan for each output. Appendices 07.02 – 07.04 (output cases) provide further detail on our delivery plans. Chapter 12 explains how we assured delivery. Appendix 12.00 (Our assurance framework) provides further detail on assurance. | Have a credible plan for delivery, that takes into account current levels of performance and any steps necessary to improve upon these. | OG5.9 | |
| Min | G093 | Provide safeguards on delivery. | | | | | | ■ | | | | | ■ | Chapters 7 (sections 7.2 to 7.5) summarise the safeguards for each output. Appendices 07.02 – 07.04 (output cases) provide details. Chapter 10 summarises our proposed uncertain mechanisms and Appendices 10.01 – 10.15 provides details. | Set out commitments are proposed that offers safeguards on the delivery of the Plan's ambitions. | OG5.9 | |
| Min | G094 | Account for divergent views. | | | | ■ | | ■ | | | | | | Chapter 7 (sections 7.2 to 7.5) shows where we have had divergent stakeholder views, and how we have decided what steps to take. Chapter 5 describes our approach to triangulation and Appendix 05.03 explains our decision tracker. We set out areas where our CEG has influenced our plan in Chapter 5.14. Chapter 5.15 notes areas where we and our CEG had divergent views in the past. We will comment on any divergent views on our final plan, when we have considered the CEG's report. | Explain, where disagreements with the company's proposals have arisen through enhanced engagement, the nature of this disagreement and the justification for the Company's positions. | OG5.9 | |

| Minimum Req't? | ID | The Plan should ... | In which chapter is this requirement addressed | | | | | | | | | | | | Where and how we address this requirement | Detailed guidance: the plan should ... | Source Reference | | |
|--|------|---|--|---|---|---|---|---|---|---|----|----|----|--|---|--|---|--|-------------------------------|
| | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | | | | |
| Minimum requirement for gas distribution companies, should address the requirement for | | | | | | | | | | | | | | | | | | | |
| Min | G095 | | | | | | | | | | | | | | | | | | |
| Min | G096 | Stakeholder Engagement Incentive | | | | ■ | | | | | | | | | | | Chapter 5 (sections 5.17 and 5.18). Appendix 05.01 (Stakeholder Engagement Strategy). | Include a clear strategy for engagement in RIIO-2, as well as a set of commitments to deliver that strategy. These strategies should set out the scope of their engagements activities, and provide evidence that the associated costs are efficient and provide value for money. Ongoing engagement strategies should be well-justified, evidence-based, demonstrate how companies have considered the needs of both existing and future consumers, and be developed through engagement with their stakeholders and been tested by their CEG. | GD2.96 – GD2.97 |
| Min | G097 | Consumer vulnerability and carbon monoxide safety awareness use-it-or-lose-it allowance | | | | | | | ■ | | | | | | | | Chapter 7 (section 7.3) and Appendix 07.03.00 (Vulnerability Strategy). | Strategies setting out how we propose to use the consumer vulnerability and CO safety use-it-or-lose-it allowance. The strategies must be tested with stakeholders, fuel poor partners and the CEG and set out: <ul style="list-style-type: none"> the types of initiatives that we intend to fund and how we will evidence these are beyond business as usual the outcomes we intend to achieve through these initiatives the consumer groups we would support, and how we would ensure it is helping those who are most in need how we will engage and collaborate with stakeholders to develop these initiatives how we will ensure that the allowance is used effectively and efficiently, including how it will demonstrate that the funded initiatives offer value for money how we will assess the success of any initiatives how we will split the allowance proportionately between vulnerability and CO safety initiatives, based on stakeholder engagement how we have served consumers in vulnerable situations in RIIO-GD1, including how much has been spent on specific initiatives how we will work in partnership with other GDNs to develop and deliver collaborative projects, considering each of the points above. | GD2.35 – GD2.37 |
| Min | G098 | Fuel Poor Network Extension Scheme | | | | | | | ■ | | | | | | | | Chapter 7 (section 7.3). Appendices 07.03.00 (Customer Vulnerability Strategy) and 07.03.11 (Tackling affordability and fuel poverty). | Set out how we intend to ensure the scheme is well directed and include targets. | GD2.74 – GD2.76 |
| Min | G099 | Emergency response – cost assessment | | | | | | | | | | | | | | | Chapter 9 (section 9.6.1). | Consider the costs associated with delivering the emergency response service, in light of the interaction with other services that GDNs might supply through their emergency response teams (eg meter work). | GD2.111 |
| Min | G100 | Average restoration time incentive for total unplanned interruptions | | | | | | | ■ | | | | | | | | Chapter 7 (section 7.3) and Appendix 07.03.06 (Getting our customers back on gas). | Propose and justify targets for average restoration time, based on regional stakeholder engagement and input from the CEG. Explain any significant differences between our performance and that of other companies (with reference to relevant regional variations). We should also set out any costs and the timescales for ensuring consistent MOB interruption data. Propose and justify the appropriate split between ODIs for the North London network. | GD2.148 – GD2.152, GD2.163 |
| Min | G101 | Shrinkage | | | | | | | ■ | | | | | | | | Chapter 7 (section 7.4). Appendix 07.04.00 (Detailed environmental Action Plan). | Include reputational targets for shrinkage and leakage and, if appropriate, a compelling and evidence-based case for a viable leakage incentive mechanism. | GD3.33, GD3.36, GD Appendix 2 |
| Min | G102 | Decarbonisation of heat - low and no regrets heat decarbonisation projects | | | | | ■ | ■ | | | | | | | | | Chapter 6 (sections 6.2 and 6.3). Chapter 7 (section 7.4). Appendix 07.04.00 (detailed Environmental Action Plan). | Include proposals on no regrets heat decarbonisation; these short form part of the companies' Environmental Action Plans. Projects should be part | GD3.43, GD3.47 |
| Min | G103 | Decarbonisation of heat – biomethane | | | | ■ | | ■ | | | | | | | | | Chapter 5.17 and Appendix 05.01 (Stakeholder Engagement Strategy) for our engagement approach. Chapter 7.4 and Appendix 07.04.08 (Entry capacity enablement-flexible-reinforcement) for our approach to gas entry. See also our Detailed Environmental Action Plan (Appendix 07.04.00). | Consider biomethane stakeholder explicitly when developing our ongoing engagement strategies and consider whether any bespoke stakeholder engagement outputs should focus specifically on biomethane stakeholders. We should also consider whether to propose any bespoke outputs related to biomethane beyond the SEI; these should be documented in the EAP. | GD3.78, GD3.81 |
| Min | G104 | Repex | | | | | | | ■ | | | | | | | | Chapter 7 (Section 7.2). | Include proposals for targets for Tier 1 and Tier 2 mains replacement. | GD4.23, GD4.28 |

