

Guidance

RIIO-2 Business Plan Guidance

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This is an updated guidance document directed at gas and electricity network companies and their stakeholders. This provides an update on the information that should be included in companies' Business Plans for RIIO-2, including in relation to the RIIO-2 Sector Specific Methodology Decision published on 24 May 2019.

This replaces the previous version of the RIIO-2 Business Plan Guidance published on 3 June 2019. It remains a live document which may be subject to change, as and when appropriate.

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Why we are updating the Business Plan Guidance

This Business Plan Guidance has been updated to reflect developments since the previous version was issued in June 2019, and sets out how we expect companies to reflect these developments in their plans.

For the most part, this Guidance is unchanged from the June 2019 publication.

In response to queries and feedback from network companies and other stakeholders on certain aspects of the previously published Guidance (including queries and feedback received at the Business Plan Incentive (BPI) workshop held on 19 June), we have sought to provide additional information in this updated Guidance. This includes clarification on how the Consumer Value Proposition (CVP) proposed by companies will be considered and calculated. In some other areas, this document provides additional clarity on the types of information that will be required in order to meet existing minimum requirements.

The only new requirement that companies have been asked to meet since the Business Plan Guidance was updated in June, is to produce a plan that incorporates a planning scenario of net zero carbon emissions targets by 2050 (2045 for Scotland). This has already been communicated to the companies in a letter dated 8 August 2019 and this Guidance has been updated to reflect this. Otherwise, this updated Guidance does not introduce new minimum requirements on the companies.

In addition to the above, we are also interested in the potential offered by Local Area Energy Plans (LAEP) to provide improved data on and assessment of possible heat decarbonisation options, and provide a structured framework for engagement and investment planning decisions within a wider context of planning for net zero energy systems and network infrastructure. We are aware that some companies are already involved in the production of LAEPs. To support this, we have provided a new section in this Guidance that explains what LAEPs are, and how the outputs from them may be used. To be clear, we are not obliging companies to produce LAEPs as a minimum requirement for their business plan.

In summary, the following are the sections of the document, where substantive new material has been provided:

- Modernising Energy Data (Digitalisation Strategies)
- Local Area Energy Plans
- The Net Zero targets
- The BPI

- The modelling of the notional and actual company base cases in the Business Plan Financial Model

Other more minor changes have been made elsewhere in the document. Alongside this updated Guidance, we have published a document highlighting all of the changes that have been made since June.

1. Introduction

Context

1.1. In the RIIO-2 price controls, we will set regulated revenues and required outputs for gas and electricity network companies. In order to do this, we need information from the companies on the activities that they intend to undertake in RIIO-2 and their associated costs and outputs. Companies will provide this information to us in the form of a Business Plan, which we will then assess. Companies may earn a reward or be penalised based on our assessment of their plans.

1.2. The gas distribution and gas and electricity transmission network companies will submit their final Business Plans to us in December 2019. Their next price control will last for five years, starting in April 2021.¹

1.3. In developing their plans, it is essential that companies carry out robust and high quality engagement with their stakeholders². Through the enhanced engagement framework³, companies should also engage with the RIIO-2 Challenge Group and the User Group (UG) /Customer Engagement Group (CEG) that each company has established.

1.4. Companies will submit complete drafts of their Business Plans to the RIIO-2 Challenge Group twice, before the final full plans are submitted to Ofgem on 9 December 2019. Companies submitted a first complete draft of their full plans on 1 July 2019 and a second complete draft of their full plans is to be submitted on 1 October 2019.⁴ The reports from the independent enhanced engagement groups will be submitted to Ofgem on 22 December 2019.

Electricity distribution

¹ The electricity system operator (ESO) is also subject to a RIIO-2 price control. This guidance document does not apply to the ESO.

² By stakeholders, we mean individuals, organisations or communities that are impacted by the activities of the network company. Stakeholder engagement should consider the needs of existing and future consumers.

³ See Ofgem's [RIIO-2 Framework Decision, July 2018](#).

⁴ Further information on priorities and workplan for the RIIO-2 Challenge Group, see <https://www.ofgem.gov.uk/publications-and-updates/priorities-and-work-plan-riio-2-challenge-group>, which was published on 28 February 2019.

1.5. The next electricity distribution price control - RIIO-ED2 - starts in April 2023.

1.6. We will consult separately on the sector methodology for electricity distribution. That consultation process started in August 2019 with the publication of an open letter consultation.⁵ This process will include consideration of the applicability of the approach taken for other sectors and the specific features of electricity distribution that may warrant a different approach.

1.7. Subject to that process and full consideration of any further developments in the interim period, the content of this Guidance may, in principle, be broadly applicable to the Distribution Network Operators (DNOs). A version of this guidance will be issued alongside the sector methodology consultation for electricity distribution, taking into account any learning from the other sectors.

1.8. In Section 6, we set out the next steps in the RIIO-2 process, including for the electricity distribution sector.

Purpose of this document

1.9. This document sets out the information that should be included in companies' Business Plans and how we will assess those plans.

1.10. This Guidance is comprised of the following sections:

Section 2 describes the content that must be included in Business Plans and provides guidance on the issues we expect companies to have considered in preparing their plans.

Section 3 sets out the cost and financial information that must be included in companies' Business Plans.

Section 4 provides guidance on the presentation and structure of Business Plans.

⁵ [Open Letter Consultation on approach to setting the next electricity distribution price control \(RIIO-ED2\)](#), which was published on 6 August 2019.

Section 5 describes the BPI and how Ofgem will go about assessing Business Plans.

Section 6 sets out next steps in the RIIO-2 price controls.

2. Content of Business Plans

Track-record and Business Plan commitment

2.1. In assessing Business Plans, we will consider how deliverable we believe the plans to be in the context of past performance and the level of commitment provided for delivering the outcomes set out in the plan.

2.2. For the avoidance of doubt, we will not be assessing RIIO-2 Business Plans on the basis of past performance. However, we believe it is appropriate for us, and for other stakeholders, to consider proposals for the RIIO-2 period in the context of each company's past performance.

2.3. Therefore, the Business Plan must include an explanation of:

- delivery against RIIO-1 output targets and incentive mechanisms
- the level of service provided to customers in RIIO-1, and what steps were taken within the period to improve service provision
- how well different groups of customers have been served over the RIIO-1 period – eg customers in particular regions/circumstances
- how expenditure has differed from allowances set at the outset of RIIO-1
- what factors contributed to differences between allowances and expenditure and how these factors have been considered in preparing the RIIO-2 Business Plans
- the returns companies earned over the RIIO-1 period, and key drivers behind these returns. These should be expressed in terms of RORE
- the level of profit payment distributed to investors over the RIIO-1 period
- how the company intends to align the structure of pay and reward within the organisation to the delivery of commitments set out in their Business Plans
- 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

2.4. Additionally, the Business Plan should set out the level of assurance that has been provided by sufficiently independent directors that the plan and associated costs have been tested for accuracy, ambition and efficiency.

Giving consumers a stronger voice

2.5. The enhanced stakeholder engagement process for RIIO-2 has now been established. We expect companies to work with the CEGs in Distribution, UGs in Transmission, and the RIIO-2 Challenge Group to challenge and scrutinise their Business Plan proposals.

2.6. Business Plans should set out how they have been designed using enhanced engagement processes. To do this, Business Plans must 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.
- effective engagement with UGs, CEGs and the RIIO-2 Challenge Group. In assessing this, Ofgem will take into account the extent to which effective engagement has been facilitated by companies providing drafts of their business plans in July and October 2019 that reflect the Guidance that was in place at that time.
- robust and high quality engagement with stakeholders by the company in designing the plan.

2.7. Consistent with expectations described in the RIIO-2 Sector Specific Methodology Decision (SSMD), the Business Plan must 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.

