Guidance

ED3 Business Plan Guidance

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This is a guidance document which sets out the information that should be included in electricity distribution network operators ED3 Business Plans.

Contents

1. Introduction

1.1 The ED3 price control will last for five years, starting on 1 April 2028. In the ED3 price control, we will set regulated revenues and required outputs for the electricity distribution network operators (DNOs). To do this, we need information from the DNOs on the activities that they intend to undertake in ED3, the outputs they will deliver, and their associated costs. DNOs will provide this information to us in the form of a business plan, which we will assess.

1.2 This document sets out the information that should be included in DNOs' business plans. Business plans should be prepared in accordance with the requirements set out in this document and all associated appendices and templates.

1.3 In this document, where we refer to the licensee this means the specific company that is the holder of an electricity distribution license. Great Britain has 14 separate electricity distribution licensees. These 14 licensees are subsidiaries of five parent companies, referred to as DNOs.

Document map

1.4 The Business Plan Guidance (BPG) consists of this document and three annexes.

Annexes

Annex 1: Investment Decision Pack including guidance on Engineering Justification Paper (EJP) Guidance and Cost Benefit Analysis (CBA)

1.5 This includes the following templates:

- High volume portfolio EJP narrative template
- Low volume portfolio EJP narrative template (optional)
- Major projects EJP narrative template
- Atypical investment EJP narrative template

Annex 2: Business Plan Data Tables (BPDTs) Guidance and Glossary

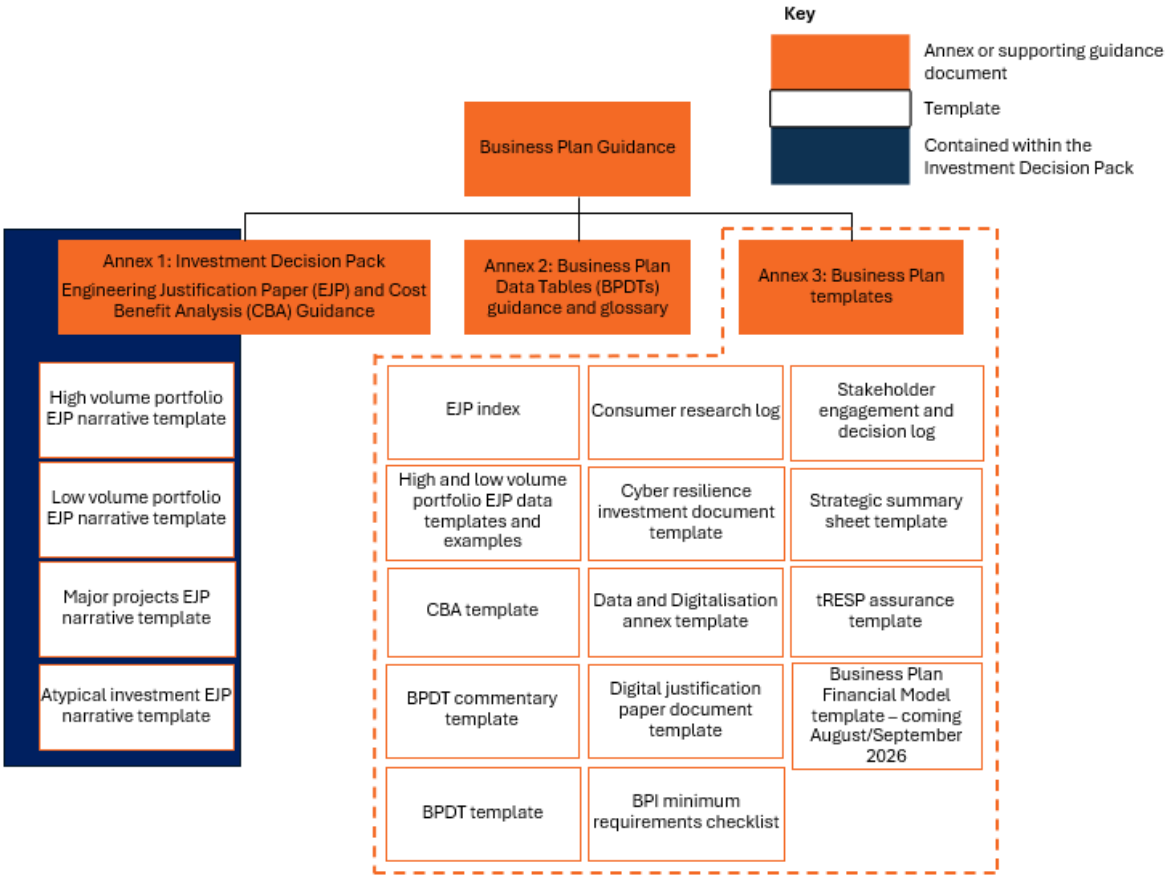
Annex 3: BPG Templates

- EJP index
- High volume portfolio EJP spreadsheet template example
- High volume portfolio EJP spreadsheet template
- Low volume portfolio EJP spreadsheet template example
- Low volume portfolio EJP spreadsheet template
- Cost Benefit Analysis template

- Business Plan Data Tables commentary template
- Business Plan Data Tables template
- Consumer research log
- Cyber Resilience Investment Document template
- Data and Digitalisation annex template
- Digital Justification Paper template
- Minimum Requirements Checklist
- Stakeholder engagement and decision log
- Strategic summary sheet template
- tRESP assurance template
- Business Plan Financial Model template

1.6 See below a document map that outlines the BPG, associated appendices and key templates.

Figure 1: Document map of Business Plan Guidance, annexes and templates



2. Consumer voice

Enhanced engagement framework

2.1 Building on positive engagement during RIIO-ED2 and learning lessons from RIIO-3, DNOs should continue to ensure that consumers and stakeholders remain at the heart of their ED3 business planning process, ongoing delivery and decision making.

2.2 As part of their business plan development, each DNO should engage widely and with key stakeholders. On submitting their business plans, each DNO should include a summary of this engagement using the Stakeholder Engagement and Decision Log template provided in Annex 3.

2.3 The purpose of the Stakeholder Engagement and Decision Log is to evidence how stakeholder challenge, expertise and local or sector-specific insight have informed the development, refinement and assurance of the business plan. Where relevant, the 'Impact on Business Plan' section of the Stakeholder Engagement and Decision Log may refer to evidence recorded in the Consumer Research Log, for example where stakeholder challenge has drawn on, tested, or responded to findings from consumer research.

Independent Stakeholder Groups

2.4 Each DNO should establish an Independent Stakeholder Group (ISG). The ISG will provide challenge and scrutiny to the relevant DNO both as it develops its business plan and on an enduring basis in the delivery of its plan. To ensure the ISGs can provide meaningful input to the development of the business plan, each DNO should have in place an ISG prior to this work being started. The ISG will have a role in ensuring the DNO engages widely and openly with its stakeholders. Engaging with its ISG is not a substitute for the DNO's engagement with its consumers, end users and other stakeholders.

2.5 It is for the DNO to identify which stakeholders it thinks are relevant and for the ISG to challenge this. We expect the ISG to act in the interests of consumers and stakeholders and will therefore play an important role in holding the DNO to account in respect of the delivery of its ED3 business plan. The ISG will therefore remain central both in terms of business plan development and on an ongoing basis throughout the price control (2028-33).

2.6 Each DNO will be responsible for:

- having in place an ISG and recruiting a Chair that acts in an independent capacity
- ensuring the ISG is appropriately resourced, eg by providing the necessary secretariat support, training and induction for members

- ensuring the ISG has access to relevant, timely, data, information and evidence which will enable it to provide meaningful input and challenge, including strategies, plans and information relating to its performance and culture. This input must be available sufficiently promptly for the ISG to provide effective scrutiny and feedback and for the DNO to be able to demonstrate how it considered the ISG's feedback in decision-making prior to final submission of the business plan
- providing the ISG with information and evidence that will enable it to monitor how consumers and stakeholders have been engaged and how any such engagement has affected the development of the DNO's ED3 business plan, the delivery of its ED3 business plan, and the DNO decision-making during the ED3 period
- providing the ISG with its vulnerability strategy, and social return on investment (SROI) data in respect of activities where baseline funding is sought to address consumer vulnerability
- ensuring the ISG has information about the value for money for customers, including but not limited, where possible, to the provision of clear bill impact data, of specific areas of funding
- ensuring the ISG has access to relevant data, information and evidence that will enable it to provide meaningful input and challenge in the development and/or review of individual licensees' ED3 Environmental Action Plans (EAPs)
- testing the quality and ambition of its business plan with the ISG
- providing comparative data from other energy network companies (including RIIO-ED2 performance data) and from companies in other relevant sectors and such other background data, that is publicly available, already held by the DNO, or co-ordinated by a suitable third party, as may be reasonably required and requested by the ISG
- provide the ISG with information on progress against delivery of business plan commitments and corresponding bill impact data for that spending
- establishing clear terms of reference and governance arrangements for its ISG and publishing them on its website
- ensuring its Board is fully engaged with the work of the ISG, and that this is reflected in the ISG governance arrangements

2.7 Each ISG is responsible for:

- testing assumptions, assessing trade-offs and providing views on how effectively stakeholder feedback has been considered

- providing scrutiny of the quality of stakeholder engagement and research undertaken by the DNO and determining how effectively key areas of concern to relevant consumers and stakeholders have been addressed in the DNO's business plan; the ISG is not expected to engage directly with stakeholders, nor comment on issues raised by stakeholders on specific schemes.
- providing challenge, scrutiny and advice in relation to the DNO's business plan during its development, including the completeness and quality of the business plan, according to the expectations and interest of stakeholders, and requirements set out by Ofgem, and monitoring the subsequent delivery of the plan
- encouraging change towards a culture of more consistent, relevant and effective stakeholder engagement by the company through scrutiny, challenge and monitoring of its engagement strategy, plans and performance
- providing insight and feedback to the DNO to allow it to act on this information and use it to inform decisions early in the process of business plan development and reviewing key strategies that materially affect consumers, eg vulnerability, interruptions, environment and connections

2.8 In addition, we may ask the ISGs to review specific areas of the business plans if we decide there is a particular need or significant consumer or stakeholder interest, and their view would aid our decision making in this area.

2.9 We do not expect ISGs to jointly develop the business plans, or to undertake drafting or editorial responsibilities. DNOs can request ISGs to formally review the business plan readiness for submission, if they identify a need, eg to identify any unresolved concerns.

2.10 We do not expect the ISGs to discuss or review specific financial topics, such as the cost of capital, treatment of debt or the level of gearing in the DNO. The DNO should provide sufficient financial and other information to the ISGs to enable them to understand the overall DNO risk and reward package proposed in the business plan. We do not expect the ISGs to undertake cost assessment or benchmarking. The DNOs should provide sufficient cost information to the ISGs to enable them to understand the overall totex package proposed in the business plan, including how efficiency and value for money are being demonstrated.

2.11 In addition, we do not expect the ISGs to scrutinise matters of cyber Information Technology (IT), Operational Technology (OT) or physical security upgrade plans (where relevant) with the DNO as these may involve sensitive information that it may not be appropriate to share with external parties.

2.12 The ISG does not have decision-making powers nor does it jointly 'own' the business plan submitted by the DNO. The ownership of the business plan sits entirely with the DNO, which is responsible for the decisions, plan content and final submissions. It is also for the DNO to undertake any necessary assurance processes.

2.13 As part of its business plan submission, the DNO should include a statement, written and signed by the ISG Chair, confirming the following, as a minimum:

- that an ISG has been established by the DNO with clear Terms of Reference (ToR), governance and membership in accordance with the BPG and that the ISG has been fully engaged in the development of the DNO's business plan
- that the DNO has provided the ISG with information and evidence that has enabled the ISG to monitor how consumers and stakeholders have been engaged and how this engagement has affected the development of the ED3 business plan
- that the statement is based on assessment carried out by the ISG, based on the information provided by the DNO

Membership:

2.14 The ISG Chair will be responsible for recruiting ISG members that are able to act in the interests of consumers who will be impacted by or benefit from the ED3 business plan, and decisions that stem from it in future years. They will have the ability, as a group, to scrutinise and challenge all aspects of the DNO's business plans (except for specific matters outlined in Paragraphs 2.10 and 2.11 above) and provide challenge and scrutiny to the DNO in the delivery of their ED3 business plans.

2.15 The membership should reflect the sector and include senior representatives with suitable knowledge and expertise to enable meaningful challenge and robust engagement with the DNO. Members should act in an independent capacity and not solely as a representative of a particular organisation or group of consumers or stakeholders.

2.16 The membership of the ISG should include some level of technical knowledge, experience of research and/or stakeholder engagement and consumer protection.

2.17 The ISG chair should engage with statutory consumer groups such as Citizens Advice and Consumer Scotland to ensure that where they wish to participate in ISGs on a permanent or ad-hoc basis, this is suitably facilitated.

2.18 The Chair should be appointed by the DNO and must act independently. The chair may act as a spokesperson for the ISG and may attend regular meetings with Ofgem.

ISG Terms of Reference (ToR):

2.19 The ToR for the ISG should clearly set out the membership, duration, scope, purpose, governance and expected outputs. It should be made clear in the development of the business plan that the ISG is not a decision-making body but should provide informed challenge, advice and scrutiny, to ensure the consumers' interest remains central and is accurately represented.

2.20 The ToR should contain details of how often the group is meeting, how records of meetings are kept, procedures for any potential conflict of interests, quorum and any other governance rules the network company deems necessary.[1]

2.21 Finally, the ToR should clearly set out the expected outputs of the ISG in relation to its duties and core purpose. Examples of this could include an annual work programme, log of recommendations to the DNO and an end of year report on delivery against the annual work programme. These are examples only and it is for the ISG to identify expected outputs, in collaboration with the DNO. The expected outputs should be clearly set out in the ToR.

2.22 Examples of expected outputs:

- support the DNO in commissioning good research and stakeholder engagement to inform the business plans, in line with the consumer research guidance set out below
- a log of recommendations provided to the DNO
- an annual programme of work, including details of actions and attached timescales
- an end of year report on delivery against the annual programme of work

2.23 We will adopt a framework within which Ofgem will engage with the ISGs to share insights and to provide feedback on progress.

Consumer research

Introduction

2.24 We want to ensure that the consumer voice is well represented and acted on in companies' business plans. We envisage two main pillars to support this

[1] ISG members should declare any potential conflict of interest prior to joining the ISG and following any relevant change in circumstances.

mission: (a) consistent, high-quality, meaningful research, and (b) improved transparency on how research findings inform DNOs' business plans.

2.25 In Appendix 1 we have set out some high-level guidance to help ensure consistency and transparency in research undertaken by companies. It sets out broad research principles and methodological considerations that DNOs should actively consider when developing their research programmes. We do not specify the types of research we consider to be appropriate for different topic areas. It is for each DNO to decide how it approaches its individual research programme.

(A) High-quality research

2.26 Developing a robust, balanced and proportionate research programme using a range of methods will allow DNOs to better understand the customer perspective and considerations. This ensures that the topic in question is thoroughly studied, consumers are asked the right questions, and their answers are appropriately collected and reported.

2.27 The purpose of the research should be to identify what is important to consumers and identify customers' views, needs and preferences to inform the development of DNOs' business plans. The impact of research on the business plan should be set out in the Consumer Research Log (Annex 3).

2.28 Throughout this process, the approach to consumer research, alongside a topline of findings and the impact on the business plan should be scrutinised by the individual DNO's ISG. The purpose of the Consumer Research Log is to evidence how the consumer voice, preferences and views on trade-offs have been understood and incorporated into business plan proposals. Where relevant, the 'Impact on Business Plan' section of the Consumer Research Log may refer to evidence recorded in the Stakeholder Engagement and Decision Log, for example where consumer research has been undertaken to explore, test or respond to issues raised through stakeholder engagement.

(B) Improved transparency and collaboration

2.29 We expect the DNOs to demonstrate how the research findings are used for the benefit of the consumer and the DNO. Developing a clear process which demonstrates how research insights are embedded into the business plan closes the loop that begins with the research question. It evidences the value of the research and how its' findings will be acted upon, helping to ensure that the consumer voice meaningfully influence outcomes.

2.30 Research findings should be reported in a manner that is clear, specific and unambiguous. Ideally research reporting should conform to standard scientific and social research standards. For example, quantitative reporting should include clear information on statistical significance, where relevant.

Evidencing research findings

2.31 We expect DNOs to demonstrate how all their research findings have been used and influenced decisions within the business plans. Building on the RIIO-3 requirements around stakeholder engagement, we would like DNOs to provide a similar log detailing their research activities.[2] This should include:

- a full list of all research projects commissioned (including titles)
- specifics of the research aims, objectives and research questions
- rationale for the chosen research topic (what business areas are informed and why research was needed)
- limitations identified in the research
- indication of whether the work was collaborative or DNO commissioned individually
- details on how findings and outputs were quality assured
- how the research findings influenced the business plan. If they did not, this should be explained
- the ISG's involvement in assessing the research and its view on the approach, findings and use
- a link to the research output, which should cover: topline research findings or executive summary; research methodology and rationale; target population, sampling and rationale; diversity, inclusion and ethical considerations

2.32 We expect consumer research carried out for ED3 business planning to be published. Instances where publication is not feasible or appropriate will be considered on a case-by-case basis. See Chapter 9 for information on publication and redaction requirements.

A more collaborative approach on specific research areas

2.33 We also consider that there are research areas of joint interest across the industry, where a more collaborative approach amongst DNOs would be beneficial to all. Working together will increase consistency in approach, allow for more comparable findings and reduce potential duplication of work. Where collaborative research has been undertaken and the findings have informed the development of the business plan, this should also be noted in the Consumer Research Log.

[2] See template in Annex 3, the 'Consumer Research log'.

3. Investing for the energy transition

Introduction

3.1 The energy transition will require DNOs to ensure that network capacity and resilience keep pace with rising electricity demand from the electrification of heat, transport, industry and the growth of distributed generation.

3.2 In ED3, we have set an expectation that the distribution networks should be planned for longer-term need, with the transitional Regional Energy Strategic Plan (tRESP) providing a key strategic input to support consistent, transparent planning across Great Britain.

3.3 This chapter sets out our guidance for how we expect DNOs to develop well-evidenced plans that support the energy transition and protect consumers through efficiently timed investment. It first covers how we expect DNOs to develop projections of future demand and generation for their licence areas out to 2050, using the tRESP outputs alongside DNO-defined building blocks to develop long-term energy projections for their licence areas. We then provide guidance on how the DNO should use those projections to produce a load related expenditure (LRE) plan for ED3.

3.4 As part of its ED3 business plan, we expect the DNO to submit an LRE annex setting out its ED3 load-related expenditure (LRE) plan, including supporting justification and the additional requirements specified in this chapter for inclusion within the LRE annex.

3.5 We also expect DNOs to prepare a stakeholder-facing Long-term Integrated Network Plan (LINP) as a separate strategic summary document.

Long-term energy projections

3.6 In this section we set out our expectations on the inputs that the DNOs should use to develop their energy projections out to 2050. The aim of this guidance is to improve the consistency in the long-term energy projections developed by the DNOs and used in their network planning for new load in ED3 and beyond. For other areas of investment within scope of the LINP, the DNO should refer to the appropriate guidelines set out in elsewhere in the BPG.

tRESP outputs

3.7 In January 2026, NESO published the tRESP for Wales, Scotland and nine English regions. The tRESP outputs are available on NESO's website and comprise four main components: [3]

- nations and regions context - a view of the energy landscape, as well as the priorities for each nation or region, highlighting key challenges and opportunities
- pathways defined in building blocks - a set of projections to describe the adoption of key electrical energy demand and generation technologies annually to 2050, at a distribution level per tRESP Grid Supply Point (GSP) areas across the RESP nations and regions
- Consistent Planning Assumptions (CPA) - model and technical assumptions set out in the tRESP 'Consistent Planning Assumptions: Methodology and Detailed Design' ("tRESP CPA methodology") to derive the demand and network loading in three key areas, electric vehicles (EV), domestic heat pumps (HP) and domestic electrical energy efficiency
- Strategic Energy Needs (SEN) - geographic areas where proactive investment should be considered for strategically important developments eg major new industrial development, freeports and data centres and are not covered by existing distribution connection agreements or by the tRESP pathways

3.8 In addition, NESO has also produced three user guidance documents for the DNOs. The first is separate document called the 'tRESP Consistent Planning Assumptions: Methodology and Detailed Design Appendix 4 User Guidance for Specific CPA values',[4] ("CPA user guidance") which sets out how DNOs should apply the technology specific CPA when developing their load projections. The second is 'Appendix 4 User guidance to DNOs on use of tRESP Pathways', within the 'tRESP Pathways Methodology and Detailed Design'.[5] The third document, 'tRESP Strategic Energy Needs User Guidance to DNOs March 2026' ("SEN user guidance"),[6] advises DNOs on the use of the tRESP SEN to inform anticipatory investment in their network plans for ED3.

Using tRESP in licence area energy projections

3.9 The DNOs should use the tRESP demand and generation pathways, the tRESP CPA and the tRESP SEN outputs, all in accordance with the user guidance listed

[3] https://www.neso.energy/what-we-do/strategic-planning/regional-energy-strategic-planning-resp/transitional-regional-energy-strategic-plan-tresp
[4] tRESP CPAs Methodology and Detailed Design Appendix 4.pdf
[5] Appendix 4 of tRESP Consistent Planning Assumptions Methodology and Detailed Design_0.pdf
[6] Provided directly to DNOs from NESO, in March 2026.

in the previous paragraph, alongside other relevant energy need contributions to develop long-term energy projections for their licence areas. The projections that DNOs develop using the tRESP outputs is referred to in this guidance as the "load projection". This section sets out our expectations on how DNOs adopt and apply the tRESP outputs (finalised in January 2026).

tRESP pathways and spatial disaggregation

3.10 We expect DNOs to use the tRESP short-term pathways (2025 to 2034) and the tRESP Holistic Transition (HT) long-term pathways (2035 to 2050) for individual demand and generation building blocks at the GSP level relevant to their licence area out to 2050. We expect DNOs to produce load projections for their licence areas that reflect the tRESP Pathways and associated CPAs.

3.11 We expect that DNOs will not use the long-term Pathways for Electric Engagement and Hydrogen Evolution in the development of their licence area load projection. Instead, we expect DNOs will use these in sensitivity analysis, if this is merited to manage the impact of uncertainty and select interventions eg to help size solutions for the long-term (see the Network planning section).

3.12 To apply the tRESP Pathways (specified in Paragraph 3.10) for the purpose of network planning decisions, DNOs will need to disaggregate the tRESP Pathways from NESO's tRESP GSP areas to network topology, including allocating down to low voltage network assets where appropriate.

3.13 NESO has provided some high-level guidance and principles specifically for the disaggregation approach of domestic HP and EV demand from the GSP level to downstream network assets in tRESP Pathways Methodology and Detailed Design.[7] We expect that the DNO's disaggregation method will follow NESO's guidance in respect of these building blocks.

3.14 More generally, to ensure the spatial allocation of technology growth is representative of the regional context and local prospects for uptake at a granular level, we expect DNO's methodologies to be informed by bottom-up analysis of regional policies and development plans, stakeholder feedback, accepted connection requests and other regional data as appropriate.

3.15 We expect DNOs to document their methodology for disaggregating technologies volumes/demand at the GSP level and allocating to other voltage levels and submit this as a supplementary document alongside the tRESP assurance template (see the tRESP assurance requirements section).

3.16 For the avoidance of doubt, we expect DNOs to include the tRESP short-term and long-term HT demand and generation pathways, with no attrition assumed. We recognise there could be some circumstances where it is reasonable for a

[7] See the section in Appendix 4 "Disaggregation to other voltage levels and specific network assets".

DNO to depart from the tRESP and these are outlined in the Deviations from the tRESP section. If these departures from the tRESP pathways are significant to impact the GSP level projection, we expect the DNO to document the reasons for the deviations in the tRESP assurance template (see the tRESP assurance requirements section).

tRESP CPA and network impacts

3.17 We expect DNOs to derive the electrical load impacts on distribution network assets of the EV and domestic HP volumes in the tRESP Pathway using the technology-specific CPA developed by NESO and set out in the tRESP CPA methodology and tRESP CPA value workbook. DNOs should adhere to the relevant instructions in the CPA user guidance when applying the technology-specific CPAs.

3.18 NESO's CPA user guidance makes provision for DNOs to specify additional details to the CPA in some cases, where the added granularity reflects local variation within a licence area, is well-evidenced and the impact matches that of the CPA approach.

3.19 In addition, DNOs should adopt the CPA for improved energy efficiency of residential demand from lighting and appliances of existing connected domestic customers in the tRESP CPA methodology and apply this in accordance with one of the options set out in the CPA user guidance.

3.20 We expect DNOs to substantiate that they have applied the CPA including any allowed variation in the tRESP CPA methodology in deriving the network load impact in accordance with the CPA user guidance (see the tRESP assurance requirements section). Noting that the same CPA are applicable for both non-hybrid and hybrid heat pumps, DNOs should treat non-hybrid and hybrid domestic heat pumps in aggregate (Lct_BB005 and Lct_BB006).

3.21 For other technologies included in the tRESP HT pathways where a CPA has not been developed by NESO, we expect DNOs to model the network impact in line with the broad guidelines outlined in the section "Consistency where CPAs are not provided" in the tRESP CPA methodology.[8] We expect DNOs to document these modelling approaches clearly as part of supporting information for their licence area load projections and network impact assessment.

Strategic Energy Needs

3.22 For the tRESP, NESO has identified SEN within GSP areas across the tRESP nations and regions. SEN are potential energy developments that have been assessed by NESO against criteria including scale, contribution to the

[8] See page 5 of tRESP Consistent Planning Assumptions: Methodology and Detailed Design: tRESP Consistent Planning Assumptions Methodology and Detailed Design_0.pdf

decarbonisation goals and/or economic growth in a nation or region. These are detailed in the SEN data workbooks which NESO has shared with each DNO.

3.23 NESO has categorised three SEN outcomes:

- early stage or needs within the scope of transmission connections reform
- needs assessed as strategic to nation or region, although there is either uncertainty whether this will fall within the ED3 price control, or they already have sufficient certainty to be included in the tRESP Pathways
- needs within a GSP area to be considered for proactive investment, a smaller subset of the needs, assessed as strategic to nation or region and which should be considered for proactive (network) investment in the ED3 price control (which we refer to as "proactive investment SEN" in this document)

3.24 In addition, NESO has developed SEN user guidance which sets out:

- the interpretation of the three SEN outcomes resulting from applying the tRESP SEN methodology, completed in January 2026
- actions DNOs are expected to take for each SEN category (including where no further action is expected) and how and when these should inform DNOs' load forecasts and network planning for ED3
- additional support NESO will provide to assess the strategic value and uncertainty of additional needs against the tRESP SEN methodology if a DNO requests this

3.25 We expect DNOs to follow the SEN user guidance (finalised in March 2026). We also expect DNOs to submit data and documentation to confirm they have fulfilled their responsibilities concerning the SEN outcomes, as detailed in the SEN user guidance (see the Assurance requirements section).

3.26 The remainder of this section outlines our views on the treatment of proactive investment SEN in some specific contexts.

Interactions with connection rules, charging and boundaries

3.27 The purpose of proactive investment SEN is to provide a credible signal of future network need in anticipation of future connection requests so that DNOs can plan ahead and proactively invest in efficient reinforcement where that is justified and in consumers' interests.

3.28 For the avoidance of doubt:

- strategic investment in the network does not reserve capacity for any particular need
- customers associated with a proactive investment SEN are expected to make connection requests to DNOs in the future, in the usual way

- proactive investment SEN does not change the principles, definitions or connection boundaries, set out in the Connection Common Charging Methodology (CCCM)[9]
- DNOs are not expected, or permitted, to bring forward the installation or early funding of extension assets ie assets installed to connect a party or parties to the existing distribution network[10]
- any connection charges arising, relating to extension assets, would be calculated and levied on these customers in accordance with the existing regulatory framework, including CCCM

3.29 When a project comes through the connections process and takes up capacity that has been created through proactive investment SEN-driven reinforcement, the DNO should offer, and charge for, any connection sole-use assets under the usual connection-charging methodology, in the same way as customer connections that use available existing capacity.

3.30 Shared-use network reinforcement to create capacity based on a proactive investment SEN should not be recovered through an individual customer's connection charges. Instead, the DNO should record and report the reinforcement expenditure through the appropriate regulatory reporting route eg CV1 or the equivalent mechanism in ED3, in line with prevailing guidance.

Plausibility assessment of proactive investment SEN

3.31 NESO's SEN user guidance specifies a two-stage validation process for proactive investment SEN that DNOs should complete. In addition, we expect DNOs to assess the plausibility of proactive investment SEN it has validated, based on the reliability and maturity of the planning consent status and the level of financial commitment that the DNO has confirmed with the SEN representative. DNOs should include the plausibility assessment of proactive investment SEN in their LRE annex.

3.32 We expect DNOs to classify the plausibility of a proactive investment SEN as high when it has consents (or not required as within the scope of existing consents) and when financing has been finalised (eg internal investment approval granted and funding agreements executed). A medium plausibility rating should apply where projects are at an advanced stage of consenting, and material financial progress has been made but not yet completed (eg planning applications have been submitted and remain on track and finance heads of terms agreed). Where either consents or financing are at a preliminary stage (eg pre-application scoping only and indicative or conditional funding arrangements), the plausibility should be considered low.

[9] See Schedule 22 of the Distribution Connection and Use of System Agreement https://dcusa-cdn-1.s3.eu-west-2.amazonaws.com/wp-content/uploads/2025/06/26181842/SCHEDULE-22-v17.2.pdf
[10] See definition in Section 2 (Glossary of Terms) of the CCCM.

Timeline for validating proactive investment SEN

3.33 NESO's SEN user guidance does not set a timeline for when DNOs should complete the two-step validation process of proactive investment SEN. As stated in the SEN user guidance, the second stage of this process may reveal that a proactive investment SEN should ideally be associated with another GSP feeding area, which could require reassignment to a different licence area.

3.34 For this reason, it is important that the validation exercise is completed promptly to ensure a DNO has adequate time to incorporate a proactive investment SEN newly assigned to their licence area in their forecast development and network planning for ED3. Our expectation is that DNOs should finish the validation of proactive investment SEN published in January 2026 by the end of June. We note that a DNO may not be able to validate projects if representatives of the needs do not respond to a DNO's request. In such cases, the DNO should consider the project to have failed validation.

3.35 We expect DNOs to confirm to NESO by 10 July 2026 that they have completed the validation exercise for tRESP proactive investment SEN, in accordance with NESO's SEN user guidance, and whether it has identified any proactive investment SEN that require reassignment to a different licence area.[11]

Holistic network impact assessment

3.36 We expect DNOs to include proactive investment SEN it has validated into its licence area load projection. Where a large development area has been disaggregated into individual needs for SEN assessment, DNOs should also consider the combined effect of those needs in aggregate in its load projection.