| Minimum Req't? | ID | The Plan should ... | In which chapter is this requirement addressed | | | | | | | | | | Where and how we address this requirement | Detailed guidance: the plan should ... | Source Reference | |
|----------------|------|------------------------|--|---|---|---|---|---|---|---|----|----|---|--|---|---------------------------------------|
| | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | | | 12 |
| Min | G105 | GDN record keeping | | | | | | ■ | | | | | | Chapter 7 (Section 7.2) records our commitment to developing high rise building-by-building plans. Appendix 09.04 (Transforming the Experience of Multiple Occupancy Buildings) sets out our approach to GDN record keeping. | <p>Include a section on MOB's record keeping, consider how we will share information with other GDNs and with wider stakeholders, and explore the merits of a bespoke output in this area.</p> <p>We should set out:</p> <ul style="list-style-type: none"> our expectations of any significant developments, or issues, affecting their record keeping relating to MOB assets by the end of RII0-GD2 any specific steps that would be taken to enhance existing MOB's record keeping (eg new systems that will be developed) and the associated timings any new processes that would be in place to ensure GDNs' understanding of MOB assets remains up-to-date how the above points may vary by MOB type ie low, medium and high rise buildings and riser length how information and learning is, or will be, shared across GDNs and, where relevant, wider stakeholders such as the HSE and Local Authorities | GD4.73, GD4.74, GD4.75, GD Appendix 3 |
| Min | G106 | Gas holder demolitions | | | | | | | | | | | | Not applicable – Cadent no longer has any gas holders. | Include a gas holder strategy which should consider a proactive land remediation strategy and an asset disposal strategy. | GD4.83, GD4.84, GD Appendix 4 |
| Min | G107 | Smart Meters rollout | | | | | | | | | | | | Appendix 09.38. See also Chapter 10 and Appendix 10.06 (Smart Meter Roll-out Costs). | Demonstrate proactive engagement with industry to reduce faulty installations and explain how any potential additional costs associated with the smart meter rollout interact with other cost areas. | GD6.17 |
| Min | G108 | Lane rental schemes | | | | | | | | | | ■ | | Chapter 10 and Appendix 10.07 (Specified Streets (lane rental)). | Come forward with bespoke proposals for an uncertainty mechanism for lane rental. | GD6.26 |

Ofgem Investment Decision Guidance

The guidance provided by Ofgem on the content of investment cases is set out in the RIIO-GD2 Investment Decision Pack Guidance (IDPG), the Engineering Justification Paper Framework for RIIO-2 (EJPF) and cost benefit analysis template (CBA) for RIIO-GD2. The table below summarises this guidance and explains how we have addressed Ofgem's requirements. We explain how we have addressed each of Ofgem's comments.

| Min req't | ID | Area | The Plan should ... | How we address this requirement | Detailed guidance: the plan should ... | Source Reference |
|-----------|-------|--|--|--|--|---|
| Min | IDP01 | Presentation and structure of plan | Submit an Investment Decision Pack for each investment area | We provide Engineering Justification Papers and CBA templates (together, "investment decision packs") for all material investments. See Appendices 09.01 – 09.40 and the CBA Templates. | Provide an "Investment Decision Pack" for investments that are financially material and/or require significant engineering and/or economic scrutiny because of the risks associated with the investment. The pack should include: Engineering Justification Paper (EJP); and CBA template. The grouping (level) of each Investment pack should be appropriate and explained – e.g. either asset category/class, at a project level or for a programme of works. CBAs and EJPs should (predominantly) be submitted at the secondary asset level for the asset classes listed in the Guidance, with some exceptions (e.g. companies may combine piggable and non-piggable LTD pipelines within a single CBA provided significant differences in benefits are clearly identified). GDNs should clearly show the links between their CBA, Engineering Justification Paper, Business Plan and BPDTs (e.g. how the workload and cost reductions underpinning the CBA and proposed asset investment plans feed through into the overall Business Plan proposals). GDNs should provide a summary overview table detailing whether a CBA/EJP has been submitted and which asset classes it covers. | IDPG3, IDPG 3.1, IDPG4.2.3, IDPG4.9 |
| Min | IDP02 | | Submit a CBA Template for each investment area | We provide CBA Templates for each key investment area which are aligned with the Engineering Justification Packs (and vice versa). | The CBA template is applicable to major engineering project and network asset health investments. The template sets out a quantitative assessment of the main options under consideration and demonstrates the value that each of these options would bring. The template also includes qualitative summaries that allow the GDNs to link proposed investments back to their engineering justification and stakeholder engagement. Summary boxes in the CBA template should provide executive summary style overview that link back to the key points presented in the EJP, allowing the evaluation to trace back to the relevant section(s) in the supporting documents. | IDPG2, IDPG4.1 |
| Min | IDP03 | | Submit Engineering Justification Papers for each investment area which follow the appropriate framework type | We provide investment cases for each investment area. These follow the templates for either "Asset Health" Investments or "Major Project" Investments as set out by Ofgem. See Appendices 09.01 – 09.40. | The engineering evidence that supports each CBA should be collated in an accompanying document, which has been named as an Engineering Justification Paper for RIIO-2. The Engineering Justification Paper must follow the appropriate framework type provided – there are two frameworks – (1) Major Engineering Projects, where there is a defined scope, bespoke cost estimates and a known outcome (2) Network Asset Health, which looks to maintain the reliability/integrity of a single equipment type across the network. The frameworks [...] must be replicated in full for each CBA. Where a section in the framework is deemed not to be relevant for a given project/spend then this should be explained and the section retained. The purpose of this approach is to help the review team by having a consistent document structure and numbering format across multiple network company business plans. | IDPG2, EJPF1.2, EJPF2.1, EJPF3.2 EJPF Appendix A & B |
| Min | IDP04 | Engineering evidence (Engineering Justification Papers) | Provide evidence that the costs and benefits defined in the CBA have a sound engineering justification | The investment cases set out our assumptions in relation to the costs and benefits defined in the CBA. Summaries are presented in the table formats set out in Ofgem's EJPF Appendices. See Appendices 09.01 – 09.40. | The EJP outlines the problem that the investment seeks to solve and sets out the different options that have been considered. The purpose of the paper is to communicate the key factors that have influenced the investment decision and provide summary engineering detail on the options considered. In order to present a clear and transparent business case for engineering investments it is necessary to provide evidence that the costs and benefits defined in the CBA have a sound engineering justification. | IDPG2, EJPF1.2 |