2.8. The approach should:

- 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

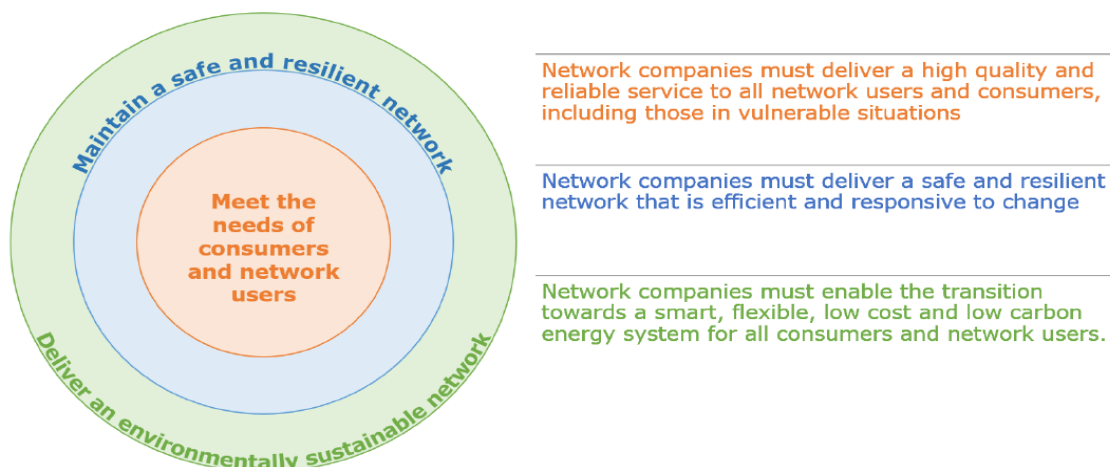
- be responsive to stakeholder needs, including how the company will maintain an up-to-date understanding of stakeholders’ needs as well as how it will ensure views are captured and incorporated into the day-to-day operation of the business
- be ambitious, including how the company has established performance 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
- include RIIO-1 engagement initiatives as business as usual (BAU) activities

2.9. The approach could make reference to the use of LAEPs as an effective tool for engagement and investment planning that takes proper account of the need to substantially decarbonise energy systems.

What consumers want and value from networks: meeting the needs of consumers and network users

2.10. In the SSMD, we consolidated outputs into three new output categories.

Figure 1: Output categories in RIIO-2



2.11. We also set out our overarching framework for outputs and incentives to deliver these outcomes:

- we will set minimum standards of performance which we will impose through the introduction of Licence Obligations (LOs)
- we will capture outputs directly associated with baseline funding through Price Control Deliverables (PCDs). We will clarify consequences for non-delivery or delivery to a lower than expected standard as appropriate, including for example the use of uncertainty mechanisms
- we will apply Output Delivery Incentives (ODIs) where these may be in the interests of consumers and other network users

2.12. The Business Plan must 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).

2.13. Business Plans must identify planning and resourcing requirements, especially where the level of activity looks to increase significantly from historical levels.

2.14. In the SSMD, we provided more information on the specific outputs that are applicable in each sector. In some areas – including in relation to this ‘meeting the needs of consumers and network users’ output category but also more broadly - companies must include output-specific information within their Business Plans. Appendix 1 lists additional sector-specific Business Plan requirements, as set out in our SSMD sector annexes.

Proposals for bespoke outputs

2.15. As set out in the SSMD, companies will have the opportunity to propose bespoke outputs in collaboration with their stakeholders and CEGs/UGs. This could include bespoke PCDs or ODIs.

2.16. Company proposals for bespoke outputs should:

- reflect the network services that existing and future consumers/network users and/or wider stakeholders require
- be as complete as possible in capturing the activities and costs of the company
- be 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

2.17. The Company should address the following to justify any proposals for bespoke outputs:

- whether the activity in question 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)
- whether proposals are backed by robust evidence and justification (such as cost-benefit analyses⁶) and demonstrate value for money for existing and future consumers
- 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

⁶ Please see our requirements for cost-benefit analysis in Section 2 of this Guidance.

- 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
- the level of service provided by other companies/comparators (where available)
- the activities (and indicative cost) associated with achieving the targeted level of service
- proposals for licence conditions and/or penalties if performance falls below existing service levels

What consumers want and value from networks: maintaining a safe and resilient network

Asset Resilience

2.18. Business Plans must set out the company's views on asset health, criticality and replacement priorities at:

- 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.

We also expect companies to explain their long-term risk objectives and strategy, as well as the long-term benefits delivered by their proposed interventions.

2.19. Monetised Risk objectives 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.

Workforce Planning

2.20. Ofgem continues to recognise the challenge faced by companies in attracting, developing and retaining the skilled workforce needed to run their businesses effectively. Business Plans must 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.

2.21. These plans should be informed by company engagement with the company CEGs/UGs, Trade Unions and other relevant stakeholders.

Cyber Resilience

2.22. Business Plans must 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.

2.23. To address cyber resilience requirements during RIIO-2, Business Plans should include the following two sections:

- i) A **Business IT Security Plan** (which would be considered BAU expenditure) – focused primarily on cyber security for business systems, and
- ii) 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”).

2.24. We will be publishing additional guidance as part of a consultation during September 2019 which can be used by companies in developing their Cyber Resilience plans. Ofgem encourages companies to engage with Ofgem and BEIS (as the joint Competent Authority) during current and future workshops throughout 2019 to assist in this process.

2.25. Ofgem appreciates that some companies may not be ready to submit their Cyber Resilience Plans by December 2019. If necessary, a re-opener mechanism will be put in place to deal with this possibility. Omission of a Cyber Resilience Plan from the Business Plan will not therefore lead to the plan being considered incomplete for the purposes of the BPI.

2.26. If a company does include its Cyber Resilience Plan in its RIIO-2 business plan, this will be assessed against the minimum requirements for quality as set out in the BPI chapter, below.

2.27. For both plans, 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.

2.28. For the Cyber Resilience Plan, 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.

2.29. In general, both plans should 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.

2.30. We will assess these plans considering whether the measures proposed are appropriate, proportionate and efficient. Any allowances provided under RIIO-2 will be based on this assessment.

Physical security

2.31. Business Plans must 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.

What consumers want and value from networks: delivering an environmentally sustainable network

2.32. In the SSMD, we decided to introduce a common environmental framework across Electricity Transmission, Gas Transmission and Gas Distribution. Within this framework, we expect companies' focus to be on the following impact areas:

- 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

Required features of an Environmental Action Plan

2.33. In the SSMD, we set out that companies should embed considerations for the three impact areas above into their RIIO-2 Business Plans in the form of an Environmental Action Plan (EAP). The EAP should explain how a company will take responsibility for the environmental impacts of their network in RIIO-2.

2.34. EAPs included in Business Plans should:

- 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:
 - 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 EAP

2.35. In Appendix 2, we set out our initial views of the minimum level of ambition we would expect from the companies in their business plans. Where these initiatives, or equivalent, are not thought to be appropriate for their networks, companies should provide clear justification for why they believe this to be the case.

Modernising Energy Data (Digitalisation Strategies)

2.36. We expect as part of ongoing network stewardship that network companies are already doing their part to modernise energy data and network operation through digitalising the energy system and have considered:

- how digitalisation is already bringing about cost savings;
- its ongoing potential for efficiency improvements and;
- its potential to aid other markets and the wider economy/consumers, including those participants that might be currently unrelated to energy network investment and operation.

Digitalisation should already form part of network companies' regular business planning and we anticipate they have been updating their digitalisation strategies, catalysed both by the need to drive cost reductions for consumers, the RIIO-2 process and the recently-published Energy Data Taskforce (EDTF) report.⁷

2.37. The EDTF learned and shared a collective market-wide vision for how the sector – including network companies – can maximise the value of data and digitalise the energy system in support of the energy transition. Ofgem has welcomed the report and supports its recommendations.⁸

2.38. We view the EDTF report as a fantastic focal point to drive cultural change in the energy sector. We encourage network companies to treat the publication of their business plans as an opportunity to showcase to energy consumers, the wider economy and international counterparts how they are leading change and delivering a progressive modernisation of Britain's national infrastructure. Through this, network companies can better

⁷ <https://es.catapult.org.uk/news/energy-data-taskforce-report/>

⁸ See <https://www.ofgem.gov.uk/about-us/ofgem-data-and-cyber-security> for further information.

enable the country to overcome important societal challenges such as, for example, the industrial strategy's grand challenge for clean growth and net zero carbon emissions by 2050 (2045 in Scotland).

2.39. We particularly echo the principle from the EDTF report of continuous improvement. We urge network companies to deliver benefits to their customers early, and to frequently iterate small improvements to their services and plans, and would expect this to be captured and demonstrated in their business plans.

2.40. It is important that digitalisation strategies enable current and future users of energy system data to access, understand and challenge the digitalisation strategies. Strategies will need to be iterated in a timely fashion and to reflect ongoing learnings and user feedback, assuring that any digitalisation work delivered best meets users' needs.