3.37 We expect DNOs to assess the holistic network impacts of the load projection within the associated GSP area. This is to identify whether the existing shared-use distribution network has sufficient capacity to accommodate the combined needs of the proactive investment SEN and other energy needs in the load projection.[12]

3.38 The relevant question for the holistic network assessment is whether a reinforcement of shared-use distribution network is needed in ED3 to accommodate the additional load by the indicated dates.[13] Where reinforcement is required, we expect DNOs to include strategic network investment ahead of

[11] NESO and DNOs to agree the confirmation method.
[12] "Existing shared use" refers to the shared-use parts of the distribution system used by multiple customers, as opposed to sole-use connection assets. It does not imply an exclusion of new shared-use assets. Where reinforcement is required, it can include building new shared-use assets to meet the need indicated by SEN. However, it excludes single-use or extension assets for a single customer.
[13] 'Reinforcement' has the same definition at that given Common Connections Charging Methodology (see Paragraph 1.17 of Schedule 22 Distribution Connection and Use of System Agreement ie assets installed that add capacity (network or fault level) to the existing shared use distribution system.

connection agreements in its ED3 load plan provided it demonstrates the following:

- the plausibility of the proactive investment SEN included in the combined load forecast is medium or high
- that network capacity will be insufficient by the indicated date of the need
- the delivery lead time puts the reinforcement on the critical path, such that not proceeding with it in ED3 would mean that the need could not be accommodated by the target date
- for medium plausible proactive investment SEN only - in addition to the above, the reinforcement is low regret, for example a reinforcement scheme is needed for several investment drivers and the incremental investment directly linked to the proactive investment SEN is limited in scale relative to the overall scheme value, typically 40% or less

3.39 Where the plausibility of a proactive investment SEN is low or the incremental investment directly linked to a medium plausible proactive investment SEN is a larger share of the overall scheme value (eg greater than 40%), we expect DNOs not to include strategic network investment ahead of connection agreements in its baseline ED3 load plan.

3.40 However, we expect a DNO to consider if there are low-regret preparatory steps to protect consumers from making large commitments while maintaining progress on network readiness, for example by undertaking proportionate early-stage planning, design and consenting activities for reinforcement that would be required under a range of plausible outcomes, while deferring capital expenditure/construction commitments until uncertainty reduces. Where material investment could be needed but uncertainty remains, we expect DNOs to plan for this to proceed under the relevant uncertainty mechanism so that the additional investment commitment and delivery can be triggered once the needs case and cost are more certain.

Interactions with transmission

3.41 When validating proactive investment SEN, DNOs may find that accommodating some needs on the distribution network would be contingent on additional transmission capacity or transmission reinforcement. As delays in transmission upgrades can limit the effective utilisation of new capacity introduced to the distribution network, we expect DNOs to consider both the availability of transmission capacity and the potential timelines required for any necessary reinforcement, as well as the impact of securing transmission access on indicative connection dates.

3.42 Where transmission constraints are likely to pose a significant obstacle, it is reasonable for the DNO to defer or reconsider strategic investments within the distribution network for a proactive investment SEN. In such cases, we expect

DNOs to provide reasonable evidence to support their investment decisions, but this does not extend to the submission of speculative modification applications.

Deviations from the tRESP

3.43 There may be circumstances where it is necessary for a DNO to depart from using the tRESP outputs according to the expectations outlined in this document. In these cases, we expect the DNO to use the tRESP as the starting point and to explain why an alternative approach is more appropriate (and document this in the tRESP assurance template).

3.44 DNOs can translate volumes from the tRESP GSP areas into the GSP areas served by distribution network assets under the current and planned normal network arrangements in the licence area. This is not considered a deviation from tRESP. DNOs should complete the table in the tRESP assurance template to declare where they use an alternative GSP definition instead of the tRESP GSP areas.

3.45 For clarity we would see limited deviation reasonable in relation to the following areas.

3.46 A DNO may depart from the tRESP where adopting the tRESP outputs could compromise network security or risk breaching licence obligations.

3.47 A DNO may adjust the tRESP pathway technology volumes where any of the following apply:

- this is necessary to translate volumes from the tRESP GSP areas into the GSP areas served by distribution network assets under the current and planned normal network arrangements in the licence area
- where the DNO identifies a change in its 31 March 2025 baseline installed capacity, updated since the August 2025 Embedded Capacity Register used for the tRESP Pathways baseline, and only makes a change consistent with changes to installed capacity at that date as reported in its later ECR updates
- where NESO has issued a revision to the tRESP Pathway to a specific DNO for specific building blocks and GSPs due to an acknowledged error in either DNO input data or production of the tRESP Pathways[14]
- where customers are served outside of the licence area, by agreement with a neighbouring licence area
- where tRESP needs assessed as strategic to a nation or region inform spatial distribution of pathways and by exception accelerate the technology uptake in the pathway but not its overall magnitude

[14] As of 13 March 2025 only applies to one DNO licence area and two building blocks.

3.48 The proactive investment SEN that the DNO includes in the load projection for their licence area is subject to the validation exercise outlined in the SEN user guidance. This includes but is not limited to validation of the GSP allocation assigned in January 2026 that may alter to a different GSP area based on review of the point of connection to serve the need. NESO will maintain a list of proactive investment SEN based on the outcome of the DNOs validation processes. It is reasonable for the DNO to reflect those subsequent changes in the tRESP outcome for proactive investment SEN.

3.49 Similarly, the proactive investment SEN used by the DNO could differ to the tRESP finalised in January 2026 where a DNO proposes additional needs for assessment and these are given a 'needs to be considered for proactive investment' outcome. It is reasonable that the DNO should treat them with the same status in business planning as other needs with that outcome. NESO's SEN user guidance states that a DNO can request this assessment for a need assessed as strategic to a nation or region if the DNO has new information they consider would transition it to needs to be considered for proactive investment. In addition, DNOs may also propose new additional needs for assessment.

3.50 A DNO may deviate from the tRESP where it has robust evidence that local developments make the tRESP pathways or allocations materially inaccurate for the purpose of network planning. This may include:

- local plans such as a LAEP/LHEES that was not reflected in a DNO's November 2025 submission, where (1) the new information indicates a material difference from the level of uptake expected for the relevant GSP area under the tRESP Pathway, and (2) it is supported by a credible commitment, rather than aspirational
- installation data where observed data indicates a significantly different baseline level at the GSP compared to the tRESP pathway, and is demonstrably more accurate than the projection

3.51 We expect such deviations to be limited. If a DNO considers there is a case to depart more broadly from a tRESP pathway, for example, to manage the impact of general uncertainty around a particular pathway, this should not be treated as a deviation from the tRESP. Instead, such circumstances should prompt a more systematic approach including sensitivity analysis to inform the baseline setting plan for ED3 (see the Managing the impact of uncertainty section).

3.52 A DNO may also need to account for external constraints that materially limit the ability of the distribution network to accommodate uptake in line with the tRESP pathway, for example where upstream transmission constraints and a long lead-time for additional capacity inhibit distribution network development and therefore inhibit the uptake of low carbon technologies (LCT) relative to the tRESP pathway.

3.53 For large generation and storage subject to the connections reform process, the tRESP pathways reflect the 5 December 2025 Gate 2 outcome plus expected additional onshore wind requirements by 2035 to meet Clean Power 2030. There may, however, be limited circumstances where a DNO should accommodate a different generation pathway, including:

- where the connections process indicates that a project will connect via a new GSP rather than the existing GSP used for the pathway allocation, and the DNO has evidence that the new GSP connection is the correct planning basis
- where there are limited, evidenced changes to the Gate 2 cohort over time, including attrition before or after formal offers are made, and changes resulting from subsequent connections application windows that re-order projects and delivery further protected capacity
- to reflect detailed timing by year of expected connections, noting tRESP pathways were aligned in 2031 and 2036 with the Gate 2 outcome at the end of 2030 and end of 2035, with linear uptake outside those years
- to reflect a DNO's knowledge of project decommissioning, noting this was not reflected in the Gate 2 outcome

3.54 Rapid public charging facilities on motorways and the strategic road network may serve vehicles travelling between tRESP GSP areas. As indicated in the tRESP CPA methodology, DNOs may flag where connections data or SEN outcomes indicate potential higher contributions to demand than would otherwise be suggested by electric vehicle numbers per tRESP GSP area or disaggregated per primary.

3.55 We expect DNOs to document all deviations from using the tRESP as per the user guidance or expectations including those covered in this section, setting out the reasons behind them and how these changes might affect its load projection or network impact assessment (see the tRESP assurance requirements section).

DNO defined-building blocks and assumptions

3.56 DNOs will need to supplement the tRESP outputs with additional DNO-defined building blocks and assumptions to produce a licence area load projection for network planning. We expect DNOs to demonstrate that they have appropriately augmented the tRESP pathways where additional inputs are required.

3.57 DNOs should clearly set out the additional building blocks and energy load assumptions used in developing a licence area load projection in their LRE annex. This includes core demand growth not captured within the tRESP building blocks, such as net housing build and population growth for domestic demand and industrial and commercial (I&C) demand.

3.58 As a minimum, we expect DNOs to:

- outline each DNO-defined building block included in the licence area load projection, including its scope, and how it relates to or complements the tRESP building blocks (including confirmation that there is no double counting)
- explain the energy load assumptions used to translate the DNO-defined building block into electricity demand profile, peak demand contribution, including the profiling approach used and spatial allocation where relevant
- justify that the data sources and assumptions are appropriate for ED3 network planning - we expect this will involve considering a combination of criteria such as the reliability of the source data, its relevance to the building block in question, how current it is, whether it varies by location or season and if it is expected to change over time

3.59 Where appropriate, DNOs can reference relevant published DFES reports and methodologies.

3.60 In addition, we expect DNOs to outline how stakeholder engagement has informed the development of DNO-defined inputs eg from local authorities, devolved administrations, industry bodies, major customers and flexibility service providers.

Industrial decarbonisation and other strategic demand drivers

3.61 The process of industrial decarbonisation could also drive large, location-specific increases in electricity demand over ED3 and beyond, that could materially affect primary and higher voltage network capacity requirements. We expect DNOs to explain their approach and assumptions around the pace and scale of industrial decarbonisation in the LRE annex and its impact on electricity demand. This should include:

- an overview of the key sectors that are expected to materially affect demand within their licence area during ED3 and beyond
- whether there is any interaction with the tRESP SEN in the licence area and how this has been managed, eg identifying any overlaps between SEN outcomes and inputs from ED3 business planning engagement processes, and explaining how these have been considered and reconciled in developing demand assumptions

3.62 We expect DNOs to have regard to relevant government policy on industrial decarbonisation, including the direction of travel and associated ambitions, when developing and justifying their proposals.

Load projections

3.63 We expect DNOs to set out their licence area load projections in the LRE annex and to provide a clear summary of the main contributors to demand growth. As a minimum, we expect DNOs to include a comparison of key drivers contributing to peak demand out to 2050.

Network planning

3.64 DNOs will need to ensure local networks remain ready for the growing electrification of heat and transport. Network readiness should be achieved through a consistent and robust planning process that protects consumers from inefficient or poorly-timed expenditure and avoids unnecessary upfront build.

3.65 This section sets out our expectations for how DNOs develop high quality ED3 load-related expenditure (LRE) plans by following a structured network planning methodology from load projections to investment proposals. In summary, we expect DNOs to:

- apply the long-term load projections to network models to assess network impacts and identify constraints
- undertake efficient optioneering, including consideration of flexibility alongside reinforcement
- manage uncertainty so that baseline proposals focus on high confidence expenditure while additional investment can be triggered when needs are more certain

3.66 Companies should draw on both DNO and DSO capabilities in network planning. Further guidance on the role of the DSO in network planning is set out in the Smarter Networks chapter of the SSMD.

Network impact assessment

3.67 We expect DNOs to outline in the LRE annex how they have assessed network impacts and identified constraints. As a minimum, the DNO should:

- explain the process, including how the DNO moved from the load projection to asset-level impacts and the identification of network needs
- set out the key parameters evaluated, as relevant to the voltage level, including load flows, fault levels, EREC P2 compliance and voltage assessments

3.68 The DNO should also summarise in the LRE annex the key results from the network impact assessment that input to the optioneering stage. This should include characterising the:

- types of constraint (eg thermal, voltage, fault level, security of supply)
- voltage level

- scale (eg magnitude of exceedance and number of assets affected)
- timing and duration over ED3 and longer-term

Optioneering Build and Flex strategy

3.69 As set out in the SSMD, we have decided that DNOs should continue to procure flexibility services in ED3 where these are available and complementary to reinforcement. Flexibility can help the efficient optimisation of the existing network and/or to provide option value by deferring investment costs where the pace of demand growth is uncertain. We therefore expect DNOs to fully consider the opportunity to use flexibility when planning to meet future network requirements.

3.70 The DNO should include a Build and Flex strategy in their LRE annex. It should explain how the DNO will use reinforcement and flexibility to ensure their network is connection-ready without committing consumers to unnecessary upfront build. The Build and Flex strategy should:

- define the timing and quantitative triggers for intervention optioneering at each voltage level and how these reflect delivery lead times
- explain the approach to evaluating where flexibility services could provide the required capacity, including the use of the Common Evaluation Methodology (CEM) and the basis for inputs and assumptions (eg costs, volumes, availability and lead times)
- quantify the expected scale of flexibility availability in ED3 at each voltage and an explanation of how market depth and delivery confidence has been assessed
- set out the decision criteria for intervention selection, including (as relevant) need certainty, the persistence and scale of the constraint, whole-life cost, deliverability and lead times, resilience and security of supply considerations etc
- define the circumstances where reliance on flexibility is not in consumers' interests eg unacceptable resilience/security risk if managing high rates of exceedance
- explain how, where a build is preferred, the DNO has considered a touch the network once or future-proofing approach where cost effective, such as uprating an asset for the longer-term need or incorporating scalable design to allow for future expansion with reduced additional works

3.71 DNOs are not required to provide scheme-by-scheme optioneering in the strategy, but they should provide enough evidence to demonstrate how they have applied the approach in practice eg using representative constraint archetypes and illustrative examples.

Managing the impact of demand uncertainty

3.72 We expect DNOs treat tRESP-informed load projections as a strategic planning input to identify the scale and timing of network development needed to support the transition to net zero. However, there is a risk that actual demand growth turns out weaker in the ED3 period. In our view, the area where this downside risk could be most significant is the demand building blocks associated with domestic HP uptake.[15]

3.73 We expect DNOs to use sensitivity analysis to test the robustness of network interventions to these demand building blocks. The purpose is to distinguish between: a) interventions that remain required in ED3 even if domestic HP uptake is slower than projected (high confidence, low regret investment); and b) interventions that would not be required within ED3 under the sensitivity (lower confidence investment).

3.74 To avoid inconsistent approaches across DNOs, we expect DNOs to undertake a common sensitivity analysis and adopt the same decision rule. The approach should be proportionate and not overly complicated. For example, one potential simple way could be to test a slower pace of domestic HP uptake by applying a two-year lag to the aggregate tRESP building block for domestic HP and assessing the impact on the timing of the associated network constraint and reinforcement need within ED3. We will continue to engage with DNOs following publication of SSMD to agree a common sensitivity to be applied consistently across all licence areas.

3.75 We expect DNOs to use the outcomes of sensitivity analysis to make clear, consistent choices about which of the interventions identified under its load projection are included in ED3 baseline proposals, and which should be managed through uncertainty mechanisms and triggered if uptake materialises more in line with the projections. This should give confidence that the network planning process has translated into a ED3 load-related expenditure plan that reflects the degree of confidence in need, manages the impact on consumer bills and keeps networks connection ready.

Load-related expenditure plan

3.76 In the LRE annex, we expect the DNO to set out a ED3 LRE plan for each licence area based on its load projections. The LRE plan should describe the proposed package of reinforcement and flexibility interventions across the relevant load categories, including those to be funded through baseline allowances and, where relevant, through in-period uncertainty mechanisms.

[15] The sum of the tRESP domestic hybrid and non-hybrid heat pumps building blocks (Lct_BB005 and Lct_BB006).

Baseline interventions and funding

3.77 On the precondition that the DNO has robustly assessed the potential for flexibility to enhance capacity, we expect the DNO to include baseline funding requests in their LRE plan for the high confidence interventions that are identified through the sensitivity analysis.

3.78 In addition, we expect DNOs could make baseline funding requests for:

- the reinforcement required in ED3 for high and medium plausibility proactive investment SEN
- designing ED3 interventions to accommodate expected future demand growth, where doing so adds limited cost now but avoids more costly or disruptive upgrades later eg sizing a transformer required in ED3 for demand expected in ED4 to avoid needing another transformer upgrade
- to manage delivery constraints, for example where programme scale or supply chain capacity creates a material risk to timely delivery

3.79 In each case, the DNO should clearly identify where baseline proposals include proactive investment ie investment in advance of high confidence need, and explain the justification and evidence used.

Uncertainty mechanism funding

3.80 We expect DNOs to identify, for each category of low confidence intervention within their LRE plan, the most appropriate uncertainty mechanism from those specified in the Delivering networks for the energy transition section of the SSMD, and to explain their rationale. In SSMD, we have said that for EHV / 132kV interventions we are considering a contingent funding mechanism to enable funding to be released quickly where pre-defined investment drivers are met. For secondary reinforcement, we expect to retain a similar approach to the RIIO-ED2 secondary reinforcement volume driver but will continue to consider alternative mechanisms where there is evidence they would be more suitable.

3.81 For large capacity projects, DNOs should identify a project specific trigger for contingent funding mechanism and the basis on which investment would be expected to proceed within ED3. This should include the factors that would be expected to materialise to give greater confidence in need. Where specific triggers are known, the DNO should set these out clearly.

Use it or lose it funding

3.82 For large capacity interventions that are low confidence and proposed for uncertainty mechanism funding, DNOs may consider whether low-regret pre-construction funding should be included within ED3 as use-it-or-lose-it (UIOLI) pot to support delivery readiness. This may include preparatory activities such as planning, design and long-lead procurement where early action can

materially reduce delivery risk for reinforcement that may be required later in ED3 or in early ED4. We expect DNOs to demonstrate that any such funding requests are proportionate and deliver option value for consumers.

3.83 In developing their ED3 funding request for proactive unlooping programmes in their LRE plan, we expect DNOs to have regard to the potential use of a UIOLI funding approach.

3.84 In the LRE plan, we expect the DNO to provide a summary of their funding request across the relevant load infrastructure categories, including:

- CV1 infrastructure
- CV2 infrastructure
- CV3 fault level reinforcement
- CV4 new transmission charges

3.85 The DNO should provide a narrative for the interventions and type of funding requests in each load infrastructure category and how these relate to the expected pattern of demand growth and flexibility opportunity.

3.86 The DNO should also signpost where the detailed justifications sit in the business plan. This should include references to the relevant Engineering Justification Papers (EJPs), cost benefit analysis (CBA) and the relevant elements of the Business Plan Data Tables (BPDT).

3.87 Finally, we expect DNOs to briefly outline in the LRE annex the key risks and mitigations associated with its LRE plan, with a particular focus on deliverability and dependency risks (eg workforce, supply chain, outages, consents and interface with transmission). This should be proportionate and should not duplicate the detailed analysis provided in the ED3 Delivery strategy.

LRE annex requirements

3.88 The following are our minimum requirements for the areas that we expect DNOs to include in their LRE annex. While these are set out in this guidance, we have summarised these here to provide a clear single point of reference:

- plausibility assessment of proactive SEN (Paragraphs 3.31 to 3.32)
- DNO defined building blocks (Paragraphs 3.57 to 3.62)
- licence area load projections (Paragraph 3.63)
- network impact assessment (Paragraphs 3.67 to 3.68)
- Build and Flex strategy (Paragraphs 3.69 to 3.71)
- LRE plan (Paragraphs 3.76 to 3.86)
- key risks and mitigations (Paragraph 3.87)

Long-term integrated network plan

3.89 We expect each DNO to submit a Long-term Integrated Network Plan (LINP) as part of their ED3 Business Plan.

Purpose

3.90 The LINP should provide an accessible outline of the main investment drivers for the distribution network and the associated network developments out to 2050. In addition, it should aim to show that network interventions are integrated across:

- different investment drivers so that synergies from interventions that address more than one driver are explicit
- time to ensure consumer value in both the near-term and over the long-term energy transition
- geographic areas to provide a place-based view of future network development (where applicable) for local stakeholders

Scope

3.91 The LINP should cover network interventions the DNO plans to deliver in ED3, as well as indicative projections of the network development needed out to 2050 where this is specified in the LINP contents below.

3.92 The categories we expect DNOs to include in the LINP are:

- load related interventions to ensure the network can accommodate growing customer demand and generation
- asset risk interventions to manage the health and criticality of network assets
- resilience and environmental interventions to keep the network robust to external hazards and climate change and reduce environmental impacts

3.93 The LINP should focus on bringing together the different interventions to highlight their linkages, their dependencies, the progressive stages in network development over time and the spatial context for different interventions, where applicable.

3.94 Since each intervention category will have a specific strategy in the Business Plan, associated BPDTs and EJPs, we expect DNOs to direct stakeholders to supporting documents for further information on the topic rather than duplicate lots of detail in the LINP.

LINP content

3.95 Our minimum expectations for the LINP content are set out below. A DNO can go beyond the minimum expectations such as including extra information where this helps stakeholders understand their plans. However, where a DNO varies from the approach set out below, we expect it to cross-reference its LINP back to these minimum expectations so that we can readily identify where each element has been addressed. We also expect any variation to be appropriate to the purpose of the LINP, avoiding unnecessary complexity or duplication of detail that is better provided elsewhere in the Business Plan or supporting documents.

3.96 **Purpose**: A section to briefly outline the purpose of the LINP for stakeholders and where it fits alongside the Business Plan and other associated documents.

3.97 **Context**: In this section the DNO should set out their stakeholder and customer priorities and summarise the main drivers for the network intervention categories. We encourage DNOs to use concise data tables, charts and pictorials to convey the expected evolution in the investment drivers over the long-term. This section (and all the subsequent sections if applicable) should signpost where stakeholders can get detailed information on the DNO's investment driver analysis and its stakeholder engagement for ED3.

3.98 **Network interventions overview**: In this section the DNO should summarise the main network challenges arising in ED3 and beyond from the investment drivers as well as spotlight the key areas of network development needed to address these.

3.99 This section should also include a headline summary table of total expenditure for the network intervention cost categories (with a breakdown across the sub-cost categories eg Load related: totals for secondary, primary, faults, transmission connection charges). Ideally this would compare total forecast expenditure for ED3 against RIIO-ED2 allowances as well as indicative expenditure in future (ie ED4 at a minimum). This should be accompanied with a succinct commentary on the changes in expenditure levels between periods and on some of activities involved.

3.100 **Load-related interventions**: In this section the DNO should outline the load infrastructure categories that require intervention under their licence area load projection in ED3. In the summary, the DNO should cover each category proportionate to its share of total load intervention expenditure. We expect the DNO to briefly outline the intervention optioneering (including flexibility service tendering) undertaken at each voltage level.

3.101 The DNO should include a high-level table on its ED3 load intervention plan that shows baseline and uncertainty mechanism funding for the main intervention categories eg LV reinforcement, LV service cable upgrades etc well as the volume of interventions. The DNO should also depict the amounts of new

capacity / number of low carbon technologies that can be accommodated under the baseline and the total amount if additional load interventions proceed under the uncertainty mechanisms.

3.102 We also expect the DNO to include a table by licence area showing the volumes of equipment to be installed and capacity release at each voltage level, flexibility capacity contracted and the number of sites with flexibility related to the baseline load interventions.

3.103 **Asset management interventions**: In this section the DNO should summarise their ED3 intervention plan for asset modernisation categories, including the respective costs, ED3 risk reduction (if applicable), and/or other benefits. The section should also succinctly include key asset replacement volumes for each voltage level alongside a comparison to RIIO-ED2 volumes for each licence area eg by using column charts.

3.104 **Resilience and environmental interventions**: In this section we expect the DNO to summarise the interventions to increase the network's resilience, including to climate change and interventions to reduce the network's environmental impact over ED3. The DNO should include information on significant resilience and environmental programmes to be delivered in ED3 by licence area. For the purposes of this guidance, we define significant programmes as those with an estimated total cost of greater than £4 million. Ideally the DNO will outline, for each major intervention/programme, a short description of drivers and activity, the deliverables/volumes and the total expenditure.

3.105 **Linkages and synergies**: In this section we expect the DNO to summarise the linkages and synergies between the different network intervention categories within the LINP. In practice, many interventions will deliver benefits across multiple drivers, for example the majority of network interventions undertaken in ED3 to address load-related needs will also improve network reliability and resilience.

3.106 Similarly, asset replacement activities are an opportunity to future-proof the network, for example by uprating assets for future demand growth where the incremental increase in equipment size can be delivered at relatively low additional cost within existing replacement works. This creates additional benefits beyond asset risk management, including contributing to future load-related capacity needs and potentially other benefits such as reducing the costs of electricity losses which are borne by consumers.

3.107 While these additional benefits may not materially change the underlying network planning decisions, we think it is important that these are highlighted in the LINP.

3.108 At this stage, we do not have a preferred approach for how these synergies are quantified or presented in the LINP. We would like the DNOs to collaborate on developing a proportionate and consistent approach to reporting on the multi-benefits of interventions. Over time, this should improve transparency and a more complete assessment of consumer value as these synergies increase.

3.109 **Area-based view of ED3 network interventions**: In this section, we would like the DNO to provide an area-based overview of network interventions in the ED3 baseline. In practice, this should bring together planned interventions across different drivers within defined geographic areas. This could support the identification of opportunities to coordinate delivery and minimise disruption to local communities where multiple interventions from the DNO (and potentially other utilities) are delivered in proximity.

3.110 The area-based view should also support engagement with local stakeholders on planned network development within a given area, including how network investment aligns with local plans and expected demand growth.

3.111 We do not have a specific request for how this information is presented but we expect the DNO to provide a proportionate area-based summary of network interventions across its licence area. For example, this could give the number of planned interventions in a DNO-defined geographic area by year, by voltage level (HV, EHV), by driver (modernisation, reinforcement, resilience, environmental) over ED3. We would like DNOs to collaborate on developing a proportionate and common approach to presenting this information across the sector and to agree assumptions or definitions for compiling this information to support transparency and comparability. Where the location of some network interventions in the ED3 baseline is still to be determined, these should be omitted from this area-based view.

Format

3.112 We expect the LINP to be a standalone document (no more than 60 pages) for a DNO group.

tRESP assurance requirements

Introduction

3.113 As outlined in the Use of tRESP section, we expect the DNOs to incorporate the tRESP outputs (January 2026) in the development of a load projection for their licence area(s) that they use in their network planning processes to inform their ED3 business plans.

3.114 To assure these expectations are met, DNO should submit evidence of how it has incorporated the tRESP outputs into its load projection used for network planning. This evidence is referred to as the tRESP assurance submission.

3.115 NESO will review the tRESP assurance submissions to check the DNO's implementation of the tRESP outputs against the relevant expectations outlined in this document and NESO's tRESP user guidance (collectively referred to as "the tRESP guidance"). NESO will provide its assurance report to Ofgem and will also share a DNO-specific report with each DNO setting out the findings from its review of the tRESP assurance submission. We will consider these findings as part of our assessment of business plans.

3.116 This section sets out what DNOs must submit, when and how.

tRESP assurance submission

Purpose

3.117 The purpose of the assurance submission is to collect the necessary information for NESO to carry out the assurance checks of the DNO's implementation of the tRESP outputs against the expectations outlined in the tRESP guidance. The assurance involves NESO's review of DNOs' declarations of how they have used tRESP in their load projections, not a review of the detailed calculations, inputs and outputs of their load modelling systems.

Content

3.118 The tRESP assurance submission comprises of:

- an assurance template containing data tables that the DNOs must use to submit detailed information about how the tRESP outputs have been applied and variations/deviations declared - this includes the resulting values once the tRESP pathways have been broken down to network nodes within the tRESP GSP feeding areas
- supporting information as specified in the tRESP guidance, including a description of the methodology the DNO has followed to disaggregate the GSP values and spatially allocate to sub-GSP network assets
- additional supporting narrative on a DNO's approach to incorporating the tRESP outputs where (i) the tRESP guidance is not prescriptive, (ii) the DNO has used latitude within the tRESP guidance, or (iii) the DNO has justified why it has departed from the tRESP guidance

3.119 We expect DNOs to submit a tRESP assurance submission for each licence area. Where any part of the assurance submission is intended to apply across all licence areas within a DNO group (eg a spatial disaggregation methodology), the DNO should state this clearly and identify the licence areas covered.

Timing

3.120 We expect DNOs to submit a tRESP assurance submission for each licence area at the same time as the final ED3 Business Plan submission, in line with the Business Plan submission timetable set out in this guidance.

3.121 This timing reflects the nature of the information being assured. In particular, elements that inform DNOs' load projections, such as connections activity and the connections pipeline, can evolve materially up to the point of Business Plan submission. Aligning the assurance submission at the same time as the final Business Plan will avoid an artificial cut-off date for data and supports consistency between the load projection used for network planning and final Business Plans.

Instructions for completing the tRESP assurance template

3.122 DNOs must use the Microsoft® Excel tRESP assurance template provided as part of this publication when reporting specified information as part of the tRESP assurance submission. This ensures the DNOs submit data in a consistent format.

3.123 DNOs should not add or delete any cells or change the formatting in the template unless we have instructed DNOs to do so. In some cases, DNOs may need to add additional rows in the same format to complete the full scope of their submission. DNOs may save the submission template in the .xlsb format if needed to reduce the file size.

3.124 We expect DNOs to accurately supply data in the assurance template in accordance with the instructions that are provided in this section of the BPG and in the template.

3.125 The ED3 tRESP assurance submission forms a component of the ED3 business plan and is also within scope of the Data Assurance Guidance (DAG) submission relating to the business plan as a whole.

3.126 Cells in the assurance template worksheets are colour coded to reflect the action required. Unless otherwise stated, DNOs are required to input data in yellow cells.

Completing the assurance worksheets

3.127 **Cover sheet**: The DNO should select the licence area to which the submission relates and complete a separate submission for each licence area.

3.128 **Licence area GSPs worksheet**: The primary purpose of this sheet is to check that the tRESP GSP areas used by the DNO matches the published tRESP list for the licence area (Table 1).[16]

3.129 Table 2 facilitates the DNO to complete the assurance submission using DNO-defined GSPs under normal running arrangements instead of tRESP GSP areas if a DNO prefers to report values in the template using this option. The purpose of the table is to map the tRESP GSP areas to the associated DNO-defined GSPs. There is no requirement for a DNO to complete this if their preference is to report based on tRESP GSPs. DNOs could complete the assurance template based on the GSP definition that they use in their Grid Code Week 24 submission as that is an example of reporting in normal running arrangements; however there will be no check made against the GSP definition in the Week 24 submission, and DNOs may report based on different normal-running GSP definitions applicable to their licence area.

3.130 In Tables 3 and 4 the DNO should approximate the relationship between DNO-defined GSPs and the tRESP GSPs for tRESP building blocks that are mapped on a dwelling-based basis. For name-based building blocks the DNO should identify the tRESP GSPs that is associated with the DNO-defined GSPs.[17] Tables 3 and 4 only need to be completed if a DNO is completing the submission using DNO-defined GSPs. This is not intended to present the DNO's full spatial definition of connectivity and areas served.

3.131 Tables 5 and 6 ask the DNO for connectivity changes from current topology and split primaries (served by multiple GSPs) which are needed to reconcile values based on network running arrangements approximately back to the published tRESP GSP values.

3.132 **GSP demand pathway worksheet**: The purpose of this worksheet is to check the GSP values for each tRESP demand building block matches the corresponding tRESP GSP area (subject to adjustment for area served under normal running arrangements) and in aggregate sums to the tRESP licence area total in the years defined in the template.

3.133 The DNO should report GSP values for all tRESP HT demand building blocks except:

- domestic HP should be treated as sum of hybrid and non-hybrid (Lct_BB005 and Lct_BB006)

[16] See dfes_zones_to_tresp_gsp_areas_mapping.csv file published in January 2026, filtered by licence area.

[17] The mapping approach for each tRESP building block is set out in Table 5: Mapping used to map DFES projections for each building blocks to tRESP GSP areas in tRESP Pathways Methodology and Detailed Design: tRESP Pathways Methodology and Detailed Design_0.pdf

- Industrial and Commercial (I&C) air conditioning/heat pumps (Dem_BB005 and Lct_BB015) should be input once in either GWh or m2 (_1 or _2 version)

3.134 **Demand allocation worksheet**: The purpose of this worksheet is to check the volume of each demand building block allocated to downstream primary or allocated above primary, sums to the totals in the GSP demand pathway worksheet. The DNO should report the values for each demand building block allocated to primary substations[18] or allocated to a voltage above a primary within each GSP feeding area in the licence area. For primary substations which change GSP, these should be reported once with the GSP name changing in the year the primary moves. The DNO should input the same scope of HT demand building blocks that is defined for the GSP demand pathway worksheet.