| Min req't | ID | Area | The Plan should ... | How we address this requirement | Detailed guidance: the plan should ... | Source Reference |
|-----------|-------|--------------------------------------|---|--|---|-------------------|
| Min | IDP05 | Analysis of costs and benefits (CBA) | Evidence of structured options development | The investment cases explain the options we have considered for each area of investment. See Appendices 09.01 – 09.40. | GDNs should 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. GDNs should clearly identify the range of options considered to meet the stated aim: <ul style="list-style-type: none"> A “do minimum” or “reference” option should be included. This is the “baseline” scenario involving the minimum level of intervention required to remain compliant with HSE safety regulations (or in the case of Tier 1 repex and services, the costs of ongoing maintenance and repair including completing the mandatory replacement programme). No direct benefits should be shown in the baseline scenario. Societal benefits should be shown as the total costs associated with leakage, probability of fatality and probability of injury, etc. A full list of options considered should be set out, including those considered and rejected before a full costing and those which have been considered and costed. There should be a clear rationale for excluding them. An option of delaying investment must be considered within the CBA. The evaluation of each option is made on the basis of comparing the incremental improvements in NPV (for each option that has been costed) over the baseline NPV. | IDGP4.1 |
| Min | IDP06 | | Appropriate valuation of costs and benefits | The investment cases and CBA templates provide details on the cost and benefits of the options that have been taken forward for valuation/monetisation, and the approach we have used to value the costs and benefits. We have used Ofgem’s CBA template. | Costs and benefits should be derived for each option, where appropriate: <ul style="list-style-type: none"> Costs, benefits and workload volumes of the preferred option should correspond to the values in the business plan. There should be a clear link between the volumes in the CBA template, the BPDTs and the NARM BPDT. For distribution mains expenditure, the asset class should be defined as the type of main (in terms of material and diameter band) being decommissioned/abandoned, rather than the main being laid/commissioned. There should be a clear link between the assumptions used in the CBA template and those used in the NARM methodology, where applicable (e.g. common assumptions should be consistent) The financial costs and benefits must be in 2018/19 prices, exclude real price effects (RPEs) and be net of expected productivity improvements Where CBA outcomes are marginal, sensitivities should be run on productivity improvements beyond RIIO-GD2. The Spackman (two-step) approach should be used: <ul style="list-style-type: none"> Capital costs should be converted into annual costs using the average expected pre-tax WACC across RIIO-2 (annual costs should be calculated over the assumed economic life of the asset) All costs and benefits should be discounted using the Social Time PreferenceRate Key assumptions: <ul style="list-style-type: none"> Payback periods are not designated - GDNs should take into account uncertainty and risk when presenting their plans. This includes the risk of asset stranding, including the option of deferral, and options for whole system solutions. Assumptions for capitalisation rates should be consistent with Ofgem’s guidance [Repex = 100%, Capex and opex = GDN specific assumption consistent with GDN expected spend profile] Assumptions re indirect avoided costs (societal benefits) should be consistent with Ofgem’s default parameters (CBA template); if not, justification should be supplied. Assumptions re benefits of preventing fatalities and injuries should draw on the Green Book and HSE. | IDPG4.2 - IDPG4.5 |
| Min | IDP07 | | Sensitivity analysis should be in line with HM Treasury Green Book Guidance | Where we have undertaken sensitivity testing, this is explained in the investment cases. See Appendices 09.01 – 09.40. | GDNs should undertake sensitivity analysis with respect to key parameters (asset performance/health deterioration rate, ongoing efficiency assumptions, future demand growth, future scenarios, future utilisation of assets). Risks (and risk impacts, controls and mitigations) associated with the chosen option should be captured in the CBA template and EJP. This should include material risks which may impact the cost and/or timing of the chosen investment. | IDPG4.7 |

