Response to Ofgem's Regional Energy Strategic Plan (RESP) policy framework consultation

KEY POINTS

- We broadly support the key building blocks of RESP, but clearer lines still need to be drawn between network companies and the National Energy System Operator (NESO). Further design and implementation needs to carefully reflect the consultation position that:
  - NESO, via RESP, is fundamentally responsible for forecasting customer needs via a whole system strategic pathway, which is critical for network planners.
  - It should not duplicate the role or dilute the responsibility of network companies to understand, assess and manage the network impact – when and where constraints may occur; and when, where and how they should intervene – which is part of our duty to plan and develop the network by investing efficiently.
  - DNOs already incorporate bottom-up inputs via a stakeholder-led approach to forecasting network needs – NESO should work with DNOs to leverage, not duplicate relationships.
- Ofgem remain accountable for determination of allowances and their associated outputs, therefore they must have confidence in the RESP pathways if the process is to work well.
  - RESP updates must align to price control submissions and to any reopener processes on load related expenditure, to help inform funding decisions.
  - Regardless of RESP, Ofgem must set pathways for business plans to achieve consistency.
- We support the proposal for RESP to develop a single long-term regional vision, a series of long-term pathways and a single short-term pathway.
  - The long-term regional vision should outline the regional priorities to deliver Net Zero.
  - The pathways must encompass all credible regional developments.
  - The short-term pathway must be consistent with all the long-term pathways and should ideally look beyond five-years in order to help DNOs identify Net Zero-related strategic investment – to provide supply chain certainty and support wider societal benefits in delivering regional Net Zero ambitions.
  - NESO should establish criteria to assess the credibility of pathway inputs, which are likely to constrain the short-term pathway more tightly than the longer-term pathways.
- We support RESP governance via a Strategic Board in each region – but it must be effective.
  - We agree with the proposed regional boundaries .
  - There must be a route for stakeholders to engage and challenge prior to RESP finalisation.
- RESP should enable network companies to identify Net Zero-related strategic investment needs both within and beyond the current price control period: investability, deliverability, and customer acceptability is key.
  - Network companies should identify and bring forward such strategic investment proposals, where justified, supported by a consistent assessment framework.
  - If such proposals support the region's decarbonisation needs, the RESP pathways should be a critical input to justify these plans.
  - The scope of RESP should be limited to Net Zero; and hence strategic investment for other reasons would need to use different inputs (e.g. Government backing for a project).
- The role of the RESP in planning for RIIO-ED3 must be prioritised now; a minimum viable product (MVP) for RESP is needed, and Ofgem/RESP must provide DNOs with inputs one-year prior to plan submission – an initial output produced in 2026 is too late.

1. Executive Summary

We broadly support the key building blocks of RESP, but clearer lines still need to be drawn between network companies and the National Energy System Operator (NESO).

1. RESP could achieve significant improvements over the status quo, thanks to their potential for:
    a. defining more consistent national and regional demand baseline assumptions for network planning and the price control processes that deliver funding;
    b. cross-vector co-ordination;
    c. helping to provide an evidence base that can support a nationally consistent level of strategic investment to keep the country on track for all credible transition curves, in addition to that needed to meet local development more generally; and
    d. efficient and effective involvement of national stakeholders in local plan development processes (e.g. producing Local Area Energy Plans (LAEPs)).
2. We therefore support RESP implementation, subject to the comments in the rest of this consultation response.
3. In practice, NESO will define common GB decarbonisation pathways, and via RESP, will define regional whole system strategic pathways to deliver Net Zero. In doing so, there must be clear roles and responsibilities that add value to, but do not duplicate, existing network forecasting and planning practices – via a clear delineation between energy pathways and network planning.
    a. NESO, via RESP, should forecast customer needs (e.g. number of low carbon technologies (LCTs), such as electric vehicles (EVs) and heat pumps), but not duplicate the role of network companies in deciding how to assess and manage the associated network impact.
    b. RESP should therefore help inform when and where constraints may occur, but shouldn't inform network companies as to when, where and how they should intervene – electricity distributors (DNOs) should continue to do that as part of a strategic approach to planning and investment.
    c. DNOs must retain autonomy to plan and develop the network in order to meet their statutory and licence obligations. These include maintaining security of supply, network performance and safety.
    d. DNOs should not be put in a position where they do not have:
        i. control to determine the magnitude and timing of network investment, yet still bear the associated legal, safety, financial, and customer impacts; and
        ii. direct appeal rights in relation to the decision that factors in the amount of investment that is needed into the funding arrangements provided by the price control.
4. RESP outputs should be a direct input into DNOs' network load forecasting.
    a. The Distribution Future Energy Scenarios (DFES) forecasting process should be adapted to incorporate the RESP strategic and whole energy system pathways.
    b. DNOs can assist by sharing bottom up DFES data with NESO, including extensive building blocks and regional stakeholder inputs. These inputs will ensure consistency and deliver a

regional view efficiently; thus, avoiding reliance on the disaggregation of national forecasts which don't reflect the specific local conditions we consider in creating our DFES.

c. As part of the collaborative approach, NESO should therefore use DNOs' DFES, together with the connections pipeline information, as an input and as part of its assurance framework testing the validity of its pathways.

5. We support NESO, via RESP, developing consistent assumptions that consider regional variations via forecasts of LCT growth, and associated customer behaviour. RESP assumptions that convert projections of LCT growth into profiles for assessing contributions to peak demand, spatially mapped onto network assets, must provide for DNO assurance. DNOs will do this through detailed technical assessments including accommodating complex customer diversity and network connectivity, before forecast asset loading is determined. Otherwise, RESP would in effect go beyond forecasting customer needs by translating this into fixed network capacity requirements.

