

Dear Sir or Madam,

3-December 2025

ED3 Sector Specific Methodology Consultation

Please find attached the response from the Northern Powergrid Independent Stakeholder Group.

Yours faithfully.



C J Murray MBE

Independent Chair NPg ISG

Long-term integrated Network Development Plan

Q1. What are your views on our regulatory guiding principles that will inform the development of accountable investment planning and delivery?

We support the regulatory guiding principles but are mindful of the extent to which “adaptability with safeguards” can be applied. We agree that adaptability is desirable and, to that extent, believe that fungibility should be an integral part of the price control. However, we would be keen to understand the nature and form of any safeguards and the extent to which they could be applied in the event of significant new information such as a fundamental change in energy policy. We agree that “supply chain readiness” should be a guiding principle but are very concerned about recent research which showed a gulf in confidence between views on deliverability held by licensed entities and supply chain companies. It is notable that the boom-and-bust cycles in the supply chain are largely a function of the cyclical price control processes themselves. We are sure Ofgem will reflect on whether the price control periods are indeed long enough, why their timetables are not carried out further in advance to enable greater certainty in the run up to the commencement of the next period and how licensees should be incentivised to manage a less volatile activity level in the transition between review periods. Given government’s growth agenda across many sectors and the substantial investment needs that are recognised under the ED3 framework, we are concerned that delivery for customers will be negatively affected due to contractor availability and certainty. We have seen uncertainty led to failures in the water sector and need to learn lessons from the Cunliffe review.

Q2. Are the proposed objectives for the long-term integrated network development plans appropriate?

Yes – we support these objectives, noting that they should not, in fact, be different from previous planning objectives, save for the explicit long term, i.e. 2050, planning horizon. We particularly welcome the recognition of the supply chain challenges over the extended period, and the levelling opportunities of a long-term programme.

Q.3 What are your views on proposed structure and contents of the plan?

We very much support the need for DNOs to show long term outcomes and are particularly interested in the issue of intergenerational fairness which is clearly impacted by depreciation policy. It is essential that an equitable approach is adopted that does not disproportionately impact one generation from another. We expect that alignment with tRESP and subsequent RESP outputs will take a little time to settle down given the newness of RESPs and the extent to which all combined and local authorities are able to get up to speed and play their part. Beyond this we believe that the structure and content of the plans look sensible.

Q.4 Do you agree with the proposed use of tRESP outputs in DNOs' network impact assessments?

Yes - we can see many virtues in the RESP approach to planning. Clearly the tRESP is a necessary accommodation of the maturity of the RESP process, but the strategic content coupled with DFES detail should provide appropriate and consistent plans for all DNOs. We note that there still maybe some inconsistencies in the tRESP, both between and within regions (which we would expect to be ironed out by the time of the RESP) – and would encourage Ofgem to be vigilant in the review of DNOs' plans for this risk. We also acknowledge there will be additional data complexities which may require input from engineers, regulation, finance and external sources which may become quite resource intensive.

Q.5 What are your views on the guidelines for proactive investment decision-making across all DNOs?

We support the production of guidelines for pro-active decision making across all DNOs. However, we believe that, without the benefit of perfect foresight, it would be wrong if these guidelines became a total constraint on what DNOs were allowed to do. We can envisage circumstances arising where investment needs that fall outside of the guidelines emerged, so, providing the guidelines are indeed guidelines rather than absolute constraints, we would support them.

Q.6 Do you agree that LV network reinforcement and unlooping of legacy service connections are suitable areas for a programmatic, area-based approach in ED3? Why or why not?

Yes – irrespective of any individual customer's wishes and needs at a single point in time, where most customers in a locality can be expected to need upgrades within a decade, or a little longer, it makes sense to minimise the cost and disruption by undertaking the work programmatically. Apart from the obvious efficiencies of planning and installation, civil works etc, there will be considerable efficiencies in dealing with all the practical issues which are needed in helping customers understand the programme, and dealing with all their legitimate issues, as well as unusual legal problems which may be encountered (e.g. where there are questions of access and retention rights for DNOs' assets etc). As part of this work it may be appropriate to ensure DNOs consider the benefits, if any, of the more extensive provision of 3 phase services as well as co-ordination with other activities needed to make households ready for LCT adoption.