| Min req't | ID | Area | The Plan should ... | How we address this requirement | Detailed guidance: the plan should ... | Source Reference |
|-----------|-------|-----------------------|---|---|---|------------------|
| Min | IDP08 | Decision rules | Decisions should be clearly set out and justified | We explain the preferred option for investment and rationale in the investment cases (generally this is in Section 8 for asset health investment or in Section 9 for major project investments). See Appendices 09.01 – 09.40. | GDNs should clearly set out such judgements as part of their Investment Decision Pack, and have, accordingly, provided a section for a brief synopsis for both engineering justification and stakeholder support within the CBA template. <ul style="list-style-type: none"> • CBAs do not necessarily need to be used mechanistically. Where a scheme has marginally positive/negative NPVs, sensitivity analysis and the identification of non-monetised benefits/costs should be undertaken. • Non-monetised costs and benefits include engineering judgement on what constitutes an efficient project, and evidence of stakeholder support for one option over another. <p>It is the overall position determined across three distinct elements which will determine the most appropriate solution – (1) engineering justification paper (2) stakeholder engagement and support (3) quantitative analysis (CBA).</p> | IDPG4.6 |
| Min | IDP09 | Net Zero | Investments should be consistent with the UK Government's net zero emissions target | Chapter 6 (sections 6.2 and 6.3), for scenarios. Chapter 9 (section 9.3 and 9.4), for the impact on our costs. Chapter 9.10 (for uncertain costs). Chapter 10 and Appendices 10.00 to 10.15 (for uncertainty mechanisms). | Companies should demonstrate that the investments being proposed are consistent with the UK Governments' net zero emissions by 2050 target... Companies must consider how the investments they are proposing align with different future pathways and where there is a high risk of asset stranding relating to a specific pathway (e.g. the move towards full electrification) companies are encouraged to propose how uncertainty mechanisms could be used to de-risk the investment. | IDPG 4.8 |

3. How our plan has changed through successive versions

The table below summarises how our plan has changed between the 1 July 2019, 1 October 2019 and the 9 December 2019 versions.

Table 2 How our plan has changed

| Chapter / Appendix | | Changes between the July and October version of our plan | Changes between the October and December version of our plan |
|--------------------|---------------------------------------|---|---|
| | Foreword | No change | To enable greater coverage of the updated business plan requirements, we have merged the Foreword and Executive Summary to provide a more concise summary of the plan and Cadent's transformational journey. |
| 1 | Contents | We updated the contents list to reflect the fact that we moved the "Navigating our plan" chapter into an appendix. | No change |
| 2 | Executive Summary | | See above |
| | Navigating our plan | We have moved the content of this chapter to Appendix 00.00. We extended the mapping of our plan to Ofgem's requirements and have explained how we responded to feedback from the RIIO-2 Challenge Group (R2CG). | We have renumbered this as Appendix 01.00 and updated it to include how we have met Ofgem's revised September 2019 and October 2019 business plan requirements. |
| 3 | Our communities | Minor drafting changes only | Minor drafting changes only |
| 4 | Learning from past performance | Updated with response to feedback from the CEG and R2CG | Updated with response to further feedback from CEG and R2CG. In particular, enhanced sections on explaining variance in total operating costs and returns |
| 5 | Enhanced engagement | We added the results of Business Options Testing, our approach to data triangulation, our ongoing Stakeholder Engagement Strategy and further details of the insights that we had received from our research and engagement programme. We removed some detail relating to the earlier phases of engagement and placed these into an appendix. | We have updated the chapter to reflect feedback from the R2CG and our CEG to explain in more detail our approach to stakeholder segmentation and our decision-making process. We updated our ongoing Stakeholder Engagement Strategy being clearer on our engagement aims and including output commitment specific engagement plans. We have included the results of our Acceptability testing programme. |
| 6 | Net Zero and a whole systems approach | We included the work being undertaken to look at different future scenarios for decarbonisation and our plans for preparing for the different potential end states. We brought all of our whole system solutions commitments into one place and provided clearer linkage to the rest of the plan | We updated the chapter to reflect the move to Net Zero and feedback from both the CEG and R2CG. We renamed the chapter (from "The future role of gas and a whole systems approach"). We added more on our engagement strategy both existing and future, incorporating the joint GDN work on Future Gas Pathways (Navigant) and setting out a timeline of how our innovation and output commitments fit with potential heat policy and other legislative |

| Chapter / Appendix | | Changes between the July and October version of our plan | Changes between the October and December version of our plan |
|--------------------|--|--|--|
| | | We brought in outputs on optimising capacity between transmission and distribution and stakeholder engagement on whole system thinking | milestones. We provided more detail on our whole systems thinking proposals and a timeline of our join network planning work |
| 7 | Our commitments | <p>We included our CVP calculation and methodology, (as this was a new requirement we were unable to include in the July plan).</p> <p>We updated outputs based on ongoing customer engagement</p> <p>We restructured the four customer outcome area sections to focus on the key customer priorities in each. For each priority area, we provided short summaries of each of our output commitments including an engagement overview and the measures we are proposing.</p> <p>We added a summary of our customer vulnerability strategy and overall customer strategy. We added an additional appendix that provided more detail on each output case, sitting in between the main Plan and very detailed output specific appendices.</p> | <p>Our CVP was updated with items that we had not been able to measure in October and following challenges from our CEG. We amended the output summaries providing additional cost data and clearer comparisons between RIIO-1 and RIIO-2 proposals. Additional granularity around how engagement insights have driven proposals was provided.</p> <p>We have significantly enhanced the information in the main plan describing the rationale for our output commitments reflecting the evidence requirements on how we have built insight and tested our commitments, how they link to costs and the CVP, and how we have considered deliverability issues and mitigations for non-delivery.</p> <p>We have included more detail on our Environmental Action Plan and our commitments within it</p> <p>We have provided detailed appendices for our commitments for each customer priority area.</p> <p>Figure 1 shows what changed.</p> |
| 8 | Driving performance through innovation ... | <p>We provided a clearer summary of RIIO-1 projects and more information on what we'd spent on which areas. We also included an analysis of the financial benefits that our innovation work has delivered and of benefits forecasted for RIIO-2 and included in our RIIO-2 cost projections.</p> <p>The areas in which we are seeking funding for innovation work in RIIO-2 were included, as well as the process / improvement cycle that we will follow to deliver projects and capitalise on the wider</p> | <p>Our plan now includes an appendix as well as the main chapter eight content on innovation. The main chapter provides more detail about the cultural journey that we are on – we are seeking to embed innovation as BAU. We have also responded to feedback that we need to define “innovation”. We provide more detail on the approach we took in RIIO-1, our progress, lessons learned and what we've spent are updated since October.</p> <p>Our RIIO-2 plan has been summarised into an infographic for December, connecting our customer priorities, customer engagement feedback,</p> |