2.41. In recognition of the relevance of a whole system approach to delivering digitalisation, we encourage network companies to collaborate on the development of their strategies and to include this collaborative work in their published strategies.

2.42. For this first iteration, we invite companies to take their own view on what content will best meet the needs of their current and future data users. However, below we list themes that Ofgem considers will be valuable content for network companies to include in their digitalisation strategies:

- Actions being taken to align with the recommendations made by the EDTF
- 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 Britain⁹ (including the Gemini Principles, the Digital Framework Taskgroup Roadmap, digital twins and the Information Management Framework)
 - The wider National Infrastructure Commission agenda¹⁰
 - The National Data Strategy¹¹ and UK Digital Strategy¹²
- 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 open¹³

2.43. Ofgem recognises that the timing of the publication of the EDTF report is relatively late on in this RIIO-2 business plan development process and that the EDTF has implications for network companies' digitalisation strategies. We expect it will take a number of iterations of continuous improvements before digitalisation strategies mature, we are therefore not including each company's digitalisation strategy in our assessment of whether the business plan meets the Stage 1 minimum requirements for the purposes of the BPI. It may, however, be possible for the content of the digitalisation strategy to be included in companies' CVPs.

2.44. Although companies will not face a penalty under the BPI, we believe it is reasonable for them to be making meaningful progress now, and throughout the remainder of the RIIO-1 period. We therefore expect that alongside the December submission of their business plan:

⁹ <https://www.cdbb.cam.ac.uk/>

¹⁰ <https://www.nic.org.uk/publications/data-public-good/>

¹¹ <https://www.gov.uk/guidance/national-data-strategy>

¹² <https://www.gov.uk/government/publications/uk-digital-strategy>

¹³ <https://www.ofgem.gov.uk/publications-and-updates/ofgem-position-paper-distribution-system-operation-our-approach-and-regulatory-priorities> (See paragraph 1.28, within where related: Ofgem has recently published its intention to learn and develop its own corporate position on "Data Best Practice")

- Network companies will each make a “Digitalisation Strategy” publicly available, including on their websites. This iteration (and future iterations) of the Digitalisation Strategy should include a plan for how the company will continue to improve its Digitalisation Strategy, with particular focus on getting and acting on feedback from current and future users of Energy System Data.¹⁴
- Network companies will provide Ofgem with a single hyperlink to the homepage where that published strategy is hosted. That hyperlink is to be emailed to ofgemdataservices@ofgem.gov.uk. Ofgem will then collate all of the hyperlinks and publish them together on its website.

2.45. We also see merit in network companies arranging a collaborative event to take place in early 2020. This should be an inclusive event for energy system digital and data user engagement and should provide a forum for engaging with the Digitalisation Strategies and showcasing key steps and projects they have already taken on data and digitalisation. Network companies would be encouraged to showcase the latest iteration of their Digitalisation Strategies at the event and listen to the opinions of their stakeholders. The expectation is that network companies may use this and all other user feedback they collect, to improve the content of their Digitalisation Strategy and to improve their ongoing approach to user engagement with respect to the Digitalisation Strategy itself. For the purposes of the business plan submission schedule: we expect the Digitalisation Strategies to include either directly or via hyperlink the plan for and date of for the collaborative network company hosted event, describing how stakeholders can participate in it.

2.46. Though this guidance document does not apply to DNOs or the ESO, we recognise that these companies will also be keen to participate in making their Digitalisation Strategies publically available and to share them at the network company event. We therefore encourage DNOs and the ESO to participate at the event. If DNOs and the ESO send Ofgem a hyperlink to their own public digitisation strategies, Ofgem will also host these on its website along with the hyperlinks to the other network companies’ Digitalisation Strategies.

2.47. We will work closely with industry and other stakeholders in supporting this work. During this process, it may become apparent that the delivery of high-quality digitalisation strategies is dependent on changes to the RIIO-2 framework of funding and incentives, and

¹⁴ See the EDTF report for a definition of Energy System Data
<https://es.catapult.org.uk/news/energy-data-taskforce-report/>

we will consider what opportunities there may be in the remainder of the process of setting the price control (and during the period itself) to enable these changes. For RIIO-ED2, we have more time to consider from the outset if and how this will affect the price control for this sector.

Enabling whole system solutions

2.48. We expect companies to provide information on their approach to enabling whole system solutions in their Business Plan. This should include:

- 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.

2.49. Where a company proposes an activity which coordinates with, or generates benefits for, any broader area of the economy or society, it should evidence and quantify these impacts.

2.50. The Business Plan should contain justified and costed proposals for whole system outcomes and solutions. Such activities must demonstrate:

- 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 consumers¹⁵ and their type, eg lower bills, reduced environmental damage, improved reliability and service. 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

2.51. 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.

2.52. Additionally, Business Plan sections on innovation must contain consideration of whole system approaches as potential solutions to the barriers being addressed.

Local Area Energy Plans

¹⁵ The use of ‘sector’ in this regard refers to the distribution, transmission and operation of a single energy source. For example, the ‘gas sector’ includes the firms responsible for gas transmission, distribution, and system operation.

2.53. A Local Area Energy Plan (LAEP) is the product of a process involving a range of stakeholders, including gas and electricity network operators, agreeing on the optimal long-term energy solution for an area. The planning is conducted in the context of enabling heat decarbonisation and energy systems with net zero carbon emissions.

2.54. Examples of LAEPs include Local Heat and Energy Efficiency Strategies¹⁶ being developed in Scotland, and the whole system based work undertaken by Energy System Catapult¹⁷ with the relevant local authorities, DNOs and GDNs in three areas: Bridgend, Newcastle and Bury.

2.55. Arising from this work, the features of a good quality LAEP include:

- a transparent, independent, consensus-based process that includes all local stakeholders, including residents, businesses, local government, energy network operators (including gas, electricity and heat network operators), local community energy and fuel poverty groups, based on robust evidence to aid consensus-based decision making;
- a whole systems approach (across electricity, gas and heat) to aid an understanding of the options and their interaction with the macro energy system and to inform the most appropriate combinations of network choices, fabric upgrades and heating systems in different places, allowing more effective decision making and lower cost solutions;
- Working at an appropriate scale using sound empirical evidence on the unique characteristics of each local area and considering other relevant factors such as transport, health, air quality and fuel poverty
- The identification of activity within the price control period in support of delivering against local carbon targets consistent with a goal of net zero carbon emissions.
- an agreement between different parties of the most prevalent future heating system network options across multiple scenarios; mapping of heating solutions down to street level; and agreed next steps in resolving any areas of uncertainty.

¹⁶ <https://www.gov.scot/policies/energy-efficiency/energy-efficient-scotland/>

¹⁷ <https://es.catapult.org.uk/wp-content/uploads/2018/12/Local-Area-Energy-Planning-Insights-from-three-pilot-local-areas.pdf>

2.56. We are interested in the potential offered by LAEPs and we are aware that some network operators are already involved in this activity. At the highest level they may help support good stakeholder engagement, the identification and evaluation of potential whole systems solutions, and help network companies improve their evidence base for investment. In addition, LAEPs can provide improved data on and assessment of possible heat decarbonisation options, within a wider context of planning for net zero energy systems and network infrastructure.

2.57. 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.

2.58. For the sake of clarity, 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 for the purposes of the BPI. It may however be possible for the outputs from LAEPs that have been produced (or plans to produce LAEPs) to be considered as part of the Stage 2 CVP.

Managing uncertainty

Uncertainty mechanisms

2.59. Forecasting costs for the duration of a price control is challenging. Uncertainty in cost forecasts can arise for several reasons, including whether a company needs to conduct an activity or make an investment, the amount of an activity they need to conduct, as well as the cost of the activity. Uncertainty mechanisms allow changes to a company's allowed revenues to be made in light of what happens during the price control period and help to ensure that consumers only pay for the outputs that are delivered.

2.60. As part of their Business Plans, companies can propose, with suitable justification, the inclusion of network company-designed uncertainty mechanisms. Table 1 below gives an illustration of the type of supporting information we expect to see with any such proposal.