3.135 The worksheet will also be used to check that the number of domestic HP installations and domestic customers on HP heat networks are not greater than the number of domestic customers served by the primary substation. The DNO should report domestic customer numbers by primary substations for the selected years in the final column of the table.

3.136 **Domestic HP disaggregation worksheet**: The main purpose of this worksheet is to check the spatial allocation of domestic HP is consistent with the DNO's spatial disaggregation methodology with reference to a sample of data. In Table 1 the DNO should select and define three existing primary substations with domestic customers that predominantly reflect an urban, suburban and rural setting. If operating an interconnected network, a DNO can propose a combination of two or three primary substations. In selecting these primary substations, the DNO should have regard to the purpose of the worksheet, and that the sample provides a fair demonstration of how its spatial disaggregation methodology is applied in practice.

3.137 In Table 2, the DNO should report the sum of hybrid and non-hybrid (LCT BB005 and LCT BB006) domestic HP it has assigned to existing and new secondary substations[19] that are downstream of the DNO-defined primary substations. The DNO should input the number of domestic customers served by each substation. The latter will be used to check that the allocation of domestic HP does not exceed the domestic customer numbers served by the secondary substation. Lastly, the DNO can allocate domestic HPs to connection above secondary substations where relevant, for example HV connected new housing developments.

[18] Defined as: A substation at which the primary voltage is greater than HV and the secondary voltage is HV (covers 132/11kV substations). See definition in the Regulatory Instructions and Guidance for ED2: Direction issuing the regulatory instructions and guidance (RIGs) for RIIO-ED2 | Ofgem

[19] Defined as a substation at which the principal voltage is HV or below.

3.138 Table 2 also contains spare columns for the DNO to include supplementary data on additional factors considered in its spatial disaggregation methodology, including granular datasets that are used to support allocation to secondary substations in this sample. For example, this might include data that capture suitability and adoption propensity such as property attributes and age, tenure, heating, new build projections etc.

3.139 **GSP generation pathway worksheet**: The purpose of this worksheet is to check the GSP sum of installed capacity for tRESP generation building blocks (ie in aggregate) matches the corresponding tRESP GSP area value (subject to adjustment for area served under normal running arrangements) and in aggregate sum to the tRESP licence area total in the years defined in the template. The DNO should report the total sum of all generation building blocks (embedded and grid scale) by GSP under the tRESP HT pathway for the selected years. Vehicle to Grid is included within this calculation, treated as negative capacity, as it is reported as negative in tRESP.

3.140 **Generation allocation worksheet**: The purpose of this worksheet is to check the total installed capacity of generation allocated to downstream primary substations or higher voltage network nodes are equivalent to the corresponding GSP total in the GSP generation pathway worksheet. The DNO should report the aggregate installed generation capacity (embedded and grid scale) allocated to each primary substation or connecting above a primary for each GSP feeding area in the licence area.

3.141 **Pathway deviations log worksheet**: The DNO should use this worksheet to record deviations from the tRESP pathways in modelling the load projection for its licence area. This should describe the variation from the tRESP pathway values, the reasons for the deviation and the estimated impact of it on peak demand or downstream allocations as relevant, compared to using the tRESP pathway value. Variations related to factors listed in Table 2 of the Licence area GSPs worksheet do not need to be further itemised as deviations eg reporting based on network normal-running arrangements, split assets, or changes in those network running arrangements.

3.142 **EV CPA and HP CPA worksheets**: The purpose of this worksheet is to check that the DNO has followed the CPA user guidance in the application of the tRESP CPA. The DNO should complete both worksheets. The first two questions ask the DNO whether it has applied the minimum process for each CPA that is outlined in the CPA user guidance and for a brief explanation on how this has been executed. We recognise that DNOs may need to express the minimum CPA process into an equivalent functional form to operationalise it in their model. In such cases the DNO should answer yes to applying the minimum CPA process and provide a short explanation in response to the second question.

3.143 Where a DNO has opted to apply an allowed variation from the CPA user guidance instead of the minimum process, it should select "No" to question 1 and complete questions 3 to 5 in the table to specify the variation, the data source(s) used in its implementation and show the equivalence mathematically, in words, or ideally both between its application of the allowed variation and the minimum process.[20] The worksheet may be used for a brief summary, and the DNO may signpost to further information in the variations and deviations log.

3.144 **EV07 diversity correction and HP08 diversity correction worksheets**: The purpose of these worksheets is to check that the EV07 and HP08 diversity correction CPA have been correctly applied. The DNO should complete both worksheets and provide the diversity correction factors applied at each primary substation listed in the Demand allocation tab for all selected years. For EV07, the DNO should input the diversity correction factors for each EV charging type. For HP08, the DNO should input the diversity correction factors for peak demand winter day only.

3.145 **EE CPA worksheet**: The purpose of this worksheet is to check that the DNO has followed the CPA user guidance in applying the tRESP energy efficiency (EE) CPA. The DNO should confirm it has applied the EE CPA and select the situation that best matches how the EE CPA was applied per voltage.

3.146 **Inputs to peak contribution worksheet**: The purpose of this table is to obtain additional data to approximate peak demand growth contribution from the EV and domestic HP tRESP Pathways and CPAs when combined with other data in the tRESP assurance template (noting that other factors will also affect peak demand). The DNO should also enter the half hour of time of winter and summer peak demand (from all sources not just EV and domestic HP) at primary substations, consistent with the definition of maximum demand in the Load Index (LI) submission.[21] This is required to identify the expected contribution to peak based on profiles generated from the applicable CPA.

3.147 The DNO should also input the percentage of primary peak demand in its Load Index submission which is associated with domestic appliance and lighting demand from existing customers. The trend between years will be compared to the trend in the energy efficiency CPA.

3.148 **CPA variations and deviations log**: The DNO should use this worksheet to provide detail on the allowed variations it has applied or any deviations from the tRESP CPA or the CPA user guidance in its licence area load projection. This

[20] Equivalence should be interpreted as showing that the DNO-calculated weighted mean across all the level of granularity the DNO has applied in the licence area is equal to the default value for the CPA.
[21] Load Index (LI) maximum demand is defined as: the calculated maximum demand for use within the derivation of LI ranking and LI risk points. This is calculated as the observed maximum demand adjusted for the weather correction, measurable DG latent demand and non-firm demand. See: RIIO-ED2-Annex-E-Reinforcement.pdf

should describe the deviation, the reasons for the deviation and the estimated impact of it compared to using the default CPA (or allowed variation).

3.149 **Needs assessed as strategic**: The purpose of this worksheet is to capture whether a DNO's load projection for its licence area reflects needs assessed as strategic to a nation or region (January 2026) that are relevant to the DNO's licence area. DNOs should not include SEN to be considered for proactive investment in this worksheet.

3.150 The SEN user guidance (March 2026) highlights that there is no presumption that a DNO's load projection should incorporate needs assessed as strategic to nation or region. However, there could be reasons it is included, eg a connection has subsequently been agreed, or it is represented by other building blocks developed by the DNO such as I&C demand. Where it is incorporated, the DNO should explain the basis and where it is reflected in the full energy projection.

3.151 **Proactive investment SEN**: The purpose of this worksheet is to record the results of the two-stage validation exercise that the DNO has undertaken for all proactive investment SEN (January 2026) in accordance with the SEN user guidance. It also asks the DNO to report if there is any associated proactive investment planned in ED3.

3.152 The DNO should list all tRESP proactive investment SEN (using the Unique ID) identified in the tRESP for its licence area, and any additional post-tRESP SEN output. The DNO should complete the worksheet to record the outcome of the initial validation exercise it has undertaken in accordance with NESO's SEN user guidance.

3.153 If a proactive investment SEN fails the initial validation, the DNO should enter one or more criteria which the project has not met (from the list provided).

3.154 The DNO should record the status of consents and financing, as confirmed by the representative of the proactive investment SEN, and provide a brief note of the relevant milestones achieved outlined in the plausibility assessment section in this guidance.

3.155 The DNO should also confirm whether or not it has considered proactive investment for a validated SEN and briefly explain if proactive investment is not needed or is not suitable to proceed in ED3. For example, in the former this could be because it is not needed because network capacity is expected to be available at the indicative connection date. In the latter, it may not be suitable to proceed with a distribution network reinforcement in ED3 because it is dependent on a transmission upgrade that will not be completed until after the indicative connection date for the proactive investment SEN. In such cases, progressing the distribution reinforcement within ED3 would not deliver any practical benefit because the limiting factor is transmission capacity and the associated timescales for transmission reinforcement.

Other supporting information

3.156 Along with the data tables, the DNO should also submit a methodology statement for disaggregating the GSP values and spatially allocating to sub-GSP network assets. We note that NESO has provided guidance on disaggregation to voltage levels and network assets in Appendix 4 of the tRESP Pathways methodology, and guidance on specific CPAs in Appendix 4 of the tRESP CPA methodology (HP01 - split heat pump numbers by dwelling category, EV04 - proportion of charging by charger types, EV07/HP08 diversity-correction). We also have set out guidance on other factors we expect DNOs to consider such as local plans, policies and priorities to inform spatial allocation (see the tRESP pathways and spatial disaggregation section).

3.157 The methodology should be structured by building blocks or groups of building blocks, including but not limited to sections for EV (Lct_BB001 to Lct_BB004) and for domestic HP (Lct_BB005 and Lct_BB006). The methodology can explain the DNO's approach to completion of the example in Table 2 of the Domestic HP disaggregation worksheet. It may also comment on instances where "needs strategic to nations and regions" have affected spatial distribution of pathways.

3.158 Any additional information, beyond that outlined above, which is relevant to interpreting the submission or any deviations in the DNO's application of the tRESP outputs. This should be listed in the supporting information index.

4. Responsible and sustainable business

4.1 The guidance below sets out some specific areas of output development that should be set out in DNO business plans. However, this is not exhaustive, and DNOs should also refer to our ED3 Sector Specific Methodology Decision when developing their business plans.

Connections Strategy

4.2 Each DNO should submit a Connections Strategy with their business plan. This strategy should cover all connection types.

Purpose and principles of the Connections Strategy

4.3 The purpose of the Connections Strategy is for each DNO to set out a strategic vision of how they will deliver improved end-to-end connections outcomes for all connection customers in ED3. This should be submitted alongside their Business Plan.

4.4 In developing their strategies, DNOs should have regard to the findings of the Connections End-to-end Review (end-to-end review),[22] which identified key systemic issues where performance across distribution networks has, at times, fallen short of RIIO-ED2 baseline expectations at multiple stages of the connections process. The Connections Strategy should therefore translate the findings of the review, tailoring to the specific circumstances of their licence area, into specific commitments and performance improvements for ED3.

4.5 A DNO's progress against its Connections Strategy, will be detailed in its Connections Annual Report (CAR) to provide transparency, support stakeholder scrutiny, and function as a reputational incentive for DNOs on their performance. The CAR will comprise a commentary document and reporting of performance against key metrics and commentary. Guidance for the structure of the CAR will be detailed post SSMD.

4.6 For ED3, we will build on the RIIO-ED2 Major Connections Strategy, retaining its core principles and building on the baseline expectations (Appendix 2) to drive faster connections and deliver an enhanced customer experience, for all connection types. These principles are:

- principle 1: Support connection stakeholders by providing accurate, comprehensive and user-friendly information
- principle 2: Deliver value for customers by ensuring simplicity and transparency through the connection process

[22] Connections end-to-end review: updated proposals and next steps | Ofgem

- principle 3: Facilitate the delivery of timely and economical connections that meet customers' needs

Scope of the Connections Strategy

4.7 In ED3, the strategy requirement is being expanded to cover all connections, including Smaller Connections (both new as well as upgrades and access).

4.8 This reflects the expansion of the wider connections framework and incentive package being introduced in ED3, which recognises the increasing importance of supporting electrification and timely small-scale low carbon technology connections, and which includes a new incentive focused on upgrades and network access approvals for smaller connections.

4.9 The Connections Strategy should therefore set out how the DNO will deliver improved end-to-end connections outcomes in ED3 and should cover the full scope of connections activity, including:

- new connections, including smaller and larger connections
- existing smaller connections, requiring upgrades and or access approvals

4.10 DNOs are required to prepare a Connections Strategy only in relation to market segments where there is no effective competition LVSSA and LVSSB are excluded from competition testing but should be included within the scope of the Connections Strategy.

4.11 In competitive market segments, DNOs remain responsible for a range of the non-contestable connection activities. Therefore, the Connection Strategies should set out how they will deliver high quality outcomes for the non-contestable activities of connections in these segments.

4.12 DNOs should evaluate their draft strategy with ISGs and other relevant stakeholders.

4.13 The Connections Strategy should be submitted as an annex to the Business Plan and must be no more than 30 pages.

Contents of the strategy

4.14 In the Connections Strategy, DNOs should clearly describe how they will improve customer outcomes across the connections journey in ED3, and how these align with Ofgem's baseline expectations (Appendix 2) and the end-to-end review themes.

4.15 The strategy should include a stakeholder engagement summary, detailing the engagement done to understand challenges, and explain and how it has shaped decisions and commitments in the strategy.

4.16 The DNOs should set out a clearly articulated vision for addressing connections issues identified, identifying links between the proposed deliverables and the outcomes and the benefits these will deliver.

4.17 To support clarity and consistency, the structure of the Connections Strategy should use the end-to-end review themes as chapter headings. Theme 1 applies to all existing and new connections, Themes 2, 3, 4 and 5 set out principles that apply to all connections, but the specific measures within these themes are primarily targeted at new and larger connections. Theme 6 applies to all existing smaller connections that require Upgrades and Access.

4.18 In addition to addressing the end-to-end review themes, the strategy should also be developed in the context of the DNO's specific regional challenges and detail these. DNOs may therefore supplement their strategies with additional measures to reflect issues or priorities specific to their regions and operating contexts.

Overview of end-to-end review themes[23]

4.19 Theme 1: Improving visibility and accuracy of connections data, aiming to create greater alignment and standardisation of how all useful data is made available transparently to connecting customers and other interested parties, including third parties providing connection services.

- DNOs should explain and set out how they will improve the availability, accuracy and consistency of connections data to support better customer decision-making, improving the quality of applications and ensuring that connecting customers receive offers more aligned with expectations

4.20 Theme 2. Improved standards of service across the customer journey (not including 'existing - smaller connections').

- DNOs should set out how they will deliver consistent, timely and high-quality service standards across key stages of the connections journey

4.21 Theme 3: Requirements on networks to meet connection dates in connection agreements.

- DNOs should set out how they will improve the setting of credible, reliable and achievable connection dates, ensuring that they meet connection dates in agreements

4.22 Theme 4: Quality of connection offers and associated documentation.

[23] Theme 7 relates to Ofgem's consideration of determination requests submitted where network company processes have not resolved a dispute, along with the associated guidance for making such requests. This sits outside the scope of this BPG and is being addressed separately.

- DNOs should set out how they will improve the quality, clarity and usability of connection offers and supporting documents to provide clarity to customers. DNOs should explain how they will achieve this as application volumes and complexity increase

4.23 Theme 5: Ambition of connection offers.

- DNOs should explain how they will ensure that connection offers are ambitious but achievable and supportive of electrification, offering innovative connection offers where a viable connection date is unachievable

4.24 Theme 6: (Existing) Smaller Connections. This theme aims to ensure that smaller connection customers requiring upgrades or approvals, receive a prompt and consistent high standard of service, and ensure smaller connections are proactively made and facilitated to a high standard in a timely manner.

- DNOs should set how they will ensure that Upgrade and Access customers receive a consistently high standard of service, including timely approvals, upgrades and clear communication of enabling works
- DNOs should also set out what proactive/operational actions they will take to support more frictionless approvals/upgrades (ie installer education and information provision, proactive network investment, improved automation, ensuring sufficient workforce) where relevant
- DNOs should explain how increasing volumes of smaller connections will be managed without degrading the customer experience

Ongoing monitoring and continuous improvement

4.25 DNOs should set out clear and relevant performance measures for each of their commitments to enable stakeholders and Ofgem to assess progress in delivery of their Connections Strategies. Measures may include common, quantifiable metrics where appropriate, alongside qualitative or evidence-based assessments, or a combination of both. Measures must:

- be clearly linked to Ofgem's baseline expectations and/or E2E priorities
- be clearly defined and explain how they are calculated
- provide a meaningful indicator of success
- not duplicate the target-based metrics utilised in the incentive which includes Time to Approve, Time to Upgrade, Time to Quote and Time to Connect and LCT installer and customer satisfaction surveys in Smaller, and customer satisfaction surveys in Larger

4.26 Whilst the end-to-end review is ongoing, the next stage will focus on setting out requirements and obligations, building on the minimum standards we expect to

see. As such, we do not consider the ongoing nature of the review to limit DNOs' ability to produce a Connections Strategy, which should be centred on continuous improvement.

4.27 Subject to the new customer type taxonomy (to be developed jointly by DNOs, as specified in the SSMD, Paragraph 3.25), reporting should clearly differentiate performance by connection type and explain how insights from performance data and customer feedback are being used to drive continuous improvement across the full connections journey.

4.28 Finally, DNOs should indicate if in their view, a deliverable exceeds the baseline expectations and whether it will require additional funding.

Environmental Action Plans (EAPs)

4.29 This section provides our view of the minimum level of ambition we expect to be set out in the DNOs' business plans in relation to reducing and mitigating their adverse environmental impacts and contributing positively where opportunities exist.

EAP overview

4.30 Each DNO should submit an Environmental Action Plan (EAP) alongside its business plan. This should include the direct carbon impacts claimed in the Investment Decision Pack (IDP) submissions (eg leakage, Electric Vehicle fleet) and will include a list of all IDP 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

4.31 In their EAPs, DNOs should describe how they will mitigate and improve the environmental impacts of their networks. EAPs should encompass activities DNOs intend to undertake in ED3 to decarbonise the electricity distribution network and to reduce the wider impact of network activity on the environment. EAPs should explain the methodology used to assess the environmental impacts of the company's network and business plan.

4.32 Each DNO's EAP should set out the following:

- analysis of the significant environmental impacts arising from the DNO's network(s) activity
- the opportunities and challenges for addressing material impact areas
- an options analysis to identify the value for money of initiatives to reduce its environmental impact
- evidence that consideration of impacts is coordinated with the DNO's wider business planning processes and decisions

- evidence that wider stakeholders have been involved in the assessment
- the DNO's long-term overall targets/objectives for its network(s)' environmental impacts, beyond the ED3 period
- an assessment of the DNO's potential environmental impacts in ED3 without intervention, in comparison to its current impacts
- the role the DNO envisages playing in supporting the low carbon energy transition
- the deliverables, outputs, and environmental benefits the DNO proposes to deliver from implementing the EAP over ED3
- clear links between the impact areas it has prioritised in the EAP, the deliverables, and targets in ED3, and how these are linked to the DNO's long-term environmental targets/objectives

EAP baseline expectations

4.33 At a minimum, we expect the DNOs to substantively address the following environmental core impact areas in their ED3 EAPs:

- climate change mitigation, including the DNO's:
  - business carbon footprint (including Scope 1, 2 and 3 emissions)
  - sulphur hexafluoride (b_6) emissions and transition planning
  - net zero Science Based Targets initiative (SBTi)
  - embodied carbon in infrastructure and materials
- pollution and nuisance reduction, including the DNO's:
  - polychlorinated biphenyl (PCB)-related pollution
  - oil pollution, including fluid filled cables (FFC)
  - air pollution
  - PFAS policy development
  - noise pollution
- responsible resource use, including the DNO's:
  - resource use and waste reduction
  - supply chain sustainability
  - circular economy
- supporting nature
  - natural capital and biodiversity (including marine biodiversity)
  - visual amenity impacts

4.34 While the scope of the core impact areas is defined to ensure consistency, we recognise that it may not fully capture all the environmental issues faced by individual DNOs. Therefore, DNOs should also respond in their EAPs to material environmental impacts beyond the defined scope where these are justified by regional context, community priorities, local planning or legislative requirements.

4.35 Where a DNO considers the baseline expectation is not appropriate, the DNO should provide clear justification as to why this is the case. Where relevant, this should be supported by stakeholders and the DNO's ISG.

4.36 As part of our baseline expectations, DNOs should set specific, measurable, achievable, relevant and time-bound (SMART) targets and appropriate milestones for each impact area as part of their EAPs. To ensure consistency and comparability, where possible, DNOs should use common, standardised data metrics, definitions, methodologies, scopes and reporting formats when setting SMART targets and milestones.

4.37 While most impact areas align with well-established elements of the DNOs' environmental responsibilities and activities, we recognise that others are less mature and/or more innovative. We will consider such activities to be emerging areas of environmental interest, with associated development metrics where appropriate. As such, we will require the DNOs to develop a consistent reporting pilot before and during ED3, and commit to converging on a single, common approach by year 3 of ED3.

4.38 We expect DNOs EAPs to set out consistent baseline expectations and use standardised metrics for target setting and reporting, where possible. Following publication of the SSMD and BPG, we will continue to engage collaboratively with stakeholders to develop, define and set baseline expectations for the DNOs' EAPs and wider business plans, including standardised metrics for target setting and reporting. This will include determining which impact areas should be considered as emerging areas of environmental interest. These baseline expectations will reflect the minimum level of ambition we expect companies to demonstrate for individual impact areas, unless otherwise stated.

4.39 We acknowledge that the timely determination of baseline expectations and associated metrics is critical for the development of the DNOs' business plans and EAPs, and we commit to communicating final baseline expectations to the DNOs over the summer of 2026.

EAP Structure and Content

4.40 To improve consistency and comparability, the DNOs should collaboratively develop a common EAP template and structure. In addition to the elements outlined in 4.32, this should include, at a minimum:

- an Executive Summary
- an ED3 targets dashboard
- details of the commitments, prioritisation, actions and costs associated with each impact area under the following headings:
  - climate change mitigation
  - pollution and nuisance reduction

  - responsible resource use
  - supporting nature

4.41 We acknowledge that the content of EAPs may be detailed and complex. However, we expect the DNOs to ensure that the EAPs are, in so far as is possible, accessible for stakeholders to engage with.

4.42 To facilitate insight into decision making, the DNOs should collaboratively develop and implement agree a common structured and criteria-based approach to prioritising EAP actions. This should clearly set out the DNOs' approaches to identifying the potential measures to address each EAP impact area and apply a clear set of prioritisation criteria to determine which actions are taken forward in the EAP.

4.43 The DNOs must evaluate potential measures using a clear and transparent set of common criteria, which could include:

- materiality of impact (environmental benefit associated with the action)
- cost-effectiveness (cost relative to the expected environmental benefit)
- regional relevance (appropriateness given environmental characteristics of the licence area)
- mitigation maturity (progress to date and whether the action addresses a gap or emerging issue)
- practicality/feasibility (technical feasibility and operational deliverability in ED3)
- stakeholder value (alignment with stakeholder priorities)
- immediacy of impact (when the benefits are expected to be realised)
- secondary benefits (how the measures will benefit other aspects of the Business Plan)
- alignment (consistency with environmental and sustainability goals, net zero targets, cross-sector priorities, local planning or legislative requirements)

4.44 This list is not intended to be exhaustive, and DNOs should work collaboratively to develop common prioritisation criteria.

4.45 DNOs should also collaboratively identify best practice to facilitate knowledge-sharing and create a sector-wide reference baseline. In presenting their reasoning for prioritising actions, the DNOs should demonstrate how their proposed actions align with this best practice or justify departures, for example, for local context or innovation.

4.46 For each defined impact area, DNOs must set out a concise list of potential measures that could be deployed in ED3, including sector-wide best practice measures and measures that reflect DNO-specific opportunities. These measures may include (as relevant) proven technologies, engineering solutions,

operational improvements, administrative practices and collaborative initiatives. The DNOs may set out additional measures beyond those listed, for example, where justified by local context or emerging risks.

4.47 Using the common criteria and best practice, the DNOs must clearly explain the measures which have been prioritised in their EAP, the most appropriate alternative measures which have not been prioritised, and the reasons for these decisions. To avoid an overly onerous and mechanistic approach, DNOs should only apply the criteria relevant to each EAP impact area which supports transparent decision making and provides a coherent narrative of trade-offs and rationale.

4.48 The DNOs must provide a proportionate evidence base to support their prioritisation decisions, such as baseline performance data, benchmarking, stakeholder input, feasibility considerations, and cost and risk information. Where non- monetary benefits are difficult to quantify, the DNOs should provide a transparent qualitative justification and, where possible, use proxy metrics or structured principles.

Annual Environmental Reports

4.49 A DNO's delivery progress against its EAP commitments should be detailed in its Annual Environmental Report (AER) to provide transparency, support stakeholder scrutiny, and function as a reputational incentive for DNOs on their environmental performance.

4.50 The AERs will comprise a commentary document and a standardised dashboard of key performance indicator (KPI) metrics (including absolute and relative metrics) for each impact area to assess performance in period. We will continue to work collaboratively with stakeholders post-SSMD to develop common and consistent KPI metrics, definitions, methodologies and scopes to enable delivery performance insights and effective cross-DNO comparison.

Vulnerability strategy

4.51 Vulnerability will continue to be a critical area of focus for DNOs in ED3. In developing their business plans, DNOs should provide a Vulnerability Strategy. This strategy should be built around the four primary areas of focus for vulnerability in ED3:

- Priority Servicer Register (PSR) reach and support
- social value - Fuel poverty and low carbon transition

- support during a storm or interruption[24]
- medically dependent on supply

4.52 The strategy should also address the eight objectives to support the primary areas of focus:

- maximise the number of eligible people that are signed up to the PSR, through promoting and maintaining the PSR
- ensure the right people are on the PSR and DNOs to take all appropriate steps to understand the specific requirements of PSR customers so that they can tailor the services accordingly
- provide support to those in fuel poverty and at risk of being left behind in the energy transition
- provide support to those on the PSR during interruptions
- provide additional protection to those medically dependent on supply, by understanding the requirements and arrangements that are in place to support them during loss of supply, and facilitate this support if not already in place
- identify areas where collaboration will lead to improved consumer outcomes
- ensure the support provided is of a high standard and that feedback is captured in a meaningful way
- ensure DNOs report on progress against commitments and targets in a transparent and consistent way

4.53 DNOs should set out in their strategies how they will support vulnerable consumers with regard to the four primary areas of focus. Further in this section, we have set out a requirement for a Targeted Customer Storm Support Strategy (TCSSS) in relation to support provided during named storms. However, we still expect the vulnerability strategy to set out how the DNO will support vulnerable consumers during interruptions more widely (including if that interruption is caused by a named storm). The TCCSS should set out what additional support will be provided where the interruption has been caused by a named storm.

4.54 Within the four primary areas of focus, DNOs should identify prevalent issues relating to vulnerability within their geographical areas and set out their proposed approach to addressing the issues. Each DNO's vulnerability strategy should set out clear deliverables on how it plans to support vulnerable customers. To ensure consistency in the approach, deliverables should be

[24] Please note we also want DNOs to submit a Targeted Customer Storm Support Strategy for activities in relation to named storms. We still expect there to be a reference in the vulnerability strategy to how the DNO will support vulnerable consumers during an interruption.

SMART. The vulnerability strategies should also provide a clear link between the deliverable outcome and the benefits proposed.

4.55 As set out in the objectives above, we expect DNOs to effectively support consumers in vulnerable situations through the management, promotion, and maintenance of a PSR and we expect DNOs to use the data available through the management of the PSR and partnership opportunities to identify and deliver support to vulnerable consumers. This will enable DNOs to understand new forms of vulnerability, by identifying blockers to participating in a smart flexible energy system.

4.56 The vulnerability strategies should not be developed in isolation and DNOs should engage widely with their stakeholders. DNOs should use the knowledge and expertise developed through partnerships that have emerged through their work on the Consumer Vulnerability Incentive (CVI) to ensure the vulnerability strategy is tailored to the consumer needs. In this process, DNOs should evaluate their draft strategy with partners, ISGs and other relevant stakeholders. We also expect DNOs to embed the approach to protecting the interests of consumers in vulnerable situations throughout DNO's operations to maximise the opportunities to deliver support.

4.57 The vulnerability strategy should cover the DNO as a whole, ie it should not be submitted for an individual licensee level. We recognise there might be differences within a DNO's region and where there are issues identified on a licensee level, this would be clearly set out. However, we expect all licensees within a DNO group to have an overall joint approach to supporting vulnerable consumers.

Collaboration

4.58 We recognise that vulnerability is complex and presents challenges that can't be solved by a single sector or DNO. We have seen the positive impact on consumer outcomes of how joint effort fosters sharing of best practice and brings in different perspectives. We therefore expect DNOs to include in their strategies a section which sets out details on projects where DNOs have identified opportunities for collaboration. We expect there to be collaboration between DNOs, but also with other sectors, such as gas, water and telecoms, where there are opportunities to do so.

4.59 We expect DNOs to identify areas of collaboration where this would lead to improved consumer outcomes. This should enable sharing of best practice, including data sharing and improving data quality and use. Where it is possible and appropriate to do so, the collaboration projects should also focus on opportunities for innovation and areas where awareness and 'call to action' campaigns would further support consumers. We expect DNOs to build on the

partnerships and collaboration developed during previous projects and price controls

4.60 While we expect DNOs to set out the projects that will have the most benefit in terms of cost efficiency and consumer outcomes, it is important that consumer groups and representatives are engaged with as part of this process, to ensure the consumer voice is embedded throughout. This section should be presented as part of the individual vulnerability strategy and form part of the business plan submission.

Structure

4.61 The vulnerability Strategy, including the collaborative element, should be submitted as an annex to the business plan and be no more than 35 pages. It should follow the below structure:

- an executive summary
- an overview of research and stakeholder engagement that has impacted on the strategy
- a section detailing vulnerability within the relevant region, including on a licensee level, if applicable
- a section setting out the commitments and deliverables on how the DNO will address vulnerability, clearly linked to the benefits they will provide, using the SROI methodology as appropriate
- a section detailing how the DNO will deliver against commitments and deliverables identified, these should be SMART
- a section detailing areas the DNO has identified where collaboration will add value and lead to improved consumer outcomes
- a section detailing how the strategy and approach could evolve over the ED3 period

Targeted Customer Storm Support Strategy

4.62 Storms are expected to become more frequent and severe, and without additional interventions and support, consumers could become adversely affected in these events. This is particularly concerning for customers in vulnerable circumstances.

4.63 This guidance follows on from the requirements set out above for the vulnerability strategy. To be able to provide additional support in relation to storms, particularly to vulnerable customers, DNOs should create a Targeted Customer Storm Support Strategy (TCSSS) as part of their business plan submission. This strategy should be focused on how each DNO plans to support vulnerable consumers before, during and after storms, but can also include

activities to cover consumers more widely, eg where activities relate to community support and wider customer welfare.

4.64 For the purpose of this strategy, we would consider there to be a storm when a low pressure system looks to bring significant impacts and it has the potential to cause disruption or damage (including the likelihood of this happening) which could result in an amber or red warning, and is named by the Met Office as such. Interruptions caused by any other reason should be covered in the vulnerability strategy.

4.65 The requirement of a TCSSS is one deliverable against the primary areas of focus related to support during a storm or interruption and those that are medically dependent on supply, including the relevant objectives, as set out in the Vulnerability Strategy above. This strategy is in addition to the Vulnerability strategy, as it will cover support specifically provided to consumers in the event of a named storm. The TCCSS can also include activities to cover consumers more widely where this is also beneficial to vulnerable consumers. However, for the avoidance of doubt, the support provided through the vulnerability strategies should also be applicable during named storms to vulnerable consumers as a minimum.