The provision of additional social and environmental value investment by DNOs, such as urban street trees, should be explicitly encouraged to maximise consent from those households who may not yet

be financially able or willing to accept LCTs but will be inconvenienced by network enhancement and unlooping work.

Furthermore, there should be an assumption that if gas infrastructure is able to be removed at the same time as unlooping that allowances provided in the relevant price controls can be pooled to undertake a single end to end process, reducing the demand on common supply chain components and unnecessary duplication. Most importantly this would reduce customer disruption. The offering of incentives to agree to disconnection alongside unlooping should be piloted to minimise the disruption and reduce overall costs to all bill payers.

Q.7 What are your views on the need for national consistency in the delivery of proactive unlooping programmes?

The intent should be making the approach as common as possible between DNOs but taking into account all the local factors and historic system design. The categories explained in 3.44 seem appropriate within which to develop, as far as possible, common detail.

Strengthening Accountability

Q.8 What are your views on high-level delivery accountability options and their respective strengths and limitations?

We agree that upfront funding certainty will be a key enabler of proactive investment in ED3 and will signal stability to the supply chain which will allow effective resource planning. However, we also believe that strong accountability mechanisms are essential to translate investment plans into tangible outcomes so that customers can access networks and network services to enable them to play their part in the transition to a low carbon economy. We agree with Ofgem that a range of mechanisms are necessary given the diverse and significant range of work that will be required under ED3.

Q.9 Should delivery accountability mechanisms prioritise certainty over flexibility when funding low-regret, proactive investments aligned with strategic value decarbonisation and growth goals?

We do not believe that delivery accountability mechanisms need to prioritise certainty over flexibility when funding low-regret, proactive investments aligned with strategic value decarbonisation and growth goals. As mentioned earlier we strongly believe that, given the significant ramping up of investment required under ED3, along with potential changing customer priorities and policy positions, fungibility should be a feature of the price control.

Q.10 Are additional delivery incentives needed, or can a combination of accountability mechanisms and output-based incentives sufficiently ensure delivery performance?

We agree that it is essential that DNOs are held to account for delivering the outputs that underpin their allowances. As indicated in our response to Question 1 we are very concerned about supply chain capability so the provision of clear and early signals to the supply chain so that they scale up timely capacity is of critical importance. We believe that a combination of accountability mechanisms and output-based incentives can ensure delivery performance and are particularly keen on outputs being measured and rewarded. We would support measures that showed the increase in net asset capacity such as the proposed “Timely Additional Network Capacity Indicator” but this should be

combined with evidence that the capacity added was properly targeted so as to be advantageous to current and future customers.

Connections

Q18. Do you agree that the connection types of 'minor' and 'major' should be redefined? If so, do you have thoughts on how they should be redefined, via voltage works required, customer type, a blend of the two, or a split not considered here?

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Q.19 Do you have views or suggestions on how redefining connection types, with potentially more types being introduced, will be able to be operationalised at this level of granularity?

We strongly believe that network operators should be treating their customers as people, not as voltage levels or cable types. As such, they should be building their processes and customer journeys around customer types. We recognise that this may complicate some of the operators' operational processes, e.g. in the way they allocate and track work, but that will be compensated for in the improvements made to customer engagement processes and customer satisfaction. It will also make it easier for the operators to recognise differences in the needs of different customer groups and changes to those needs over time, thereby making it easier for them to tune their operations to those evolving customer needs. This should also be a focus area for digitalisation, where modern digital systems and automation should allow customer service and operational processes to be tailored and tracked at a fine-grained level.

Q.20 Do you agree with our proposal for LCT connections and their associated enabling works to be brought into the connections scope and incentivised, with the potential to set varying working day targets for different connection activities? Why?