Table 1: Examples of the information we expect for additional uncertainty mechanisms

Issue	Information
What is the issue/risk that the proposed mechanism addresses?	Set out the uncertainty identified and why an uncertainty mechanism might be appropriate. Is the issue/risk regionally specific or industry wide?
Where does the ownership of risk lie in relation to the uncertainty?	Clearly set out where the risks lie with regard to customer/ company/both, justifying why the apportionment is appropriate.
Materiality of issue	Quantification of the materiality of the issue (ie what is the expenditure exposure of the issue) – we will not prescribe a specific methodology for the quantification of materiality.
Frequency and probability of issue over the price control period	What is the expected frequency and probability of the issue during the price control period?
What is the proposed mechanism?	A description of what the mechanism is and how it works. This needs to be detailed enough to allow for potential implementation. If there is a materiality threshold, this would need to be set out as a percentage of allowed revenue. If there is a specific trigger event this should be defined.
What are the justifications for the mechanism?	Set out the benefits of the mechanism.
What are the drawbacks of the proposed mechanism?	Set out the drawbacks of the mechanism. Again, where possible, the materiality of these drawbacks need to be set out (eg the impact on charging volatility).
Can the drawbacks be reduced?	Explain why the drawbacks cannot be mitigated through alternative mechanism designs (eg by using a volume driver instead of logging-up or cost pass-through).
Explanation of how on balance, the mechanism delivers value for money while protecting the ability to finance efficient delivery.	Explanation of why the benefits of the mechanism outweigh the drawbacks. We also expect the quantification of how the proposed mechanism delivers value for money whilst ensuring efficient delivery.

Treatment in Business Plan Data Templates (BPDTs)	Outline how the associated costs have been treated in the Business Plan Data Templates (BPDTs).
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Real Price Effects (RPEs)

2.61. To enable us to assess Real Price Effects (RPEs) appropriately, we expect companies to provide us with the following information in their Business Plans:

- the input costs for which our measure of general output price inflation (ie CPI or 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. The plan should include proposed 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

Ongoing efficiency

2.62. Our ongoing efficiency assumptions represent the reduction in the volume of inputs required to produce a given volume of output. Whereas RPEs relate to the changes in the price of inputs used by network companies, ongoing efficiencies relate, in part, to changes in the volume of those inputs used to provide services to users.

2.63. To enable us to assess ongoing efficiency appropriately, we expect companies to set out in their Business Plans:

- 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 could include:
 - 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

2.64. This information should align with the data provided in the BPDTs.

Highly anticipatory investment

2.65. Companies may propose in their Business Plans expenditure that is considered to be highly anticipatory. In making any such proposals, the company should clearly address the following points:

- what operational or capital solutions a company proposes investing in, if any
- why, in the company's view, the investment(s) is highly anticipatory in nature, ie it is driven based on a forecast requirement rather than a current need
- 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 between the network and the consumer. In addressing this point it should be clear:
 - which parties will carry the financial risk if a forecast requirement does not materialise

- the level of risk, in the company’s opinion, that should be borne by the bill payer (or other parties)
 - how the bill payer will be insulated against any additional risk
 - the levels of return, in the company’s opinion, it should receive as a result of the investment (this could be proportionate to the risk taken)
 - the beneficiaries of the investment and the proportion of benefits that will flow to each party
- why the proposed investment should be considered as separate to the other licensable operations of the business

Driving efficiency through innovation and competition

Innovation

2.66. As set out in our SSMD, our expectation is that companies fund more innovation in RIIO-2 using their totex allowance, as part of their BAU activities, rather than relying on additional innovation stimulus funds.

2.67. There will not be a separate funding stream (on top of the totex allowance) for BAU innovation. Instead, this innovation should be incorporated into wider BAU activities throughout their plans.

2.68. Companies’ Business Plans must evidence a strong strategic focus on innovation. This will include how companies are developing and embedding a culture of innovation throughout their business.

2.69. 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.

2.70. This must evidence:

- a 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

2.71. The Business Plan should also 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.

2.72. Companies can also include a case for any additional totex allowance necessary for RIIO-2 to roll out previously proven innovation. We will consider any specific expenditure proposed that will enable roll-out of specific innovations through their baseline funding, providing they can demonstrate how this will reduce costs and/or improve efficiency within their submission.

Network Innovation Allowance

2.73. Additionally, we have decided to retain the opportunity for companies to receive additional Network Innovation Allowance (NIA) in RIIO-2.

2.74. If companies believe NIA funding is necessary for RIIO-2, their Business Plan should 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.

2.75. 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:

- 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.

2.76. As set out in our SSMD, in determining the level of NIA funding, we are likely to take into account the following, along with other information that may be relevant:

- companies' proposals for these allowances in their Business Plans
- the extent to which companies are undertaking other innovation as BAU activities
- the extent to which companies' proposals incorporate the application of best practices
- the processes companies have in place to roll out proven innovation into BAU and the evidence that they are already doing so
- the processes companies have in place to monitor, report and track innovation spending and the evidence that they are already doing so

Competition

2.77. The approach to competition for RIIO-2 is set out in the SSMD and broadly covers three areas: late competition, early competition, and native competition.

Late competition

2.78. Companies should 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.¹⁸

2.79. Companies should not seek to split larger, single projects into multiple smaller projects for the purpose of avoiding the high value criterion.

2.80. In addition to the late competition models identified, we also refer electricity transmission companies to Chapter 4 of the Electricity Transmission annex to the SSMD,¹⁹ which outlines our framework for the successful delivery of large capital investment projects. We would expect companies, as part of their Business Plan submissions, to put forward project-specific proposals in their Business Plans for implementing a milestone-based approach, and/or proposals for minimising consumer detriment both during the construction period and once a project has been delivered and is in operation.

Early competition

2.81. To facilitate the identification of the system needs which may give rise to these projects, companies are required to flag in their Business Plans system needs (or projects) which are valued at £50m or over.

2.82. Networks are able to indicate from among the projects that they have flagged as meeting the threshold value, any which they consider would have no reasonable probability of being addressed by an alternative solution (contestability test).

2.83. For other flagged system needs or projects, networks can provide reasons as to why 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

¹⁸ More information on our re-packaging principle is available at page 22 of our November 2016 decision document https://www.ofgem.gov.uk/system/files/docs/2016/11/ecit_november_2016_decision.pdf

¹⁹ [RIIO-2 Sector Specific Methodology Decision - Electricity Transmission](#), 24 May 2019

the separation of one aspect would make the overall programme more expensive for consumers.

Native competition plan

2.84. In their Business Plans, companies need to provide a native competition plan which details how they will use competition to identify and reveal efficient costs and ideas. Each company's competition plan should align with the native competition best practices as outlined in the SSMD. These best practice principles should be followed by companies except where these conflict with any 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).

2.85. If relevant, networks should identify where their preferred approach to implementing the best practice principles is not possible, for example where implementation raises a conflict with existing rules.

2.86. Networks must 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. Where certain information is only intended for Ofgem and needs to be kept in-confidence (eg for commercial reasons), it should be clearly badged and justified as such.

2.87. While companies must meet their legal obligations, this does not preclude them from exceeding minimum requirements where appropriate and beneficial. For example, allowing a longer period of time for the receipt of tenders than the mandated minimum in cases of particularly large and complex projects.

2.88. The principle of technology agnosticism requires an openness to different ideas. Where appropriate,²⁰ companies can communicate with the bidding market prior to a formal process or can undertake a phased approach to tendering to identify solutions which best meet need.

²⁰ That is, in accordance with utilities procurement legislation and provided it is transparent, non-discriminatory and does not distort competition.

Companies should consider using their competition plan to publicly commit to an approach which best embeds this principle.

2.89. Companies should 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.

3. Cost and financial information

Forecasting and scenarios

A consistent view of the future

3.1. In preparing their Business Plans, companies should consider a range of future outcomes and the different investments and activities required to support these.

3.2. More important than agreeing a particular static view of the future requirements for networks is that the price control remains sufficiently flexible to meet changing circumstances.

3.3. In September 2018, we asked the networks to jointly develop a 'consistent view of the future' across all five regulated sectors (gas, electricity and the ESO). This was intended to include a view on the primary drivers of investment, including relevant government policy,²¹ across a range of plausible future scenarios. This work was to support better network engagement and whole system outcomes by helping to align planning between the networks.

3.4. Importantly, we have consistently stated that where networks believe their plans need to deviate from the common view, then they should provide evidence for this and the most appropriate mechanism to allow expenditure allowances to adjust.

3.5. The Business Plans must:

- provide substantial evidence for where overall forecasts of investment drivers, or the forecasts for individual line items, are higher than historical averages or trends

²¹ For example, we expect GDNs to set out in their Business Plan 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.