4.66 DNOs should set out in their strategies how they intend to provide support in the event of storm-related interruptions. Where the DNO makes a reference to supporting those that are medically dependent on supply, it should be made clear that the DNO will take reasonable steps to understand the arrangements that are in place (eg provision of battery packs) and facilitate this support, if not already in place.

4.67 Initiatives should be aligned to one or more of the following themes:

- preparation and proactive planning
- communication
- community support
- direct support/interventions for medically dependent customers
- wider customer welfare
- collaboration with other utilities/organisations
- data sharing and improvement

4.68 The TCSSS should not be developed in isolation and DNOs should engage widely with their stakeholders. It should draw on existing research to support the proposed activities. DNOs should use stakeholder engagement and research to evidence how they have selected the customer groups most at risk during prolonged power outages.

4.69 The TCSSS should cover the DNO as a whole, ie it should not be submitted for an individual licensee level. We do recognise there might be differences within a

DNO's regions and where there are issues identified on a licensee level, this should be clearly set out.

4.70 Each DNO's TCSSS should set out clear deliverables. To ensure consistency in the approach, deliverables should be SMART. The TCSSS should also provide a clear link between the deliverable outcome and the benefits proposed.

4.71 Alongside the clear deliverables, DNOs must provide evidence of the associated additional value to consumers. We expect this evidence to be quantitative and independently substantiated. Any funding requests for activities should be justified using a common methodology to determine the monetised value associated with the proposals. The principles of a common Social Return on Investment (SROI) methodology should be used by all DNOs.

4.72 The strategy should be no more than 15 pages and follow the below structure:

- an executive summary, which includes a narrative detailing regional challenges
- an overview of consumer research and/or stakeholder engagement which has impacted on the strategy - this should include engagement with the ISGs
- details of deliverables, with a clear link between the outcomes and benefits it will generate - this section should also include details of SROI methodology showing the value delivered through this strategy
- details of any key projects where the DNO has worked closely with other sectors or organisations
- a narrative detailing any additional cost associated with this strategy, outlined by the following four types, for each year of the price control:
    - cost associated with the preparation and proactive planning of storm support
    - cost associated with the support of medically dependent consumers
    - cost associated with community support and wider consumer welfare
    - cost associated with collaboration activities with other utilities/organisations

4.73 This strategy is one deliverable against the third primary area of focus in the vulnerability strategy – support during storms and interruptions. We will consider the overall funding for DNO activities related to vulnerable consumers and how this objective is best achieved, to ensure we have a holistic view of the objectives, deliverables and overall funding.

DNO role in low carbon technology and energy efficiency rollout

4.74 As set out in the SSMD, the DNOs will have an enhanced coordination role in ED3, supporting the rollout of LCTs through collaboration, the provision of data, and analytical tools. In Appendix 4, we set out our expectations for this enhanced role and the expected evolution of the guidance associated with SpC 9.13 (Smart Optimisation Output), which already captures some of these activities for RIIO-ED2.

4.75 The first outputs under the revised SpC 9.13 are expected to be required by 1 May 2028. DNOs should include in an annex, alongside their business plan submission a summary of their approach to meeting this enhanced coordination role based on the material included at Appendix 4, clearly setting out the activities that are considered additional to RIIO-ED2.

4.76 Where companies include costs within their business plan submissions to meet these requirements, they should clearly set out the scale of these costs and cross reference to the relevant section(s) of the BPDT.

5. Smarter networks

5.1 The guidance below sets out some specific areas of output development that should be set out in DNO business plans. However, this is not exhaustive, and DNOs should also refer to our ED3 Sector Specific Methodology Decision when developing their business plans.

Data and digitalisation

5.2 In the ED3 SSMD, we confirmed our decision to broadly retain the structure and intent of our SSMC proposals for our five data and digitalisation (D&D) objectives:

- strategic outcomes and internal capability
- Data Sharing Infrastructure participation
- interoperability and coordination
- ethical and proportionate use of Artificial Intelligence
- asset visibility and dynamic asset data

5.3 Material policy changes are limited to the interoperability and coordination objective only. On this, we have decided not to establish the independent advisory panel proposed in the SSMC. Instead, interoperability and coordination activity will be led by the domain coordinators established under the Energy Digitalisation Framework. However, across all five objectives we are tightening implementation expectations to strengthen delivery confidence and to ensure allowances are clearly linked to outputs, costs, and benefits. We are clarifying:

- how DNOs should define and evidence the outputs and benefits associated with digital allowances
- how Digitalisation Strategy and Action Plan (DSAPs) operate alongside Business Plan assurance
- how interoperability will be driven at dataset level
- the practical requirements for asset visibility and dynamic asset data, including third party data access, data quality management and model assurance

5.4 ED3 continues to build on RIIO-ED2. DNOs remain required to publish and maintain a DSAP to demonstrate compliance with and progression against Data Best Practice (DBP) Guidance, to maintain transparency of digital products and services, and to invest appropriately in operational network visibility. Digital proposals must also demonstrate alignment with the five ED3 D&D objectives.

5.5 RIIO-ED2 aimed to build operational network visibility, especially for DNO-owned Low Voltage assets, enhancing awareness and reducing reliance on planning assumptions. DNOs should continue to strengthen this foundation and

show how better visibility improves modelling, forecasting, flexibility markets, decision-making, and coordination with NESO.

5.6 However, under ED3 we are broadening our expectations under the 'asset visibility and dynamic asset data' objective which includes non-DNO owned assets connected to DNO networks. Asset visibility and dynamic asset data in ED3 refer to the ability to identify and understand the capacity, location, and usage of devices that generate, store, or consume energy. This includes the collection, storage and sharing of static asset registration data and the monitoring of distribution network assets, respectively.

5.7 DNOs must provide a clear baseline of asset visibility and dynamic asset data, and identify material gaps in completeness, data quality and standard conformance. Targeted improvement plans must demonstrate how enhancements in data accuracy, completeness, timeliness, consistency and traceability will improve decision making quality and deliver system value. Where analytical, forecasting or optimisation models materially inform operational or investment decisions, proportionate model assurance arrangements must be described.

5.8 For dynamic asset data, monitoring should be targeted where access to data materially improves modelling quality or system coordination. Blanket monitoring of all connected assets is not expected. Proposals must be proportionate, evidence-based and linked to clearly defined use cases and consumer value.

5.9 We have consulted separately on proposals for a common approach to asset registration data storage and sharing practices, with that consultation now closed, responses are currently being reviewed and further analysis ongoing.[25] We expect to consult again on this policy area in the summer, aiming for a final decision by the end of this year, subject to policy development and stakeholder feedback.

5.10 To inform this second consultation, and subsequent policy development leading to a decision, in their ED3 Business Plans, DNOs should set out how their existing asset registration systems would interface with potential centralised delivery models, including the system, data and process changes that would be required. DNOs should set out the indicative investment, system upgrades and data preparation activities that would be needed to enable efficient transfer of Distributed Energy Resources (DER) and Consumer Energy Resources (CER) data into a centralised asset register, including any alignment with common data standards, identifiers and exchange pathways.

[25] Enhancing asset visibility: Distribution Network Operator options | Ofgem

5.11 Where proposals of this nature are submitted, approval will depend not only on the quality of submissions but on wider policy development. These assessments should therefore be presented on an option-neutral basis and should not assume a particular model will be implemented. Further direction will be provided as policy development on a common approach to asset registration progresses.

5.12 In developing these assessments, DNOs should engage with the strategic approach set out in the government response to the Call for Evidence on Improving the visibility of distributed energy assets.[26] This also includes work being led by the Energy Networks Association (ENA) and the Microgeneration Certification Scheme to develop a digital tool intended to minimise installer burden for DNO asset registration. DNOs should consider how their own systems and processes could enable interoperability with future common asset registration arrangements, including how data collected through such tools could be transferred efficiently into a centralised asset register.

5.13 On asset visibility, although the position is still developing, we anticipate that the strategic approach and commitments set out in the government's response to the Call for Evidence, and Ofgem's policy development, will be in alignment. To realise the benefits of enhanced asset visibility from these projects, DNOs must actively engage in their design and delivery, including by providing feedback to help shape the solutions. DNOs should also align their activities with the Energy Digitalisation Framework.[27] This includes alignment with the relevant data domains, standards and overall direction developed by the designated domain coordinators. In particular, DNOs should align with Elexon in its role as domain coordinator for behind-the-meter asset data and metering data, where these affect asset registration data standards, exchange pathways and interoperability.

5.14 Investment routing must be clear and consistent, and all investment proposals should clearly articulate the primary driver to ensure the appropriate funding route is used:

- proposals whose primary driver is delivery of ED3 or ED2 D&D objectives must sit within the D&D Annex, be classified into one of the seven sub-categories set out in Table 2 and be supported by a Digital Justification Paper (DJP).
- cyber resilience proposals whose primary driver is Network and Information Systems Regulation (NIS-R) compliance or Cyber Assessment Framework (CAF) risk reduction must sit within the Cyber Resilience Business Plan (CRBP) route and must not be duplicated in the D&D Annex

[26] Improving the visibility of distributed energy assets: Government response to the CfE
[27] Energy digitalisation framework: a vision for a coordinated and connected energy system - GOV.UK

- if the primary driver is enterprise capability, business-as-usual IT, network operations, or technology refresh with no specific data or cyber driver, it routes to IT & Telecoms and must not be duplicated in the D&D Annex

5.15 Where an initiative genuinely spans multiple drivers, the RIIO-ED3 BPG cost allocation guidance requires it to be split into discrete components so that each line has one primary driver, one evidence route and one cost mapping - see last row of Table 3 below. The same pound of investment cannot appear under more than one funding route.

5.16 During Business Plan assessment we will undertake a rationalisation exercise to ensure proposals are allocated to the appropriate route and to avoid duplication or double counting.

5.17 As guidance, the distinguishing feature of a D&D investment is that its primary value comes from making data more accessible, more interoperable, or more useful for decision-making. Corporate laptop refreshes, Enterprise Resource Planning (ERP) systems, and standard infrastructure are enterprise enablers that belong under IT & Telecoms. Technology refresh driven by end-of-life rather than data or cyber objectives also sits under IT & Telecoms, not D&D. Physical security measures such as CCTV and fencing route to asset health unless they directly protect NIS-designated assets.

Table 1: Primary driver categorisation and definition guidance as illustrative example only. See relevant sections of this BPG for what is actually expected of non-D&D investments.

Primary driver	What this means	Examples as guidance
Data & Digitalisation (D&D)	Improves how data is collected, shared, governed or used Builds digital capabilities Delivers DSAP, DBP, or other ED3/ED2 objectives.	Data platforms, lakes, catalogues APIs & interoperability Digital portals AI/ML use cases Data governance & quality Digital field tools
Cyber Resilience (CRBP)	Aligned to the CRBP and improves compliance with NIS-R Protects essential service systems Reduces cyber resilience risk Security is the primary driver	SOC/SIEM OT security hardening Vulnerability mgmt. IAM Incident response

Primary driver	What this means	Examples as guidance
IT & Telecoms Baseline	Corporate IT uplift, enterprise systems, technology refresh, network comms that support BAU operations.	ERP upgrades End-user devices Service desk tools Corporate networks PSTN migration Telemetry backhaul
Hybrid (Split Required)	Investment contains more than one primary driver	OT refresh + security uplifts Cloud migration + DDP build

Table 2: D&D sub-categories with examples as guides

D&D sub-categories	Examples as a guidance
Digital infrastructure	DSI, metadata catalogues, data lakes, interoperability middleware, API gateways, Enterprise Service Bus
Digital processes	Data governance, quality rules, automated validation, workflow automation, master data management
Digital platforms	Customer-facing portals, self-serve connections, demand forecasting tools, open data publishing
Digitalising field works	Mobile workforce tools, digital inspections, ML-assisted safety analysis, electronic permits
Network monitoring	Smart meter data analytics, sensor networks, condition monitoring, real-time network visibility
AI and machine learning	Predictive maintenance, load forecasting, fault detection AI, network planning optimisation, NLP/chatbots, computer vision
Other data best practice	Remaining data governance, compliance, and interoperability items not captured above

Table 3: Primary driver to routing guidance as illustrative example only. See relevant sections of this BPG for what is actually expected of non-D&D investments.

Primary driver	Should it sit in D&D?	Routing guidance
Data & Digitalisation (D&D)	Yes - this is the correct route.	Route to D&D, assign a D&D sub-category (Digital infrastructure, digital processes, digital platforms, digitising field works, network monitoring, AI/ML, other DBP).
Cyber Resilience (CRBP)	No - only include in D&D if security is secondary and the primary outcome is digital.	If the investment maps to CRBP principles and primarily reduces cyber resilience risk, route to CRBP.
IT & Telecoms Baseline	No - unless the driver is explicitly digitalisation (eg interoperability, data product creation).	Route to IT&T baseline unless there is a data/digitalisation primary driver.
Hybrid (Split Required)	Split: only the D&D component sits in D&D.	Must be separated into discrete lines, one per driver. This prevents double counting.

5.18 In the BPDTs, IT & Telecoms costs are split into three categories, each reported on a separate worksheet. These are: Operational IT & Telecoms, IT & Telecoms (Non-Operational), and IT & Telecoms (Business Support). The definitions for each of these categories are set out in the ED3 BPDT Glossary.

5.19 Cyber Resilience costs are reported separately within their own dedicated Cyber Resilience worksheet.

5.20 D&D costs are reported across multiple BPDT sheets, as it cuts across multiple cost categories. D&D costs are reported within the following categories in the BPDTs: Operational IT & Telecoms, IT & Telecoms (Non-Operational), IT & Telecoms (Business Support), Core CAI, and Core Business Support.

5.21 Definitions for each of these cost categories are provided in the ED3 BPDT Glossary. Each of these sheets includes a D&D memo. In ED3 the costs are split out by the D&D sub-categories set out in Table 2: D&D sub-categories with examples as guides

5.22 Each Business Plan must include a portfolio-level D&D Annex covering all proposals within scope of the ED3 D&D objectives. The Annex is a separate document that represents a subset of the IT & Telecoms Strategy and must present a coherent overview of how the digitalisation portfolio delivers ED3 outcomes and aligns with the SSMD expectations. It must draw together the latest published DSAP and associated actions, progress against DBP Guidance, and planned activity across DSI participation, interoperability, ethical AI and asset visibility. The Annex must explain how digital proposals interact with other Business Plan components, including engineering and EJPs, IT and telecoms,

cyber resilience, asset management, network planning and consumer outcomes, and must clearly signpost where detailed evidence is provided. The Annex must not duplicate detailed option appraisal, cost build up, or delivery artefacts that are set out elsewhere.

5.23 The D&D Annex must include a structured Digitalisation Summary Index Table (see Table 4 below). It is not a requirement to use the exact table format, but all required information should be included and columns can be added where necessary.

5.24 The table must list each D&D investment line and include its reference number and title, requested ED3 totex, primary ED3 D&D objective and D&D subcategory (see Table 2). It must also include any references required to locate investment detail or supporting evidence (eg BPDT line references, DJP references, DSAP Action IDs where applicable) or any interfaces with other annexes or hybrid investments (eg references to CRBP, IT&T or EJPs). Requested totex must be reported on a consistent basis to avoid ambiguity across submissions.

5.25 For clarity, the table should be completed at investment line level rather than at a programme level to provide a complete overview of all submitted investments. Where multiple investments are grouped together in a programme, these should be sequential in the table. Where information is common across multiple investments in a programme (eg where a single programme-level DJP reference applies), it is acceptable to merge cells.

Table 4: Digitalisation Summary Index Table

Ref	Investment title	Requested ED3 totex (£m, gross)	Primary ED3 D&D driver/objective(s)	D&D sub-category	BPDT line reference(s)	DJP reference
Total		£m				

5.26 Digital Justification Papers provide detailed evidence for each digital proposal. A DJP may cover a single investment line or a tightly related programme where a platform or capability underpins multiple BPDT lines if mapping to each cost line is explicit and unambiguous.

5.27 DJPs must clearly explain the needs case by setting out the current baseline, the target state or outcome being sought, and why intervention is needed. They must describe the credible options considered, including a do-nothing or minimum compliance option and at least one credible alternative approach. The

assessment should explain the key trade-offs and decision criteria used and explain why the preferred option has been selected. Options assessment must be proportionate and decision focused.

5.28 DJPs must provide proportionate cost and value for money evidence. A monetised CBA is expected where appropriate, but full monetised comparison of every option is not required where it would not be credible. The emphasis should be on the robust justification of the preferred option, supported by transparent assumptions. Where benefits cannot be credibly monetised, a structured qualitative value for money case must be provided. Such benefits may arise from:

- enabling investments, where the investment makes other activities possible, cheaper or better and benefits arise indirectly through subsequent decisions
- cross-cutting investments, where the investment delivers benefits across multiple functions, assets or time periods so they cannot be robustly attributed to a single intervention
- non-fixed investments, where the final detailed design or technical requirements have not yet been determined and it would be unreasonable to expect benefits to be precisely measured at submission

5.29 DJPs must provide a clear summary of what the project will deliver and how success will be measured, including the main benefits, targets, and arrangements for assurance. Where outcomes cannot be credibly attributed to a single investment because delivery is integrated across a programme, programme level KPI frameworks may be used provided submissions explain how individual investment lines contribute to those outcomes.

5.30 DJPs should give confidence that delivery is feasible and well-managed, setting out how the project will be governed, resourced and sequenced, and how key risks and dependencies will be addressed. We recognise the need for adaptive digital delivery across ED3. While investments may evolve over time due to changing business needs or emerging technologies, this should not alter the core outcomes set out in the original proposal. DNOs must explain change governance and reprioritisation mechanisms and where there are changes in delivery, scope or technical design in the price control period, DNOs are expected to transparently explain and justify these changes in their subsequent DSAPs. This preserves flexibility while maintaining alignment with SSMD expectations that allowances are clearly linked to outputs, costs and benefits.

5.31 Where proposals affect interoperability, DJPs must describe the problem being addressed, how alignment is being achieved (eg through existing standards or the DSI), and the consequences of non-alignment. Where proposals affect asset visibility or dynamic asset data, DJPs must describe baseline visibility, targeted

improvements, data quality management and model assurance arrangements, including how third-party data access will be secured where operationally relevant. Where AI is used or proposed, Business Plans must transparently describe scope, governance and risk controls, reflecting current assumptions and levels of technological maturity, consistent with a proportionate and responsible approach.

5.32 Delivery assurance will be implemented through Business Plan requirements and associated data tables supported by ongoing regulatory reporting. DSAPs remain the transparency and engagement mechanism for digital products and services and should align with this information without duplicating it.

Innovation

5.33 Building on activities within RIIO-ED2, DNOs should continue to undertake innovation to find new ways of developing and operating their networks to deliver a low-carbon energy system that is reliable, safe and efficient, and at a pace in line with our net zero targets.

5.34 In their Business Plans, DNOs should provide a high-level overview of their innovation activities during ED2 as well as their plans for ED3, including Business As Usual (BAU) innovation, use of the Network Innovation Allowance (NIA) and Strategic Innovation Fund (SIF).

5.35 Additionally, DNOs should include further detail on their innovation activities and plans as set out below in a separate Innovation Strategy with a maximum length of 40 pages (excluding annexes).

RIIO-ED2 innovation

5.36 In their Innovation Strategy, DNOs are expected to give an overview of their innovation activities in ED2, including what activities they have undertaken and are planning to undertake within BAU Innovation, NIA and SIF.

5.37 In this overview, or separately annexed at the end of their Innovation Strategy, DNOs must set out tables that include:

- a list of all BAU innovation projects completed so far and planned for the rest of ED2, as well as their outcomes
- a list of all NIA projects completed so far and planned for the rest of ED2, their cost, subsequent work planned in this area (or an explanation as to why none is anticipated), and if relevant, an overview of benefits realised or expected
- a list of all SIF projects completed so far and awarded for the rest of ED2, their cost, and if relevant, an overview of benefits realised or expected

5.38 DNOs must also provide a summary of benefits already realised and projected from innovation funding so far (including from ED1) compared to total funding received. This should be broken down by price control period, innovation project and innovation funding source. This should clearly distinguish between benefits that have been realised by the DNO itself, and that will provide benefits to the DNO in the future, as embedded in their ED3 Business Plan, and benefits that have accrued, and will continue to accrue, to other parties.

5.39 Any discussion of benefits throughout the Innovation Strategy should clearly differentiate between benefits realised so far (by 1st October 2026) and benefits projected, split into by the end of ED2, end of ED3, and after ED3 (with a cut-off of 2050). DNOs should use a commonly agreed methodology and assumptions when quantifying benefits.

5.40 DNOs must also break down their NIA usage in ED2, setting out at a portfolio level how much NIA funding goes towards:

- funding internal resourcing requirements for innovation
- funding third parties, such as consultancies, that support in innovation delivery and project management
- directly funding third party innovators
- memberships to various organisations
- dissemination events
- other NIA expenditure not directly attributable to core project delivery

ED3 BAU Innovation

5.41 In their Innovation Strategy, DNOs must set out the high-level BAU innovation activities that they are planning for ED3 using their totex allowance and other sources of funding where relevant, as well as plans for the deployment of previously funded innovation projects (from ED1 and ED2) into BAU solutions.

5.42 DNOs must also include the following:

- an explanation of the processes they follow to identify whether a project should be BAU or stimulus funded, and for identifying areas of BAU innovation
- their planned areas of work for BAU innovation within ED3
- the processes they follow to ensure that previous innovation is deployed into BAU, and a list of all projects that are currently planned for deployment[28]

[28] Where networks expect that a deployment will need to be funded through the Deployment Phase of the SIF, this should be clearly stated.

5.43 As BAU innovation will be funded through a range of mechanisms to deliver various outputs, DNOs should clearly demonstrate planned BAU innovation activities throughout their Business Plan.

5.44 We are not prescriptive as to where companies showcase this within their Business Plan, but it should be clearly signposted as 'BAU innovation' and a table should also be included in the Innovation Strategy referencing where each of these examples is within the Business Plan.

ED3 NIA and SIF Innovation

5.45 DNOs must set out and justify the amount of NIA funding they will require in ED3, including whether they require more funding than the base amount, as set out in the SSMD.

5.46 As part of their Innovation Strategy, DNOs must include:

- the key areas of focus for NIA spending and why these were selected
- a table including all planned NIA workstreams, the problems they are looking to solve, solutions that will be explored where these are known, outcomes and benefits these may bring, whether they relate to a goal in the SIF Programmatic Approach and why these cannot be funded by totex
- how the proposed areas of focus and planned workstreams meet the NIA eligibility criteria, as set out in the SSMD
- how much funding is necessary for each of these areas of focus, and a justification of the amount

5.47 Where relevant, DNOs should also set out their high-level strategy for the SIF and how this fits into their broader innovation work.

5.48 We encourage DNOs to highlight work they are doing and have planned around more disruptive and radical innovation.

Innovation Delivery

5.49 As part of their Innovation Strategy, DNOs must set out their broader innovation delivery strategy. This must include:

- how innovation activities are planned and delivered, from inception to deployment
- plans to collaborate with other network companies to identify and deliver NIA projects, and what processes they have in place to facilitate this collaboration
- steps that DNOs have in place to ensure that their projects are not duplicative of previous innovation funded work or of work being concurrently delivered by other networks

- what processes they have in place to identify and roll out innovation developed by other networks, including an exhaustive list of instances where they have already done, or are planning to do so
- proposals to disseminate learnings from innovation, including key dissemination activities so far
- plans for third-party involvement in their innovation activities, demonstrating how they will engage a wide range of third parties, including small and medium sized enterprises, in their innovation activities and ensure full consideration of third-party innovation ideas

5.50 To the extent that the above processes are different for BAU, NIA or SIF innovation, this should be explained.

Distribution System Operator Strategy

5.51 The Distribution System Operator (DSO) function will continue to have an important role to play in ED3 by operating and planning the network more intelligently to reduce costs and accelerate positive outcomes for consumers.

5.52 Companies should submit a DSO Strategy as part of their ED3 business plan. This submission should be at the level of the network company, with individual strategies for each licence area not required.

5.53 The DSO Strategy should clearly articulate how the company will deliver value across the following areas:

- network planning
- market development
- network operations
- voltage management
- loss optimisation

5.54 The expectations for each of these areas, and specific content that should be provided in the DSO Strategy component of business plan submissions are outlined in this guidance. This strategy should be developed incorporating input from relevant stakeholders.

5.55 We recognise that there will be overlap and trade-offs between these areas. Where trade-offs occur, they should be made in such a way that optimises whole-system outcomes, and where they impact business plan decisions, this should be clearly explained. We expect companies to build on the work done in RIIO-ED2 and go further in terms of the scale and range of benefits being delivered. Submissions should therefore provide clarity on how proposed initiatives build on existing capabilities (where relevant) and add additional value.

5.56 For each activity, reference should be made to deliverables which are specific, measurable, achievable, relevant and time-bound. Companies should clearly outline the nature and scale of benefits these deliverables are intended to bring, in terms of efficiency, reduced costs or accelerated positive consumer outcomes (such as growth or net zero delivery). Consideration should also be made to proportionality, and companies should outline any relevant risks and trade-offs.

5.57 Where funding is required for deliverables, this must be clearly indicated, with reference made to the BPDTs and any CBAs, EJPs or DJPs.

5.58 Companies are welcome to propose metrics for monitoring or assessing performance in delivering the DSO strategy and associated outcomes. We would expect it to be made clear how the measure has been determined and why it is an appropriate measure. Where a quantitative metric is being proposed, a baseline performance benchmark should also be provided.

5.59 We recognise that there will be some overlap between information requested through the DSO Strategy and other elements of the business plans. Information provided elsewhere in business plans does not need to be duplicated in the DSO Strategy, so long as it is clearly cross-referenced and sufficient information is provided overall to satisfy the requirements outlined in this section of the guidance.

5.60 The maximum page count for the DSO Strategy will be 70 pages. Annexes that provide a disaggregation of quantitative data (eg a cost breakdown) or outline a detailed calculation methodology are allowed in addition to this, but annexes containing narrative or descriptive information must be included in the page limit.

Network Planning

5.61 The core strategic aim for network planning in ED3 should be to facilitate significant increases in demand and embedded generation, while reducing the overall cost of delivering the energy transition. This should be done through the development of longer-term strategic plans, enhanced whole system coordination, better forecasting and the use of flexibility.

5.62 This section sets out our expectations for how DSOs should demonstrate the value they provide through network planning in ED3, beyond the specification of network investment proposals set out elsewhere in the guidance.

5.63 The detailed requirements for the content of the Build and Flex Strategy and the LINP, including on the use of NESO's tRESP, the treatment of uncertainty, and the justification of network investment for load growth, are set out in Chapter 3 - Investing for the energy transition.

Scope and effective ongoing planning

5.64 In ED3, accountability for network planning spans both DNO and DSO functions. DSOs are responsible for planning for future load growth and distributed generation, particularly from electrification and low carbon technologies, and for ensuring this planning is effectively integrated with wider DNO work programmes.

5.65 In this context, DSOs should support the creation of the Build and Flex Strategy and the LINP, but are not expected to restate the content of these submissions in their DSO Strategy. Instead, DSOs should set out the network planning activities they will carry out during the ED3 period to ensure efficient delivery and maintain a connection-ready distribution network in an environment of ongoing uncertainty.

5.66 These should include, where relevant:

- ongoing load and DER planning
  - regular refresh of demand and generation forecasts to reflect evolving uptake of EVs, heat pumps, distributed generation and storage
  - monitoring of connection requests and pre-application data to identify emerging constraints or investment triggers
  - use of scenario-based approaches to test robustness of plans under different pathways
- connection readiness and optimisation
  - identification of action to keep the network connection ready, including anticipatory planning activities
  - planning for flexibility, operational measures or interim solutions to manage constraints while longer term solutions are developed
  - support for accelerated connections where this delivers positive net consumer benefit
- local and regional coordination
  - continued engagement with local authorities and integration of updated Local Area Energy Plans (LAEPs)
  - translation of local ambitions and spatial plans into actionable network planning signals
  - identification of areas where local plans materially differ from regional or national assumptions, and how these are managed

5.67 The detailed guidance relating to the use of NESO's tRESP, including how it should be used alongside DNO defined building blocks and where deviation is permissible, is set out in Chapter 3: Investing for the energy transition. This should apply equally to DNO and DSO planning inputs.

5.68 In their business plans, DSOs should also explain:

- how they have worked with NESO where local or distribution-level evidence suggests a different planning approach
- how they will maintain transparency and coordination where alternative assumptions or pathways are proposed

5.69 Specific investment proposals and justification, including the Build and Flex Strategy and LINP, should be set out in line with the requirements in Chapter 3: Investing for the energy transition, and need not be duplicated here. However, other DSO network planning activity, including optimisation, coordination and ongoing planning during ED3, should be set out in the DSO Strategy.

Whole system coordination

5.70 We expect whole system coordination to be a core part of the DSO role in ED3, acting as a key enabler to deliver value for consumers across a range of activities.

5.71 DSOs must demonstrate in their DSO strategy how they will deliver enhanced whole-system coordination across electricity transmission, gas, heat, local authorities, and distributed energy resources. Building on RIIO-ED2 requirements, where DSOs were expected to coordinate forecasting and network development planning through DFES and Network Development Plans, ED3 introduces a higher standard that includes:

- demonstrating that DSO planning is informed by NESO's whole system and transmission planning frameworks, including the tRESP Strategic Energy Needs, CP2030 assumptions, and associated network planning outputs
- showing structured engagement with NESO at key planning stages and providing evidence of joint scenario reconciliation, regional need assessments, and transmission-distribution boundary coordination
- this must include clear coordination with Transmission Operators (TOs) on the assessment of transmission interface needs, including early-stage alignment on potential new Grid Supply Point (GSP) locations
- demonstrating effective cross-DNO coordination and engagement with NESO to support consistency of planning assumptions across regions and to manage inter-regional impacts where network developments or major load and generation clusters span licence boundaries
- making decisions that take into account the impact of planning decisions on other networks and maximise whole system value
- integrating LAEPs and other regional planning documents and demonstrating how these affect reinforcement, flexibility procurement, and anticipatory investment
- showing proactive alignment with housing developments, industrial clusters, transport authorities, and heat network operators

- describing structured engagement processes that are proportionate to the scope and impacts of DSO planning activities, drawing on relevant NESO engagement practices (including those used across tRESP products where appropriate), to ensure local voices are incorporated and alignment across system actors is achieved

Network forecasting and visibility

5.72 We expect DSOs to provide clear evidence of how their ED3 network planning is underpinned by improved forecasting capability and enhanced visibility of the distribution network, building explicitly on the requirements introduced during RIIO-ED2.