Broadly, yes. We support Ofgem's proposals in 4.24: one of the most useful steps Ofgem could take is to make a clear conceptual split between completely new connexions to the network versus any assessment and works that are needed to allow customers to install/use new appliances, i.e. recreate the old distinction of "connexions" and "add loads". The number of new connexions made by DNOs is relatively small, especially given the activities of IDNOs. However, the numbers of customers with existing connexions requiring some interaction with DNOs for accommodating new appliances is very significant – and the thinking, descriptions, metrics and incentives should recognise this.

Q.21 Do you agree the incentive should be reward and penalty (as per the RIIO-ED2 minor connections incentive)? Why?

We welcome Ofgem's proposals for extending the incentive scheme as described. The exact design may need care to ensure that the incentives are always aligned with customers' needs, especially where some cases might be complex, and to avoid any perverse incentives. Appropriate incentives should encourage DNOs to keep their policies under review, and to design slick approaches to handling the customer interaction with frictionless experiences, including the maximum use of auto approval approaches.

Q.22 Do you think any LCT connection incentive should be for domestic, non-domestic, or both? Why?

The key difference between customers, in terms of the works which DNOs may need to do for them, is probably best described by the type of metering, i.e. whole current or CT operated. All customers with whole current metering will, in the main, present the same issues for DNOs, so should be treated on a common basis, whether domestic or commercial customers.

Q.23 Notwithstanding the proposals we have set out under 'Redefining Connections Types', do you have alternative proposals for what DNOs need to do to speed up connection times for LCTs, and what incentives (other than those we have discussed in this chapter, obligations and/or funding may be required to support this? (chapter 4)

We do not have any alternative proposals at this stage. Our concern relates to ensuring that the DNOs and Ofgem invest the time ahead of ED3 to understand properly the range of DNO issues which customers face in adopting LCT and ensuring that the ED3 arrangements are as well designed, flexible and effective as possible when addressing customer needs. We believe there are significant numbers of customers and customers' representatives with experience of any shortcomings of the present arrangements, and their experiences should be used to inform and optimise the ED3 approach.

Broad Measure of Customer Service

Q.30 Do you agree with removing the 'Connections Survey' and the LCT related elements from the 'General Enquiries Survey' from the CSS part of the BMCS and putting this into the new smaller connections incentive? Why?

With the increasing volumes of LCT installations and therefore connections surveys, we agree in principle to removing these elements from General Enquiries and consolidating them into the smaller connections incentive. We are aware that Northern Powergrid does not currently classify LCT connections as general enquiries. As a result, the proposed change will affect their BMCS performance metrics differently compared to other network operators and due consideration should be made to this in terms of implementation and benchmarking.

Q.31 Do you agree that the remaining surveys under the BMCS CSS then be split between 'Planned Interruptions', 'Unplanned Interruptions' and 'General Enquiries'? Why?

We agree with this proposal. Outside of connections, these are the broad categories for customer service interactions. Some DNOs deal with more severe weather condition events and have extensive rural overhead networks, which can impact the frequency of unplanned power cuts. As the frequency and severity of extreme weather in the Northern Powergrid operating area continues to increase, separating out planned interruption and unplanned interruption and general enquiries provides greater scope to analyse and seek to improve the scores according to what is within and outside of organisational control. This transparency of reporting will also allow open engagement with customers to remain at the fore.

Q.32 Do you agree with the proposal to also report on and incentivise PSR vs Non-PSR survey results for each interruptions survey? Why?

We support this proposal as it encourages delivery of specific and enhanced provision of services for PSR customers, with a new focus on the quality and impact of services provided, not just reach.

Q.33 Do you have a view on what weightings should be applied to the different surveys now proposed for the CSS part of the BMCS? Why?

Northern Powergrid colleagues have informed us that power cuts account for a higher proportion of their customer service provision compared to general enquiries. They propose a recommended 60% weighting for Interruptions and 40% for General Enquiries and we would support this.

Q.34 Do you agree the CSS part of the BMCS should remain a penalty and reward incentive? Why?