- explicitly identify and incorporate investment drivers and their impacts which may reduce required network expenditure, such as those arising from consumer behaviour change and from smarter network technology and policies
- design their baseline revenues around parameters which are no greater than the lowest point of the ranges provided in the ENA Scenario Working Group report, and ensure that their plans can flex, where they consider this to be necessary, to meet high outturns (eg by proposing relevant uncertainty mechanisms). 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)

The Net Zero target

3.6. In June, the UK and Scottish Governments introduced legislation to implement the net zero greenhouse gases target by 2050 and 2045 respectively (the Net Zero target). On 8 August 2019,²² we informed networks that they are expected to 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. In that letter, we set out that it would be a minimum requirement for companies to:

- 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.²³

3.7. In providing this information, companies should:

- 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, and

²² Ofgem's letter available here:

https://www.ofgem.gov.uk/system/files/docs/2019/08/letter_to_networks_on_achieving_net_zero.pdf

²³ Please refer to the letter for further detail.

- 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.

3.8. For projects raised by networks explicitly in order to support the Net Zero target, we acknowledge that there will be significant levels of uncertainty associated with long term planning. As such, our expectations of 'well justified' for projects specifically intended to support achieving the Net Zero target will be tailored appropriately.

3.9. When considering the implications of different plausible pathways meeting the needs of consumers and network users, companies should 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.

Cost information

3.10. In proposing costs for operating and developing their networks, we expect companies to explain their costs/workload forecasts, particularly where these diverge from historical trends. In particular, we expect companies to provide information in their Business Plans on:

- cost drivers
- consideration of options
- justification of costs, including the proposed profiling of costs
- how efficiency and innovation will be used to reduce costs

3.11. Companies must complete the BPDTs in accordance with the relevant Ofgem guidance.

3.12. Business Plans must clearly set out the key drivers of expenditure for the RIIO-2 period - for example, growth in demand, conditions of assets/utilisation, legislative requirements, and any other relevant drivers.

3.13. Business Plans must clearly justify the need for new investment, including:

- 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.

3.14. Business Plans must include:

- 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

3.15. For new or existing assets that face a risk of underutilisation, Business Plans should set out the monitoring and mitigation they will put in place to reduce this risk. 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.

3.16. Business Plans should demonstrate how their expenditure forecasts map onto relevant ODIs and PCDs.

Business plan data templates

3.17. BPDTs enable the collection of Business Plan data from all companies on a consistent basis. In March 2019, we issued draft BPDTs and associated guidance, which identify the terms (mindful of our proposed move away from RPI to CPIH) in which companies should present financial, workload, asset and output information. Since the March 2019 draft BPDT issuance, Ofgem has engaged with industry at a sector level to further develop the BPDTs and associated guidance. As part of this ongoing engagement, a number of draft BPDT templates have been revised and republished.

3.18. We expect companies to use these draft BPDTs when submitting their draft Business Plans to the RIIO-2 Challenge Group on 1 October 2019.

3.19. We will use the data collected from the draft BPDTs and supporting documents (including engineering justifications and CBAs) to test whether we have all the information we require for our cost assessment and to enable us to further develop our approach to assessing efficient costs.

3.20. We expect to issue final BPDTs in September 2019.

Cost benefit analysis (CBA) and engineering justifications

3.21. Both the CBA and engineering justifications are important decision support tools as part of the justification for investment needs in RIIO-2. In demonstrating due diligence has been followed in the appraisal of potential investment decisions by companies, CBAs and engineering justifications should:

- 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 values²⁴ 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 neither been considered nor monetised as part of the analysis
- be transparent about assumptions, inputs and rationale for decisions, calculations and results

3.22. We will continue to work with the companies on a sector-specific basis to agree any further scope for the application of CBA and use of engineering justifications and finalise the draft guidance and templates that we issued in March 2019. We expect to publish updated guidance and templates in September 2019.

Financial information

3.23. For business planning purposes, we will provide BPDTs for companies to complete which will include additional financial tables - for example for taxation, pensions and asset disposals. We have provided networks with a draft Business Plan Financial Model (BPFM) and

²⁴ Guidance on this option value from Ofgem can be found in our [Strengthening strategic and sustainability considerations in Ofgem decision making](#), and [Real Options and Investment Decision Making](#) papers and annexes.

will work with networks through the modelling working group to finalise the BPFM in the coming months.

3.24. The BPFM will be pre-populated with all the parameters set out in the finance section of the May RIIO-2 sector-specific methodology and forecast closing RIIO-1 price control financial model (PCFM) data, for example regulatory asset value (RAV). It will allow companies to populate with their plans to calculate expected allowed revenues. It will also be used for assessing the financeability of the plan and will include a suite of commonly used financial metrics.

3.25. Consistent with RIIO-1, the BPFM is primarily set up to reflect the notional company. However, worksheets have been included to allow analysis of the actual company financing costs, structure and performance.²⁵

3.26. Companies must complete the BPFM in accordance with Ofgem guidance, including incorporating Ofgem’s working assumptions for cost of capital. Companies must also include a financeability assessment for both the notional and actual company, including target ratings.

3.27. Business Plans must clearly set out:

- financial projections for each year of the RIIO-2 period²⁶
- the company’s target ratings and the key financial ratios and qualitative factors used to assess maintenance of those target ratings
- the results of the Ofgem-suggested set of common stress test scenarios²⁷ with results clearly explained
- a clear explanation of any additional stress test scenarios, including rationale, results and commentary of results

²⁵ Guidance for modelling the notional and actual company base cases is provided in Appendix 3.

²⁶ Projections should be shown in table format with each year of RIIO-2 shown and should include allowed revenue breakdown, summary financial statements, and key financial ratios shown to 2dp. It is not a general requirement to provide detailed financial performance projections or bill profile beyond the RIIO-2 period. However, if companies have concerns regarding longer term bill profile, financial performance or credit metrics we would invite companies to submit extended models, if appropriate.

²⁷ As set out in Table 19 of the SSMD Finance Annex, plus a stress test scenario on the basis of a 4.3% allowed equity return with an assumption of zero outperformance.

- a clear explanation of the company’s 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)
- clear explanation of the company’s dividend and equity issuance policy and strategy
- fully completed BPDTs in accordance with the relevant Ofgem guidance

3.28. Business Plans must clearly demonstrate:

- a clear understanding of financial risk and evidence of risk management measures. This must include 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 alternatives²⁸

3.29. In December 2018, we consulted on our approach to financeability²⁹ and in March 2019 we published a further information document³⁰ setting out further guidance to Transmission and Gas Distribution companies with regards to how they should assess financeability in their

²⁸ If any network elects to also submit alternative cases for cost of capital estimates other than those specified as working assumptions in the SSMD this should be submitted in a separate document to the main business plan. In addition, any financeability assessment using different cost of capital working assumptions should be submitted as a separate document to the notional and actual financeability assessment based on SSMD cost of capital working assumptions.

²⁹ See section 4 of the Finance Annex to the Sector Specific Methodology Consultation:

https://www.ofgem.gov.uk/system/files/docs/2018/12/riio-2_finance_annex.pdf

³⁰ <https://www.ofgem.gov.uk/publications-and-updates/financeability-assessment-riio-2-further-information>

Business Plans. This further information document set out our proposed approach to financeability and the various credit and equity ratios that are included in the BPFM. Network companies should refer to the further information document alongside this guidance to assist with assessing financeability of their business plans.

4. Presentation and structure of plans

Presentation

4.1. Plans should be concise – no longer than 200 pages excluding BPDTs, 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.

4.2. Where the company needs to provide further information it should use annexes. Though annexes will not count towards the 200-page limit, companies should, to the fullest extent possible, ensure that the core narrative contains all information relevant to Ofgem's assessment of the plan. Annexes should be clearly signposted and referenced within the core Business Plan text.

4.3. More technical information may be provided in the annex documents but the company should still ensure that the annexes are as clear and readable as the rest of the Business Plan. Business Plans should be clearly written, with considerable emphasis on making them as easy to read as possible (avoiding small font sizes).

Structure

4.4. Though Ofgem does not prescribe a particular structure that plans must follow, it is important to ensure that we can easily identify material contained in the plans 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.

4.5. 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).

4.6. 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.

Cross-referencing

4.7. In order to successfully navigate the plans, companies should effectively cross-reference between different sections. Hyperlinks should be included when referencing any of the data tables, annexes or any further detail which is explored elsewhere in the plan.

4.8. It is important to have clear links between the data tables and the core narrative sections. Data tables should be clearly numbered and any data in the narrative should be clearly linked 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.