6. Avoided duplication must stretch wider and ensure that NESO complement, but do not replace/duplicate DNOs communication with regional stakeholders. DNOs have successfully built relationships with local communities via a bottom-up, stakeholder-led approach to forecasting need on their networks.

    a. DNOs need to engage with stakeholders as part of the end-to-end connections process.

    b. RESP provides an opportunity to build on these successes, while maintaining existing DNO practices and accountabilities.

    c. A key objective for the RESP should be integrating the whole system approach.

    d. NESO must recognise limitations at play with support from local actor organisations, including availability of resource, skill gaps, and indeed funding gaps.

    e. Clarity on NESO's expectations is needed, and this may vary by "type" of local organisation.

Ofgem will remain accountable for the determination of allowances and therefore must have confidence in the RESP pathways if the process is to work well.

7. Supported by its confidence in RESP pathways, Ofgem must deliver a regulatory framework and price control settlement that accounts for requirements beyond the period. RESP can bring value here by providing assurances on the planning assumptions and pathways necessary to support a sufficient amount of strategic investment in advance of need, rather than investment just ahead of need.

8. There will be different perspectives on what level of certainty is optimum – and reasonable people will be able to disagree about the level. But there should be no scope for Ofgem's overall decision to be made without taking explicit account of the deliverability risk that follows from leaving too much to do in the later years. Ofgem's reference period for considering pathways must therefore extend beyond the price control in question to ensure solutions are optimal for the path to Net Zero in its entirety. In turn, the associated certainty, via market signals, will ease both supply chain and skill constraints.

9. The risk of getting ahead of need continues to quickly reduce relative to the risk of falling behind.

10. RESP updates must align to price control submissions and to any reopener processes on load related expenditure, to help inform funding decisions. Ofgem must ensure that the interaction between RESP and price controls meets investability and deliverability requirements.
    a. How often RESP is refreshed should also consider the impact on cost and resource of local organisations e.g. ability to produce Local Area Energy Plans (LAEPs). Local authorities are not all the same.
    b. However, the strategic nature of RESP should mean that it is not sensitive to variations in short-term forecasts versus outturns.
11. Since RIIO-ED2 was settled, the environment has shifted to one that requires Ofgem to be bold – in practice, that means Ofgem making policy decisions on pathway ambition upfront. To support this, careful consideration should be given to what RESP is in the long-term.
    a. RESP should support network planning through incorporation of local plans/regional requirements at a macro-level, but not down to Lower Super Output Area (LSOA) level.
    b. RESP pathways at LSOA level would duplicate granular DNO forecasting and may affect the DNOs' ability to plan the network effectively.
    c. Instead, RESP should focus on providing whole system solutions that benefit wider areas of network.
12. We believe that RESP should quantify the following, by grid supply point (GSP), and defined as annual increments to 2050:
    a. Customer needs:
        i. Number of LCTs.
        ii. Demand profile for each type of LCT (with allowable tolerances).
        iii. Generation uptake.
        iv. Customer efficiency savings assumptions.
        v. Customer flexibility assumptions (e.g. via time of use (ToU) tariffs).
    b. Economic growth assumptions.
13. RESP should not include forecasts of:
    a. DNO contracted flexibility assumptions.
    b. Network constraints or fixed network capacity requirements.
    c. LCT contribution to peak demand.

We support the proposal for RESP to develop one long-term regional vision, a series of long-term pathways and a single short-term pathway.

14. The long-term regional vision should outline the regional priorities to deliver Net Zero.
15. The pathways must encompass all credible regional inputs.
16. The short-term pathway:

a. must be consistent with all long-term pathways.

b. will primarily represent the principal regional needs for decarbonisation.

c. should ideally cover a period longer than five-years –we support a horizon at the greater end of the proposed scale (i.e. 10-years, or two price control periods) – in order to support DNOs in identifying Net Zero-related strategic investment, to provide supply chain certainty and support wider societal benefits in delivering regional Net Zero ambitions.

17. NESO should establish criteria to assess the credibility of pathway inputs, which is likely to constrain the short-term pathway more tightly than the longer-term pathways.

18. Where the NESO modifies its generic assumptions when developing the short-term pathway to reflect discrete, local needs, it must set out a narrative explaining what it has done. Needs that do not relate to meeting Net Zero or planning for consequential whole system changes, should be beyond the scope of RESP.

19. For large, discrete requirements, which might necessitate strategic investment outside the short-term pathway, DNOs need to be informed 'when' and 'where' the customer needs will be.

We support RESP governance via a Strategic Board in each region – but it must be effective.

20. As is always the case, it will be more important to get the 'right' representatives – with appropriate knowledge and capacity to represent relevant parties, and to effectively engage and support a RESP. As such, the interaction between a Strategic Board and the proposed working groups, and indeed general governance, requires significant further development and clarity.

    a. We support the Strategic Board providing a steer on key decisions. Clarity is needed via a transparent process as to how this will work in practice.

    b. There is a risk that the Strategic Board will not attract the 'right' representatives if it is seen as a consultancy vehicle only. Engagement will be more effective if the Strategic Board has a clear and demonstrable role in shaping decision-making.

21. We accept that the Strategic Board will not make final decisions, and each regional Strategic Board will feed up to NESO – as the RESP delivery body – and where final output will be decided by the NESO. As such, there must be a transparent and effective challenge route where stakeholders can effectively engage prior to finalisation of the RESP outputs.

22. It is in everyone's interests to have consensus on the quality of the RESP output prior to its use as an input in the DNOs' planning process.