We believe that the CSS part of the BMCS has worked effectively as a penalty and reward incentive during ED2 and therefore would support its continuation. We would support the proposals in point 4.90-4.91 suggesting that that research into consumer preferences for survey contact channels should be reviewed, as telephone only surveys can be restrictive to engagement of some groups.

Q.35 Do you agree with our proposals to retain the complaints metric as a penalty-only incentive and to leave the weightings applied to each category unchanged? Why?

We agree with the proposal to retain the complaints metric as a penalty-only incentive and to leave the weightings applied to each category unchanged as we would deem it inappropriate to reward companies for complaints. We believe the current weighing to be appropriate across each category.

Q.36 Do you agree with our decision not to take forward the proposals set out in 'options considered but not proposed'? Why?

We agree with Ofgem's decision not to take forward the proposals set out in 'options considered but not proposed'. As customer feedback including any negative sentiment is captured elsewhere, we think a complaints survey would be ineffective and potentially would increase customers' frustrations at having yet another contact point related to the complaint.

Consumer Vulnerability

Q.37 What is your view on the PSR Reach metric and whether this should form part of the AVR as a reputational incentive? If we were to continue this metric as a financial incentive, do you think it should continue as a reward/penalty or penalty only and should we change the weighting?

Whilst the PSR reach incentive has been useful during ED2 to drive up growth of PSR over the period, we welcome the proposal to shift to a reputational incentive which places more focus on the quality and depth of the service offer and data quality which should drive greater impact for vulnerable customers. If retained as a financial incentive, it should remain a reward/penalty structure, but with a reduced weighting as ED2 has driven up performance to a point where all DNOs are performing well. We feel more value would be obtained from placing greater weighting on other areas needing greater attention in ED3.

Q.38 What are your views on the Social Value metric and the CSS elements of the CVI incentive. Are there any areas you think we should amend or adapt for ED3?

We would advocate for a holistic approach, recognising that fuel poverty interventions often serve as prerequisites for LCT installations, and we also believe that the social value metric has been paramount in driving up performance in ED2. We do have some concerns about the low take up of

CSS amongst vulnerable customers that these interventions are aimed at and therefore suggest that a wider range of feedback channels are offered to customers to drive up response levels. Finally, we would like some consideration of moving the CVI incentive to be assessed annually now that it has been proven successful during ED2 period.

Q.39 Do you think the targets for the CVI metrics should be made common across DNOs? Why?

Yes, we do think that some standardisation of CVI metrics across DNOs would be appropriate, calculated according to license area size, as bespoke targets used currently could result in a postcode lottery of service quality.

Q.40 Do you think the AVR should be carried forward as an ODI-R to ED3, and why? If it is carried forward, are there any changes you think should be made to the structure and content?

We do think that the AVR should be carried forward into ED2 as it will continue to place emphasis on the importance on specific and quality services for vulnerable customers. We would value some consideration as to the length and complexity of the report now that many vulnerable customer offers have moved into BAU, to ensure that the investment of time from staff teams into the report is proportionate to the value that the report holds for customers and stakeholders. A set of standardised targets to ensure fairer comparison between the performance of DNOs, should also be considered.

Energy Efficiency

Q.41 Do you have any views on our proposal for DNOs to play a bigger role in the delivery of energy efficiency and low carbon measures?

We do see the value in the proposal for DNOs to play a bigger role in the delivery of energy efficiency and low carbon measures due to the clear linkages to current work on fuel poverty, community energy and take up of LCTs - and the potential impacts in terms of customer outcomes and benefits. There could be added value in DNOs coordinating programmes of work with local authorities and social housing providers, but it needs to be recognised that installation of LCTs in domestic properties is currently beyond the scope and core capabilities of DNOs.

Consumer Voice / Research

Q.47 Do you have any comments on the proposed guidance on consumer research set out in Appendix 3?