5.73 In their DSO submissions, giving reference to proportionality, justification and efficiency, companies must:

- demonstrate how they will build on RIIO-ED2 LV visibility work, including improved monitoring, data granularity, and near real-time insights into LV loading, voltage performance and hosting capacity
- explain how improved LV visibility now feeds directly into ED3 forecasting, including load growth modelling for EVs, heat pumps, distributed generation, and storage
- show how visibility improvements are being, and will be, used to enhance their ability to identify constraints earlier, assess flexible solutions, and plan anticipatory reinforcement where justified
- provide targets (with justification) for forecasting accuracy on the primary and secondary networks at the start of, and for each delivery year within ED3

5.74 Secondary networks (HV/LV substations, feeders, local circuits) increasingly face the most dynamic load growth due to electrification and distributed energy integration. DSOs must show how they are:

- developing more granular, localised forecasting models informed by tRESP regional pathways, CPAs for key technologies, and LAEP derived deployment trajectories (eg for EV charging hubs, heat zones, renewables clusters)
- demonstrating how LV utilisation data is used to improve the accuracy of demand and generation forecasts, ensuring models reflect observed network loading and local conditions

5.75 DSOs should use forecasting to identify near-term and long-term secondary network needs, and feed this directly into network planning. ED3 places new emphasis on transparency and two-way data flows to support whole system planning and operation. DSOs must:

- explain how they will share network data with NESO and other parties as appropriate, including demand and generation forecasts, constraint locations, hosting capacity, and network visibility datasets
- demonstrate how they will provide relevant data to local authorities, to support LAEP updates, local development planning, and heat/transport strategy integration
- outline mechanisms for wider data access, including community energy groups, developers, flexibility providers, and regional energy bodies, to support transparency, innovation and market development
- describe how shared data supports whole system optimisation, including the coordination of transmission–distribution boundary needs, flexibility procurement, and anticipatory reinforcement

5.76 Where there is overlap with digitalisation investments, companies should, as relevant, cross-reference their DSAP, data and digitalisation annex and any EJPs or DJPs.

Using flexibility in network planning

5.77 When developing their plans for load related reinforcement, we expect companies to use flexibility and other potential alternatives (such as dynamic line rating) to reduce costs in ED3 and beyond. This means using flexibility and network optimisation to defer or avoid network reinforcement in order to provide option-value and reduce consumer costs, without compromising consumer outcomes.

5.78 It is vital that network reinforcement is not deferred past the point it can reasonably be delivered in time for need to avoid connection delays (especially for consumer LCT connections). Further guidance on how companies should balance targeted investment with the use of flexibility on the primary and secondary networks is provided in Chapter 3.

5.79 We expect DSOs to be ambitious in growing their flexibility markets and therefore expect the proposed volume of capacity provided through flexibility in business plans to represent an increase on current volumes. The Common Evaluation Methodology (CEM) should continue to be used to determine the ceiling price of flexibility procured to defer network reinforcement.

5.80 In their DSO Strategy submission, cross-referencing the LINP and other IET submissions where appropriate, we expect companies to outline the following:

- a robust justification of the costs and volumes requested for flexibility and non-wire solutions under primary and secondary network reinforcement in the BPDTs, including reference to factors which influence flexibility unit cost such as market liquidity and ceiling prices

- an estimate (with justification) of the reinforcement costs that will be deferred or avoided in each year of ED3 through the use of non-wire solutions such as flexibility
- if the headroom capacity to be provided through flexibility in ED3 does not represent an increase on volumes delivered in RIIO-ED2, a clear justification as to why

Market development

5.81 The core strategic aim for market development in ED3 should be to increase the amount of flexibility available to DSOs and reduce the cost of procurement, through growing market participation and improving efficiency. DSOs may also need to develop new flexibility markets in order to deliver the new ED3 flexibility use cases outlined in the SSMD.

5.82 The expectations for activities DSOs should undertake to grow and develop their markets, building on the work done in RIIO-ED2, are outlined in the SSMD. In their DSO Strategy, companies should outline:

- a plan to grow and develop their flexibility markets in ED3, for example, by improving market access, engaging providers or using innovative approaches to unlocking flexibility
- detail of any core milestones and deliverables for this plan, and a justified estimate of the impact they will have (including quantifications where proportionate)
- a breakdown (with justification) of any costs being requested through baseline allowances to deliver this plan, and an explanation of where these costs are reflected in the BPDTs
- an estimate (with justification) of the approximate volumes of flexibility that companies will aim to procure in each year of ED3, broken down by use case
- where it is known, detail of any additional data that will be shared with flexibility providers in ED3, including as a result of Market Facilitator activities
- where applicable, detail of any new markets or flexibility use cases planned for ED3, including estimated target procurement volumes and an assessment of the benefits

5.83 This plan should be developed with proportionate collaboration from relevant stakeholders.

5.84 We recognise that many activities related to market development in ED3 will not yet be known due to external dependencies (eg Market Facilitator decisions). Detail is not expected of deliverables which are not yet known, but areas of

uncertainty should be outlined, and any funding that is being requested through ex-ante allowances must be fully explained.

Network operation

5.85 The core strategic aim for network operation in ED3 should be for DSOs to operate the network more intelligently in order to reduce costs and deliver positive consumer outcomes such as outage and curtailment reduction.

Reducing outages

5.86 We expect DSOs to be able to reduce the impact of planned and unplanned network outages affecting both demand and generation customers. This should be done using tools including, but not limited to, flexibility services, enhanced network monitoring and forecasting, and smarter planning.

5.87 In their DSO Strategy, cross-referencing the Reliability Strategy where appropriate, companies should outline:

- a plan for how they will use DSO capabilities to reduce the frequency and impact of planned and unplanned outages, including consideration of proportionality
- an estimate (with justification) of the scale of the impact this plan will aim to have on customer and generator outages in each year of ED3
- where flexibility services will be procured in relation to outages, a description of the services (new and/or existing) that will be used and an approximate estimate (with justification) of the volumes that will need to be procured
- where applicable, detail of any other new capabilities or systems that will need to be developed in relation to this aim, including how they will help manage outages, the scale of their potential benefits and an estimate of their cost (cross-referencing the DSAP and any DJPs where relevant)
- a breakdown of any costs being requested through baseline allowances to deliver this plan, making reference to the BPDTs, and a justification of how they have been determined
- a performance target (with justification) for outages affecting generation assets connected to their network, expressed in terms of the following quantities (formulas provided below):
    - Generator Minutes Lost
    - Generation Lost
    - Low Carbon Generation Lost
    - Capacity Normalised Generation Lost
    - Low Carbon Capacity Normalised Generation Lost

- if DNOs do not already have the capability to report on this data, a plan for how they will improve their monitoring capabilities to achieve this

5.88 The following formulas should be used to calculate the baseline performance benchmark data requested above:

$$Generator\ Minutes\ Lost = \frac{Generator\ minutes\ lost}{Number\ of\ connected\ DERs}$$

$$Generation\ Lost = \frac{Total\ MWh\ lost}{Number\ of\ connected\ DERs}$$

$$Low\ Carbon\ Generation\ Lost = \frac{Low\ carbon\ MWh\ lost}{Number\ of\ low\ carbon\ connected\ DERs}$$

$$Capacity\ Normalised\ Generation\ Lost = \frac{Total\ MWh\ lost}{Total\ MW\ connected}$$

$$Low\ Carbon\ Capacity\ Normalised\ Generation\ Lost = \frac{Low\ carbon\ MWh\ lost}{Total\ low\ carbon\ MWconnected}$$

Flexibility dispatch capabilities and whole system coordination

5.89 We expect DSOs to continue to maintain and utilise their flexibility dispatch capabilities developed in RIIO-ED2, building on them where needed. This includes maintaining and regularly reviewing an effective decision-making framework for dispatch of flexibility services and having the capability to efficiently send dispatch instructions.

5.90 DSOs should adopt an approach of continuous development and improvement of control room systems and frameworks to ensure they remain up to date with emerging needs, in collaboration with relevant stakeholders.

5.91 The core principles that these systems and frameworks were developed according to in RIIO-ED2 should still be applied. This includes ensuring dispatch frameworks are transparent, promote coordination across services, maximise whole system outcomes and support the principle of fair market-based procurement. More detail on the expectations for improved operational coordination with NESO are outlined in the SSMD.

5.92 In their DSO Strategy, companies should outline:

- detail of any improvements to control room systems planned for ED3, for example to improve coordination with NESO, handle new flexibility use cases, integrate new monitoring and forecasting capabilities, or accommodate larger volumes of assets, including as a result of Market Facilitator activities
- an estimate of the costs and risks associated with these plans and the benefits they will deliver

- plans to improve coordination with NESO on operational timescales, to ensure both parties have sufficient information to make dispatch decisions that consider whole system need, improve CER and DER access to national markets and implement Market Facilitator activities, such as primacy rules
- detail of how the dispatch decision making framework will evolve to deliver the DSO expectations for ED3, including to enable consideration of whole system impact, new flexibility use cases and Market Facilitator activities
- a breakdown of any costs being requested through baseline allowances to deliver these plans, making reference to the BPDTs, and a justification for how these costs have been arrived at (making reference to any CBAs, EJPs or DJPs where relevant)

Accelerating connections and reducing curtailment

5.93 We would like DSOs to go beyond the requirements set out in the final Decision and Direction on the Access and Forward-Looking Charges and Significant Code Review[29] (Access SCR) and further reduce the curtailment of low carbon generation assets connected to their network, where doing so will lead to positive net consumer benefits, such as lower whole system costs and carbon emissions.

5.94 This could be done by procuring demand turn-up and storage import but should not be done in a way that increases net system costs or carbon emissions, for instance, by using markets to procure equivalent turn-down from other low carbon generation assets connected to the network. We expect the ceiling price for procuring these services to be determined via an updated CEM tool.

5.95 We also expect DNOs to use flexibility to accelerate connections, where this results in positive net consumer benefits. In particular, DSOs should set out how flexibility will be used to:

- bring forward connection dates for generation and demand customers
- increase the volume of MWh delivered from distributed energy resources (DERs) where this results in positive net consumer benefits
- reduce the level and duration of DER curtailment
- procure demand turn-up where this supports efficient network utilisation

5.96 DSOs should explain the scale of impact expected, how this will be delivered in practice, and how benefits to consumers will be monitored and evidenced over the price control period.

5.97 We expect companies to outline the following in their DSO Strategy submissions:

[29] Access and Forward-Looking Charges Significant Code Review: Decision and Direction | Ofgem

- a plan for how they will meet the expectations of reducing the curtailment of low carbon generation, where doing so will lead to net consumer benefits
- a cost benefit assessment for reducing curtailment, including detail of circumstances under which it may represent greater or smaller consumer value
- a target (with justification) for the additional MWh of low carbon capacity to be provided to the system through this capability for each delivery year of ED3 and the amount being provided at the beginning of the price control period
- detail of new flexibility services that will be developed, or existing ones that will be utilised, and estimates with justification of the cost of procuring these services and of the impact that this might have in terms of additional low carbon MWh provided to the system
- a breakdown of any costs being requested through baseline allowances to deliver this plan, making reference to the BPDTs, and a justification of how they have been calculated
- clear use cases for accelerating connections, including:
    - where possible, identifying specific constraints or growth areas where flexibility is expected to be used to bring forward connections (eg generation-led areas, heat pumps, EV clusters)
    - setting out expected reductions in connection times (eg months/years capacity will be brought forward vs the counterfactual) and estimates of the associated MWh volumes that will be brought forward

5.98 Where flexibility will be used to materially accelerate connections, companies should provide proportionate evidence that this delivers positive net consumer benefits.

5.99 This may include quantitative assessment where material, supported by high-level cost benefit analysis for larger schemes, and qualitative justification for smaller or routine interventions.

Voltage management

5.100 We require DSOs to include a strategy for voltage management as part of their DSO Strategies, to set out their approach to meeting the new DSO responsibility for delivering the voltage management outcomes outlined in the SSMD.

5.101 The strategy should set out how the DSO intends to maximise the benefits to their customers through balancing the delivery of the different voltage management outcomes, with wider trade-offs between these outcomes and related outcomes such as total capacity, network headroom, and losses reduction.

5.102 At a minimum, the strategy for voltage management should:

- include a robust assessment of the prevalence of both existing voltage issues across the company's networks, and where issues are likely to emerge over the ED3 price control period
- include an estimation of the flexibility capacity which could be delivered through voltage reduction across each network at the beginning of ED3, by 2030, and by the end of ED3
- set out a clearly articulated vision for delivering the outcomes for its new voltage management responsibility, with tangible links between proposed deliverables and the benefits these aim to deliver, and how this balance delivers maximum benefit to customers
- establish a baseline for reactive power performance at all GSPs, with improvement plans for those GSPs (as agreed with NESO) where action is most required
- set out performance metrics to enable stakeholders to track the DSO's progress towards delivering the outcomes and any additional deliverables, including how these metrics are relevant to achieving these objectives, how performance will be measured, and what the target is for each metric for each delivery year of ED3. The state of these metrics at the beginning of the price control period should also be set out. Where possible DSOs should agree standard methodologies for estimating these metrics

5.103 At a minimum these metrics should include:

- the proportion of the DSO's networks where voltage can be accurately measured or estimated at the boundary point with customer premises
- the number of interruptions to the operation of customer assets such as EVs which have been reported due to voltage issues, and an estimate of the true prevalence of these issues
- the average voltage supplied to customers on each of the licensee's networks
- the number and type of voltage control installations on the primary network in each license area (eg automatic voltage controllers, voltage regulators, etc)
- the number and type of voltage control technology installations on the secondary network in each license area (eg secondary transformer tap changers, voltage regulation relays, capacitor banks, etc)
- an estimate of the flexibility capability from temporary voltage reduction which exists on their networks

- an estimate of the average active and reactive power flows at each GSP at different times of year and different times of day (eg winter evening, summer morning etc)

5.104 In addition, the strategy for voltage management should:

- include deliverables which are specific, time bound, and relevant
- be developed with stakeholder input, including stakeholders representing the interests of consumers, with the benefit to consumers being clearly set out
- clearly set out the key delivery risks and identified mitigations including the reasoning behind estimations of likelihood and impact

5.105 We expect that DSOs will publish an annual update on their progress towards meeting the deliverables in their strategy for voltage management, including updates on the metrics as outlined in their strategies for voltage management.

Loss optimisation

5.106 This section sets out expectations for how DSOs should approach losses within their ED3 business plans. In ED3 the emphasis has moved from a narrow focus on the reduction of losses towards a broader and more balanced principle of loss optimisation. DSOs are expected to demonstrate strategies that consider the economic, operational and whole system implications of losses and ensure that losses are managed in a way that delivers best value for consumers.

5.107 We expect DSOs to take all reasonable steps to reduce losses and keep them as low as is practicable, however we also recognise that losses are an inherent feature of power distribution. It is therefore essential that DSOs adopt an evidence-based approach to determining where loss reduction, loss acceptance or even tolerating higher losses may lead to the best overall outcome for the whole energy system.

Optimising losses where practically efficient

5.108 A clear strategy for the optimisation of losses should be outlined within the DSO Strategy, explaining:

- how losses are considered within the wider set of operational and investment objectives
- this includes instances where reducing losses may increase other system costs, or where accepting a small increase in losses may reduce reinforcement costs or enhance network flexibility
- how the DSO evaluates the marginal benefit of loss reduction against alternative system benefits

- how smart technologies, new operational practices and advanced data capabilities support a shift towards optimisation rather than blanket reduction

5.109 The strategy should recognise that while some level of losses is inherent in electricity distribution, DSOs are expected to demonstrate that losses are kept as low as is reasonably practicable. Plans must demonstrate that their approach places the long-term interests of consumers at the heart of decision making and that loss optimisation is embedded as part of a consistent economic assessment framework.

Integration of loss considerations in network planning and operations

5.110 DSOs should explain how loss considerations are embedded within core processes, including but not limited to:

- long term network development planning
- assessments of reinforcement options and smart alternatives
- operational decision making such as switching, voltage control and system configuration
- asset replacement and refurbishment decisions

5.111 The plan should describe the tools, methodologies and data sources used to evaluate losses within planning and operations, and how this evidence has influenced investment cases or operational choices.

Managing trade-offs between voltage management and losses

5.112 DSOs should provide a clear explanation of the trade-offs that arise between voltage management practices and network losses. In particular, the guidance expects:

- a description of how voltage optimisation techniques can reduce demand or support power quality while also influencing losses
- a clear framework for assessing where operating the network at higher or lower voltages results in net benefits to the whole system
- evidence showing how these trade-offs are assessed consistently and transparently, including quantified assessments wherever possible

5.113 Where operational strategies such as dynamic voltage management or new flexibility services are deployed, DSOs should set out how impacts on losses have been evaluated and accounted for.

5.114 In relation to costs associated with improving loss measurement and monitoring DSOs must clearly set out:

- any costs associated with improving their capabilities for measuring and monitoring losses, including where enhanced visibility requires:
  - installation of new monitoring equipment (eg LV monitors, power quality recorders, feeder sensors, transformer meters)
  - upgrades to existing metering or telemetry infrastructure
  - improvements to data storage, processing or analytics platforms
- justification for any proposed investment, demonstrating how improved monitoring will enhance loss modelling accuracy, optimise system operation, or enable more efficient planning decisions

Understanding, measuring and monitoring losses

5.115 DSOs must demonstrate a comprehensive approach to understanding, measuring, and monitoring both technical and non-technical losses.

5.116 To support transparency and assess the scale of additional work proposed for ED3, DSOs must also clearly set out their current loss monitoring capabilities, data sources, and analytical tools, identifying where proposed improvements represent new activities or enhancements relative to the RIIO-ED2 baseline.

5.117 DSOs should set out a robust approach for the analysis and monitoring of both technical and non-technical losses in an optimisation context. This should include:

- a description of existing capabilities, systems, and datasets used today to understand and monitor losses (eg metering coverage, LV visibility, power flow data, modelling tools, audit processes)
- a clear explanation of gaps, limitations, or uncertainties in current capabilities that the DSO proposes to address in ED3

5.118 For technical losses plans should include:

- methodologies for modelling and forecasting technical losses with increasing accuracy, supported by enhanced data visibility from advanced monitoring, sensors and smart metering
- assessment of how technical losses vary with asset loading, power flows, voltage levels and the increased connection of low carbon technologies
- how improved modelling and simulation tools support decisions related to loss optimisation

5.119 For non-technical losses DSOs should outline:

- processes to identify and reduce non-technical losses such as those arising from theft, metering inaccuracies and data processing issues
- collaborative arrangements, for instance with suppliers, data service providers and industry bodies to address these issues at source

- monitoring and reporting frameworks that track the performance of mitigation activities

5.120 Non-technical losses should be treated as avoidable inefficiencies and should therefore be minimised wherever practical, even within an optimisation framework.

Assessing the whole system impact of losses

5.121 DSOs must demonstrate that loss optimisation is assessed within a whole system context. This includes:

- evaluating how loss related decisions affect system wide costs, including impacts on transmission losses, generation dispatch and network reinforcement
- demonstrating whole system coordination with NESO, Transmission Operators, gas networks and heat network developers where relevant
- presenting a clear cost benefit assessment that quantifies how loss optimisation contributes to wider decarbonisation, resilience and affordability outcomes

5.122 The plan should show how the DSO balances these multiple considerations in a transparent, consistent and evidence-based manner.

6. Resilient networks

6.1 The guidance below sets out some specific areas of output development that should be set out in DNO business plans. However, this is not exhaustive, and DNOs should also refer to our ED3 Sector Specific Methodology Decision when developing their business plans.

Network Asset Management Strategy

6.2 Each DNO should provide a Network Asset Management Strategy (NAMS) alongside its business plan submission. This strategy should set out how the organisation ensures best-in-class asset stewardship and adheres to relevant asset management best practices and standards, demonstrating a proactive and systematic approach to managing its network assets.

6.3 The NAMS should set out in detail the DNO's asset management policy, plans, and overarching strategy, explaining how these elements work together to maintain asset health and support long-term operational resilience. This should include coverage of both Network Asset Risk Metric (NARM) and non-NARM assets, ensuring that critical infrastructure and supporting assets are managed effectively and proportionately.

6.4 A key component of the NAMS is the DNO's approach to managing its NARM and non-NARM assets. This should describe how risk-based methodologies are applied to prioritise interventions, and how safety, compliance, and risk management considerations are embedded within decision-making processes. The NAMS should demonstrate that the organisation understands and actively manages risks across its asset base, using robust frameworks, credible data and evidence-based practices.

6.5 In addition, the NAMS must show how asset management is integrated with the wider company strategy and objectives. It should explain how asset management supports the organisation's long-term vision, regulatory commitments and customer outcomes. This includes demonstrating alignment with the regulatory framework and providing a clear line of sight for decision-making from policy through to strategy, planning, and delivery. Decision-making processes should be transparent and ensure that investments and operational actions are consistent with both organisational priorities and regulatory outputs, supported by appropriate governance and assurance.

6.6 The NAMS should present a forward-looking approach that balances short-term operational needs with long-term asset stewardship and resilience, underpinned by strong governance, robust data, and a commitment to continuous improvement.

6.7 DNOs may structure their NAMS in different ways. However, strategies should typically explain how the organisation addresses the following areas, in a manner proportionate to the scale, complexity and risk profile of its network assets:

- purpose and asset stewardship principles
- governance, technical authority and decision ownership
- asset knowledge, data quality and uncertainty management
- risk and criticality frameworks, including system-level considerations
- asset lifecycle and asset health management
- network resilience and system outcomes
- decision-making and investment prioritisation
- assurance, performance monitoring and continuous improvement

Asset risk and resilience

6.8 Business plans should set out the DNO's views on asset health, criticality and replacement priorities at each of:

- the start of the price control period, effectively reflecting their view on the asset health, criticality 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 proposed interventions

6.9 We consider that establishing a baseline view of asset health, criticality and replacement priorities at the start of the price control period is essential for Ofgem to be able to take fully informed decisions on a DNO's proposed asset interventions. This will be supported by the portfolio asset EJPs.

6.10 DNOs should explain their long-term risk objectives and strategy, as well as the long-term benefits delivered by their proposed interventions.

6.11 Long-Term Monetised Risk interventions should be informed by stakeholder engagement and cost benefit analysis and demonstrate that selected investment options both efficiently meet their stakeholder-driven objectives and efficiently deliver sufficient net benefit for existing and future consumers.

Climate Resilience Strategy

6.12 Business plans must include a dedicated Climate Resilience Strategy (CRS), with one CRS produced per DNO group. The CRS is a regulatory instrument setting the strategic approach to climate resilience and ensuring alignment with the wider business plan to support consistent, evidence-based decisions across

the price control period. Additional clarifications on terms used in the CRS guidance can be found in the Climate Resilience Definitions in Appendix 3.

6.13 The CRS should be informed by relevant existing climate-related reporting and evidence. This includes outputs from the Climate Change Adaptation Reporting Power (ARP) and, where applicable, climate-related disclosures prepared at corporate level under International Financial Reporting Standards (IFRS). The CRS should summarise key ARP findings and explain how they inform the DNO's climate risk assessment and investment priorities. IFRS climate-related disclosures may be referenced to provide high-level corporate context on climate hazards, impacts and adaptation approaches. These disclosures are not expected to be reproduced, disaggregated, or translated into licence-level analysis within the CRS. Where referenced, DNOs should clearly explain their relevance to network-specific risks and investment decisions, without relying on IFRS disclosures as primary evidence. As ARP provides national-level insights, the CRS must interpret these for the DNO's local context.

6.14 Where ARP or IFRS outputs identify climate-related risks or adaptation considerations that are material to network resilience but do not map directly to the specific climate hazards, DNOs may still reflect these in the CRS, provided their relevance is clearly explained.

6.15 The CRS must clearly signpost the business plan documents relevant to climate resilience, such as load strategies, the LINP and the evidential material underpinning climate resilience proposals (eg EJPs and CBAs).

6.16 All climate resilience proposals must be proportionate, evidence-based and deliverable within the ED3 period. However, programmes of investment beyond ED3 can be included, noting that allocated funding will be for the ED3 price control period, with later phases subject to submission and assessment in future price controls.

6.17 Given the uncertainty in how climate hazards, exposure and asset/network vulnerability may evolve over time, DNOs should take an approach which prioritises both low-regret interventions and those which proactively respond to high-impact but uncertain risks, particularly where the consequences of inaction could be significant.

6.18 Where interventions are driven by uncertain or longer-term risks, DNOs should clearly justify the materiality of the risk, the appropriateness of the intervention given the level of uncertainty, and why action is required within the ED3 period.

6.19 DNOs should also justify whether an intervention is best delivered in ED3 or through a phased or adaptive approach over future price controls.

6.20 The CRS must follow a clear and consistent structure to ensure comparability across DNOs. As a minimum the structure should be as follows:

- introduction
- ARP-based climate hazard, exposure and asset/network vulnerability assessment
- investment relating to climate resilience
- long-term linkages
- adaptation pathways
- capability building

6.21 DNOs must ensure that a consistent set of underlying assumptions informs their planning. This should include internal consistency within each DNO's business plan, for instance in the key assumptions that are used across climate risk assessment, option development and investment decisions. Where proxies, scenarios or simplifying assumptions are used, DNOs should clearly set out:

- what assumptions have been made and why
- how they are applied consistently across relevant analyses

6.22 The expectation for what each section should contain can be found below.

Introduction

6.23 The CRS must present a review of evidence relating to a severe weather event[30] (eg storms, high winds, extreme temperatures) or a compound event that highlights the impacts of several hazards interacting (eg intense rainfall and storm conditions leading to flooding, ground instability and landslides), which caused loss of supply or other detrimental impacts in the last ten years.

6.24 This review should draw on available evidence and may be presented in a case-study style, clearly illustrating the impacts of the event and how it has informed subsequent changes in thinking, planning and decision-making. Where it is practical DNOs should identify:

- indicative operational expenditure, recovery and response costs where these are available
- service impacts (eg customers interrupted, customer minutes lost)
- the key components and scale of the network affected
- lessons learned from these incidents

6.25 DNOs must clearly explain how this historical evidence informs forward-looking decision-making for ED3 and beyond, including how past events have shaped the identification, prioritisation and timing of proposed interventions.

[30] Severe Weather Event are identified with reference to the Guaranteed Standards of Performance (GSoP) thresholds, where Category 1 events are defined as those in which daily high-voltage fault levels reach at least eight times (8×) the network's average daily level.

ARP-based climate hazard, exposure and asset / network vulnerability assessment

6.26 DNOs must set out their current climate hazards, exposures and asset/network vulnerabilities on their networks, providing a clear assessment of current climate risks. This must include a distinct assessment of storm-related hazards (wind, rain, snow/ice) and extreme heat hazards (high air and ground temperatures), reflecting their different risk drivers and investment implications, and present both qualitative and quantitative evidence of climate risk now, and for time horizons out to 2050 and 2100 (for those hazards that are available or suitable proxies).

6.27 Each DNO Group must assess how these risks may evolve under future climate conditions using, as a minimum, a moderate pathway (RCP4.5) and a high-end pathway (RCP8.5) from the UK Climate Projections[31] (for available hazards or suitable proxies) and exploring the full spread of the model projections for these scenarios. Where appropriate, DNOs may supplement this analysis with other climate model projections from the CMIP6 ensemble and/or Global Warming Level (GWL) datasets (eg GWL2, GWL4) to explore thresholds or tipping points, although this is not required for ED3. How we expect this to be done is set out under the investment assessment model (see Paragraph 6.36 to 6.37).

Investment relating to climate resilience

6.28 For the purposes of ED3, direct climate resilience investments, as defined in the Appendix 3: Climate Resilience Definitions, are actions, projects or investment projects where climate risk is the primary driver for the investment, rather than one of several secondary considerations.

6.29 These may include physical, operational, digital, system-based, and capability-building interventions, where such activities are undertaken specifically to respond to identified climate risks and would not otherwise be required as part of BAU activities.

6.30 The CRS must clearly distinguish investments that adapt or respond to chronic climatic impacts from those that improve resilience to acute climate impacts from hazards (direct climate resilience investments) and consider the appropriate balance between them in light of cost, value for money and the impact on resilience outcomes over time.

6.31 Chronic climate impacts (such as long-term deterioration due to gradual warming) may influence the scale and timing of BAU activities. Where climate change drives a material uplift in risk or impact beyond baseline assumptions or standards, the incremental costs required to address that uplift should be

[31] UKCP 18 Guidance - Representative Concentration Pathways

clearly identified and justified as climate resilience investments for ED3. This categorisation is intended to support transparency and justification, and does not pre-determine funding mechanisms, efficiency assessment or benchmarking at determination.

6.32 Incremental costs may include but are not limited to:

- asset replacement
- vegetation management
- flood-mitigation activities
- operational/IT communications resilience
- mobile generators for emergency response
- vulnerable customer support schemes
- enhancements to existing data, modelling, monitoring, or analytical capability to incorporate climate risk, where these represent an uplift to Business-as-Usual activities

6.33 Climate resilience investments must be developed and presented in a structured and transparent manner. All proposals that include climate resilience elements, whether wholly climate-driven or incorporating incremental climate resilience components, must be categorised using the BPG and BPDT structure, and supported by the evidence set out in the CRS. Proposals must follow a clear hazard, need, action and cost narrative, clearly distinguishing climate-driven investments from incremental or non-climate investment drivers.

6.34 To support consistency and comparability, DNOs must apply a structured assessment approach and demonstrate how each proposal meets the following principles:

- clear need and hazard linkage
- proportionate and robust under uncertainty
- deliverability and practicality
- value for customers
- alignment with long-term resilience goals[32]

6.35 We expect most ED3 climate resilience proposals to be non-load, operational, digital or system-based, and the assessment process below applies directly to these. Load-driven proposals are not required to follow a separate assessment route by default. However, given their interaction with new assets and asset lifetimes, Ofgem may apply a distinct assessment focus where appropriate. In all cases, proposals must meet the same evidential standards and demonstrate that climate resilience has been embedded in the design from the outset.

[32] Defined goal: "Maintain at least current levels of network resilience under future 2080 climate conditions" as noted Paragraph 5.78 of the SSMD.

Investment assessment model

6.36 The CRS should demonstrate current climate risk levels across different assets, processes and locations, with a clear indication of which hazards, which asset groups, and which parts of the network may require climate-resilience investment, including where capability-building activities are necessary to support the effective assessment, monitoring, or management of these risks. This assessment model is intended to be applied consistently at both the portfolio level and the individual asset or activity level, ensuring that DNOs can justify climate-resilience needs and options whether proposals relate to a single site or a wider programme of actions.

6.37 The assessment model applies equally to non-load, operational, digital, system and asset-based resilience proposals; references to load-driven investments are illustrative only and should not be read as limiting the scope of climate resilience investments.

Climate hazard

6.38 DNOs must clearly set out the climate hazards that impact their network. This should draw on the hazard ratings and risk assessments from the DNO's most recent ARP, supplemented, where appropriate, by more granular DNO-specific modelling and/or data. Climate hazards should be described in line with the agreed Climate Resilience Definitions.

6.39 Load proposals must demonstrate how projected climate hazards inform the required climate-resilient design standard for new or expanded assets.

Exposure

6.40 DNOs must outline their exposure to these hazards, including the number and type of assets, internal processes, or parts of the network that are susceptible. This may include highlighting specific geographic locations or asset groups where exposure is concentrated.

6.41 Load and (where relevant) non-load proposals must consider how exposure of assets to climate hazards could change in the future, for example due to load growth driven by future energy system needs (including those identified through the tRESP) or changes in the location or scale of assets.

Asset/network vulnerability

6.42 DNOs must assess asset/network vulnerability (ie the likelihood and severity of impact arising from exposure to a climate hazard), for which they should consider the Phase A fragility curves produced by the UK Met Office, to provide a high-level overview across a licence area. This must be supplemented, or where DNOs have more enhanced analysis, surpassed, by additional evidence or modelling to provide more granular insights to inform asset/network

vulnerability. This may include asset-health, criticality or operational data, or outputs from more advanced models.

6.43 Load proposals must identify whether the new or expanded asset, as designed, is sufficiently robust under future climate conditions, and whether alternative design specifications may be required to avoid premature deterioration.

6.44 Granular geographic information should demonstrate how climate risk varies materially within a licence area and may include, for example:

- localised hazard data
- asset-location overlays
- local ground and environmental characteristics
- area-specific consequence and criticality
- consistency with operational experience

Current Climate Risk

6.45 DNOs must combine climate hazards, exposure and asset/network vulnerability to evaluate the Current Climate Risk, categorising the relevant assets, asset groups, operational processes or locations as low, medium or high risk. This assessment should be consistent with, and cross-referenced to, the DNO's ARP risk-matrix scores, ensuring that hazards, exposures and vulnerabilities are presented coherently and transparently.