23. NESO should prioritise enabling network companies to provide adequate network capacity as a proactive measure to attract and sustain regional developments, rather than waiting for developers demands to dictate the development of energy infrastructure reactively.

    a. By ensuring that the network is robust and future-proofed, customers will gain confidence that their energy needs will be met without disruption or undue delay.

    b. This forward-thinking approach will promote a smoother and more efficient local decarbonisation transition.

    c. In contrast, allowing customers' investments to outpace energy capacity can result in bottlenecks, increased costs, and potentially lost opportunities, as developers will hesitate to commit to locations where electricity capacity is uncertain.

RESP should enable network companies to identify Net Zero-related strategic investment needs both within and beyond the current price control period: investability, deliverability, and customer acceptability is key.

24. The introduction of new strategic planning processes as part of the transmission framework over recent years has resulted in much greater clarity of the future needs of the users of those networks.
    a. This greater clarity has, in turn, allowed transmission network operators to focus on efficient delivery to meet those needs – with positive impacts on longer-term resourcing plans and supply chain certainty.
    b. It is appropriate that these benefits are translated to distribution networks to ensure that they are not a barrier to regional decarbonisation.
25. Although some principles are transferable, some details of the Accelerated Strategic Investment (ASTI), Strategic Spatial Energy Plan (SSEP) and Centralised Strategic Network Plan (CSNP) approach for the strategic development of the transmission network are not directly applicable to distribution networks.
26. This is because distribution network development comprises significantly greater quantities of lower value interventions, compared to fewer high value interventions at transmission. At distribution:
    a. investment typically entails a much lower 'per unit' capital deployment for a proportionately greater return i.e. better value for money.
    b. there are many more ways to fix problems: that mean that the right network development option cannot be determined centrally due to the number and complexity of permutations, scale of the asset base, and the scope for future variation in available solutions and patterns of customer behaviours.
    c. it directly impacts a significantly larger number of customers/stakeholders.
    d. it includes significantly greater multi-sector/vector considerations.[1]
    e. competition in connections is mature.[2]
    f. typically, distribution network development, although subject to much greater levels of flexibility in potential outcome, is more likely to afford opportunities for lower-regret investments – at least in the earlier phases of a long-term journey.
    g. network developments take less time to plan and implement compared to transmission projects.
27. RESP can be the vehicle that translates the transmission approach to distribution networks by providing robust justification of the need.
28. Network companies should identify and bring forward strategic investment proposals, where justified, supported by a consistent assessment framework.

[1] For example, electricity, gas, and water (possibly broadband) assets and may be laid in the same trenches, and with more touchpoints with other sectors such as rail, hospitals, and other critical national infrastructure.
[2] For example, the operation of independent connection providers (ICPs) and independent distribution network operators (IDNOs). Whilst competition can undoubtedly deliver benefit for customers, it may also impede it.

a. If such proposals support the region's decarbonisation, RESP pathways should provide justification and be a critical input to these plans.

b. The scope of RESP should be limited to Net Zero; and hence strategic investment for other reasons would need to use different inputs (e.g. Government backing for a project).

29. Where DNOs have high confidence in load growth, they should deliver the most efficient network development option for the long-term, not simply for the price control period or even the next decade. We believe in an approach that is generally based upon 'touching the network once', with a focus on planning towards the electricity network of 2050. This promotes more efficient network development and better delivers customer needs, and does not exclude phased delivery of network development and release of capacity, for example, motorway service areas (MSAs) and electric vehicle charge points;[3] and which actively entails taking other steps wherever possible to avoid touching the network twice – such as demand management or innovative solutions.

30. In general, strategic network planning:

a. can be facilitated by engaging with stakeholders on their load growth projections and new connection requirements, akin to the 'green recovery' investment programme;

b. can realise synergistic benefits, including:

i. Longer-term resourcing plans and supply chain certainty helping reduce costs and develop supply chain resilience.

ii. Uprating of existing assets, when they need to be replaced for example due to their poor condition, to the specification required for Net Zero (releasing additional capacity at lower incremental cost).

iii. Enhancing resilience and accommodating climate change (e.g. overhead line storm resilience), at the time any network investment is being undertaken, reducing costs.

c. can be achieved through:

i. Routine asset upsizing at lower voltages, to provide future capacity where growth is forecast; and

ii. Identifying growth in a specific network area at higher voltages, led primarily by the relevant energy pathway.

d. is about consideration of when to intervene for a forecast network constraint and the varying customer impact at different voltage levels based on relevant the security of supply standard (for distribution networks being Energy Networks Association (ENA) Engineering Recommendation P2); and

e. requires clarity and certainty of deliverability – we consider ex-ante allowances are the best way to encourage efficiencies.

31. This approach should equally apply to asset replacement where assets will be replaced with ones of larger capacity to maximise the life of those new assets and cater for customers' future needs.

[3] For example, delivery of investment in MSAs related to the Rapid Charging Fund.

32. Ultimately, the key requirement for RESP and DNOs, based on RESP inputs, is to consider investment needed beyond the price control period in question – and for DNOs to minimise the overall costs of facilitating the transition to Net Zero.

33. In addition to the need to ensure that funding is readily accessible to deliver investment where and when needed, the regulatory cost assessment process must change such that it does not favour only adding just enough capacity to mitigate load growth in that price control period.