| Chapter / Appendix | | Changes between the July and October version of our plan | Changes between the October and December version of our plan |
|--------------------|---|---|--|
| | | changes to our organisation, such as moving to a 'depot-centric model' can bring. . | innovation themes and benefits, and the cultural and environmental enablers that are critical to delivery. Lastly, our December plan does more to outline the process we will go through to deliver projects and how we will measure their progress and success. |
| | Driving performance through ... competition | We included our initial competition plan (as this was a new requirement we were unable to include in the July plan). We explained how we proposed to further develop the competition plan for the final December plan | We have updated and set out a summary in the main document of our completed competition plan as well as provided a dedicated appendix setting out more detail on the plan. This includes our commitments to ongoing native competition, consideration of early and late competition and opportunities for "extended native" competition as well as annual reporting of progress. |
| 9 | Cost and efficiency | Figure 2 shows the main changes between our 1 July and our 9 December plans. | |
| 10 | Our approach to managing risk and uncertainty | <p>We updated our assessment of risks and uncertainties and our proposals for uncertainty mechanisms.</p> <p>We validated our assessment against the CEG's feedback on risk and considered additional bespoke mechanism to address further uncertainties we identified. We updated our uncertainty modelling to use the latest input assumptions in line with the development of our base plan.</p> <p>We moved the detail of our analysis into two dedicated appendices with a very concise summary in the main plan of our proposals.</p> | <p>We have updated our analysis of the uncertainty ranges and our proposed mechanisms (removing one mechanism included in the 1 October version of our plan, and refining others with updated ranges).</p> <p>We have moved more detail on the rationale for our uncertainty mechanisms into the main business plan document and provided greater clarity on our approach and evidence; this includes greater coverage of both Ofgem's proposed Uncertainty Mechanisms and our proposed bespoke Mechanisms. We have provided evidence on the uncertainty driver, cost and bill impacts and how behavioural incentives are being managed.</p> <p>We have also provided a full set of uncertainty mechanism cases, detailing the application of our approach and the evidence for each proposed mechanism. This includes those confirmed by Ofgem in the SSMD and our bespoke proposals.</p> |
| 11 | Affordability and financing our plan | We responded to feedback from the R2CG and CEG and focused our narrative on the Ofgem Working Assumptions and their implications for the financeability of Cadent. We provided clarity around our view on mitigations to improve financeability positions, | We responded to feedback from R2CG and CEG on our October plan, including using Ofgem tools for scenario analysis (the LiMo model) and the request that we clearly reference our own tools. |

| Chapter / Appendix | | Changes between the July and October version of our plan | Changes between the October and December version of our plan |
|----------------------------|---|---|---|
| | | <p>and provided financeability analysis on the actual company as well as notional company basis.</p> <p>We included in the appendix detailed data tables with Ofgem and R2CG requested scenarios.</p> | <p>We provide further information on the engagement with stakeholders and customers to support the key decisions we have made such as target credit rating.</p> <p>We provide commentary on how Cadent considers the distributional and intergenerational impact of decisions.</p> <p>We also provide commentary on how we arrived at decisions on depreciation and capitalisation rates and how rating agencies would treat these adjustments.</p> |
| 12 | Assurance | No material changes made. | We have provided an additional appendix which provides more detail over the assurance process and the results of our assurance activities. We have completed an irregular NetDAR and agreed a Board assurance statement. |
| App 01.00 App 01.01 | Navigating our Plan How we have responded to CEG and R2CG feedback | We moved the content of the Navigating our Plan chapter to this appendix. We extended the mapping of our plan to Ofgem's requirements and have explained how we responded to feedback from the RIIO-2 Challenge Group (R2CG). | We have focused this appendix on the way that we have addressed Ofgem requirements. We explain how we have responded to CEG Challenges in Appendix 05.08. Appendix 01.00 sets out the way we have responded to the key feedback provided by CEG on our October Plan and how we responded to the feedback on our plan provided by the R2CG. |
| Rest of Appendices | Chapter 7 | Chapter 7 - We provided our full list of commitments and a high level summary of the priorities, outputs and commitments that make them up. This extended the sample of output cases which were presented in July. | Chapter 7 - We updated and provided a full set of output cases which address all feedback from the CEG. |
| | Chapter 8 | N/A | We developed two new appendices setting out our Innovation Strategy and our Competition Action Plan. |

| Chapter / Appendix | | Changes between the July and October version of our plan | Changes between the October and December version of our plan |
|--------------------|------------|---|---|
| | Chapter 9 | We provided a sample of our investment cases. | We provided a full suite of investment cases, together with appendices on our approach to benchmarking, operating efficiency and regional factors. |
| | Chapter 10 | We set out our approach on uncertainty in an appendix. | We moved some of the content from the appendix into the main chapter. We provide a full set of uncertainty cases, for both Cadent bespoke and Ofgem mechanisms. |
| | Chapter 11 | We provided two appendices covering financeability and affordability, respectively. | We updated our financeability and affordability appendices. We provided our view on the cost of capital. |
| | Chapter 12 | N/A | We set out our approach to assurance and the results from the assurance activities. |