6.46 DNOs are not required to categorise every individual asset. DNOs may assess risk at the level of asset groups or typologies where climate risk is broadly consistent, but should apply more granular assessment where risks vary materially across locations, asset conditions or critical assets. Individual asset-level assessment is not required unless necessary to demonstrate risk differentiation.

6.47 This baseline should be informed by the DNO's ARP risk-matrix and must clearly indicate which assets, processes and locations fall into low, medium or high-risk categories.

6.48 For low-risk areas, DNOs must determine if risk is expected to change during ED3:

- if not, investment is not required, but an Adaptation Pathway should be set out
- if risk is expected to change, it must be assessed alongside medium and high risks

6.49 In considering whether climate risks may change during the ED3 period, DNOs should consider that year-to-year and decadal climate variability means that climate conditions during the ED3 period:

- may fluctuate materially (variations from year to year, or between 5 to 10 year periods, will often be much larger than long-term trends)
- may differ from recent experience (eg the next 5 to 10 years could be very different from the last 5 to 10 years)
- may not be consistent with longer-term climate projections (eg a gradual trend towards drier summers is not inconsistent with several wet summers) or may temporarily overshoot longer-term average projections

Establishing the current intervention position

6.50 DNOs must identify whether:

- work is already underway or planned to address the identified risk
- existing actions remain appropriate under future conditions
- a new long-term resilience need exists that must be addressed in ED3

6.51 For load-driven proposals, climate resilience should be addressed and delivered through intentional design, avoiding the need for separate climate resilience investments. Where climate resilience outcomes are delivered as part of a load scheme, these must not be presented as separate climate resilience investments. Only where additional measures are required to address material climate risk beyond standard design assumptions should these be treated as distinct climate resilience elements

6.52 This assessment must not assume a blank starting point. Proposals must demonstrate how existing or planned activity has been considered and whether it remains suitable under future climate conditions.

Future climate risk

6.53 DNOs must assess how risks evolve under future climate scenarios (RCP4.5 and RCP8.5 for 2050 and 2100), identifying how hazard intensity, frequency and exposure could change over time. The spread of climate model projections should be analysed for each RCP scenario to explore model uncertainty.

6.54 A medium or high future risk does not automatically justify investment. DNOs must determine whether the risk is already mitigated, whether operational or digital measures are more proportionate, or whether a new investment is required.

6.55 Future-risk assessments must integrate future ARP risk-matrix scores and stress-testing asset/network vulnerability thresholds to show how risks change from the present day to the mid to late century.

6.56 Load proposals must demonstrate that the selected design option remains appropriate throughout the asset's operational life under both future climate scenarios.

6.57 DNOs should consider the limitations and uncertainties within the models, data and tools used to assess climate risk and clearly set out their implications for the proposals. This must include exploring the spread of model projections for each RCP scenario. They should also consider whether the signal in projected trends is discernible above climate variability over the time horizon of investment decisions and may draw on literature as needed to support this analysis. Other uncertainties (eg in future exposure or arising from current vulnerability data gaps) can be explored qualitatively where uncertainty data is unavailable.

6.58 DNOs should demonstrate how uncertainty in current and future changes in hazard, exposure and asset/network vulnerability could affect the outcomes of proposed investments. Proposals should reflect this confidence assessment, demonstrating how investments are robust across the range of plausible future conditions, for example by identifying low regret proposals, using adaptation pathways or other approaches as appropriate.

6.59 Where robustness cannot be assured, for example where there is high uncertainty but investments are deemed necessary, DNOs should clearly justify the materiality of the risk, the appropriateness of the proposed intervention given the level of uncertainty, and the associated investment risks.

6.60 Ofgem will continue to develop approaches together with industry and will be expanding expectations for future-proofing resilience investments. Any expansion of expectations beyond those set out in this guidance would be consulted on and would apply to future decision points or price control periods, rather than retrospectively within ED3.

6.61 When evaluating near-term climate risks and prioritising resilience investments for hazards that are expected to become more severe, DNOs should demonstrate that proposals do not inadvertently increase asset/network vulnerability to other climate hazards (eg that heat-related investments do not increase vulnerability to cold snaps). We will expect a more detailed consideration of the impact of climate variability on resilience plans in the future and will work with DNOs to evolve this approach going forwards.

6.62 When setting out proposed climate resilience investment, DNOs should explain how each proposal represents a proportionate response to the identified climate risk. Ofgem does not expect detailed quantification or monetisation of resilience benefits for ED3; instead, DNOs should provide a structured qualitative narrative linking the proposal to the needs case, risk timing and asset lifetime, and explaining why the chosen approach provides value under uncertainty.

Resilience options

6.63 Based on the assessed risks, DNOs must develop a clear set of resilience options aligned to the BPG/BPDT investment categories.

6.64 DNOs must consider risk timing and asset lifetime when identifying the most proportionate intervention. They must state whether proposals are one-off interventions or part of a longer-term programme and identify where risks are better managed through programmatic or intensified activities. For the purposes of this assessment, intensified activities refer to established activities where climate change is driving changes in frequency, scale, timing or targeting, rather than the introduction of a new intervention. Such activities should be distinguished from discrete, acute hazard-driven interventions, which would be treated as climate-resilience investments.

6.65 Proportionate intervention types include but may not be limited to:

- do nothing/monitor
- like-for-like renewal
- upgrade for climate resilience
- digital/data/monitoring activities
- operational activities
- climate-resilient design for new load-driven assets

6.66 Load proposals must show how load growth driven by the energy transition and future climate risk have been jointly considered to select the most efficient and resilient design option.

Ofgem's assessment criteria

6.67 Given their hazard-specific and context-dependent nature, climate resilience investment proposals that go beyond BAU will be considered on a case-by-case basis at the proposal-justification stage, including the incremental risk, impact or cost attributable to climate change relative to baseline assumptions or standards. To ensure that the proposals are robust and fit for purpose, DNOs should ensure that investment proposals cover the assessment criteria as outlined below:

- clear need & hazard linkage – demonstrate a direct connection to a climate hazard with exposure and asset/network vulnerability clearly evidenced. Proposals should show that climate change drives a material uplift in risk or impact relative to baseline assumptions or standards, and that the incremental cost is justified by climate risk evidence
- proportionate and robust under uncertainty – represent a proportionate response relative to the level of climate risk now and in the future. Investment should demonstrate value under a range of climate model projections, including RCP4.5 and RCP8.5 for 2050 and 2100, or be clearly justified where addressing high-impact risks under uncertainty

- proposal maturity/optional analysis – building on hazard linkage, there must be a clear articulation of the problem and engineering rationale. This should include credible options analysis with evidence supporting the justified approach which delivers the most efficient resilience outcome
- deliverability & practicality – demonstrate clear feasibility in terms of delivery, including timeframes within the ED3 price control without compromising quality
- value for consumers – clear costs and benefits case (potential to include avoidance of outages, reduced risk exposure and improved operability/efficiency). Shows good value as a standalone project or as part of a work programme within ED3 and/or beyond ED3. Value for money will be assessed primarily through the strength of the needs case, proportionality of the response and robustness under uncertainty, rather than through monetised benefit estimates
- robustness – demonstrate how uncertainty in current and future changes in hazard, exposure and asset/network vulnerability could affect the outcomes of the investments, and explain how this is accounted for in the proposals
- alignment with long term resilience goal to maintain current resilience levels under 2080 conditions

6.68 To ensure proportionality and avoid unnecessary burden, the level of justification required should scale with the materiality and complexity and uncertainty of the proposal:

- low-value / low-materiality interventions may require a concise EJP focused on hazard linkage, need case, and proportionate option selection
- medium-value interventions should include a clear engineering rationale, options assessment and relevant supporting evidence
- high-value or high-complexity interventions (for example, those involving higher cost, technical complexity, material delivery risk, or long-term and potentially irreversible investment decisions) must include full technical justification, cost analysis, and alignment with Adaptation Pathways

6.69 Interventions driven by high-impact but uncertain risks should include clear justification of the materiality of the risk, the appropriateness of the intervention given the level of uncertainty, and the rationale for the timing of the investment.

6.70 The appropriate level of EJP detail is expected to reflect the materiality, complexity, risk and uncertainty of the intervention. These categories are intended as a guide rather than a prescribed classification, and DNOs are expected to apply judgement when determining the proportionate level of evidence for Ofgem to assess the robustness of the case.

6.71 Where climate resilience is the primary and separable driver, proposals are expected to be brought forward through an Atypical Investment EJP narrative, and assessed on their hazard-specific evidence, risk evolution and incremental climate-related costs.

6.72 Where climate resilience forms part of a multi-driver investment, the full project should be evidenced through the existing EJP and CBA framework, with only clearly substantiated incremental costs attributable to climate resilience treated as climate resilience investment. All other elements of the proposal will be assessed against their relevant non-climate investment drivers.

6.73 Where no EJP is provided, DNOs must still clearly state the reason for exemption and provide a short justification.

6.74 Where proposals are technically similar, driven by the same hazard, or form part of a coherent programme (eg storm hardening cycle, thermal upgrades across a region), DNOs may bundle them into a single EJP. Any bundled EJP must:

- clearly define the scope and common rationale
- present the engineering logic for the bundle
- include location or asset specific variations where these affect cost or risk
- demonstrate that bundling provides a more proportionate and efficient justification compared to multiple separate EJPs

Decision

6.75 We will assess each proposal against the established climate resilience assessment criteria, and only proposals supported by clear, proportionate and robust evidence will be considered for funding. The assessment framework will include safeguards to ensure that proposals represent demonstrable needs; submissions that do not meet the evidence threshold will not be funded.

Long-term linkages

6.76 DNOs must demonstrate how their ED3 climate resilience proposals align with the long-term sector goal to maintain today's level of network resilience under 2080[33] climate conditions and show how ED3 actions contribute credibly toward this trajectory. This long-term goal is intended as a directional planning anchor, which provides a guide for long-term framing, to allow for coherent planning across multiple price control periods. DNOs are not expected to define or evidence a single quantified baseline.

6.77 The CRS must integrate with longer-term planning, particularly LINPs and relevant network development plans, to translate strategic direction into

[33] 2080 has been used as an indicative reference year to align with long-term climate projections, not as a requirement to run a separate bespoke modelling exercise beyond those scenarios.

location-specific and time-sequenced portfolios. This should ensure that investment timing is efficient, avoids stranded assets, and supports coherent system development across multiple price control periods.

6.78 DNOs must also demonstrate how climate-resilience actions are co-optimised with net-zero delivery and how they account for relevant cross-sector interdependencies, including dependencies with telecommunications, transport, water, and other critical infrastructure, and how these actions form part of a continuous, adaptive long-term resilience pathway rather than a discrete ED3 package.

Adaptation pathways

6.79 DNOs must identify their top three hazard-specific pathways, reflecting prior RIIO-ED2 work on climate risk assessment and resilience capability development. Adaptation Pathways should show how climate-related risks, needs and interventions evolve over time, and how ED3 proposals align with long-term climate resilience objectives. Pathways must set out how ED3 decisions relate to actions required in later price controls and how flexibility will be maintained under uncertainty.

6.80 For each pathway, DNOs must set out:

- the observable trigger points or thresholds at which current actions become insufficient
- the alternative or escalated actions required if thresholds are crossed
- the DNO's plan to monitor the relevant conditions to ensure action is taken if/when required
- where actions fall beyond ED3, these must be clearly justified and supported by a monitoring and trigger point plan that defines when subsequent interventions will be required

6.81 Adaptation Pathways must be informed by recognised good practice frameworks. DNOs may:

- use BSI standard on adaptation to climate change[34]
- adopt established academic adaptation pathway methodologies describing how risks and responses evolve under different climate futures

6.82 DNOs must ensure that the methodology is transparent, robust, and consistent with the wider ED3 climate resilience framework.

6.83 Adaptation Pathways must reflect scenario switching, demonstrating how actions differ under a range of plausible future scenarios. Pathways should

[34] BS 8631:2021 - Adaptation to climate change. Using adaptation pathways for decision making

identify both low or no-regret interventions that remain appropriate across multiple climate pathways, and interventions which respond to high-impact but uncertain risks, recognising that adaptation is iterative and will require reassessment and further intervention over successive price controls.

6.84 Trigger points must be based on objective indicators (eg hazard intensity, frequency thresholds, asset-fragility thresholds, performance decline or escalating service-reliability impacts). Each trigger must be paired with a corresponding response option to ensure Adaptation Pathways remain flexible and adaptive as climate projections, operational data or system conditions change.

Capability building

6.85 DNOs must use the CRS to demonstrate how they will use capital investment, but also how they will develop and embed internal capability and wherever possible, utilise and build on existing engagement over ED3 to support delivery of their CRS. While external expertise may be used to supplement delivery where appropriate, the DNO must be able to understand and take responsibility for any analysis that has been outsourced. Reliance on external expertise should not substitute for the development of enduring in-house skills, knowledge and decision-making. Capability building includes:

- developing modelling expertise to assess climate hazards and impacts, stress-testing, analytics and asset/network vulnerability
- developing expertise to critically evaluate climate risk modelling and analytical approaches
- developing expertise in scenario analysis, strategic planning and decision-making under deep uncertainty
- organisational readiness for more severe or frequent climate hazards
- embedding continuous improvement
- developing the organisational capability to collaborate effectively with relevant external stakeholders

6.86 The capability-building requirements set out in this section should be evidenced through proportionate narrative, rather than through a prescriptive metrics or performance-measurement framework. We expect DNOs to provide clear narrative evidence of how internal capability will be built, retained and applied in practice to support delivery of the CRS, with an approach proportionate to the scale and risk profile of their networks. Within this narrative we expect DNOs to outline:

- the key internal skills and knowledge needed to deliver climate resilience priorities

- any reflections on the current maturity of capabilities - where capabilities are already embedded, areas of reliance on external expertise and known gaps which pose delivery or decision-quality risks
- what they will do to build and embed internal capabilities during ED3
- how existing engagement with other relevant organisations will be utilised and strengthened during ED3, and how this collaboration informs decision-making and supports effective climate resilience outcomes

Reliability strategy

6.87 Each DNO should submit a Reliability Strategy as part of their business plan. The Reliability Strategy should outline how DNOs have identified customers disproportionately impacted by short interruptions and multiple unplanned interruptions as set out below. The Reliability Strategy should also set out how each DNO intends to minimise the impact of such interruptions on the identified customer types in ED3.

6.88 For clarity, short interruptions are defined in the Regulatory Instructions and Guidance.[35] Multiple unplanned interruptions can be determined by DNOs in line with the guidance set out below and may cover customers who are eligible for the Electricity Guaranteed Standard for multiple interruptions (Regulation 10).[36] However, multiple unplanned interruptions may not include customers who qualify as Worst Served Customers (WSC) as these customers are addressed separately through the WSC Use it or lose it (UIOLI) and WSC Governance Document.

6.89 Each DNO's Reliability Strategy should set out clear deliverables on how it plans to address customers disproportionately impacted by short interruptions and multiple unplanned interruptions. To ensure consistency in the approach, deliverables should be specific, measurable, achievable, relevant and time-bound. The Reliability Strategy should also provide a clear link between the deliverables and the benefits proposed.

Short interruptions

6.90 DNOs should identify customer types in their licence areas who are disproportionately impacted by short interruptions, compared to their average customer, and set out how these customer types are disproportionately impacted. A customer may be considered disproportionately impacted where the short interruption results in a disproportionate consequence for the customer. For example, where the customer is critically dependent on continuous supply, it triggers a consequence that has an impact long after the

[35] RIIO-2 Regulatory Instructions and Guidance and Regulatory Reporting Packs | Ofgem
[36] The Electricity (Standards of Performance) Regulations 2015

supply is restored, the impact affects wider communities, the environment or public trust, or where the cumulative frequency is above that experienced by the average customer.

6.91 DNOs should assess and set out where customer types identified as disproportionately impacted by short interruptions are located in their licence areas. This assessment should identify whether there are any trends of where these customer types are located and identify any clusters of groups disproportionately impacted.

6.92 DNOs should set out a plan to address the impact of short interruptions on the customer types identified above. This should include:

- plans on how best to minimise the impact of short interruptions on the identified customers - this may include engagement with customer groups or management of short interruptions on the network
- plans on how best to minimise the frequency of short interruptions in the DNO's licence areas, which may, for example, include management of short interruptions on the network by implementing technologies to minimise the frequency of short interruptions
- the methodology used for prioritising works that best minimise the impact and/or frequency of short interruptions on customer types identified - for example, this could set out the interaction between the identified customer types, their locations, and the frequency of short interruptions experienced by those groups
- the total annual costs associated with works expected to be carried out in ED3, where these have been submitted in the BPDTs, and the estimated number of customers these works are intended to benefit
- where the activities proposed in other parts of the business plan have been driven in part by efforts to improve customer experience of short interruptions, and there is an associated incremental cost, this should be clearly documented in the business plan and summarised in the Reliability Strategy

Multiple unplanned interruptions

6.93 DNOs should identify customers in their licence areas who are disproportionately impacted by multiple unplanned interruptions, including recognition of any disproportionate impact across customer types.

6.94 DNOs should assess and set out the frequency level (or frequencies) at which multiple interruptions disproportionately impact customers in their relevant licence areas, including how this compares to the average frequency of interruptions experienced by customers in that licence area.

6.95 DNOs should assess and set out where customer types identified as disproportionately impacted are located in their licence areas. This assessment should identify whether there are any trends in where these customers are located and identify any clusters of groups disproportionately impacted. This assessment should also identify the frequency or frequencies of interruptions occurring in the identified locations.

6.96 DNOs should set out a plan to address the impact of multiple unplanned interruptions on the customer types identified above. This should include:

- plans on how best to minimise the impact of multiple unplanned interruptions on identified customers - this may include engagement with customer groups or management of interruptions on the network
- plans on how best to minimise the frequency of multiple unplanned interruptions, which may, for example, include management of interruptions on the network through targeted investment in network reinforcement, automation, enhanced fault detection and/or response capabilities
- the methodology used for prioritising works that best minimise the impact and/or frequency of multiple unplanned interruptions on customer types identified - for example, this could set out the interaction between the identified customers impacted, their locations, and the frequency of multiple unplanned interruptions experienced by those groups
- the total annual costs associated with works expected to be carried out in ED3, where these have been submitted in the BPDTs, and the estimated number of customers these works are intended to benefit
- where the activities proposed in other parts of the business plan have been driven in part by efforts to improve customer experience of multiple unplanned interruptions, and there is an associated incremental cost, this should be clearly documented in the business plan and summarised in the Reliability Strategy

Cyber Resilience Business Plan (CRBP)

Introduction to the Cyber Resilience Business Plan

6.97 There remains an ongoing and substantial requirement for all network companies to invest in, develop, and implement measures aimed at mitigating cyber risk, enhancing their cyber capabilities, and achieve compliance with Network and Information Systems Regulations (NIS-R).[37] To assess the progress

[37] The NIS Regulations 2018 - GOV.UK

of NIS-R implementation, the National Cyber Security Centre established the Cyber Assessment Framework (CAF) in 2018.[38] DNOs are obliged to integrate current CAF profiles into their risk management practices and utilise these profiles to evaluate their cyber security resilience and demonstrate compliance with the NIS-R. All DNOs should have met the CAF Enhanced Profile (EP) by December 2027, so we expect requests to be for projects that either maintain or go beyond the EP. DNOs should see the EP as a floor, rather than a ceiling, and we expect DNOs to be actively pushing to further reduce cyber risks where it is proportionate and economically efficient to do so.

6.98 DNOs should submit to Ofgem's Cyber Investment Delivery Team a NIS-R Cyber Resilience Business Plan (CRBP) that is aligned to the CAF and covers activities that maintain and improve their compliance with NIS-R. This should cover investments across both Information Technology (IT) and Operational Technology (OT) and align with the DNO's latest NIS annual self-assessment.

6.99 We expect each DNO to review its assets that are within the scope of NIS-R to enable an up-to-date NIS-R scope to be submitted as part of its CRBP. In addition, each DNO should refresh its cyber security risk assessments as close as possible to the submission of its CRBP. This is to ensure an up-to-date view of a DNO's risk position is presented.

6.100 For IT and OT assets that are not within the scope of NIS-R, investments can be considered elsewhere in the business plan, for example IT and Telecoms, physical security, or asset health. However, where a DNO can demonstrate a clear and well justified link for investment in an asset that is not subject to the NIS-R but will deliver cyber resilience risk reduction to assets that are subject to the NIS-R, we may consider this through the cyber resilience funding route. For activities related to assets that are not subject to NIS-R, we would expect DNOs to demonstrate the threat modelling or attack path scenarios they have devised to support the justification of investment via its CRBP. We encourage each DNO to engage with us during the development of their business plan if there are any questions over whether investments should sit within the CRBP or in another area of the business plan.

6.101 There are two mechanisms to support investment in cyber resilience and we expect companies to assign the correct one for the type of investment they are seeking:

- Price Control Deliverable (PCD) investments (for defined projects): set where DNOs can justify the business need, the specific needs case, preferred option and schedule, but there is uncertainty over the estimated cost to deliver. In this case, allowances will be awarded and monitored via PCDs

[38] Cyber Assessment Framework | National Cyber Security Centre

- Use-It-Or-Lose-It (UIOLI) investments (for uncertain projects): where a DNO can justify the overall business need and the specific needs case for a proposed project, but there is substantial uncertainty over the preferred option, schedule and cost which means a PCD cannot be set. In this case, we will consider awarding a UIOLI allowance. However, this will be by exception, and we will still require a clear needs case, including a risk assessment. If a UIOLI allowance is awarded, it will be capped at 20% of a network company's total allowances for the entire price control for cyber resilience. The 20% cap is in place so that the majority of allowances will be set as PCD investments, which will encourage DNOs to look for efficient and innovative ways to deliver cyber resilience improvements and compliance with NIS-R

6.102 Table 5 breaks down the information we expect in the business plan for the different types of investment in cyber resilience:

Table 5: Cyber Resilience Category Requirements

Category		PCD investments	UIOLI investments
Needs	Summary and alignment with business strategy	✓	✓
	Risk assessment	✓	✓
	Optioneering	✓	-
Delivery	Governance and delivery model	✓	-
Costs	Qualitative explanation of value for money	✓	-
	Quantitative totex breakdown	✓	-

6.103 Information on optioneering, governance, delivery model and qualitative explanation of value for money are not required for UIOLI investments. This is due to the uncertain nature of UIOLI investments where it may be difficult for network companies to substantiate specific options, delivery plans and costings. Whilst a quantitative totex breakdown is not required for UIOLI investments, DNOs should provide indicative costs as part of their CRBP in their Cyber Resilience Business Plan Data Table.

6.104 PCD investments will be subject to ongoing monitoring as part of the outcome-based PCD reporting process with UIOLI investments also subject to monitoring. Where DNOs submit PCD investments, we expect each DNO to propose relevant PCDs as part of their CRBP for our assessment.

NIS-R Cyber Resilience Business Plan requirements

6.105 Each DNO's CRBP must provide us with a clear overview of its NIS-R Cyber Resilience programme and its investment requirements in ED3. The CRBP should be made up of:

- a Cyber Resilience Overview Document (maximum 30 pages) that includes:
- an executive summary (maximum two pages)
- an overview of proposed investments and allowances
- Cyber Resilience Business Plan Data Table (C26 in the BPDT)[39]
- individual Cyber Resilience Investment Documents (CRIDs)

6.106 We recognise that some DNOs have programmes spanning price control periods. We require DNOs to re-submit documentation to support its ED3 investment request. If there are no changes to the RIIO-ED2 submitted needs case, proposed delivery and/or costs for a given programme of work, then this should be clearly stated along with an explanation of the process the DNO has followed to confirm this is the case within the relevant CRID. Where only part of a programme of work from RIIO-ED2 is continuing, this should be referenced in the CRID template with relevant documentation provided that outlines the previous investment.

NIS-R Cyber Resilience Investment Document (CRID)

6.107 DNOs should map projects and activities to the most relevant CAF principle.[40] Examples of projects mapped to each CAF principle can be seen in the NIS Supplementary Guidance and the CAF Overlay for Downstream Gas and Electricity (DGE) Sector.[41] The projects linked to each primary CAF principle should then be placed within a single CRID. This means that the number of CRIDs is capped at 16 per DNO.

6.108 BAU and operational costs can be included in the CRBP. These costs should be for cyber resilience improvement activities included in each DNO's ED3 CRBP. These costs must be clearly aligned to the relevant projects and included within the relevant CRID.

6.109 Each CRID should include details of the needs case, delivery plans and the costs either at a programme or project level depending on what is most appropriate for DNOs to articulate their investment requirements. CRIDs should be submitted for both PCD and UIOLI investments containing the information as listed in Table 1. Each CRID should not exceed 30 pages (excluding annexes elsewhere, such as project plans or supplier quotes). In the sub-sections below, we set out what

[39] This should be done as part of the BPDT, and does not need to be broken down by licence area
[40] Cyber Assessment Framework - NCSC.GOV.UK
[41] NIS Supplementary Guidance and CAF Overlay for DGE Sector_TLPWhite.pdf

the requirements are for each project in a CRID, covering the needs, delivery, and costs.

Needs: part 1 - summary and alignment with business strategy

6.110 All programmes must include:

- how they support the organisation to achieve the overall business objectives set out in its ED3 Business Plan, with a clear articulation of the linkage of key cyber risks to wider business risks
- how they support the organisation's cyber resilience strategy

Needs: part 2 - risk assessment

6.111 All programmes must include:

- an overview of the business and cyber risk assessment process and methodology used to identify the current risks facing the company's assets subject to the NIS-R, including how risks have been prioritised. The risk assessment process and methodology are only required to be submitted once; this can be as an annex in the CRBP and does not need to be repeated in each CRID
- how the consequences and impacts for the risks have been derived and are related to the assets in scope of NIS-R
- how the level of cyber risk was calculated, including the risk severity in terms of likelihood and impact, and the scale used to quantify and qualitatively assess the risk
- why the current security and resilience controls are insufficient
- how the company's risk tolerance affected the response decision
- how the specific project would impact on the inherent, residual and target risk positions as well as how this will be monitored during and after project delivery

6.112 To support the risk assessment, DNOs should include an accompanying cyber security risk assessment aligned to our NIS Guidance.[42] We expect this risk assessment to reflect the risk, at an applicable level, that the DNO is seeking funding to mitigate. This should include:

- the consequences and impacts that have been assessed and articulated as part of the rationale for the mitigation activities
- risk mitigation activities that will lead to a targeted risk reduction in line with the DNO's risk appetite

[42] NIS_Guidance_for_Downstream_Gas_and_Electricity_Operators_of_Essential_Services_in_GB_v3.0.pdf

- acknowledgement and assessment of the impact cyber incidents may have on existing and future energy consumers

Needs: part 3 - options analysis and selection

6.113 Each PCD investment programme must include:

- an overview of the range of options identified, evaluated and assessed, with a clear presentation of the preferred option (where the options are limited for the chosen remediation, DNOs should articulate the rationale for presenting a reduced set of options)
- the methodology and/or standards used to identify the options considered and how these were shortlisted
- resource consideration including any third-party vendors' and contractors' requirements
- the volume of sites where the preferred option would be delivered and/or where new people resources are required to deliver it
- information to demonstrate how and why the preferred project has been prioritised for investment at this point in time and how it has been considered against the targeted risk position
- for uncertain outputs, network companies should include any feasibility evidence such as research and development output, technical studies, demonstrations, or design work

Delivery

6.114 Each PCD investment programme must include:

- the governance structure, including roles, responsibilities and the number of resources required
- a resource plan and organisational structure for the cyber security team, and demonstration of capacity and capability to deliver the plan, including how the outputs will be integrated into business as usual (where relevant)
- the programme scope, including its general objectives, site applicability, site criticality rating, justification and prioritisation
- a detailed list of project constraints, project delivery risks and dependencies
- programme outputs, including any specific sub-deliverables (what specific products, solutions and technologies are being targeted for delivery)
- programme plan and timelines, such as a Gantt chart, with defined year on year outputs
- a description of how performance will be monitored, including key performance indicators and alignment with CAF Contributing Outcomes

Costs: part 1 - qualitative explanation of value for money

6.115 Each PCD investment programme must include:

- information to justify the allowance requested, including the split between opex and capex
- a demonstration of how programme/project costs have been derived, including any cost benchmarking where available and where efficiencies have been identified
- information on any procurement and tendering processes (and where these have not been undertaken competitively, what steps the DNO has taken to determine the efficiency of costs)
- an outline of any cost uncertainties and how they will be managed and/or mitigated, including a timeline for when cost certainty is expected
- information to demonstrate how the activities within the programme and/or project have been prioritised for investment at this point in time, and how they have been considered against the targeted risk position
- explanation of how the programme and/or project costs demonstrate clear value for money for customers

Costs: part 2 - quantitative totex breakdown

6.116 Each PCD investment programme must include:

- a breakdown of the costs in the Cyber Resilience BPDT (see the BPDT Guidance for more information on breaking down the costs within the template)
- a proposed PCD for our review, which can be used to track allowances and outputs throughout the price control period

6.117 We will cross-check allowances between different parts of the CRBP to ensure costs are accurate and consistent. We encourage all DNOs to carefully check their requested allowances before submission to ensure they are correct.

6.118 Where there is some uncertainty over costs, DNOs should submit lower and upper bounds of costs. These lower and upper bounds should be submitted in the CRID under costs and should include detail on the DNO's rationale for selecting a specific cost profile with its chosen cost profile represented in the BPDT.

6.119 We recognise that certain projects may not align perfectly with a single section of the BPDT. To facilitate your decision-making process, we have provided Table 6 as a reference to assist with your selections. If you are unsure about where to categorise a particular project, please engage with us prior to submission so that we can provide guidance.

Table 6: Suggested business plan data tables for different example projects

Non-operational capex / IT & Telecoms	Cyber Resilience	Data and digitalisation
Personal devices	Software intrusion detection and prevention systems	Data platforms, lakes, catalogues
Microsoft 365	Cyber security training	APIs & interoperability
SCADA upgrades	Small physical security measures adjacent to NIS assets, such as CCTV in server rooms and cabinet locks or smart locks for server racks (larger measures or measures not adjacent to NIS assets should go into the Physical Security plan)	Digital portals
Control room centres / control room upgrades	Security Operations Centre (SOC) and associated staff	AI/Machine Learning use cases
Telemetry / satellite connectivity	Security information and event management (SIEM) tools	Data governance & quality
Project management / human resource tools	Operational Technology network segmentation	Digital field tools
Enterprise IT upgrades	Secure Domain Name System (DNS) implementation	Demand forecasting tools
Non-operational fleet investments	Cyber governance reforms	Real-time network visibility
	Cyber incident response and exercising	AI and machine learning capabilities
	Vulnerability Management tools	
	Identity and Access Management (IDAM) tools	

IT&T strategy

6.120 The Information Technology and Telecoms (IT&T) strategy should clearly set out how the network company plans to use IT&T to enable it to achieve the proposals set out in its business plan. This should cover all IT&T spend submitted across cost categories in the BPDT, including, but not limited to Operational IT&T, Non-Op Capex and Business Support Costs.

6.121 The Data & Digitalisation annex is a subset of the overarching IT&T strategy. Where the IT&T spend submitted is already addressed in the Data & Digitalisation annex, companies should cross-reference this within the IT&T strategy, and it does not need to be repeated. The IT&T strategy should clearly

set out the dependencies between the two to demonstrate coherence across the business plan.

6.122 Proposals submitted within the CRBP do not need to be included in the IT&T strategy.

6.123 It should incorporate the application of policies, business strategy, assessment processes and techniques as well as considerations of sustainability and deliverability.