34. Underpinning all of this requires a strategic focus on balancing investability, deliverability and customer acceptability – it is critical, and overdue, and RESP is a key piece of the puzzle.

    a. Certainty of funding and over a longer horizon is vital to establish an investment framework that is internationally competitive. The current long-term path of prices will put unprecedented strain on customers' willingness to pay – with asset stranding becoming a real risk to investors.

    b. Networks must remain positioned to deliver on all credible future pathways to Net Zero; necessarily, that requires Ofgem to look beyond a given price control period whenever it sets one.

    c. Current and future customer acceptability must always be front and centre – affordability is not the only factor in securing the necessary customer support, but it is the most important one. Reliability, resilience, quality of service and ease of doing business are all hygiene factors that must be maintained to ensure the level of active engagement that will be needed for a change on this scale. Fairness also matters in that context. The framework must make sure that the right set of customers pay the right amount at the right time. The weighting between current and future customers is currently out of balance: future customers are being set up to pay too great a share of cost of decisions taken by the current ones, who are effectively being given a partial 'payment holiday'. And the problem has wider implications than intergenerational fairness – it drives a clear and present risk to investor confidence as it builds a long-term risk of asset stranding.

35. RESP has the potential to set the foundation to get us to where we need to be – providing other pieces of the puzzle fit together (see paragraphs 7 to 11).

The role of the RESP in planning for RIIO-ED3 must be prioritised now; a minimum viable product (MVP) for RESP is needed, and Ofgem/RESP must provide DNOs with inputs one-year prior to plan submission – an initial output produced in 2026 is too late.

36. As noted, each RESP should reflect a Net Zero pathway and, based on forecasts of customer need, help network companies take an informed judgment on where significant investment will be required to support large areas of decarbonisation or economic development. However, for RIIO-ED3, RESP input will need to be limited in achieving scenario planning consistency across DNOs.

37. The role of the RESPs in planning for RIIO-ED3 must be prioritised now – RESP development being initiated by late 2025 and with initial output produced in 2026 is too late. We require RESP input by mid-2025 to allow time to build demand forecasts and conduct network impact analysis to inform draft business plan submissions mid-2026.

    a. Introducing the desired role of the RESP part-way through the planning process for RIIO-ED3 would be disruptive and must be avoided.

b. Transitional arrangements will therefore be necessary for RIIO-ED3 and Ofgem should define now the specific and ring-fenced role of the RESP in this near-term process.

38. For RIIO-ED3 business plans, it is essential that we get pathway inputs from/approved by Ofgem at least a year before submission, and that the scope is agreed early in the process. Otherwise, it risks Ofgem making the same consistency errors that led to the RIIO-ED2 appeals. It is essentials that:

    a. A common ex-ante versus Uncertainty Mechanism (UM) split that is explicit about key assumptions and design principles is established up front, before submission. Consistent assumptions that underpin ex-ante funding assessment and common UM design are needed.

    b. Ex-ante allowances set to a level that keeps open all future pathways beyond RIIO-ED3 (i.e. a UM must flex upwards only).

39. For RIIO-ED3 we need:

    a. Only the short-term pathway, albeit covering a period greater than five-years.

    b. Including the assumptions behind the information in paragraphs 12.a and 12.b.

    c. Aggregated to licensee level (Distribution Services Area).

        i. By GSP would be preferable but it is not a minimum requirement.

2. Detailed responses to the questions

Q1. What are your views on the principles (in paragraph 2.8) to guide NESO's approach to developing the RESP methodology? Please provide your reasoning.

40. We broadly support the principles, and offer the following specific comments:

    a. **Be place-based**: We support RESP integrating local plans into forecasts of customer needs, which will in turn inform network planning. However, RESP pathways at LSOA level would duplicate granular DNO forecasting and may affect the DNOs' ability to plan the network effectively. We believe that RESP should quantify customer needs by GSP.

    b. **Be whole system**: We agree with this fundamental principle. NESO, via RESP, should coordinate and drive consistency across vectors – however, clarity is needed as to how this will be achieved in practice.

    c. **Be vision-led**: We agree the need for a long-term regional vision that outlines the regional priorities to deliver Net Zero. In doing so RESP must recognise regional differences by considering top-down and bottom-up assessments appropriately, to align local, regional and national policies and objectives.

    d. **Be proactive**: We agree that being proactive is a key requirement to ensure that networks are not a barrier to Net Zero.

41. NESO and the methodology must be also transparent, collaborative, and not duplicate the role or dilute responsibilities of other parties. These should be considered as additional explicit principles.

    a. Network companies have statutory and licence obligations including maintaining security of supply, network performance and safety.

    b. Accountabilities must be clear between wider parties too, including local authorities that are responsible for producing LAEPs.

        i. Devolved authorities have different accountabilities and responsibilities based on their specific devolution agreements.

        ii. The methodology must recognise that local authorities are not all the same and RESP will have a different impact on their cost and resource.

Q2. Do you agree that the RESP should include a long-term regional vision, alongside a series of short-term and long-term directive net zero pathways? Please provide your reasoning.

42. We support the proposal for RESP to develop one long-term regional vision, a series of long-term pathways and a single short-term pathway.

    a. The long-term regional vision should outline the regional priorities to deliver Net Zero.

    b. The pathways must encompass all credible regional inputs.

    c. The short-term pathway:

        i. must be consistent with all long-term pathways.

ii. will primarily represent the principal regional needs for decarbonisation.

iii. should ideally cover a period longer than five-years – we support a horizon at the greater end of the proposed scale (i.e. 10-years, or two price control periods) – in order to support DNOs in identifying Net Zero-related strategic investment, to provide supply chain certainty and support wider societal benefits in delivering regional Net Zero ambitions.

43. NESO should establish criteria to assess the credibility of pathway inputs, which is likely to constrain the short-term pathway more tightly than the longer-term pathways.