Figure 1 - changes in our proposed output commitments

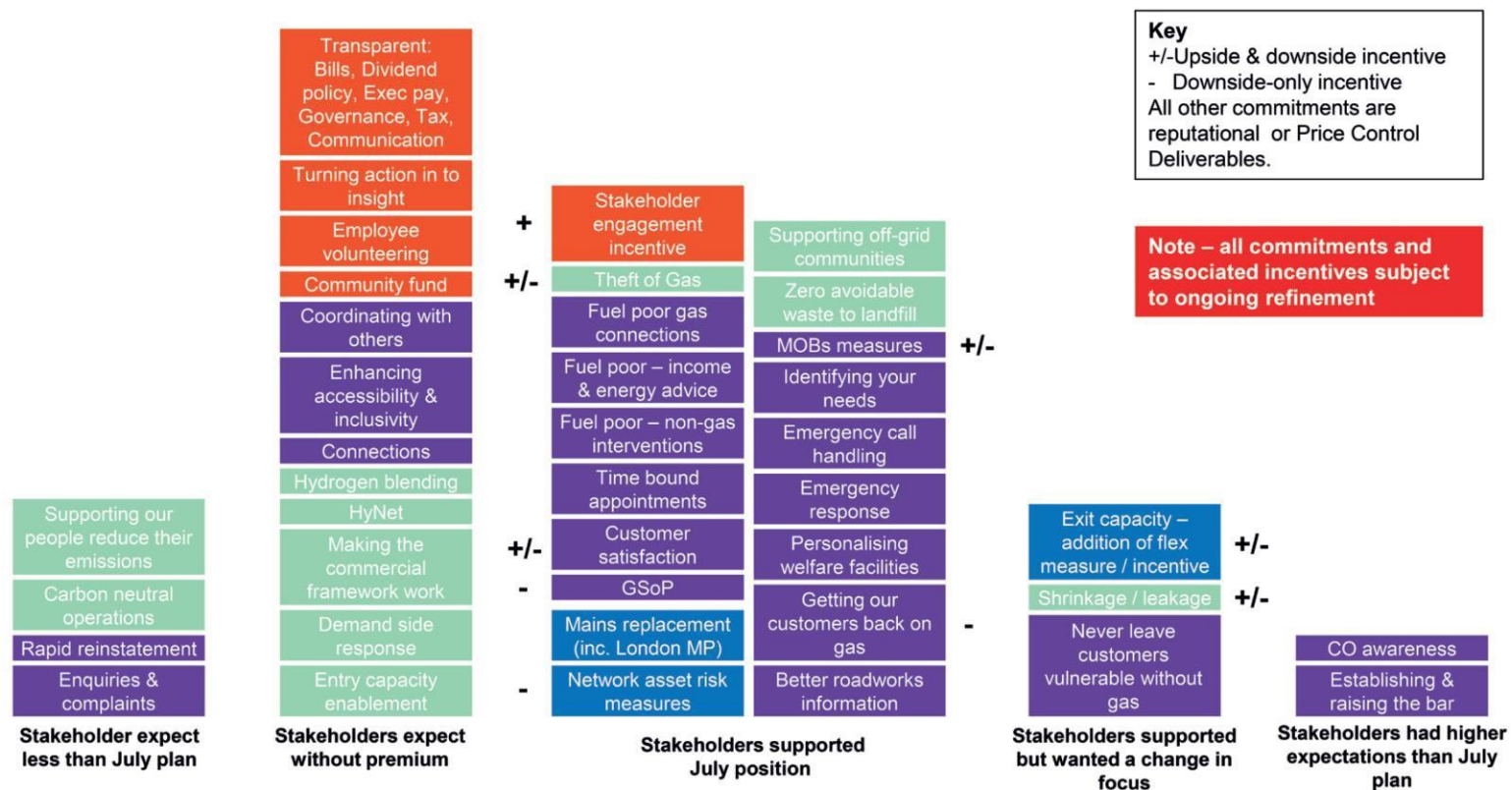
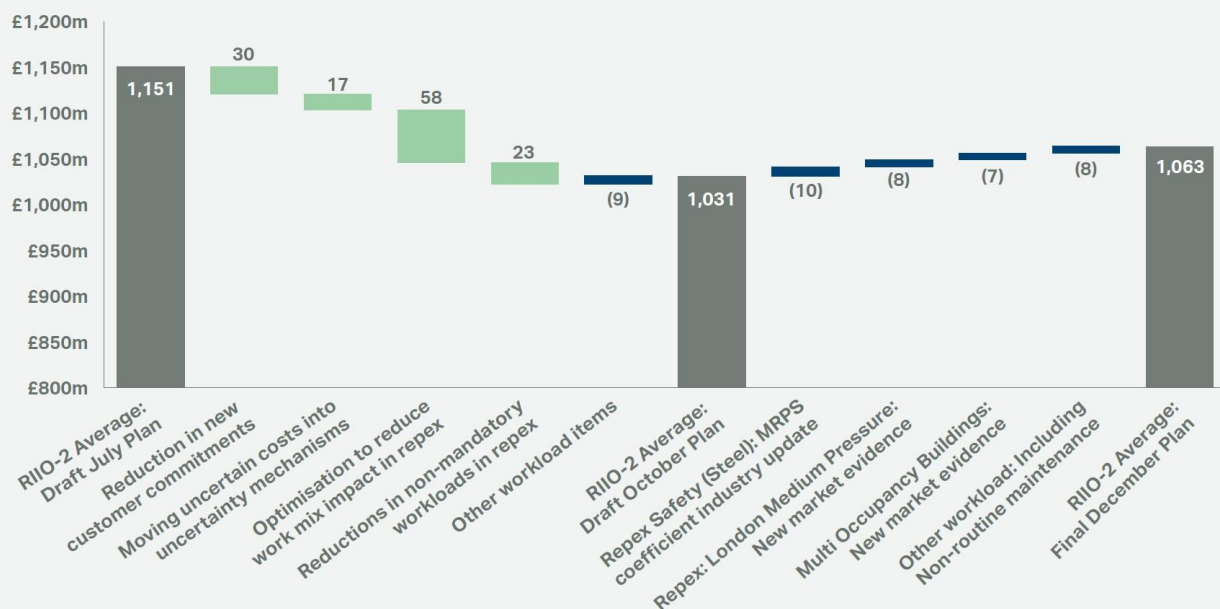