We welcome the provision of common guidance on research methodologies so as to ensure a consistent approach is adopted across DNOs. However, given the amount of engagement that has been, and is continuing to be, undertaken throughout ED2, we believe it is vital that research should take account of and build upon existing knowledge as a foundation, unless topic areas are completely new. We would expect the amount of new areas to be quite limited given the nature of DNO operating scope.

Enhanced Stakeholder Engagement

Q.48 Do you have any comments on the proposed ISG guidance as set out in Appendix 4?

Following the publication of RIIO3 guidance on the creation of ISGs we proactively moved from the previous CEG model to an ISG model and remain confident that the NPg ISG is already fully compliant with the requirements as set out in the SSMC. However, we note that, in Para A4.5 Ofgem states that it may ask ISGs to review specific areas of business plans if they felt there was a particular need or significant consumer or stakeholder interest. Should this occur, we would need to understand the materiality and assess whether the existing ISG skills base, which we believe currently meets all detailed requirements, would need to be revisited in line with any new requests.

Accountability for Consumer Outcomes

Q.49 Do you agree with our proposal to retain and adapt SLC50 Business Plan Commitment Reporting? Do you have suggestions for how the reporting should evolve?

We support the retention and adaptation of SLC50 reporting so as to provide additional transparency. In addition to our ongoing monitoring of ED2 commitments, we find this to be a very useful annual view and would welcome its ongoing use in ED3.

Q.50 Do you agree that we should proceed with the development of a Consumer Value Framework for ED3 and if so, do you agree with the principles set out above as the basis for developing a CVF?

We are not yet certain about the benefits of a CVF for consumers although we can see how this might be useful to Ofgem in terms of comparing performance in due course. Ofgem has anticipated our principal concerns where it notes that the CVF should be proportionate and, rather than being completely new, should build on existing tools.

Data and Digitalisation

Q.51 Do you agree with our proposed approach on all five themes? Why?

We broadly agree with the five themes. Themes 2-5 (DSI, interoperability, AI & asset visibility) clearly align to significant digitalisation concerns across the sector (e.g. as outlined in the recent NESO's sector digitalisation plan), so setting out clear objectives and plans in these areas will aid both tracking of the individual operators' progress and coordination across the sector.

Theme 1 (strategic outcomes and internal capability) is very broad. While we recognise the benefits of keeping options open at a time of rapid change in technology and policy, we would like to see a clear steer to the DNOs that their digitalisation actions should clearly align to and create measurable benefits for other elements of their plans, e.g. to deliver efficient operational processes that align to meaningful customer types and journeys as per our response to Q18 & 19.

Q.52 Do you agree with the need and role of the independent expert panel on interoperability? Why?

An independent expert panel looks like a reasonable approach to coordinating action around interoperability. We strongly agree that this panel needs to bring in independent expertise from a

wider pool than the DNOs / ENA alone, and that it needs to be adequately resourced and suitably governed.

However, it must be recognised that interoperability is about more than datasets. True interoperability will require attention to factors such as data availability and latency, control paths, commercial models, etc. These are architectural concerns (in both technical and commercial / market architecture), so the relationship between the expert panel and the wider architectural coordination / governance signalled in Ofgem's letter of 4 November must be clarified as quickly as possible.

Q.53 Do you agree that DSAPs should include outcome-linked digital spend? Why?

Yes, we strongly agree that there needs to be a much firmer link between digitalisation spend and customer outcomes / benefits.

Distribution System Operator (DSO) Network Planning

Q.60 Do you agree with our proposed scope for the DSO's role in network planning for ED3, including leading long-term integrated development planning and enhancing forecasting? How should DSOs ensure that future iterations of these plans align with emerging strategic inputs such as the Regional Energy Strategic Plan (RESP) and Strategic Spatial Energy Plan (SSEP) when they become available?

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Q.61 How should DSOs best coordinate with other parties (e.g. NESO, local authorities, iDNOs, gas networks) to deliver whole-system outcomes through network planning? Are there specific governance or data-sharing arrangements that should be strengthened?