6.124 The strategy should set out how operational IT and telecoms risk reduction will be achieved, how the company will maintain a 24/7 operational telecoms network, how it will improve operational efficiency and how it will improve telecommunications network resiliency.

6.125 The strategy should clearly evidence how the cost of delivery for the IT&T strategy has been estimated and benchmarked.

6.126 In the 10-Year Infrastructure Strategy, government committed to undertaking an assessment of the telecommunications needs of the energy, transport and water sectors.[43] This assessment includes analysis of the needs of the electricity distribution networks. Government, working with Ofcom and Ofgem, will complete the overall assessment by the end of 2026, and conclusions will inform the next update to the 10 Year Infrastructure Strategy. Government will continue to engage with the DNOs, the ENA and the Joint Radio Company (JRC) as part of this assessment to ensure any changes in policy, should they be made, are appropriately reflected in future regulatory decisions.

6.127 DNOs should not expect any decisions based on the outcomes of this assessment before the end of 2026. Business plan submissions should make no assumptions around new spectrum allocations, or any new government interventions, for telecommunications infrastructure. Instead, submissions related to telecommunications infrastructure should be developed based on DNOs' own proposed approach to meeting their telecommunications needs from available options, not on a presumption of the outcomes of this assessment.

Delivery Strategy

Purpose and scope

6.128 DNOs must produce a 10-year Delivery Strategy, aligned to their overall business plan, setting out how they will deliver their investment programme across ED3 and the subsequent five-year period. The strategy must distinguish clearly

[43] UK Infrastructure: A 10 Year Strategy - GOV.UK

between firm ED3 commitments and forward-looking actions beyond ED3, which may be more indicative and adaptive in nature.

6.129 The Delivery Strategy is not a purely regulatory exercise. It must provide a clear statement of how the DNO will deliver its business plan safely, efficiently, and on time. It should impose the discipline needed to sustain momentum and accountability across price control periods, providing confidence to consumers, Ofgem, wider stakeholders, and the DNO itself that funded network investment will be delivered.

6.130 The strategy should provide a credible, execution-ready account of business plan delivery in practice, demonstrating how capability is already being mobilised and how funded outputs and consumer outcomes will be delivered in the right place and at the right time.

6.131 Improving forward visibility of network asset and workforce volumes for the 10-year period should enable supply chain and workforce investment ahead of demand. DNOs are strongly encouraged to assess for themselves the level of aggregation and granularity concerning these volumes that they can publish while remaining compliant with competition law and minimising risk of reducing competition in supplier markets, and to publish the data on that basis as an annex to their Delivery Strategy. Alternatively, DNOs may choose to agree a structured approach to data sharing with suppliers and other relevant parties through the Electricity Sector Network Growth Plan, including periodic updates to planned volumes, again having regard to competition law compliance and the need to minimise any risk of reducing competition in supplier markets.

6.132 DNOs must also propose a proportionate set of key performance indicators to support the early identification and management of delivery risks. These metrics will form part of ED3 reporting via the Regulatory Reporting Pack and should focus on actionable indicators.

6.133 The Delivery Strategy must not exceed 30 pages (excluding annexes) and may use visual aids, such as Gantt charts, where helpful. DNOs may supplement their Deliverability Strategy with additional documentation as annexes where it would support their claims.

Core principles

6.134 The Delivery Strategy should demonstrate the following core principles:

- delivery capability is deliberately designed – with a clear operating model, defined accountabilities, and governance aligned to the scale of ED3
- delivery is controlled at a portfolio level – with clear prioritisation, programme management discipline, and the ability to manage change
- deliverability risks are proactively managed – identified early, owned, and mitigated through embedded processes and escalation routes

- plans are grounded in realistic capacity – supported by credible workforce and supply chain strategies
- safety and sustainability are embedded in delivery – ensuring volumes can be delivered safely and sustainably at scale
- performance is transparent and actively managed – with clear metrics to identify and address under-delivery early
- delivery translates into customer outcomes – particularly through improved connections performance and greater predictability
- capability is already mobilising – evidenced through early actions and readiness milestones ahead of ED3
- plans are credibly assured – supported by internal governance and appropriate independent challenge

Structure and comparability

6.135 To support comparability across companies, DNOs must structure their Delivery Strategies in line with the headings set out in this guidance. This structure is designed to ensure that all material aspects of deliverability are addressed in a consistent and transparent way.

6.136 DNOs must maintain this common lettered heading structure and demonstrate each of the core principles (outlined in the 'purpose' below) under the right headings, while tailoring the supporting content to reflect the scale and characteristics of their plans.

A. Business structure

A1 – ED3 operating model and governance framework

6.137 Subheadings potentially include:

- detailed schematic of the ED3 operating model (eg central functions, regional teams, specialist functions etc)
- decision rights and accountability
- interfaces between central planning, project level teams and delivery partners
- escalation routes and governance forums

6.138 Purpose: provide assurance that the business structure is well thought out, stable and proportionate to the scale of ED3.

A2 – Programme management and controls framework

6.139 Subheadings potentially include:

- how programmes of work are structured and controlled (scope, cost, schedule, risk)
- portfolio management approach and prioritisation logic
- change control and re-planning processes

6.140 Purpose: demonstrate programme-level control, not reliance on individual project success.

B. Risk, capacity and deliverability assurance

B1 – ED3 deliverability risk register

6.141 Subheadings potentially include:

- key systemic ED3 delivery risks (capacity, supply chain, safety, interfaces)
- mitigations, ownership and early warning indicators
- clear linkage to the operating model and governance described in the narrative

6.142 Purpose: show risks are identified early and actively managed, not generic and not retrospective.

B2 – Workforce capacity and capability assessment

6.143 Subheadings potentially include:

- baseline workforce assumptions
- skills mix requirements across ED3 programme
- use of internal resources, partners and specialist skills
- approach to scaling safely
- strategic workforce plan
- workforce resilience, pipeline and volatility mitigation

6.144 Purpose: addresses workforce-related deliverability concerns head on.

B3 – Supply chain strategy and capacity evidence

6.145 Subheadings potentially include:

- strategic supplier model and commercial frameworks
- approach to workload smoothing and long-term visibility
- key dependencies and risk mitigations

6.146 Purpose: builds confidence that the plan is deliverable within realistic market capacity.

C. Safety and sustainable delivery

C1 – Safety at scale framework

6.147 Subheadings potentially include:

- how safety risk is assessed as volumes increase
- integration of safety into planning and resource allocation
- assurance, audit and supervision capacity arrangements

6.148 Purpose: demonstrates that safety is a design input, and not solely an outcome metric.

C2 – Supervision, workload and fatigue management approach

6.149 Subheadings potentially include:

- principles for controlling cumulative workload
- management of concurrent programmes in shared geographies
- role of local leadership

6.150 Purpose: supports credibility on sustainable delivery and frontline resilience.

D. Performance, monitoring and control

D1 – Performance, cost and schedule reporting framework

6.151 Subheadings potentially include:

- standard performance indicators
- reporting cadence and thresholds
- escalation and intervention mechanisms
- common resilience metrics with defined KPIs for workforce and supply chain resilience (required)

6.152 Purpose: shows that under-delivery risks will be identified early and acted on. A proposal for a proportionate set of delivery KPIs is required.

D2 – Digital enablement and data strategy

6.153 Subheadings potentially include:

- core digital tools supporting planning, tracking and delivery
- how data is used for decision-making
- continuous improvement feedback loops

6.154 Purpose: reinforces efficiency and control without overstating innovation claims.

E. Connections deliverability and customer outcomes

E1 – Connections operating model and transition plan

6.155 Subheadings potentially include:

- demand forecasting and capacity planning
- integration with wider network delivery

6.156 Purpose: directly supports confidence in connections performance improvements under ED3.

Annex E2 – Customer experience and consistency outcomes

6.157 Subheadings potentially include:

- how standardisation improves predictability and service
- alignment between regions and licences

6.158 Purpose: links deliverability to tangible customer benefits, not just internal efficiency.

F. Assurance and readiness

F1 – ED3 readiness and mobilisation plan

6.159 Subheadings potentially include:

- readiness milestones
- early ED3 actions
- dependencies and triggers

6.160 Purpose: demonstrates that delivery capability is already mobilising, not deferred. Any application for ED3 mobilisation funding submitted as part of RIIO-ED2 LRE reopeners must be clearly reflected in this section.

F2 – Internal and independent assurance

6.161 Subheadings potentially include:

- internal assurance routes
- use of independent review where appropriate

6.162 Purpose: provides confidence and reduces perceived delivery risk.

7. Financial information

Business Plan requirements for finance information

7.1 Business plan submissions should include a Finance Annex. The Finance Annex is to be used for providing projections of the company financial position over ED3. It should demonstrate how the company will meet their licence obligation to maintain two investment grade credit ratings, whilst balancing considerations around costs to consumers, intergenerational fairness, and resilience in the face of possible risks. It should also provide the supporting information, inputs and assumptions to inform Ofgem's decision making.

7.2 This chapter provides an overview of what Ofgem expects to see in the Finance Annex, as well as which additional information may be provided should companies wish.

Required elements, company strategy

7.3 Statement of Assurance: a statement of assurance from the Company's Board of Directors that it is satisfied that for ED3 the Company's Licensee(s) is financeable on both a notional and actual capital structure basis (using our working assumptions for cost of capital allowances and other pre-populated parameters). This should cover the baseline level of totex as well as the 'best view' level of totex (ie including forecast re-opener spend) as described in the BPDT guidance.

7.4 Alternatively, if the Board of Directors identifies any financeability challenges, the Business Plan should clearly set out:

- what these financeability challenges relate to (eg, servicing equity or debt)
- management efforts or mitigating actions that could reasonably be taken to address them
- proposed regulatory measures that should be taken alongside the management efforts or mitigating actions
- that all other applicable measures to support financeability have been considered
- that statements and conclusions are supported by evidence and justification

7.5 **Longer-term outlook:** Consideration of the longer-term trends in strategic investment, revenues and financeability, alongside their impact on intergenerational fairness and consumer bills.

7.6 **Risk assessment:** An assessment on a notional licensee and an actual licensee basis of the financial risk in the business plan and evidence of risk management measures. This should include:

- a clear explanation of the assumptions underpinning company risk
- risk scenario analysis
- a description of how financial risk analysis takes into account actions for mitigating downside risks
- consideration of different gearing levels including consideration of cost and benefit trade-offs of different gearing assumptions
- realistic and well-explained proposals for gearing

7.7 **Dividends and equity issuance:** A clear explanation of the DNO's dividend and equity issuance policies and strategy and how they influence assumptions in the BPFM.

Required elements, financial parameters

7.8 The licensee's target credit ratings (including consideration of the trade-offs of different target rating levels) and the key financial ratios and qualitative factors used to assess maintenance of those target ratings.

7.9 A clear explanation of the licensee's proposed capitalisation rates, referring to their basis of calculation and how they compare to rates in previous price controls.

7.10 Financial projections for each year of the ED3 period under the specified regulatory finance framework, on a notional and actual licensee basis. The financial projections are the model outputs listed in the BPFM Output Sheet; the regulatory finance framework is provided via the specific model settings which are set out in the SSMD and in the BPFM Guidance. Outputs relating to any additional stress tests that the licensee considers to be appropriate may also be provided, alongside a clear explanation of the additional stress tests, including rationale, results and accompanying commentary.

Optional elements

7.11 Companies may wish to propose additional financial elements, or alternatives to Ofgem's proposed parameters. We touch on some possible areas, though this is not an exhaustive list.

7.12 Where proposals are made for licensee-specific alternative cost of capital estimates, these should be well-evidenced and demonstrated to be in customers' interests.

7.13 Adjustments to capitalisation rates or depreciation rates. Companies should explain the purpose of these adjustments and should demonstrate that they are in customers' interests.

7.14 Any proposed alteration of the profile of revenue and the purpose and level of support.

Financial Business Plan Data Tables and Business Plan Financial Model

7.15 The information provided in the Business Plan Data Tables (BPDT) and Business Plan Financial Model (BPFM) should form the basis of the finance-related information submitted in the main business plan. This could include any analysis presented in the plan around financeability, scenarios or tables of values for example.

7.16 The BPFM will use DNOs' business plan inputs to calculate expected allowed revenues. It will also be used by both DNOs and Ofgem for assessing the financeability of the business plan and will include a suite of commonly used financial metrics.

7.17 DNOs may provide two versions each of the BPDT and BPFM. One version will reflect Ofgem's parameters as outlined in the SSMD, this version is mandatory. The second version, which is optional, allows DNOs to provide their specific plans with alternative scenarios and inputs. If DNOs submit a second, bespoke, BPDT, changes must only be made to the finance-related (F) BPDT tabs.

7.18 If any other models or tools are used to produce alternate or supplementary analysis, such as bill impacts or alternate financeability scenarios, then these should be submitted with, and clearly cross-referenced to, the business plan. Where applicable, inputs to the BPFM should be linked to the corresponding BPDT.

7.19 DNOs may provide additional BPFM commentary in an appropriate form if they feel additional context would be beneficial.

7.20 We will pre-populate the BPFM with our working assumptions, as at the date of the SSMD, for all relevant parameters set out in the SSMD Finance Annex. These will remain subject to change in accordance with our Draft Determinations and Final Determinations.

7.21 Consistent with RIIO-ED2, the BPFM will primarily be set up to reflect the notional capital structure. However, we will include worksheets for DNOs to undertake an analysis of actual licensee financing costs, structure and performance. DNOs should include a financeability assessment (using our working assumptions for cost of capital returns) for both the notional and actual capital structure, including target ratings.

7.22 A full list of financial modelling assumptions to be used in the BPFM are provided in the BPFM Guidance which will be made available alongside the BPFM (which may be provided after the SSMD is published). The BPFM Guidance includes our working assumptions for cost of capital allowances and regulatory depreciation.

8. Cost assessment

Evolving context from RIIO-ED2

8.1 A significant development since RIIO-ED2 has been the introduction of a common pathway and planning assumptions, informed by tRESP, that DNOs are required to use to inform their network planning for ED3. This is expected to greatly improve the consistency of submissions across DNOs and with a common pathway we no longer require DNOs to provide further information on how their submission could be affected by using an alternative demand pathway.

8.2 However, we also recognise that the demand pathway outlined in tRESP may not materialise in the precise manner set out. With heat pump uptake both currently materially lower than projections and expected to be a significant driver of investment, we are asking DNOs to apply a sensitivity test to their business plans to identify costs associated with low-regret investments for ED3 and costs where the needs case is contingent upon higher uptake materialising.

8.3 Specifically, we would like DNOs to test their load-related investments against a heat pump uptake that is consistent with delaying the tRESP pathway by two years. Further guidance on how to separate and present these two categories of load-related expenditure is provided in the BPDT Guidance and IDP Guidance documentation.

Cost information and quality

8.4 Licensees must submit cost information as part of their business plans, as set out in this section.

8.5 We expect licensees to provide information in their business plans on:

- cost drivers
- consideration of options
- associated volumes, workload and/or outputs
- justification of costs, including the proposed profiling of costs
- the efficiency of costs, including for example, how innovation may have reduced costs

8.6 In proposing costs for operating and developing their networks, licensees must explain their costs/workload forecasts, particularly where these diverge from historical trends. Where forecast demand is a cost driver this should be clearly stated.

8.7 Business plans must clearly set out the key drivers of expenditure for the ED3 period. For example, growth in demand, condition of assets,

asset/network utilisation, legislative requirements and any other relevant drivers of forecast investment.

8.8 Business plans must clearly justify the need for new investment, including for example:

- information on current levels of network utilisation and changes to utilisation based on the tRESP
- the different options considered for meeting future network requirements, including the cost of 'doing nothing' and of 'deferral' options and the associated CBA
- full reasoning for options discounted by licensees at this stage, detailing key assumptions and selection criteria given for exclusion
- the reasons for the timing of investment under the different options considered, including expected outputs related to the investment and year of delivery

8.9 In support of costs proposed, 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
- detail of how unit costs were estimated and
- where unit costs are estimates built from first principles, a summary of assumed costs and rates should be included
- where unit costs are based primarily on historical outturn, a summary of historical data and any adjustments applied to arrive at the unit cost forecast should be provided
- details of assumptions and justification for projected changes in the efficient levels of costs, including unit costs, over time caused by improvements in project delivery, technological innovation, procurement efficiencies, etc
- these estimates should exclude the forecast impact of ongoing efficiency, but should account for historical efficiency gains that may have impacted costs
- a clear rationale for any associated assumptions they consider we should use when assessing costs
- for example, 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 they propose are directly funded through totex allowances and that will be associated with achieving service levels

- details of which categories of expenditure are more uncertain and more difficult to forecast using historical/independent benchmarks, which should include
- the risk of underutilisation/stranding that new/existing investments might face in the future under a range of plausible forecast scenarios
- the risk that an alternative solution may be the most efficient means of addressing the network requirement
- the risk that the investment is premature
- where this is the case, we expect companies' Business Plans to demonstrate consideration of mechanisms that mitigate risk associated with uncertainty, and/or other evidence to justify their submitted costs

8.10 Where a licensee considers an investment is certain, they will be expected to provide justification for this view.

8.11 Business plans should demonstrate how their expenditure forecasts map onto any relevant ODIs and PCDs.

8.12 Where unit costs are intentionally set at a higher level to reflect deliberate investment choices for value-driven and evidenced reasons, DNOs should identify these incremental costs, specify the relevant assets and cost categories, explain the underlying rationale, and quantify the associated impact on costs and volumes.

8.13 To capture the details requested in this section, business plans must include a Cost Assessment and Benchmarking Approach document. This should be provided at the DNO level.

8.14 Where inconsistencies in the cost information provided as part of DNOs' business plans are apparent, the information provided as part of the BPDT submission will take precedence over information provided in business plan submission documents and cost annexes.

8.15 Licensees must complete the BPDTs in accordance with the Ofgem BPDT guidance.

Cross-referencing Business Plans to BPDTs

8.16 From a cost assessment perspective, it is essential that business plan submissions are clearly and consistently structured. A well-structured submission enables reviewers to easily locate relevant information, reconcile proposals with the BPDTs, and reduces the risk of misinterpretation. It also facilitates more robust comparison and benchmarking across DNOs and license areas. DNOs should ensure that their proposals and supporting evidence are presented alongside the relevant narrative, allowing reviewers to move efficiently from the main argument to the underlying detail with ease.

8.17 We recommend that DNOs adopt a Cost Assessment and Benchmarking Approach document structure with sections or chapters that clearly map to and are aligned with Ofgem's cost assessment and the structure of the BPDTs. These cost sections or chapters, should be supported by corresponding annexes, containing the detailed evidence and analysis. Cost sections or chapters should present a coherent narrative explaining the need for investment, the options considered, and the proposed level of expenditure etc., with supporting evidence referenced and located alongside the relevant discussion. An example of what a chapter-mapped structure could look like is as follows:

- Chapter 1: Load Related Capex narrative and associated annexes
- Chapter 2: Non-Load Related Capex narrative and associated annexes
- Chapter 3: Non-Operational Capex narrative and associated annexes
- Chapter 4: High Value Projects (HVPs) narrative and associated annexes
- Chapter 5: Network Operating Costs narrative and associated annexes
- Chapter 6: Closely Associated Indirects narrative and associated annexes
- Chapter 7: Business Support Costs narrative and associated annexes
- Chapter 8: Other Costs Within Price Control narrative and associated annexes
- Chapter 9: Totex Benchmarking narrative and associated annexes
- Chapter 10: Regional and Company-Specific Factors narrative and associated annexes
- Chapter 11: Real Price Effects and Ongoing Efficiency narrative and associated annexes

8.18 Where any element of cost assessment varies materially between a DNO's licensees, these must be explicitly referenced and detail provided to explain the source of the variance and the effect that each variance has on cost assessment for each licensee.

8.19 Clear structure and presentation of cost information as part of a DNO's business plan submission should reduce the risk of gaps, duplication, misinterpretation and inconsistencies.

8.20 BPDTs enable the collection of business plan data from all companies on a consistent basis. Licensees must fully and accurately complete the detailed BPDTs as instructed by the BPDT guidance document.

8.21 BPDTs consist of a suite of data tables and associated guidance and commentary templates that facilitate a consistent presentation of the cost, volume, output and financial data underpinning the business plan submissions that have been developed with the DNOs, facilitating easier comparison of forecasts with historical data.

8.22 DNOs should make cross referencing simple and auditable by using consistent, unique identifiers and hyperlinks throughout the submission. Wherever the core narrative relies on supporting evidence, it should explicitly cite the relevant data table number and annex reference. Each data table and annex should in turn include a clear backlink to the exact section and paragraph in the core narrative where it is explained, so the reader can move both ways without searching.

8.23 Table and annex numbering should be consistent across all documents and file names. References should be specific enough to avoid ambiguity, for example citing the table number, annex title, and the relevant worksheet or tab where applicable.

8.24 Each supporting cost annex should include a table (or tables) that links the key information within the annex directly to the BPDT and any other narrative documents, including for example reference to the specific licensee, BPDT numbers and high-level cost information, including Total Gross Costs. For example:

Table 7: Example summary table for a supporting cost annex

Licensee	**XXXX**
BPDT reference data table number(s)	eg CV7 – Asset Replacement
Total Gross Costs (£m)	RIIO-ED1: eg £1.5m RIIO-ED2: eg £2.5m ED3: eg £2.0m
Business Plan Reference document (where appropriate)	eg [DNO]-XX-Network Asset Management Strategy

Justification of investments

8.25 DNOs are required to submit evidence as to the needs, scope, costs and benefits for certain investments outlined in the business plans. These are required through an IDP and separate guidance on use of IDPs is provided. These will broadly consist of EJPs and CBAs.

8.26 DNOs must produce and submit EJPs and CBAs in accordance with the IDP Guidance and templates provided.

Accounting for uncertainty

8.27 We acknowledge that forecasting costs for the duration of a price control can be 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.

8.28 As part of the price control, DNOs should explain and quantify material uncertainty in their cost proposals. This should cover uncertainty over whether an activity or investment is required, the volume or scope required, the timing of delivery, and the unit costs. For example, where a project is expected to be delivered by 2033 but delivery depends on external approvals or programme lead times, the DNO should set out an evidence-based delivery plan with key milestones and decision points, and provide an optimistic, central and conservative delivery timetable and spend profile, including the main drivers of divergence between cases.

8.29 The DNO should provide sufficient information for us to understand additionality to any baseline costs presented in the BPDT, to construct low and high cost cases and assess plausibility including quantification of materiality, an assessment of likelihood and clear definition of any trigger events or conditions that would cause costs or timing to change. Where relevant, the DNO should also explain what monitoring and mitigation it will put in place to manage the risk and how these assumptions are reflected in the cost data submitted.

Real Price Effects (RPEs)

8.30 To enable us to assess the Real Price Effects (RPEs) appropriately DNOs must provide us with the following information in their business plans:

- the input costs for which our measure of general output price inflation (ie, CPIH) is a poor proxy, along with a rationale as to why
- the specific expenditure categories 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 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 forecast 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

8.31 The RPEs should be estimated from the first year of the price control.

8.32 All costs submitted within the business plan should be exclusive of any RPEs.

Ongoing Efficiency

8.33 Our ongoing efficiency (OE) 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 networks companies, ongoing efficiencies relate, in part, to changes in the volume of those inputs used to provide services to users.

8.34 To enable us to assess OE appropriately, DNOs must set out in their business plans the OE assumptions submitted for each expenditure, 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 efficiency gains realised in previous periods
- interactions with innovations stimulus funding (past and future)
- interactions between OE forecasts and output quality

8.35 This information must align with the data provided in the BPDTs and its corresponding guidance. All costs forecast within the BPDTs must exclude OE assumptions apart from the RPEs and OE tab as instructed in the BPDT guidance.

8.36 While OE values must not be included in the BPDTs, licensees should set out their embedded efficiency analysis in the main narrative and any relevant annexes. This should explain what historical efficiency improvements have already been achieved and how those improvements are reflected in current unit costs and overall cost forecasts.

9. Presentation and submission requirements

9.1 Business plans should be concise and no longer than 100 pages[44] excluding annexes and other submission documents listed in Table 8, with an emphasis on keeping the core text as succinct as possible, while presenting proportionate evidence and justification for the proposed expenditure and outputs. Emphasis should be made on making business plans as visually accessible as possible (ie font sizes should be no smaller than 10 and appropriate margin spacing should be maintained).

9.2 Companies should only provide annexes for the policy areas stated in the table below. Each annex's page limit is set out in Table 8 below and this will not count towards the core business plan page limit. Annexes should be clearly cross referenced within the core business plan text.

9.3 Each company should submit a Strategic Summary alongside its final business plan detailing the key data and information contained within its plan. Companies should use the common reporting template published alongside this BPG.

9.4 Although we do not prescribe a particular structure that the business plans themselves should follow, it is important to ensure that we can easily identify material contained in the plans and any annexes that will be relevant to our assessment.

9.5 Where companies have commissioned reports from consultants to support their business plan submission, companies should provide executive summaries within the relevant parts of their submission, with full reports included as additional annexes to the business plan. The executive summaries should cross refer to the relevant annexed reports.

9.6 Subject to Paragraph 9.5, companies should submit only the documents set out in Table 8 below as part of their business plan.

Table 8: List of business plan submission documents

Document name	Page count limit[45] [46]
Business Plan Main Document	100
Strategic Summary	Template provided
tRESP assurance submission	Template provided

[44] Due to the recent merger of SPEN and their intent to submit a joint business plan, their plan should be no longer than 125 pages.
[45] SPEN may use an additional 10% on all page limits noted in this table. Excluding the 'Business Plan Main Document' which will have a limit of 125 pages.
[46] Unless otherwise specified page limits include all related annexes

Document name	**Page count limit**[45] [46]
Load Related Expenditure Annex	70
Long-term Integrated Network Plan	60
Climate Resilience Strategy	60
Reliability Strategy	20
Delivery Strategy	30 (excluding annexes)
Vulnerability Strategy (including Collaboration element)	35
Targeted Customer Storm Support Strategy	15
DNO role in low carbon technology and energy efficiency rollout	8
Innovation Strategy	40 (excluding annexes)
DSO Strategy	70
IT & Telecoms Strategy	15
Network Asset Management Strategy	50
Digitalisation Strategy and Action Plan	-
Data and Digitalisation Annex	-
Environmental Action Plan	80
Statement from ISG Chair	2
Stakeholder Engagement and Decision Log	Template provided (5 pages max)
Consumer Research Log	Template provided (word count included)
Finance Annex	50
Investment Decision Packs (IDPs)	Refer to IDP Guidance
Business Plan Data Tables (BPDTs)	Template provided
Business Plan Data Tables (BPDTs) Commentary	Template provided
Cost Assessment and Benchmarking Approach	100
Business Plan Financial Model (BPFM)	Template provided
Cyber Resilience Overview Document	30
Cyber Resilience Investment Document (CRID)	Template provided (30, excluding annexes)

Document name	Page count limit[45] [46]
Connections Strategy	30
Minimum Requirements Checklist	Template provided
Assurance Statement	25

Cross referencing and duplication

9.7 In order for us to navigate the plans successfully, companies should effectively cross reference between different sections of the plans. Wherever possible, companies should use hyperlinks when referencing any of the data tables, annexes or any further detail which is explored elsewhere in the plan.

9.8 Data tables produced by companies should be clearly numbered and any data in the narrative should, where possible, be clearly linked to the relevant data table number (using hyperlinks wherever possible). For each data table there should also be a link to where in the core text this data is discussed. For some data tables there may be more than one part of the plan that describes the data.

Business plan commitments

9.9 In setting out their business plans and strategies across a variety of different areas, companies should establish metrics to determine the effectiveness of their actions as well as firm commitments to implement or undertake specified activities to effectively deliver their strategies, particularly where such actions are not included within the scope of regulatory mechanisms.

9.10 Companies should summarise their consolidated commitments clearly as part of their business plan submission, making clear where commitments go beyond regulatory or other targets and associating each commitment with the delivery of one or more of the ED3 consumer outcomes:

- investing for the energy transition
- responsible and sustainable business
- smarter networks
- resilient networks

9.11 In assessing business plans, we will consider deliverability in the context of the Delivery Strategy, past performance as well as the level of commitment provided in respect of the delivery of strategies, activities and outcomes set out in the plan.

Economic growth

9.12 As set out in our SSMD, DNOs should work together to agree a common methodology to articulate how ED3 business plans support sustainable economic growth. Once agreed between the companies and Ofgem, this methodology should be applied consistently by each DNO. In developing the methodology, DNOs should follow the principles and guidance set out below.

9.13 The purpose of the common cross-DNO methodology is to develop a consistent and transparent basis for DNOs to set out, at business plan submission and through in-period reporting, how their ED3 activities support sustainable medium- to long-term economic growth, in line with Green Book principles. It is not intended to quantify GDP impacts, rank DNOs, or duplicate consumer cost-benefit analysis, but to improve comparability, clarity, and accountability in the presentation of growth narratives across business plans and subsequent delivery.

9.14 The methodology should be applied proportionately and in a cost-reflective way, recognising differences in scale, materiality, and strategic importance across activities. More significant or strategic interventions should be accompanied by a clearer explanation of growth mechanisms, while routine activities should be treated more lightly. Where available, DNOs should draw on sector-wide or economy-wide evidence to explain the direction and plausibility of impacts, rather than producing bespoke modelling or point estimates.

9.15 The methodology should also be clear about its scope and limitations. It should focus on longer-term supply-side and dynamic effects, including potential spillovers such as innovation or investor confidence. Short-term demand-side effects, employment effects, or activity simply occurring at an earlier time should not be treated as growth impacts. Bill reductions should not automatically be counted as growth impacts in themselves but may be relevant insofar as they credibly support wider supply-side investment or productive activity.

9.16 We would expect the joint work to result in common definitions of growth channels and a shared framework setting out:

- the policy rationale for interventions
- what success looks like in terms of relevant outcomes
- how activities map to growth channels
- consideration of dynamic effects or spillovers
- appropriate caveats and exclusions

9.17 This will support consistency and transparency across business plan submissions and ongoing reporting, while allowing DNOs to reflect differing regional contexts and delivery models.

Assurance and governance

9.18 Robust assurance and governance of business plan submissions is vital if stakeholders, including Ofgem, are to have confidence in the information presented in them. The submission can only be complete and of high quality where there are assurance checks on the systems and processes for developing and producing the business plan, and when stakeholders have confidence that a company's board has been integral to the governance surrounding the submission.

9.19 It is for the companies and their boards to determine the precise role that assurance plays in this process. We expect company boards to own and be accountable for their submissions and the business planning processes that underpin all aspects of the business plan.

9.20 All assurance processes undertaken by the company should be clearly set out in the company's Assurance Statement. The Assurance Statement should include a statement from sufficiently independent directors that they are satisfied that the business plan and the associated proposed costs and financial package have been appropriately challenged for accuracy, ambition, efficiency and customer interest. A sufficiently independent director is as described in SLC 43A (Requirement for sufficiently independent directors) of the Electricity Distribution Licence.

Publication and redaction requirements

9.21 Companies must publish their complete business plan (including any associated documents and annexes) in a prominent place on their website, in such a manner that it can be easily located by relevant stakeholders, five working days after the submission is sent to Ofgem.

9.22 Companies must publish their business plans in their entirety, making only necessary redactions for the following reasons:

- commercial confidentiality
- security

9.23 The reasons for such redactions must be clearly and comprehensively set out in an explanatory statement published alongside the plan. For example, if information is redacted on grounds of commercial confidentiality, we would expect to see an explanation of the particular commercial interest that the company considers would be prejudiced by disclosure.

9.24 Additionally, companies must share a log of all their redactions across their business plan (including any associated documents and annexes) with Ofgem. Ofgem will provide a template log to the companies directly for this purpose.

Minimum requirements

9.25 The following list of minimum requirements should be provided within the overall business plan submission. As set out in our SSMD, companies that fail to meet the Minimum Requirements may be subject to a penalty of up to -20 bps RoRE.