Figure 2 – Changes in our totex plan between July and December

We have been through a thorough review process to refine our totex forecasts over the last six months, ahead of our December Plan submission. This has resulted in a significant reduction in our investment spend as we have completed analysis on our replacement expenditure, updated our capital programme and have completed our Cost Benefit Analysis and asset health modelling in line with the sensitivities we had previously outlined. The changes in our average totex between plans are detailed in Figure 09.01 below:

Figure 09.01: Cadent RIIO-2 average annual totex – key movements between our July, October and December 2019 plans



The increase between October and December is driven by two areas. First, we have completed an industry audit on the risk scores allocated to steel mains which has increased individual pipes' risk scores and increased our workload by 17km p.a. This is in line with our previous approach and simply updates the final risk scores; Secondly, we have updated costs where we have sought market evidence or detailed design to provide high confidence costs. This includes updating our London Medium Pressure cost estimates, on the back of completing conceptual design that highlights the specific engineering challenges of the proposed work. We had also initiated a tender process to support the cost estimates for our MOB's fault repair programme and have reflected the initial bids in our pricing for this work. This leaves a reduction of £88m p.a. against our July draft with totex circa 1% lower than RIIO-1.

4. Contents of our plan

The table below summarises the content of our plan.

| Content type | Content |
|--------------|--|
| Chapter | 01 Contents |
| Appendix | 01.00 Navigating our plan |
| Appendix | 01.01 How we have responded to CEG and R2CG feedback |
| Appendix | 01.02 Ofgem Snapshot Table |
| Appendix | 01.03 Business Plan Data Tables Commentary |
| Appendix | 01.04 NETDAR Report |
| Appendix | 01.05 Glossary |
| Chapter | 02 Foreword and Executive summary |
| Chapter | 03 Our communities |
| Chapter | 04 Learning from past performance |
| Chapter | 05 Enhanced engagement |
| Appendix | 05.01 Stakeholder Engagement Strategy |
| Appendix | 05.02 Detail of our 6 phases of engagement |
| Appendix | 05.03 Decision Making Tracker |
| Appendix | 05.04 Our engagement partners |
| Report | 05.05 Sia Assessment |
| Report | 05.06 Review of our customer engagement approach |
| Appendix | 05.07 CEG Membership |
| Appendix | 05.08 Challenge Log (to be published following release by the CEG) |
| Appendix | 05.09 Playback document |

| Content type | Content |
|--------------|--|
| Chapter | 06 The future role of gas and a whole system approach |
| Report | 06.00 Future of Gas series: unlocking network capability |
| Report | 06.01 Review of bioenergy potential (survey report) |
| Report | 06.02 Options for stimulating investment in BioSNG |
| Report | 06.03 Pathways to Net-Zero: Decarbonising the Gas Networks in Great Britain |
| Chapter | 07 Our commitments |
| Appendix | 07.00.00 Overview of our output commitments |
| Chapter | 07.01 Our consumer value proposition |
| Appendix | 07.01.00 Our consumer value proposition – calculation |
| Chapter | 07.02 Delivering a resilient network |
| Appendix | 07.02.00 Business IT security plan |
| Appendix | 07.02.01 Cyber resilience plan |
| Appendix | 07.02.02 Data & digitalisation strategy |
| Appendix | 07.02.03 Workforce resilience |
| Output Case | 07.02.04 Optimising capacity between transmission and distribution NTS Exit and Flex Capacity |
| Output Case | 07.02.05 Whole system joint network planning |
| Chapter | 07.03 Providing a quality experience |
| Appendix | 07.03.00 Customer vulnerability strategy |
| Output Case | 07.03.01 Establishing and raising the bar for all our customer and stakeholder experiences (part 1 - overview) |

| Content type | Content |
|--------------|--|
| Output Case | 07.03.02 Enhanced engagement on whole systems |
| Output Case | 07.03.03 Rapid response to your enquiries and complaints |
| Output Case | 07.03.04 Improving our household connections service |
| Output Case | 07.03.05 Measuring and enhancing accessibility and inclusivity |
| Output Case | 07.03.06 Getting our customers back on gas |
| Output Case | 07.03.07 Providing time-bound appointments |
| Output Case | 07.03.08 Minimising disruption from our works |
| Output Case | 07.03.09 Identifying your needs and joining up support services |
| Output Case | 07.03.10 CO awareness |
| Output Case | 07.03.11 Tackling affordability and fuel poverty |
| Output Case | 07.03.12 Going beyond to never leave a customer vulnerable without gas |
| Chapter | 07.04 Improving the environment and tackling climate change |
| Appendix | 07.04.00 Detailed environmental action plan |
| Report | 07.04.01 Annual Report & Accounts |
| Report | 07.04.02 Sustainability Report |
| Report | 07.04.03 Sustainability First Initiative |
| Output Case | 07.04.04 A carbon neutral business |
| Output Case | 07.04.05 Tackling theft of gas |
| Output Case | 07.04.06 Zero avoidable waste to landfill |