Yes, we agree that DSOs should lead long term integrated development planning and enhance forecasting, working with local stakeholders and national bodies such as NESO and DESNZ. DSOs already have strong local stakeholder relationships and an understanding of local needs and development plans and are best placed to collate this information. Local stakeholders have expressed concern on 3 fronts:

- a. that they are providing the same data to NESO that they have already provided to the DSO (more effort).
- b. that the DSO works with them to agree a reasonable planning basis, rather than assume that all local plans (often quite aspirational) get delivered in the shortest possible timeframe.
- c. that we are off track to deliver national plans and, whilst pre-investment in infrastructure is supported, too much pre-investment ahead of need creates higher bills for already struggling households.

It is important that NESO recognises and continues to utilise this local knowledge embedded in the DNOs and built into the DFES as it develops the RESPs, and that RESP overlays deliverability constraints onto local aspirations and national targets to avoid excessive early investment.

In terms of alignment with SSEP and RESP, it is important to note that national infrastructure needs are much clearer than at the local distribution level, where the location of a new generator, battery

or demand centre can change from one DFES to the next. Whilst Plan and Deliver is a helpful mantra there needs to be opportunity to adapt the local plans as new information comes to light.

Standardisation of a single data input request to local stakeholders (for DFES and RESP) would reduce the load on stakeholders and ensure alignment between plan types and across regions. Since all parties are seeking the same outcome in terms of long-term integrated planning, stronger collaboration and use of the same data and tools (to the extent possible) would be beneficial.

Whilst DNOs can assess whole system value to a degree, much of the value lies outside of the region and so inherently relies to some extent on NESO inputs. An example is whether to use DTU to avoid curtailment of renewables in a flexible connection. If DTU is applied, then the incremental renewable generation most likely backs out gas generation elsewhere on the system. The DNO (via the CEM tool or equivalent) needs to know how to value this (see Q 64-67). This requires coordination from Ofgem and thereafter Elexon as the Market Facilitator to ensure cooperation in standardised DTU procurement processes between DNOs and NESO.

Since all parties are seeking the same outcome in terms of long-term integrated planning, stronger collaboration and use of the same data and tools (to the extent possible) would be beneficial.

The integration of DNOs' and IDNOs' processes does still seem to be unstructured. We are aware that planning issues, data flows and responsibilities do not seem to be clear to many in the industry, including the DNOs and IDNOs themselves. Although there are some initiatives to improve the interface between DNOs and IDNOs, it is not clear these are being approached with sufficient strategic vigour and oversight. For example, Grid Code modification GC0139 "Enhanced Planning-Data Exchange to Facilitate Whole System Planning" was raised more than five years ago and is not expected to be completed before mid-2026. And this only covers data – it does not deal with the other planning and operational gaps between NESO and large installations connected to IDNOs networks embedded in DNOs' networks. We know Northern Powergrid has engaged with IDNOs in an attempt to close some of these gaps, but we still perceive a lack of consistency and rigour from a regulatory point of view.

Initiatives such as NGN and NPg's 'Joint Charter'¹ (approved in 2024) sets a framework to coordinate on regional energy planning taking a whole systems view. The charter sets a framework for collaboration to drive activity around data sharing, forecasting demand and ensuring investment plans are aligned.

Q.62 What additional data, digital tools, or visibility improvements are needed to enable DSOs to deliver proactive, spatially targeted network planning in ED3? Please provide examples of gaps or best practices.

DSOs would benefit from further visibility of the LV network through tools which integrate LV monitoring data (where available) with data from smart meters so that they can better optimise the system. . Examples of good practice include NGNs IOT Gas Pressure Sensor. The sensors are being trialled at street level, leveraging industrial IoT machine learning and AI to improve network management and real time decision-making.

¹ <https://www.northerngasnetworks.co.uk/wp-content/uploads/2025/02/NGN-NPg-Charter-2021.pdf>

Q.63 How should DSOs incorporate flexibility services and connection process improvements into their network planning approach to ensure timely, efficient, and predictable connections? Should this be incentivised, and if so, how?