44. Where the NESO modifies its generic assumptions when developing the short-term pathway to reflect discrete, local needs, it must set out a narrative explaining what it has done. Needs that do not relate to meeting Net Zero or planning for consequential whole system changes, should be beyond the scope of RESP.

45. For large, discrete requirements, which might necessitate strategic investment outside the short-term pathway, DNOs need to be informed 'when' and 'where' the customer needs will be.

Q3. Do you agree there should be an annual data refresh with a full RESP update every three years? Please provide your reasoning.

46. RESP updates must align to price control submissions and to any reopener processes on load related expenditure, to help inform funding decisions. Ofgem must ensure that the interaction between RESP and price controls meets investability and deliverability requirements.

a. How often RESP is refreshed should also consider the impact on cost and resource of local organisations e.g. ability to produce LAEPs. As noted, local authorities are not all the same.

b. However, the strategic nature of RESP should mean that it is not sensitive to variations in short-term forecasts versus outturns.

Q4. Do you agree the RESP should inform the identification of system need in the three areas proposed? Please provide your reasoning, referring to each area in turn.

Providing consistent assumptions

47. We support NESO, via RESP, developing consistent assumptions that consider regional variations via forecasts of LCT growth, and associated customer behaviour. RESP assumptions that convert projections of LCT growth into profiles for assessing contributions to peak demand, spatially mapped onto network assets, must provide for DNO assurance. DNOs will do this through detailed technical assessments including accommodating complex customer diversity and network connectivity, before forecast asset loading is determined. Otherwise, RESP would in effect go beyond forecasting customer needs by translating this into fixed network capacity requirements.

48. These assumptions should contain an acceptable range of variation or be specified as a common methodology to accommodate regional variances such as:

a. Regional variations in electrical consumption of EVs and heat pumps will exist e.g. customers living in rural locations are likely to drive further than customers in urban areas living closer to their workplace.

b. Solar radiance and hours of sunshine vary across GB due to variations in latitude and differences in weather leading to different heating patterns.

c. Suitable profiles are also affected by diversity between customers' use of LCTs; profiles for networks with more customers using LCTs tend to see usage spread over a greater period, whilst a profile representing usage of fewer customers may be 'peakier'.

Setting out the spatial context for capacity needs

49. NESO, via RESP, should forecast customer needs (e.g. number of LCTs), but not duplicate the role of network companies in deciding how to assess and manage the associated network impact.

50. RESP should therefore help inform when and where constraints may occur, but shouldn't inform network companies as to when, where and how they should intervene – electricity distributors (DNOs) should continue to do that as part of a strategic approach to planning and investment.

51. DNOs must retain autonomy to plan and develop the network in order to meet their statutory and licence obligations. These include maintaining security of supply, network performance and safety.

52. DNOs should not be put in a position where they do not have:

    a. control to determine the magnitude and timing of network investment, yet still bear the associated legal, safety, financial, and customer impacts; and

    b. direct appeal rights in relation to the decision that factors in the amount of investment that is needed into the funding arrangements provided by the price control.

53. DNOs currently prepare heat maps and network headroom capacity reports as part of their Network Development Plans (NDPs). These should be considered as a source of RESP spatial views of demand and generation growth projections against network conditions.

    a. We believe there may be benefit in the RESP developing a national cross-vector tool or LCT uptake dataset in addition to this.

    b. DNOs produce map visualisations of DFES forecasts of customers' uptake of EVs and other LCTs – NESO could provide national versions for RESP.

Informing strategic network investment

54. Network companies should identify and bring forward strategic investment proposals, where justified, supported by a consistent assessment framework.

    a. If such proposals support the region's decarbonisation, RESP pathways should provide justification and be a critical input to these plans.

    b. The scope of RESP should be limited to Net Zero; and hence strategic investment for other reasons would need to use different inputs (e.g. Government backing for a project).

55. Where DNOs have high confidence in load growth, they should deliver the most efficient network development option for the long-term, not simply for the price control period or even the next decade. We believe in an approach that is generally based upon 'touching the network once', with a focus on planning towards the electricity network of 2050. This promotes more efficient network development and better delivers customer needs and does not exclude phased delivery of

network development and release of capacity, for example, MSAs and electric vehicle charge points; and which actively entails taking other steps wherever possible to avoid touching the network twice – such as demand management or innovative solutions.

56. In general, strategic network planning:

    a. can be facilitated by engaging with stakeholders on their load growth projections and new connection requirements, akin to the 'green recovery' investment programme;

    b. can realise synergistic benefits, including:

        i. Longer-term resourcing plans and supply chain certainty helping reduce costs and develop supply chain resilience.

        ii. Uprating of existing assets, when they need to be replaced for example due to their poor condition, to the specification required for Net Zero (releasing additional capacity at lower incremental cost).

        iii. Enhancing resilience and accommodating climate change (e.g. overhead line storm resilience), at the time any network investment is being undertaken, reducing costs.

    c. can be achieved through:

        i. Routine asset upsizing at lower voltages, to provide future capacity where there is potential for growth; and

        ii. Identifying growth in a specific network area at higher voltages, led primarily by the relevant energy pathway.

    d. is about consideration of when to intervene for a forecast network constraint and the varying customer impact at different voltage levels based on relevant the security of supply standard (for distribution networks being ENA Engineering Recommendation P2); and

    e. requires clarity and certainty of deliverability – we consider ex-ante allowances are the best way to encourage efficiencies.

57. This approach should equally apply to asset replacement where assets will be replaced with ones of larger capacity to maximise the life of those new assets and cater for customers' future needs.