Business Plans in the Gas Distribution sector

4.9. In the Gas Distribution sector, where a company is the operator of more than one network area, it may choose to submit separate Business Plans, or separate elements of its Business Plan, for each area. This should only be in exceptional circumstances and the company should clearly demonstrate why this is merited. We do not expect there to be any repetition of content between these submissions and the Company should consider whether separate annexes to a single document may be a more appropriate format for detailing any area-specific content that differs from the rest of their plan. This does not preclude a Company choosing to publish separate plans for each area for the benefit of its regional stakeholders.

Snapshot tables for Outputs, Uncertainty Mechanisms and CVP proposals

4.10. To assist our review of Business Plans, we have issued alongside this document 'snapshot' tables in which companies should include some basic information about all of the Outputs, Uncertainty Mechanisms and CVP proposals that are set out in their plans. Companies are requested to submit completed tables alongside the Business Plan, including the October drafts.

5. The Business Plan Incentive

5.1. In Chapter 11 of the SSMD, we set out our decision on the introduction of a new BPI for the gas distribution, gas transmission and electricity transmission sectors in RIIO-2.

5.2. The purpose of the BPI is to drive benefits for consumers by rewarding companies for plans that offer consumers additional benefits and value for money. Companies that submit Business Plans that fail to meet minimum requirements or that have poorly justified cost forecasts will incur a penalty.

5.3. Business Plans will be assessed in the following way:

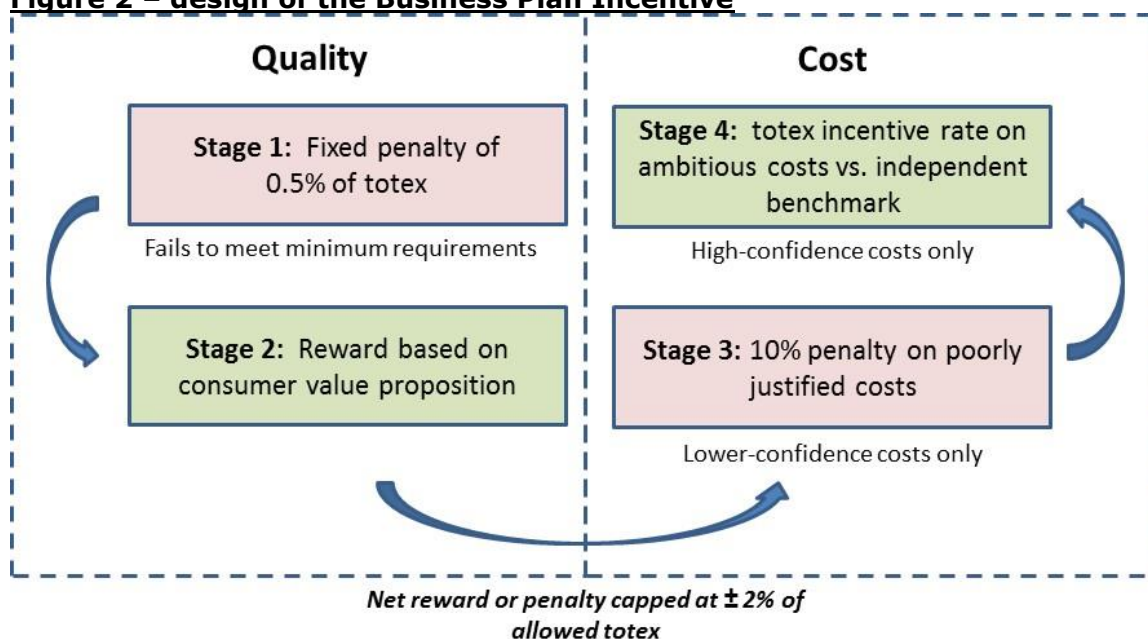
- **Stage 1** - we will carry out a qualitative assessment of Business Plans in order to ensure that they contain all of the information that we consider to be the minimum required. The minimum requirements are set out in this Business Plan Guidance. If Ofgem finds that a plan has failed to meet the minimum requirements, an upfront penalty of 0.5% of allowed baseline totex³¹ will be levied on the company. Where this is the case, the company would not be eligible for any reward under the BPI but could still be penalised under Stage 3.
- **Stage 2** - We will carry out a qualitative assessment of what additional value the Business Plan offers to consumers. Companies may bid for a reward on the quality aspects of its plan as revealed through the CVP. In its CVP, a company should demonstrate the additional value its plan will generate for existing and future consumers and consumers in vulnerable situations. The reward will be reflective of this additional value. The reward may be linked to delivery where relevant.
- **Stage 3** - We will review the forecasts for costs assessed by Ofgem to be lower-confidence baseline costs included in companies' plans. Any costs deemed to be poorly justified and removed by Ofgem from the companies' forecasts through this cost assessment process will be subject to a penalty. The size of the penalty will

³¹ Based on totex allowances in Final Determinations

be 10% of the value of those poorly justified costs removed by Ofgem from the companies' forecasts.^{32,33}

- **Stage 4** - We will review the cost forecasts for costs assessed to be high-confidence baseline costs included in companies' plans. An upfront reward will be available to companies that submit forecasts lower than a benchmark that Ofgem would otherwise have used in setting the allowance. The reward under this stage would be calculated as the difference between the benchmark cost level and the (lower) revealed cost level, multiplied by the totex efficiency incentive rate.³⁴

Figure 2 – design of the Business Plan Incentive



5.4. Stages 1 and 2 of the BPI involve carrying out a qualitative assessment of companies' Business Plans. This Guidance document sets out the minimum requirements that are relevant to the Stage 1 assessment and our approach to the Stage 2 assessment. Stages 3 and 4 of the BPI involve a separate assessment of the costs included within companies'

³² In some instances, cost forecasts may be made up of proposed unit costs and proposed volumes of activity. Ofgem will consider both the justification for the unit cost and the volumes of activity in determining whether a penalty should apply.

³³ For example, if Ofgem removed a total of £10,000 from forecasts on the basis that they were poorly justified, the penalty would be £1,000 (£10,000 x 10%). The totex efficiency incentive rate would not be used in the calculation of the penalty.

³⁴ See Chapter 11 of the SSMD for further information on the totex efficiency incentive rate.

Business Plans. This Guidance document does not provide detail on the approach Ofgem will take to cost assessment.

5.5. Ofgem will take into account the views of the Ofgem RIIO-2 Challenge Group and companies' CEGs and UGs in its assessment of Business Plans. This includes the assessment of:

- whether the minimum requirements have been met at the BPI Stage 1 assessment.
- whether activities with associated costs included in the Business Plan are sufficiently well justified (including but not limited to the Stage 3 assessment).
- whether and to what extent each company's CVP genuinely represents additional benefits to consumers, including views on any quantification of such benefits.
- Whether there are appropriately independent baselines to justify the classification of costs as high-confidence baseline costs (including but not limited to the Stage 4 assessment)

Stage 1: Minimum requirements

5.6. We expect Business Plans to be fully justified and accompanied by all relevant evidence, including expert and where appropriate legal (on a confidential basis if need be).

5.7. To meet the minimum requirements, we expect the plan to both **complete** and to be of a satisfactory **quality**. A plan that does not meet these requirements will be subject to a penalty.

5.8. For a plan to be **complete** under the Stage 1 BPI assessment, it must, as a minimum:

- contain all the material detailed in this Guidance
- be presented in a clear and understandable manner and in line with the timetable for submissions
- follow the Guidance given in this document on presentation and structure
- have been subject to a robust and auditable quality assurance process to prevent inaccuracies and mistakes

- comply with Ofgem’s Data Assurance Guidance for Electricity and Gas Network Companies³⁵
- demonstrate how the plan has been tested, challenged and developed using the enhanced engagement process³⁶
- include a clear explanation of what has changed in the Business Plan from 1 July to 1 October to final submission to Ofgem 9 December
- demonstrate 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.

5.9. For a plan to be of satisfactory **quality** under the Stage 1 BPI assessment it will need to be well justified. This will include an assessment, where appropriate, of whether:

- the proposals are underpinned by robust and substantiated evidence, including that of consumer expectations and willingness to pay
- there is a credible plan for delivery, that takes into account current levels of performance and any steps necessary to improve upon these
- commitments are proposed that offer safeguards on the delivery of the Plan’s ambitions
- the proposals have been informed by, and subject to the challenge of the enhanced engagement process. Where disagreements with the company’s proposals have arisen, we will expect the company to have explained in their Plan the nature of this disagreement and the justification for the Company’s positions

5.10. As set out above, we will assess the completeness and quality of each element of the plan. Any element that fails to meet the minimum requirement will be assessed as having failed to pass Stage 1.