9.26 Companies should also submit a copy of the minimum requirements checklist referred to in Table 9 and Table 10, clearly signposting the relevant parts of the business plans where the minimum requirements are met.

9.27 In determining whether companies have met the minimum requirements, we will consider the submission of all information by the companies from the initial submission of the business plan and supporting documents in December 2026 through to Final Determinations.

9.28 The level of any penalty will be determined by Ofgem at Final Determinations, taking into consideration the overall consumer detriment and any resulting limitations on the regulator's ability to set the price control in the interest of consumers.

Table 9: Minimum requirements part 1 – Business Plan content

Reference	Business plan area	Minimum requirement
1	Business plan format, coherence, assurance and clarity	The business plan must meet the submission format, accessibility, coherence, assurance and clarity requirements set out in Chapter 9 of this BPG document.
2	Costs	The DNO must provide information in its business plans on: - cost drivers - consideration of options - justification of costs, including proposed profiling of costs Evidence should be provided showing how the DNO produced its cost forecasts, including justification of costs, any considerations of alternative options to the one submitted and why it submitted a certain profiling of costs, especially where the latter deviates from historical trends and how efficiency improvements and innovation will be delivered to reduce costs and/or add value for money for consumers over the ED3 period.
3	Business Plan Data Tables (BPDTs)	The DNO must complete the BPDTs and tab-by-tab commentary in accordance with the Ofgem BPDT guidance.
4	ISG Statement	The DNO must include a statement signed by the relevant ISG Chair, in accordance with the requirements of Paragraph 2.13 of this BPG.
5	Engineering	The DNO must provide EJPs and where required CBAs in line with the information requested in the IDP guidance and all associated appendices and templates.

Table 10: Minimum requirements part 2 – strategies, plans and other supporting documents

Reference	Business plan area	Minimum requirement
6	**tRESP assurance submission**	**The DNO must complete and submit the tRESP assurance template along with supporting information in accordance with Paragraphs 3.113 to 3.158 of this BPG.**
7	LRE annex	The DNO must submit a LRE Annex in accordance with Paragraph 3.88 of this BPG.
8	Long-term integrated network plan	The DNO must provide a long-term integrated network plan in accordance with the requirements of Paragraphs 3.89 to 3.1122 of this BPG.
9	Connections strategy	The DNO must provide a connections strategy in accordance with Paragraphs 4.2 to 4.28 of this BPG.
10	Environmental Action Plan	The DNO must provide an Environmental Action Plan, in accordance with the requirements of Paragraphs 4.29 to 4.50 of this BPG. The DNOs must work collaboratively to propose appropriate baseline metrics and agree sector-wide best practice.
11	Vulnerability strategy	The DNO must provide a vulnerability strategy in accordance with Paragraphs 4.51 to 4.61 of this BPG. The DNO's vulnerability strategy must have been developed and maintained based on engagement with stakeholders.
12	Data and digitalisation	The DNO must provide information requested in the 'Data and Digitalisation Annex template' and 'Digital Justification Paper template' ensuring alignment with the intent of our SSMD and BPG.
13	Innovation strategy	The DNO must provide an Innovation Strategy that includes all the information requested at Paragraphs 5.33 to 5.50, as well as examples and evidence of how its wider ED3 business plan leverages new technologies or innovative practices, including the deployment of solutions, to achieve the overall ED3 outcomes, and must clearly set out what benefits it has delivered from innovation funding so far.
14	DSO Strategy	The DNO must provide a DSO strategy in accordance with Paragraphs 5.51 to 5.122, setting out its approach to network planning and operation, flexibility market development, voltage management and loss optimisation.

Reference	Business plan area	Minimum requirement
6	**tRESP assurance submission**	**The DNO must complete and submit the tRESP assurance template along with supporting information in accordance with Paragraphs 3.113 to 3.158 of this BPG.**
15	Network Asset Management Strategy	The DNO must provide evidence of how its ED3 business plan ensures the continued resilience of the network through its non-load related expenditure. This must include plans to effectively manage the impact of asset age and condition, extreme weather events, cyber-attacks and the physical security of its network.
16	Climate resilience strategy	The DNO must provide a climate resilience strategy in accordance with Paragraphs 6.12 to 6.86 of this BPG, setting out its strategic approach to managing climate risk in ED3 and clearly justifying any climate-resilience investment through a structured, evidence-based narrative.
17	Cyber Resilience business plan	The DNO must provide a CRBP that is aligned to the NCSC's Cyber Assessment Framework (CAF) covering activities that maintain and improve compliance with the Network and Information Systems Regulations. This should be submitted in accordance with our requirements of Paragraphs 6.97 to 6.119 of this BPG, with the necessary CRIDs included.
18	Delivery strategy	The DNO must provide a Delivery Strategy in accordance with the requirements of Paragraphs 6.128 to 6.162 of this BPG.
19	Targeted Storm Support Strategy	The DNO must provide a Targeted Customer Storm Support Strategy (TCSSS) in accordance with Paragraphs 4.62 to 4.73 of this BPG.
20	Reliability Strategy	The DNO must provide a Reliability Strategy in accordance with Paragraphs 6.87 to 6.96 of this BPG.

Send us your feedback

We are keen to receive your feedback about this guidance. We would also like to get your answers to these questions:

Do you have any comments about the quality of this guidance?

Do you have any comments about its tone and content?

Was it easy to read and understand? Or could it have been better written?

Do you have any further comments?

Please send your feedback to ED3@ofgem.gov.uk

Appendix 1 Principles for high-quality research

Research principles

A1.1 We expect DNOs to consider the principles that contribute to high-quality research when designing their research programmes to inform ED3. This includes:

- clear purpose: ensuring that research has clear objectives, aims to answer a clear, specific question ('research question') and is clear in how it contributes to the business plan
- inclusion: designing research methodologies that are inclusive and accessible, ensuring all consumer groups, including those that are less likely to engage, can meaningfully participate regardless of topic complexity
- representativeness: selecting a sample that accurately reflects the target population (for example including vulnerable customers and other sociodemographic groups) and are designed to be robust enough to support the research objectives
- validity: research should capture appropriate data to answer a research question, ie interrogate the correct data, or interview consumers with recent and relevant experience on a topic
- impartiality: research should be designed to be neutral and free from bias
- transparency: openness about the research approach, including the methods used and the limitations of the research
- triangulation: ideally, research findings should be compared to other relevant research to test consistency and strengthen confidence in the evidence, as this has significant benefits for producing meaningful research and also helps contextualise research findings - findings from various methodologies or projects should be compared and combined to form a narrative that brings the full consumer story together
- ethics and data protection: research protocols should comply with current ethical principles of relevant professional bodies such as the Market Research Society (MRS), Social Research Association or similar and legal requirements (General Data Protection Regulation) for safe and responsible data use and storage
- replicability: the research should provide sufficient information to allow replication by a third party

Research design

A1.2 Research design summarises how a research question can be answered in the most appropriate way, within available timeframes and resources, and following

good research principles (as above). We would expect most of these points to be developed by the research agencies, but DNOs should have close oversight as ultimate owners of the research results. A good research plan should include but is not limited to research questions, research methods, analysis plan and dissemination plan, which are set out in further detail below.

A1.3 While addressing the below points, the principles of good research should govern the remit and quality of the answer. For example, if a survey is the chosen method to answer a research question, it should provide enough information for it to be replicable, and it should adhere to appropriate ethical guidelines.

Research questions

A1.4 What is the question that needs to be answered? This should be one (or a handful of) questions that the audience of that research, eg relevant stakeholders, wants to know about. Research questions guide the research design and need to be concrete yet high-level; therefore, they require careful consideration. For example, 'can consumers flex their energy use?' is a poor research question as it is not concrete enough to guide the research approach. By contrast 'under which conditions would owners of heat pumps in Wales flex their energy use?' is a better phrased research question, as it helps to guide research towards a specific population, location, technology, and associated behaviours, motivators, barriers and so on.

Research methods

A1.5 What is the best method that can answer the research question within available time and resources? Each method will involve trade-offs in terms of scale, depth and robustness. Given the variety of research methods available, we provide a separate top level summary section on methods below.

Analysis plan

A1.6 The analytical approach should be defined before data collection to ensure the research is capable of answering the research question robustly. This includes setting out how data will be analysed, any assumptions or limitations, and, where relevant, clearly specified hypotheses and how these will be tested. Pre-specifying analysis (such as statistical tests, subgroup analysis, or modelling approaches) helps ensure that the sample design and data collection are sufficient to support valid conclusions.

Dissemination plan

A1.7 Who is the intended audience for the dissemination of these results? Different audiences will require different types and styles of outputs. It is therefore important to consider not only what question will be answered and how, but for which audiences, to ensure maximum effectiveness of a research programme.

Research methods

A1.8 Selecting a suitable research method to answer a particular research question is an important decision. However, there is no universal standard, and multiple methods may suit the same question. Furthermore, we will not mandate or expect the use of any particular methodology (for example, Willingness to Pay or Acceptability Testing). The choice of method involves evaluating trade-offs, such as cost, time, intensity of participation, and the depth and breadth of addressing a research question to determine which approach will elicit the most meaningful responses from participants, within existing constraints. We therefore believe this decision should be made by the DNOs.

A1.9 Below we set out some of the most common categories of research methods and their strengths and limitations. This could assist with discussions with research delivery partners when developing research programmes.

Qualitative techniques

A1.10 Qualitative methods such as focus groups, in-depth interviews and ethnographic studies are ideal for understanding complex trade-offs, prioritisation and consumer needs.

A1.11 They provide deep contextual information and understanding of participants' behaviours, perceptions, preferences and allow for more grounded consumer considerations. They are well suited to answer why consumers do/don't perform certain behaviours, choices or actions.

A1.12 These methods are better suited for deep understanding of complex topics. DNOs might consider such methods for an in-depth understanding of a research question, for example why would heat pump owners flex/not flex their energy use, what would motivate them, or how would they fit flexing in their daily lives.

Deliberative techniques

A1.13 Deliberative techniques give participants time and information on a topic so that they can consider and deliberate on complex topics in depth. They provide rich contextual insights and rationale into respondents' decision-making and reasoning behind various trade-offs. They help consider others' views and the wider picture of an issue, or process.

A1.14 Deliberative techniques require longer engagement from participants and so they can be more costly than other methods. Therefore, they are better suited for deep understanding of complex topics and often where consensus is required or a process needs to be fed into.

A1.15 DNOs might consider using well designed deliberative approaches where they would like to involve the consumer in the decision-making process (such as through 'citizens juries') or explore responses to issues affecting wider

communities. For example, where new infrastructure needs to be installed in a neighbourhood.

Quantitative techniques

A1.16 Quantitative research (such as surveys) uses data collection at a larger scale and in a structured way, which sets it apart from qualitative or deliberative methods. It aims to measure and describe the target population or groups that are part of this. Quantitative methods are particularly suited to research questions that need statistically robust evidence to quantify and make generalisations about a target population from a sample.

A1.17 The structured nature of quantitative methods can limit insight into how respondents interpret questions. Cognitive testing is therefore critical to ensure survey questions are understood as intended and capture respondents' views accurately. By testing questions from the respondent's perspective, cognitive testing can identify misinterpretation or bias that would otherwise weaken the validity of findings.

A1.18 An important aspect of all research which recruits human participants, and especially for quantitative methods, is sampling. This refers to the criteria used for the selection and exclusion of research participants, whether they need to represent specific populations, and similar issues. Sample size should be determined by the needs of the analysis, ensuring it is sufficient to produce reliable, statistically robust results and to support meaningful reporting for relevant subgroups.

Mixed Methods

A1.19 Mixed methods combine the use of both quantitative and qualitative methods to answer the same research question. Combining qualitative and quantitative approaches provides a more comprehensive understanding of research questions. Mixed methodologies enable triangulation of findings from different methods to build a bigger picture, enhance reliability of findings and provide richer insights. For example, a research project might combine a survey to record electric vehicle charging patterns, with focus groups to understand why users prefer these patterns.

A1.20 DNOs should consider where it is suitable to adopt mixed research methodologies to answer a research question as this will offer a more accurate picture of the issue at hand.

Behavioural Research

A1.21 These methods study actual, rather than self-reported, behaviour. This helps to overcome the 'say-do gap' which is the difference between what people say they will do, for example in surveys, and what they actually do. They offer a valuable and powerful approach for understanding and influencing human behaviour.

One method of behavioural research is observation. For example, to find out how consumers use their thermostat, we might want to ask them to keep a diary explaining why and when they used it or ask them to talk through the process of a behaviour while performing that behaviour.

A1.22 Other behavioural approaches include experimental methods (laboratory or online experiments, natural experiments or field experiments). Field experiments take place in real world settings, where lab or online experiments take place in a controlled environment. A randomised controlled trial is a form of experiment that offers the most robust way of assessing what works to change or support human behaviour. This method involves randomly assigning participants to control and treatment groups in order to test behavioural interventions. This design helps isolate the effect of the intervention, making it ideal for identifying cause-and-effect relationships in relation to behaviour change.

Broader aspects for DNOs to consider as they assess the appropriateness of research approaches

Inclusion

A1.23 Ofgem has a duty to protect vulnerable customers,[47] and therefore inclusive research is very important. This may involve using multiple channels for data collection (eg online surveys, telephone interviews, arranging appropriate face-to-face interactions) to reach the widest relevant audience. Support should be provided for participants and researchers who will be addressing sensitive issues. Ensure research approaches are inclusive of all target and relevant consumer groups including businesses, vulnerable individuals, and those who are digitally excluded or digitally less confident. Sufficient sample sizes of relevant subgroups should be achieved. Qualitative projects might need purposive recruitment (ie the selection of a sample based on specific characteristics), and for quantitative projects this might mean boosting the sample size to ensure there is enough of a sample to analyse.

Accessibility

A1.24 Researchers will need to outline how they will manage and support participant consent and wellbeing, the latter is especially important for qualitative and in-depth research.

A1.25 Any research materials will need to be accessible. Ensure that survey or interview questions, and other research tasks, are relevant to and understandable by the target audience. Use clear, jargon-free language and formats that are easy to understand. Consider visual aids and translations to

[47] More on Ofgem's Consumer Vulnerability Strategy

accommodate different literacy levels and varying understanding of complex topics.

A1.26 Where relevant, provide alternate options for participation, such as offline or at different times of day. Also be prepared to involve those who speak English as an Additional Language, for example by using interpreters.

A1.27 Further guidance can be found through relevant research accreditation bodies, eg the Market Research Society (MRS).

Length of data collection

A1.28 Some research questions need to be studied over a long period of time, while for others a single 'spot check' will suffice. The former enables the building of trends over time but longitudinal research is also more costly to run and maintain. DNOs should therefore assess the potential value of a longitudinal study (eg a panel survey) against its costs and resource intensity.

A1.29 DNOs need to carefully balance the suitability of research methods for a given research question, against the relevant cost of research, available resources, timeliness, and accuracy of findings.

A1.30 It should also be noted that Ofgem is not setting a requirement for DNOs to undertake research employing any specific methodology. The decision to adopt a particular methodology rests with the DNOs, but we encourage companies to consider all of the above aspects of research, before coming to a decision on their chosen research design.

Appendix 2 Connections

Improving service standards and timely connections for all customers: principles and baseline expectations

9.29 The following are the principles and baseline expectations for the standards of service that we expect DNOs to deliver to connections stakeholders. DNOs' Connection Strategies should be aligned to these principles and baseline expectations.

9.30 While the baseline expectations are set out using a generic connections journey, Ofgem recognises that upgrades and access customers may follow different pathways. For these customers, companies should focus on how the expectations are met in practice, including clarity of requirements, transparency of constraints, effective communication, and accountability for progression, rather than on mirroring the structure of a new connections process

9.31 Where a DNO considers the baseline expectation is not appropriate, the DNO should provide clear justification as to why this is the case. Where relevant, this should be supported by stakeholders.

Principle	Baseline expectation
Principle 1: Support connection stakeholders prior to application by providing accurate, comprehensive and user-friendly information	1. Provide customers with timely, accurate and accessible information to support effective decision-making, including clear visibility of network data.
Principle 2: Deliver value for customers by ensuring simplicity and transparency through the connections process	2. Demonstrate a coherent end-to-end service for all connections, covering preapplication, application, offer, delivery and energisation. Processes should be clearly owned, integrated and managed to minimise avoidable delays, with clear accountability for outcomes across the full customer journey. 3. Ensure that connection offers are clear, accurate and stable, with assumptions, scope, costs, risks and dependencies clearly explained. Changes to offers should be minimised and, where unavoidable, clearly justified and communicated. 4. Engage constructively with customers and stakeholders throughout the connections process, providing regular, meaningful updates and responding effectively to customer needs.

Principle	Baseline expectation
Principle 3: Facilitate the delivery of timely and economical connections that meet customers' needs	5. Meet agreed timescales and commitments across the connections process, including the timely issue of offers and delivery against agreed connection dates. Where delays occur, DNOs should proactively explain the cause, impact and revised milestones. 6. Ensure that ambition has been applied in setting offers, and opportunities to advance dates are identified, communicated and monitored over time. 7. Use performance data and customer feedback to identify weaknesses, drive improvements and demonstrate learning over time. This should include systematic use of customer satisfaction evidence linked to specific stages of the end-to-end journey.

Appendix 3 Climate Resilience Definitions

9.32 This section provides a shared set of definitions to support a consistent understanding of climate-resilience concepts across the sector, particularly in the context of Climate Resilience Strategies (CRS) and wider climate-resilience discussions.

9.33 The definitions are intended to:

- improve clarity and consistency of terminology, reducing ambiguity in how climate hazards, impacts, risks and responses are understood and communicated
- support consistent interpretation of climate-related evidence and narratives across CRSs, Business Plan Data Tables, and associated submissions
- provide common analytical language to help compare approaches and reasoning across companies, while allowing flexibility in how evidence and judgement are applied
- support transparent and proportionate assessment, ensuring differences in interpretation or drafting do not obscure underlying similarities or differences in risk, need or approach

9.34 These definitions are not intended to introduce new policy requirements, prescribe specific methodologies, or act as automatic decision rules or thresholds for intervention. Where relevant, they seek to align with established external frameworks (such as Defra's Adaptation Reporting Power) and existing regulatory guidance, while avoiding unnecessary duplication or technical prescription.

9.35 Some defined terms may not appear explicitly in the BPG. In these cases, the definitions provide supporting context for the wider climate-resilience framework and are intended to aid understanding rather than create additional obligations.

*Definitions marked with an asterisk draw on terminology previously published through the Stress Testing Methodological Framework,[48] some definitions may have been updated since that publication; references to definitions should therefore be taken as indicating the most recent version set out in this guidance.

[48] https://www.ofgem.gov.uk/sites/default/files/2025-10/ED3%20SSMC%20Climate%20Resilience%20Stress%20Testing%20Methodological%20Framework%20Annex%20FINAL_clean.pdf

Active Cooling Infrastructure

Installation of mechanical or automated cooling systems (eg, forced ventilation, liquid cooling) to manage acute temperature stress on substations, transformers, and LV/HV systems. Focused on addressing extreme heat events, not BAU derating.

Acute Impacts

Immediate adverse effects, such as disruption, damage, and stress to assets, people, infrastructure, and systems caused by short-term exposure to climate-related hazards. Examples include widespread customer interruptions and asset damage caused by a severe storm, or equipment failures and service disruption during an extreme heatwave.

Adaptation Pathways

A decision-making approach that sets out how actions may be sequenced over time in response to climate risks, allowing future decisions to change as climate impacts, system conditions or evidence evolve. They are used to retain flexibility under uncertainty, rather than committing to a single fixed response. Further guidance on adaptation pathways is set out in BS 8631:2021 | 30 Apr 2021 | BSI Knowledge.

Asset Hardening & Physical Protection

Upgrades that improve the physical robustness of assets against climate hazards. This may include strengthening structures, enclosure hardening, or protection against debris and environmental damage.

*Asset / System Vulnerability

The inherent characteristics of an asset or system that affects its ability to withstand and recover from a weather hazard/event. Fragility can be one component, which is affected by factors such as design and condition of asset or wider adaptation actions.

Chronic Impacts

Adverse impacts from long-term, gradual climate that accumulate over years or decades. Examples include sustained increases in average temperatures leading to progressive asset derating, gradual sea-level rise, increasing long-term flood exposure, or long-term changes in rainfall patterns accelerating asset deterioration.

*Climate Hazard

A meteorological or climate phenomenon capable of negatively impacting the physical or operational aspects of energy networks. Hazards may be characterised by attributes such as their probability of occurrence, magnitude intensity, and spatial extent, depending on the context of assessment. Examples include extreme temperatures, high winds, or periods of intense rainfall.

*Climate impact

Adverse consequence resulting from a climate hazard eg damage to a physical asset or customer interruptions. This can include both acute and chronic impacts (see relevant definitions).

Climate Resilient Network

A company where the physical network assets and company procedures have the measurable capacity to withstand impacts of current and future foreseeable climate hazards. This is to provide a continuation of the primary service in line with defined standards of performance, or to facilitate a rapid service recovery from a climate hazard.

Climate Risk

The potential for a climate hazard to adversely impact network infrastructure, systems or operations. This risk arises from the exposure and vulnerability of assets and operations to climate hazards.

Climate Risk Assessment

A structured assessment undertaken to characterise and prioritise climate risks by considering climate hazards, exposure, and vulnerability, and how these may change over time. This process is intended to inform adaptation planning and decision-making, alongside other strategic, operational and proportionality considerations, in line with the Adaptation Reporting Power.

Climate Risk Matrix

A structured analytical tool used to assess and compare climate risks by evaluating the likelihood and consequence of climate hazards, exposures, and vulnerabilities, supporting transparent and consistent prioritisation. This is a part of climate risk assessment and adaptation planning, in line with the Adaptation Reporting Power.

Cross Boundary Resilience

Investments that enhance the network's ability to transfer or import/export power across DNO boundaries during hazards. Examples: interconnectors, boundary upgrades, major sectionalisation.

Deliverability

The practicality and feasibility of implementing the resilience intervention — considering time, resources, supply chain, technical complexity, capabilities, and the ability to deliver the solution to required quality and within constraints.

Direct Climate Resilience Investment

Refers to actions or projects where climate risk is the primary driver for the investment, rather than one of several secondary considerations. These are interventions that exist

specifically to address acute climate impacts from hazards. Examples include strengthening overhead lines specifically to reduce damage from severe windstorms.

Exposure

The presence of infrastructure assets, livelihoods, services, resources and people in locations which could be adversely affected by a climate hazard.

Extreme Heat Resilience

Revised definition following DNO comment - Intervention that directly mitigates the acute impacts of long durations of abnormally high air or soil temperatures/heat conditions on electricity distribution network assets, systems, or operations. It must target failure modes, performance degradation, or operational constraints that arise specifically during extreme heat events or heatwaves, where elevated ambient air or soil temperatures/heat conditions increase the likelihood of asset stress, derating, or fault incidence.

*Hazard Parameter

A measurable physical variable used to assess a climate hazard, for example, wind speed, air temperature, rainfall intensity, or ground temperature.

Heat Resilient Civil Works

Civil engineering works designed to withstand high ambient air or soil temperatures/heat, such as heat-resistant trenching materials, ventilation improvements, or modifications to structures exposed to prolonged heat.

Incremental Climate Resilience Cost

The additional cost associated with specifying an asset, intervention or activity above the nearest Modern Equivalent Asset Value[49] (MEAV), where that higher specification is required to address a material climate-driven uplift in risk.

This includes costs associated with enhanced design, materials, capacity or operational capability that improve resilience to climate hazards beyond baseline requirements. Only the cost difference between the MEAV standard and the enhanced specification should be classified as an Incremental Climate Resilience Cost.

Like-for-Like

Replacement of an asset with another asset of equivalent type and function, delivered to the latest applicable design standards, without enhancement beyond baseline requirements unless justified by climate-related risk, regulatory requirements, or deterioration evidence.

Load Resilience

[49] The value of a modern asset with the same service capability as an existing asset.

A capacity-driven network investment that is simultaneously climate-proof, so new or upgraded assets can withstand both future loads and future climate hazards.

Low Regret

Low regret climate resilience investments can take various forms:

Activities or interventions that are expected to deliver value under current conditions and that also provide benefits in addressing future climate risks. These investments often include relatively low-cost measures with benefits that may be difficult to monetise, such as improved capability, enhanced climate information, strengthened decision-making processes, or increased preparedness. They can also include actions that are undertaken now to generate information, learning or evidence that supports better investment decisions over time.

Measures where upfront costs are low but potential future benefits are high. They may deliver limited immediate benefits but offer the potential for significant value if future climate impacts emerge or intensify. This can include interventions that perform well across most, but not necessarily all, plausible future climate scenarios, where low cost mean there is little downside risk.

Options that are robust (ie they perform adequately across a wide range of possible future climate conditions rather than being tailored to a single/limited range of predicted outcome(s)). Options can also be flexible/adaptive (ie allowing plans, designs or future investment decisions to be adjusted as new information, evidence or understanding of climate risks becomes available).

Marginal Cost Assessment

An assessment of the additional cost of increasing an asset's climate resilience specification (eg, from RCP4.5 to RCP8.5 design level, or from best to worst case climate model projections) compared with the additional resilience benefit gained, used to judge whether higher specification climate resilient options represent efficient, proportionate investment.

Marginal Baseline

Decision framework comparing "build now" vs "build later" across two climate scenarios, assessing whether early investment to a higher-impact scenario (eg RCP8.5) delivers disproportionate resilience benefits relative to its incremental cost (low/no-regret).

Non-load Resilience

Strengthening of existing assets and systems against climate hazards that threaten their condition or functionality, regardless of changing demand.

No Regret

These measures are typically cost-effective under current climate conditions and generate net social and/or economic benefits irrespective of whether or not anthropogenic climate change occurs.

Operational Resilience[50]

The ability of the network operator to maintain or rapidly restore critical organisational functions after a climate hazard through organisational measures such as increasing resilience of organisational buildings, communications, logistics and supply chain, health and wellbeing impacts of employees and contractors etc.

Proposal Maturity

The degree to which a resilient proposal is developed, evidenced, and ready for assessment. This includes clarity of the problem statement, robustness of hazard and vulnerability analysis, strength of engineering justification, definition of options considered, and completeness of cost, risk, and deliverability information.

Redundancy & Rerouting Capacity

Enhancements that increase alternative supply pathways so customers can be resupplied when parts of the network fail. This includes additional circuits, sectionalisation, and transfer capacity upgrades.

Site Surveys & Assessment[51]

Pre hazard risk assessments, condition inspections, and climate hazard vulnerability reviews used to identify hotspots for storm or heat intervention. These activities support prioritisation and cost justification for resilience interventions.

Storm Hardening / Strengthening (OHL & Substation)

Targeted interventions to reduce asset vulnerability to storm hazards such as wind, ice, lightning, or heavy precipitation. Examples include pole reinforcement, conductor upgrades, structural strengthening, and substation protection works.

Storm Resilience

An intervention that directly reduces the risk, scale, or operational consequences of electricity network disruption arising from severe weather events. These events are characterised by fault levels meeting or exceeding the Guaranteed Standards of

[50] For the purposes of our framework, we recognise that many of these measures are delivered through BAU funding; therefore, the term here refers only to operational actions that materially enhance climate resilience beyond standard BAU requirements.

[51] We recognise that some aspects of site surveys and inspections are delivered through BAU. For the purposes of this framework, this category refers only to additional climate focused assessments or enhanced survey depth undertaken specifically to identify resilience needs beyond standard BAU inspections

Performance (GSoP) Severe Weather Event Category 1 threshold, defined as daily faults at least eight times (8×) a DNO's average daily high-voltage fault level.

Thermal Rating Upgrades

Increasing the thermal performance of assets so they can operate safely during acute high-temperature events, such as short-duration or exceptional heatwaves. This may include uprating cables, transformers or switchgear, or adjusting cooling limits to ensure safe operation under extreme but transient temperature conditions.

Vulnerability Threshold

A specific threshold value of the hazard parameter beyond which a defined level of service is reduced.

Appendix 4 DNO role in LCT & EE rollout

A4.1 We expect to implement our decision to expand the role that DNOs have in supporting the roll out of LCTs/energy efficiency by updating the guidance associated with Special Condition 9.13.

A4.2 Companies should continue to deliver against the existing SpC 9.13 guidance for the remainder of RIIO-ED2 with the first ED3 outputs expected in May 2028. To enable companies to consider these changes, we set out below our expectations for how these requirements are likely to evolve, subject to further development post-SSMD.

A4.3 The Community Collaboration Plan must:

- be published annually (with the first publication on 1st May 2028) and included as part of the licensee's overall annual reporting
- describe the licensee's key stakeholders and the rationale for identifying them as key stakeholders
- describe how the licensee plans to engage their identified stakeholders in the year ahead. The licensee must state how they will engage each stakeholder group (ie the form these engagements will take rather than the number of engagements), what they will be seeking to achieve, and report whether the licensee fulfilled their commitments the previous year
- detail how the licensee is collaborating and partnering with other stakeholders in the co-development of certain strategic regional projects, plans and net zero strategies, where these are being led or coordinated by others
- detail instances where the licensee's network planning has changed as a result of engagement with local or regional stakeholders and through assessments of their plans. This will help to clarify how stakeholder collaboration shapes network planning on an ongoing basis and indicate the quality of DNO engagement
- report whether the licensee has entered into any Scheduling and Co-ordination Agreements (SCAs) with key stakeholders and who these stakeholders are. Similar to Memorandums of Understanding, these agreements commit both parties, and provide a framework, to proactively sharing network and retrofit investment plans to enable the timely installation of enabling works aligned with stakeholder investment plans

A4.4 The data sharing and visualisation elements must:

- provide a representation of the DNO's existing network assets and associated constraints using both static and dynamic data. Such data should include the type, capacity, and location of assets and the nature of constraints, on all parts of the distribution network, including the low voltage network. We will work with DNOs to understand how the state of the low voltage network can be represented in a proportionate manner so that benefits of greater LV network visibility are realised without the process being overly onerous
- provide a representation of the DNO's network in the future, using tRESP forecasts and other data sources to produce likely trajectories for the metrics they hold data for (ie network capacity, grid constraints, LCT connections, etc), including expected constraints. Such data is to be presented in a format and time horizon to be determined collectively by DNOs and their stakeholders and made available through an Application Programming Interface (API) that is common across all DNOs
- incorporate data sets, digital tools, strategies and reports that exist under their respective DSO, LRE and Data & Digitalisation strategies
- see DNOs working with their stakeholders to continue developing a System Visualisation Interface (SVI) that meets the principles of transparency, accessibility and interoperability

A4.5 If, in the process of collaborating with local stakeholders, DNOs or their stakeholders identify additional data sets that will materially support stakeholders' decarbonisation plans, DNOs should look to incorporate these additional data sets into their SVI.

A4.6 In any event, DNOs should look to incorporate additional data sets into their SVI including:

- domestic Energy Performance Certificate (EPC) data
- socio-economic data such as Indices of Multiple Deprivation (IMD), fuel poverty estimates, and the location of households with council tax exemptions
- likely heat network zones/planned heat networks
- the location of existing and planned social housing developments

A4.7 In line with Ofgem's Data Best Practice Guidance, this data should be 'presumed open', ie treated as open by default unless sensitivities are identified. With more sensitive data shared through the Data Sharing Infrastructure with key stakeholders. Interoperability between the different licensee SVI, is critical to enable users to efficiently interface with these platforms.

A4.8 In respect of the technical support for local stakeholders, companies will need to describe which tools or types of technical support have been requested by licensee's key stakeholders and whether licensees have provided or intend to

provide these services. Where licensees have not been able to provide these services or do not intend to, they should describe why this decision has been made.