58. Ultimately, the key requirement for RESP and DNOs, based on RESP inputs, is to consider investment needed beyond the price control period in question – and for DNOs to minimise the overall costs of facilitating the transition to Net Zero.

Q5. Do you agree technical coordination should support the resolution of inconsistencies between the RESP and network company plans? Please provide your reasoning.

59. We agree that RESP should ensure coordination and cross-vector integration across strategic planning and network forecasting and planning. Identifying whole system opportunities is where RESP can add most value.

    a. RESP could add particular value by coordinating between gas and electricity distribution networks for the decarbonisation of heat.

    b. RESP should inform investment decisions about the fuels assumed to be used in industrial clusters. For example, the RESP may indicate that a particular energy vector is to be used,

giving clear direction for the proactive development of the corresponding network to accommodate the defined requirements.

c. RESP should increase whole system coordination to ensure consistency across vectors. However, RESP should not create a CSNP for lower voltage distribution networks – whilst some principles are transferable from transmission, distribution network development comprises significantly greater quantities of lower value interventions, compared to fewer high value interventions at transmission.

60. As noted, RESP pathways should help inform a DNO's strategic approach to planning and investment – but DNOs must retain autonomy to plan and develop the network in order to meet their statutory and licence obligations. NESO's technical coordination role should not extend to the technical assessment of DNO plans nor should it override their investment plans – this is what Ofgem do.

61. RESP strategic pathways, directed by Ofgem to be used by DNOs in producing business plans, should help avoid related inconsistencies evident across DNO business plans for RIIO-ED2.

62. We are committed to working with the NESO as it develops the RESP function to reconcile the views of network companies, but there could still be differences despite the collaboration – therefore a transparent process to resolve conflict is needed.

Q6. What are your views on the three building blocks which come together to form the RESP in line with our vision? Are there any key components missing?

Modelling supply and demand

63. As noted, we are supportive of NESO, via RESP, modelling supply and demand at GSP, not LSOA level.

64. In line with statutory and licence obligations, DNOs will continue to leverage extensive expertise to generate DFES forecasts. DFES forecasts should both input into RESP and reflect RESP pathways via a DNOs' network load forecasting.

a. The DFES forecasting process should be adapted to incorporate the RESP strategic and whole energy system pathways.

b. DNOs can assist by sharing bottom up DFES data with NESO, including extensive building blocks and regional stakeholder inputs. These inputs will ensure consistency and deliver a regional view efficiently; thus avoiding reliance on the disaggregation of national forecasts which don't reflect the specific local conditions we consider in creating our DFES.

c. As part of the collaborative approach, NESO should therefore use DNOs' DFES, together with the connections pipeline information, as inputs and as part of its assurance framework testing the validity of its pathways.

Identifying system need

65. Ofgem propose in the consultation that "*the RESP take a more directive role in identifying the location for strategic investments in line with the long-term vision for the region*". As set out

elsewhere in our response to this consultation, clearer lines still need to be drawn between network companies and the NESO.

a. NESO, via RESP, is fundamentally responsible for forecasting customer needs via a whole system strategic pathway, which is critical for network planners.

b. It should not duplicate the role or dilute the responsibility of network companies to understand, assess and manage the network impact – when and where constraints may occur; and when, where and how they should intervene – which is part of our duty to plan and develop the network by investing efficiently.

66. As noted in response to question 4, it should be network companies that identify and bring forward strategic investment proposals, where justified, supported by a consistent assessment framework – NESO, via RESP, should be limited to that which is needed to deliver Net Zero.

67. The introduction of new strategic planning processes as part of the transmission framework over recent years has resulted in much greater clarity of the future needs of the users of those networks.

a. This greater clarity has, in turn, allowed transmission network operators to focus on efficient delivery to meet those needs – with positive impacts on longer-term resourcing plans and supply chain certainty.

b. It is appropriate that these benefits are translated to distribution networks to ensure that they are not a barrier to regional decarbonisation.

68. However, and as noted in response to question 5, although some principles are transferable, some details of the ASTI, SSEP and CSNP approach for the strategic development of the transmission network are not directly applicable to distribution networks.

69. This is because distribution network development comprises significantly greater quantities of lower value interventions, compared to fewer high value interventions at transmission. At distribution:

a. investment typically entails a much lower 'per unit' capital deployment for a proportionately greater return i.e. better value for money.

b. there are many more ways to fix problems: that mean that the right network development option cannot be determined centrally due to the number and complexity of permutations, scale of the asset base, and the scope for future variation in available solutions and patterns of customer behaviours.

c. it directly impacts a significantly larger number of customers/stakeholders.

d. it includes significantly greater multi-sector/vector considerations.[4]

e. competition in connections is mature.[5]

[4] For example, electricity, gas, and water (possibly broadband) assets and may be laid in the same trenches, and with more touchpoints with other sectors such as rail, hospitals, and other critical national infrastructure.
[5] For example, the operation of ICPs and IDNOs. Whilst competition can undoubtedly deliver benefit for customers, it may also impede it.

f. typically, distribution network development, although subject to much greater levels of flexibility in potential outcome, are more likely to afford opportunities for lower-regret investments – at least in the earlier phases of a long-term journey.

g. network developments take less time to plan and implement compared to transmission projects.

70. RESP can be the vehicle that translates the transmission approach to distribution networks by providing robust justification of the need.

    a. The SSEP can be summarised as the 'what, where and when' for generation and storage to provide a certain basis to create a transmission network blueprint in the form of the CSNP.

    b. RESP can support the coordinated development of the distribution/transmission boundary via a whole systems approach.

    c. RESP outputs should feed into the SSEP to ensure that transmission network plans factor in local decarbonisation pathways.