³⁵ <https://www.ofgem.gov.uk/publications-and-updates/data-assurance-guidance>

³⁶ We issued a guidance on enhanced stakeholder engagement on 09 April. This can be accessed here: https://www.ofgem.gov.uk/system/files/docs/2018/04/riio-2_enhanced_stakeholder_engagement_guidance_v13_final.pdf

5.11. Our view on whether the plan is both complete and of satisfactory quality will take into consideration, together with all other relevant matters, the reports we receive from the Ofgem RIIO-2 Challenge Group and companies' CEGs and UGs.

Stage 2: the Consumer Value Proposition

5.12. Stage 1 of the BPI seeks to ensure that Business Plans meet the minimum requirements. Under the Stage 2 of the BPI, we will assess what additional value beyond the minimum requirements the plan offers. Only companies that are assessed to have met all of the minimum requirements at Stage 1 will be able to earn a reward under this part of the BPI.

5.13. Under the CVP, Business Plans should set out the ways in which their plan goes beyond the minimum requirements and how this will lead to benefits for consumers. Ofgem will assess the proposals included within the CVP and determine whether a reward should be paid to the company and, if so, the size of the reward.

5.14. 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.

5.15. 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. Ofgem will take this information into account in determining whether a proposal should receive a reward and, if so, the size of that reward.

5.16. Each proposal forming part of the CVP will be assessed individually on its own merit. Where a company is unable to propose a robust methodology for calculating a monetised value to consumers associated with a proposal, Ofgem notes that it may be unable to determine an appropriate size of reward for that proposal, which may lead to the proposal receiving no reward.

5.17. Proposals forming a part of a company's CVP should be clearly and unambiguously identified as such.

5.18. However, Ofgem considers that companies could include within their CVP proposals for:

- 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

5.19. The above are illustrations of the type of activities that might inform a CVP and companies are encouraged to think broadly about the areas within which they can show how their plan offers additional value. To be clear, this is not a tick-box exercise and the inclusion of the following will not automatically lead to a business plan reward. What we will expect to see accompanying these type of activities is evidence of the associated additional value to either current and future consumers, or consumers in vulnerable situations. Where possible, this evidence should be quantitative and independently substantiated and take into account any distributional impacts on different consumer types. It is this additional value that will be taken into account in the Stage 2 assessment.

5.20. If the company receives a reward under this element of the BPI, Ofgem will consider whether it should include provision for the clawback of the reward in the event that the commitment(s) in question are not delivered. Companies should consider this in their Business Plan and, where appropriate, commit to returning any associated rewards in the event of non-delivery.

5.21. In assessing a CVP proposal, Ofgem expects to consider:

- Whether the proposal consists of something incremental to the minimum requirements.
- The extent to which the proposal includes evidence that shows how it incorporates consumer expectations/priorities and value (which may include willingness to pay).
- The extent to which the proposal has been reviewed by and received the support of the Ofgem RIIO-2 Challenge Group, companies' CEGs and UGs or, otherwise, the extent to which reasons for the lack of such support are clearly and satisfactorily explained.
- Whether the proposal includes a monetised consumer benefit and an associated monetisation methodology and the extent to which such a methodology is reasonable.
- The extent to which the monetised benefits associated with the proposal accrue to either to current consumers, future consumers and consumers in vulnerable situations.
- Where the proposal relates to a commitment to deliver something within RIIO-2, whether arrangements to address the possibility of non-delivery are set out and the extent to which such arrangements for non-delivery are appropriate and implementable.

This list is not exhaustive.

5.22. Where a CVP proposal relates to the delivery of something within the RIIO-2 period and is rewarded, Ofgem expects to determine the size of the reward by multiplying the net consumer value by the company's totex efficiency incentive rate. This is to help ensure that companies do not spend more in delivering the benefit than the value of that benefit to consumers.

5.23. It may be the case that companies include additional costs in their forecasts associated with the delivery of CVP proposals. Where this is the case, Ofgem will consider any consumer benefit that arises from the proposal net of these costs. If these costs are clearly identified within companies' forecasts, Ofgem will be able to exclude them from relevant benchmarking exercises. If such costs are included in forecasts but not clearly identified (and are therefore included in relevant benchmarking exercises), this could have an impact upon the assessed level of efficiency of the company.

5.24. Where a company includes a proposal for an uncertainty mechanism as part of its CVP, this should include an assessment of the likelihood of the mechanism being utilised in the RIIO-2 price control period.

5.25. As with Stage 1, our view on the CVP will take into consideration, together with all other relevant matters, the reports we receive from the Ofgem RIIO-2 Challenge Group and companies' CEGs and UGs.

6. Next Steps

Transmission, Gas Distribution and Electricity System Operator price controls

6.1. The gas distribution companies and gas and electricity transmission network companies will make the formal submission of their final full Business Plans to us in December 2019.

6.2. Prior to this, the companies should submit a complete draft of their plans, including submission of BPDTs, to the RIIO-2 Challenge Group on 1 October 2019 (with first draft plans already having been submitted in July). Open hearings will be held prior to our Draft Determinations.

6.3. The full timescales for Business Plan submission is detailed in Table 2. As noted above, we issued draft RIIO-2 BPDTs at a sectoral level in March 2019, and following ongoing engagement with industry have since revised elements of these drafts. We expect companies to use these draft BPDTs when submitting a complete draft of their Business Plans to the RIIO-2 Challenge Group on 1 October 2019.

6.4. We expect to issue the final BPDTs and associated guidance in September 2019, which we expect companies to use for their final submissions in December 2019.

Table 2: Indicative high-level milestones for Electricity Transmission, Gas Transmission, Gas Distribution and Electricity System Operator price controls

Date	Milestone
24 May 2019	Sector Specific Methodology Decision
1 July 2019	1 st draft Business Plan provided to RIIO-2 Consumer Challenge Group and Company User Groups / Customer Engagement Groups
1 October 2019	2 nd draft Business Plan provided to RIIO-2 Consumer Challenge Group and Company User Groups / Customer Engagement Groups
9 December 2019	Companies' Business Plan formal submission to Ofgem
22 December 2019	Independent enhanced engagement groups' reports on Business Plans submitted to Ofgem.
Q1/Q2 2020	Open hearings
June 2020	Draft Determinations
November 2020	Final Determinations

December 2020	Statutory consultation on licence modification
February 2021	Decision on licence modification
1 April 2021	Start of RIIO-2 price control for Electricity Transmission, Gas Transmission, Gas Distribution and Electricity System Operator price controls

Electricity distribution price control

6.5. The next electricity distribution price control (RIIO-ED2) starts in April 2023 - two years after the other sectors. As part of the RIIO-ED2 process, companies will also be expected to submit both draft and final Business Plans to the Challenge Group. Our indicative forward workplan for RIIO-ED2 is below in Table 3. The final timescales will depend on whether we retain fast-tracking for electricity distribution companies. We started the consultation process via our Open Letter consultation for RIIO-ED2 in August 2019.

Table 3: Indicative timeline for RIIO-ED2

Date	Milestone
6 August 2019	Open Letter and Framework Consultation issued
Q4 2019	Framework Decision
June 2020	ED Sector Methodology Consultation
November 2020	ED Sector Methodology Decision and Business Plan Data Templates issued
May 2021	Business Plan initial submission to Ofgem and RIIO-2 Challenge Group
December 2021	Business Plan final submission to Ofgem and RIIO-2 Challenge Group
Q1 2022	Open Hearings
June 2022	Draft Determination
November 2022	Final Determination Statutory consultation on RIIO-ED2 licence
February 2023	Decision on RIIO-ED2 licence
1 April 2023	Start of RIIO-ED2 price control

Appendices

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Appendix 1: Sector-specific Business Plan requirements set out in the SSMD

This appendix lists additional sector-specific Business Plan requirements, as set out in our SSMD sector annexes. Companies should refer to the sector annexes where we have set out these requirements.