| Content type | Content |
|-----------------|--|
| Output Case | 07.04.07 Our people and their Emissions |
| Output Case | 07.04.08 Entry capacity enablement-flexible-reinforcement |
| Output Case | 07.04.09 Supporting off-grid communities |
| Chapter | 07.05 Trusted to act for our communities |
| Appendix | 07.05.00 Trust Charter |
| Chapter | 08 Driving performance through innovation and competition |
| Appendix | 08.00 Detailed innovation strategy |
| Appendix | 08.01 Competition action plan |
| Chapter | 09 Cost and efficiency |
| Investment Case | 09.00 Overview: how we have developed our investment plan |
| Investment Case | 09.01 Introduction to Investment Decision Packs |
| Investment Case | 09.02 Distribution Mains and Associated Services (Iron, PE, Steel & Other) |
| Investment Case | 09.03 Services Not Associated with Mains Replacement |
| Investment Case | 09.04 Transforming the Experience for Multiple Occupancy Building Customers – Risers |
| Investment Case | 09.05 Offtakes & PRS Pre-Heating |
| Investment Case | 09.06 London Medium Pressure |
| Investment Case | 09.07 Offtakes & PRS Slamshut Regulators |
| Investment Case | 09.08 Governors (District, I&C and Service) |
| Investment Case | 09.09 LTS Pipelines (Piggable and Non-Piggable) |

| Content type | Content |
|-----------------|--|
| Investment Case | 09.10 Offtakes & PRS Metering Systems |
| Investment Case | 09.11 Offtakes & PRS Odourisation Systems |
| Investment Case | 09.12 Security Interventions National Cat2a |
| Investment Case | 09.13 Brunel Bridge Crossing Refurbishment |
| Investment Case | 09.14 Offtakes & PRS Filters |
| Investment Case | 09.15 Holford Salt Cavity E&I |
| Investment Case | 09.16 Winnington Lane Crossing Replacement |
| Investment Case | 09.17 Category 3 Mandated National Security Upgrades |
| Investment Case | 09.18 Mersey Tunnel Access Refurbishment |
| Report | 09.19 ENA common RIIO-2 scenarios |
| Appendix | 09.20 Resolving our benchmarked performance gap |
| Appendix | 09.21 Cadent's regional factors |
| Appendix | 09.22 Real Price Effects |
| Investment Case | 09.23 Capacity Upgrades - > 7 bar reinforcements (AGIs) - Base case |
| Investment Case | 09.24 Pipeline / Mains Diversions - Non-Chargeable < 7 bar - Base Case |
| Investment Case | 09.25 Pipeline / Mains Diversions - Chargeable <7 bar - Base Case |
| Investment Case | 09.26 Pipeline Reinforcements <7 bar - Base Case |
| Investment Case | 09.27 Connections - Base Case |
| Investment Case | 09.28 Corporate Property |

| Content type | Content |
|-----------------------|--|
| Investment Case | 09.29 Property: Other |
| Investment Case | 09.30 IS |
| Investment Case | 09.31 Valves (IP / MP valves) |
| Investment Case | 09.32 Reduced Depth of Cover |
| Investment Case | 09.33 Pipeline Sleeves |
| Investment Case | 09.34 Vehicles & Mobile Plant |
| Investment Case | 09.35 Cathodic Protection |
| Investment Case | 09.36 Pipeline Crossings |
| Appendix | 09.38 Controllable Opex Costs |
| Report | 09.39 Frontier Productivity Growth |
| Report | 09.40 Understanding the Baseline Level of Efficiency in London |
| Chapter | 10 Managing risk and uncertainty |
| Appendix | 10.00 Our approach to managing risk and uncertainty |
| Uncertainty Mechanism | 10.01 Repex - Tier 2A iron mains including PAST |
| Uncertainty Mechanism | 10.02 Repex - HSE policy changes |
| Uncertainty Mechanism | 10.03 Physical Security |
| Uncertainty Mechanism | 10.04 Heat Policy (including fuel poor network extension scheme) |
| Uncertainty Mechanism | 10.05 Cyber resilience |
| Uncertainty Mechanism | 10.06 Smart meter roll out costs |

| Content type | Content |
|-----------------------|--|
| Uncertainty Mechanism | 10.07 Specified streetworks (lane rental) |
| Uncertainty Mechanism | 10.08 Reinforcements |
| Uncertainty Mechanism | 10.09 Entry charging and access review |
| Uncertainty Mechanism | 10.10 Multiple Occupancy Buildings |
| Uncertainty Mechanism | 10.11 Connections |
| Uncertainty Mechanism | 10.12 Diversions |
| Uncertainty Mechanism | 10.13 Lowestoft project |
| Uncertainty Mechanism | 10.14 Traffic collision protection |
| Uncertainty Mechanism | 10.15 High Pressure Valves |
| Chapter | 11 Affordability and financing our plan |
| Appendix | 11.00 Affordability |
| Appendix | 11.01 Financeability |
| Appendix | 11.02 BPDT Finance table and LIMO model commentary |
| Appendix | 11.03 Our view on cost of capital |
| Report | 11.04 Nera: Halo Effect and Additional Costs of Borrowing at RIIO-2 |
| Report | 11.05 Nera: Cost of Debt at RIIO-2: A Report for Gas Distribution Networks |
| Report | 11.06 Oxera: Cost of Equity for RIIO-2 |
| Appendix | 11.07 LIMO model: Cadent adjustments |
| Appendix | 11.08 LIMO model: No adjustments |

| Content type | Content |
|--------------|--|
| Appendix | 11.09 Cadent Regulatory Financial Model |
| Report | 11.10 Risk-return balance under RIIO-GD2 |
| Chapter | 12 Assurance |
| Appendix | 12.00 Our assurance framework and evidence |