71. As noted in response to question 4, we support the development of consistent assumptions that in turn support delivering consistency in how DNOs assess and manage network impacts; it is important that these assumptions contain an acceptable range of regional variation.

Technical coordination

72. As noted in response to question 5, RESP should ensure whole system coordination across strategic planning and network forecasting and planning. RESP should therefore facilitate alignment and integration across local and national strategies.

73. Ultimately, RESP should help expedite the transition to Net Zero by informing network companies of customers' decarbonisation needs which are translated into electrical load in network impact assessments and ultimately the timely provision of associated network capacity; whilst ensuring customers overall avoid paying more than is necessary to achieve Net Zero.

Missing components

74. RESP has the potential to set the foundation to get us to where we need to be – providing other pieces of the puzzle fit together. This requires an effective regulatory framework that ensures deliverability – whilst balancing this with investability and customer acceptability.

    a. **Investability**: Certainty of funding and over a longer horizon is vital to establish an investment framework that is internationally competitive. The current long-term path of prices will put unprecedented strain on customers' willingness to pay – with asset stranding becoming a real risk to investors.

    b. **Deliverability**: Networks must remain positioned to deliver on all credible future pathways to Net Zero; necessarily, that requires Ofgem to look beyond a given price control period whenever it sets one.

    c. **Customer acceptability**: Current and future customer acceptability must always be front and centre – affordability is not the only factor in securing the necessary customer support, but it is the most important one. Reliability, resilience, quality of service and ease of doing business are all hygiene factors that must be maintained to ensure the level of

active engagement that will be needed for a change on this scale. Fairness also matters in that context. The framework must make sure that the right set of customers pay the right amount at the right time. The weighting between current and future customers is currently out of balance: future customers are being set up to pay too great a share of cost of decisions taken by the current ones, who are effectively being given a partial 'payment holiday'. And the problem has wider implications than intergenerational fairness – it drives a clear and present risk to investor confidence as it builds a long-term risk of asset stranding.

75. Supported by its confidence in RESP pathways, Ofgem must deliver a regulatory framework and price control settlement that accounts for requirements beyond the period. RESP can bring value here by providing assurances on the planning assumptions and pathways necessary to support a sufficient amount of strategic investment in advance of need, rather than investment just ahead of need.

76. There will be different perspectives on what level of certainty is optimum – and reasonable people will be able to disagree about the level. But there should be no scope for Ofgem's overall decision to be made without taking explicit account of the deliverability risk that follows from leaving too much to do in the later years. Ofgem's reference period for considering pathways must therefore extend beyond the price control in question to ensure solutions are optimal for the path to Net Zero in its entirety. In turn, the associated certainty, via market signals, will ease both supply chain and skill constraints.

    a. The risk of getting ahead of need continues to quickly reduce relative to the risk of falling behind.

    b. In addition to the need to ensure that funding is readily accessible to deliver investment where and when needed, the regulatory cost assessment process must change such that it does not favour only adding just enough capacity to mitigate load growth in that price control period.

Q7. Do you agree with the framework of standard data inputs for the RESP? Please provide your reasoning.

77. We agree that the RESP framework of standard inputs should include top down and bottom-up inputs, and these need to be reconciled such that e.g. top-down does not create a barrier to delivering needs informed via a bottom-up approach. Collaboration is key, together with equality of assessment of all inputs.

78. RESP should draw upon bottom-up regional data from network companies – who already hold a lot of relevant data courtesy of established relationships with local organisations. Over the past decade, DNOs have developed extensive expertise in creating regional distribution network forecasts (DFES). It is important that this continue to add value through the RESP and is not duplicated. This data includes:

    a. LAEPs and local heat and energy efficiency strategies (LHEES) led by local authorities.

    b. Input from local stakeholders including community groups, businesses, and other regional organisations.

    c. Existing EV and heat pump ownership data as included in regulatory submissions.

d. Collaborative workshops and consultations with stakeholders.

e. Data sharing agreements with local authorities and energy companies.

f. Utilisation of existing data platforms and models to gather and analyse relevant information.

i. This includes open network data – however, some standardisation may be required to improve efficiency.

ii. RESP could focus and have a significant impact on improving and standardising existing processes.

79. DFES inputting into RESP, and RESP inputting into DFES, should quickly become a standard and iterative cyclical process, systematically embedded in how DNOs and NESO collaborate.

Q8. Do you have any suggestions for criteria to assess the credibility of the inputs to the RESP?

80. NESO should establish criteria to assess the credibility of pathway inputs, which is likely to constrain the short-term pathway more tightly than the longer-term pathways.

a. The methodology must be transparent and consistent.

b. This should include how the maturity of local ambitions are assessed and incorporated in regional plans.

c. It must reconcile top-down and bottom-up modelling approaches and set out how these will be aligned.

81. NESO should draw upon established methods for assessing maturity of plans. DNOs have valuable expertise and resources used to assess credibility of inputs for network planning, including that for DFES (e.g. the connections pipeline and inputs from regional engagement).

82. Development of whole system regional energy plans for RESP must recognise that inputs from and within regions will vary in maturity, as local area energy planning evolves. Such regional variation must be addressed in a way that does not result in networks being a barrier to regional Net Zero ambitions.

Q9. Do you agree with the framework for local actor support? Please provide your reasoning.