Gas distribution	Reference in RIIO-2 Sector Specific Methodology - Gas Distribution Annex (paragraph)
Stakeholder Engagement Incentive	2.96, 2.97
Consumer vulnerability and carbon monoxide safety awareness use-it-or-lose-it allowance	2.35, 2.37
Ambition and delivery on consumer vulnerability	2.46
Fuel Poor Network Extension Scheme	2.74, 2.76
Emergency response – cost assessment	2.111
Average restoration time incentive for total unplanned interruptions	2.148, 2.149, 2.150, 2.151, 2.152, 2.163
Shrinkage	3.33, 3.36, Appendix 2
Decarbonisation of heat - Low and no regrets heat decarbonisation projects	3.43, 3.47
Decarbonisation of heat – biomethane	3.78, 3.81
Repex	Business plans must include proposals for targets discussed in 4.23 to 4.28
GDN record keeping	4.73, 4.74, 4.75, Appendix 3
Gas holder demolitions	4.83, 4.84, Appendix 4

Smart Meters rollout costs	6.17
Lane rental schemes	6.26

Gas Transmission	Reference in RIIO-2 Sector Specific Methodology - Gas Transmission Annex (paragraph)
Stakeholder engagement incentive and satisfaction surveys	2.22, 2.23
Quality of demand forecast incentive	2.57, 2.60
Maintenance	Business plan must include proposals for targets discussed in 2.76
Capacity constraint management	2.101, 2.104 Business plan must also include proposals for targets discussed in 2.102 - 2.105
Residual balancing	2.114, 2.115 Business plan must also include proposals for targets discussed in 2.117
Compressor emissions compliance and strategy for compliance	3.54, 3.59, 6.28
Greenhouse gas emissions (venting)	3.68 Business plan must also include proposals for targets discussed in 3.72
NTS shrinkage	3.86
Low carbon energy systems and decarbonisation of heat	3.20
Network capability review	4.22, 4.23, 4.24, 4.26, 4.32, 4.33, 4.35

Cost assessment (incl. requirements for Business Plan Data Template)	5.15, 5.16, 5.18
Quarry and loss of development	6.39

Electricity Transmission	Reference in RIIO-2 Sector Specific Methodology - Electricity Transmission Annex (paragraph)
Stakeholder engagement	2.36, 2.37
Stakeholder satisfaction survey	2.139
Energy Not Supplied	2.227, 2.235, 2.237, 2.246, 2.264
Environmental considerations embedded in Business Plans	3.35, 3.36, 3.47, 3.50, 3.60
Transmission losses	3.96, 3.101
Additional contribution to low carbon transition	3.121, 3.124
Sulphur hexafluoride (SF6) and other IIG leakage	3.161, 3.174, 3.178, 3.181
Mitigating visual amenity impacts in designated areas	3.246
Network Access Policy	4.74, 4.80
Successful delivery of large capital investment projects	4.138, 4.152, 4.161
Cost Assessment	5.13
Uncertainty Mechanisms	6.7

Appendix 2: Environmental action plan initiatives

The following provides our initial views of the minimum level of ambition we would expect from the companies in their Business Plans. Where these initiatives, or equivalent, are not thought to be appropriate for their networks, companies should provide clear justification for why they believe this to be the case.

We expect that EAPs will to draw together the direct carbon impacts claimed in Investment Decision Pack submissions (for example leakage, losses, EV fleet) and will include a list of all Investment Decision Pack submissions where:

- carbon reduction is the main driver of the proposal
- carbon reduction contributes to a substantial part of the benefits claimed by the projects. For example, intervention on the gas network justified mainly on avoided leakage

Business carbon footprint (BCF)

- Adopt science-based target for company to reduce its scope 1 and 2 BCF by 20XX, without relying on international GHG offsetting
- Commit to efficient and economic actions to address controllable BCF in RIIO-2
- Identify metrics to track outcomes of implementing actions and overall progress towards science-based target
- Commit to reporting on scope 3 emissions

Transmission losses (ET only) and Shrinkage (gas only)

- Develop and adopt strategy to contribute efficiently to fewer losses on network, including over the long term, than would otherwise be the case in the absence of strategy
- Report on key milestones of implementing losses reduction strategy
- Contribute to evidence base on proportion of losses that network companies can influence/control

Embedded carbon

- Monitor and report on embedded carbon in new projects
- Collaborate with supply chain on addressing challenges to reduce embedded carbon in network
- Commit to establishing baseline and a target to reduce embedded carbon on new projects during RIIO-2

Supply chain

- Adopt high standards of environmental management in supplier code, including requirements for public disclosure of metrics and cascading code to their suppliers that are material to company's inputs
- Adopt target of more than 80% of suppliers (by value) meeting code in RIIO-2
- Report on actual percentage of suppliers (by value) meeting code

Resource use and waste

- Update procurement processes to embed Circular Economy principles
- Adopt a target for:
 - Zero waste to landfill by 20XX
 - Recycled and reused materials as a percentage of total materials by 20XX
 - Report on actual waste to landfill, recycling and reuse as a percentage of total

Biodiversity/natural capital

- Adopt appropriate tool to assess net changes in natural capital from different options for new connections and network projects
- Adopt appropriate tool to monitor the provision of ecosystem services from network sites and report annually

Appendix 3: Financial Modelling of Notional and Actual Company Financeability Assessments

For the purposes of modelling the notional company base case we provide the following guidance:

- Allowed return (WACC) as set out in Table 4 of the SSMD Finance Annex³⁷
- Incentive bias of 0.5% of equity portion of RAV representing an earned amount for the notional company in each year of RIIO-2
- Totex allowances are assumed to equal Network totex cost forecast for RIIO-2
- Net debt is reset to the working assumption notional gearing level (60% net debt to RAV) at the start of RIIO-2, with any opening de-gearing assumed to be achieved by an equity injection or re-gearing assumed to be achieved by debt issuance
- Debt costs are assumed to equal the working assumption for allowances set out in the SSMD
- 25% of the network's debt is assumed to be CPIH linked (with a scenario test showing an alternative of 25% RPI-linked debt)
- Tax allowances are equal to tax costs, as calculated using the BPFM
- Immediate transition to CPIH from 1st April 2021 for WACC allowance and RAV calculations
- Opening RAV values to be based on totex forecasts for RIIO-1 as provided in Business Plan Data Template submission, and inclusive of any known logged-up adjustments (for example, the effect of site disposals)
- Lagged revenue impacts arising from RIIO-1 are excluded (eg inflation true-up, cost pass-through adjustments, output incentive revenue and over / under collection of revenue)
- Depreciation rates to be proposed by the network based on useful economic lives and/or evidenced justification

³⁷ https://www.ofgem.gov.uk/system/files/docs/2019/05/riio-2_sector_specific_methodology_decision_-_finance.pdf

- Capitalisation rates to be proposed by the network based on operational practice to date, consideration of expected levels of opex and capex, balance of affordability, financeability and customer support
- Dividend yield working assumption for modelling purposes of 3%
- Equity issuance transaction costs working assumption of 5% of any amount forecast to be issued

For the purposes of modelling the actual company base case we provide the following guidance:

- Allowed return (WACC) as set out in Table 4 of the SSMD Finance Annex
- Incentive bias of 0.5% of equity portion of RAV representing an earned amount for the actual company in each year of RIIO-2
- Totex allowances are assumed to equal Network totex cost forecast for RIIO-2
- Net debt to reflect actual company forecast net debt position for each year, as completed in the finance tables of the BPDTs
- Debt costs to reflect actual company forecast for debt costs, as set out in finance tables of BPDTs
- Proportion of inflation linked debt and proportion of interest expense that is principal inflation accretion in each year to reflect actual company forecast, as set out in finance tables of BPDTs
- Tax allowances are equal to notional company tax allowances
- Modelled forecast actual tax costs, incorporating forecasted financial information as per BPDTs
- Immediate transition to CPIH from 1st April 2021 for WACC allowance and RAV calculations
- Opening RAV values to be based on totex forecasts for RIIO-1 as provided in Business Plan Data Template submission, and inclusive of any known logged up adjustments (for instance the effect of site disposals)
- Lagged revenue impacts arising from RIIO-1, where these are expected, should be included if relevant (e.g. such as MOD from related RIIO-1 revenues, legacy revenue adjustments, forecasts on other non base revenue items)
- Depreciation rates to be proposed by the network based on useful economic lives and/or evidenced justification

- Capitalisation rates to be proposed by the network based on operational practice to date, consideration of expected levels of opex and capex, balance of affordability, financeability and customer support
- Dividend and equity issuance to reflect actual company dividend policy and forecast equity issuance, as set out in finance tables of BPDTs
- Equity issuance transaction costs as forecast by network for forecast equity issuance