83. Avoided duplication of roles between NESO and DNOs must stretch wider than network planning and ensure that NESO complement, but do not replace/duplicate DNOs communication with regional stakeholders. DNOs have successfully built relationships with local communities via a bottom-up, stakeholder-led approach to forecasting need on their networks.

a. DNOs need to engage with stakeholders as part of the end-to-end connections process.

b. RESP provides an opportunity to build on these successes, while maintaining existing DNO practices and accountabilities.

c. A key objective for the RESP should be integrating the whole system approach.

d. NESO must recognise limitations at play with support from local actor organisations, including availability of resource, skill gaps, and indeed funding gaps.

e. Clarity on NESO's expectations is needed, and this may vary by "type" of local organisation.

84. Collaboration is therefore critical, as indeed is communication with stakeholders.

a. The purpose of RESP engagement and its relationship with DNOs must be clearly explained.

b. RESP engagement, in collaboration with DNOs, can identify where strategic network investment is necessary to support areas of concentrated low carbon and economic development. The importance of distribution infrastructure investment should be communicated widely, to demonstrate why and where new infrastructure is required to achieve Net Zero targets.

85. Working with local authorities and stakeholders in our region, we have first-hand experience highlighting differences in how far they are on their local area energy planning journey.

a. Six out of 32 local authorities have LAEPs.

b. The majority are at very early stages.

c. There is notable variation in how local authorities are structured, and in some cases, there is lack of clarity as to whom has responsibility for Net Zero initiatives: thus making it more difficult to identify who to engage with.

d. There is a common theme around lack of funding for LAEPs.

86. We already gather and feed into DFES good information from local authority development plans on new housing and industrial and commercial sector growth. We are also working with industrial clusters to incorporate their nascent decarbonisation ambitions into future energy scenarios.

87. We are supportive of a framework that supports and engages local actors. The effectiveness of RESP is in no small part aligned with the quality of local input. As such, NESO should provide (and encourage) sufficient support is given to local actors.

a. We believe that local authorities (outside Scotland and Wales) will require additional resources, funding and significant levels of support to ensure good engagement with the RESP and to provide energy planning inputs.

b. NESO should strive to understand the capabilities of local authorities in terms of funding, structure and ability to deliver the outputs RESP needs (e.g. LAEPs).

c. RESP engagement must provide support for local actors with varying levels of maturity and capability – complementing existing DNO relationships which must be maintained to ensure that we continue to provide support via the end-to-end connection process.

d. RESP will add most value when local authorities are empowered to plan and support the delivery of a regional transition to Net Zero. This may only be achieved if NESO advocates for change in providing further support for local authorities.

Q10. Do you agree with the purpose of the Strategic Board? Please provide your reasoning.

88. We support the Strategic Board providing a steer on key decisions. Clarity is needed via a transparent process as to how this will work in practice.

89. We accept that the Strategic Board will not make final decisions, and each regional Strategic Board will feed up to NESO – as the RESP delivery body – and where final output will be decided by the NESO. As such, there must be a transparent and effective challenge route with conflict resolution, where stakeholders can effectively engage prior to finalisation of the RESP outputs.

90. It is in everyone's interests to have consensus on the quality of the RESP output prior to its use as an input in the DNOs' planning process.

91. NESO should prioritise enabling network companies providing adequate network capacity as a proactive measure to attract and sustain regional developments, rather than waiting for developers demands to dictate the development of energy infrastructure.

    a. By ensuring that the network is robust and future-proofed, customers will gain confidence that their energy needs will be met without disruption or undue delay.

    b. This forward-thinking approach will promote a smoother and more efficient local decarbonisation transition.

    c. In contrast, allowing customers' investments to outpace energy capacity can result in bottlenecks, increased costs, and potentially lost opportunities, as developers will hesitate to commit to locations where electricity capacity is uncertain.

92. The Strategic Board has a role to play here when providing a steer.

Q11. Do you agree that the Strategic Board should include representation from relevant democratic actors, network companies and wider cross-sector actors in each region?

93. Yes, we agree that the Strategic Board should be representative of the democratically elected authorities in each area.

94. We welcome and support the inclusion of relevant network companies on the Strategic Board.

    a. Where a RESP region covers multiple DNO networks (Distribution Services Areas), each DNO should be represented.

    b. DNOs input to the RESP is critical to ensure that detailed technical and regulatory information is factored into RESP processes, decisions and outputs.

    c. Equally, network companies need a thorough understanding of the build-up of the RESP as a critical input to network planning.

Q12. How should actors (democratic, network, cross-sector) be best represented on the board? Please provide your reasoning, referring to each in turn.

95. As is always the case, it will be more important to get the 'right' representatives – with appropriate knowledge and capacity to represent relevant parties, and to effectively engage and support a RESP.

96. Trade-offs are needed to ensure that a Strategic Board is effective and representative of all actors. As such, the interaction between a Strategic Board and the proposed working groups, and indeed general governance, requires significant further development and clarity.

Q13. Do agree with the adaptations proposed for Option 1? Please provide your reasoning.

97. We agree with the adaptions proposed for Option 1. There are benefits of aligning the RESP regional boundaries to the DNO Distribution Services Areas – and along the Pennines is a sensible approach.

98. Regardless of which option is taken forward, network companies will often have to engage with multiple RESPs in their Distribution Services Area. It is therefore key to have an effective engagement arrangement, to minimise administrative burden and duplication.

Q14. Do you agree with our assessment that Option 1 is a better solution than Option 2? Please provide your reasoning.

99. We prefer option 1 over option 2, where option 1 results in one RESP covering the majority of our two Distribution Services Areas.

Q15. Do you agree a single region for Scotland is optimal? If you think a two region solution is better, do you agree the split should occur at the SSEN and SPEN DNO boundary? If not, please provide your reasoning and alternative option(s).

100. No comment.