The proposal for the DSO to facilitate efficient connections is supported, recognising that earlier connections can be facilitated through flexible connections and the use of flexibility services (inc. DTU) rather than purely relying on ANM. The DSO needs to be able to demonstrate transparency in its decision making in this area to deliver whole system value. The system would benefit from this being incentivised, but it is not clear to us how best to do so. Ofgem should consider how best to develop an agreed methodology for use by DSOs to guide consistent evaluation of whole system value and inform efficient investment planning and decision making.

Flexibility

Q.64 Do you agree that changes are required to the CEM tool to implement our proposed approach in ED3? Are any other changes needed?

Yes, we agree that the CEM tool needs to be evolved to capture the full value of the flexibility use cases outlined for ED3. For example, the current tool does not adequately capture the value of any of the use cases described in paragraph 5.80. To create a market where flexibility providers can plan their activities effectively and be confident that they are gaining appropriate rewards for their actions (noting that DSO flexibility markets are controlled by monopsony buyers and subject to complex primacy rules that limit flexibility providers' ability to shift between markets), the mechanisms DSOs use to value flexibility must be fully open and transparent. In addition, the current tool focusses on individual investment options; taking a broader whole systems view would be advantageous in helping to identify how flex services and conventional reinforcement interacts across the network. Any methodology for taking a broader whole systems view should also be capable of taking into account region-specific grid conditions, rather than blanket adoption of top-down assumptions.

Q.65 How can we best ensure that flexible connections aren't deployed at the expense of network reinforcement?

Flexible connections should be recognised as a useful tool to manage network capacity, but their use must be balanced against the whole-system costs they create (e.g. in curtailment of low carbon generation) and the other alternatives available (e.g. flexibility markets). There is currently no method to assess these trade-offs – for example, DNOs offer flexible connections without assessing the cost/benefit of alternatives such as buying demand turn up as needed. Just as DSOs assess the costs of reinforcement against the alternative of using flexibility markets, they should be required to assess the whole-system costs and benefits of offering a flexible connection against the alternatives (both reinforcement and buying appropriate services in their flexibility markets). This should be a focus in evolving the CEM tool (or replacing it with a wider tool), as per Q64. Ofgem may also wish to consider the case for incentivising efficient behaviour by DSOs in their use of flexible connections versus other options.

Q.66 How can we best ensure that DER/CER are not prevented from accessing wider flexibility markets due to the use of ANM or lack of NESO-DSO coordination?

The inability of DER/CER to access wider flexibility markets is an example of a whole-system cost created by ANM or other factors (such as lack of network capacity or lack of NESO-DSO coordination). The principles by which DER/CER should be able to access NESO and DSO markets

should be standardised, led by Ofgem and implemented through the Market Facilitator. These costs should be built into the CEM (or replacement) tool's analysis, so that DSOs can adequately assess the full costs of lack of network capacity and lack of real-time monitoring and dispatch capability in their flexibility markets.

Q.67 Are further incentives required to incentive and encourage the use of flexibility in line with our approach for ED3?

Yes. DSOs will follow the incentives set by the price control. For example, if we want to discourage inappropriate use of ANM and flexible connections, then incentives to use alternative mechanisms (or penalties for excessive use of ANM and flexible connections) should be considered. Likewise, if we want to encourage use of flexibility for the use cases in paragraph 5.80, incentive mechanisms must be adjusted to cover these use cases.

We recognise that broad incentive mechanisms such as IIS are often the best way to encourage DSOs to choose the most appropriate approach to achieve the desired outcome, but DSOs can only do this when they can fully value the whole-system costs of the various options. It is not clear to us that this is currently the case – there is a real risk that DSOs are acting to minimise network costs rather than whole-system costs. Incentives are an essential mechanism to enable them to bring full-system costs into their calculations.

Voltage Management

Q.68 Do you agree with the proposed voltage management responsibilities, for DSOs? Are there any aspects you disagree with, or any additional responsibilities we should consider?

We see considerable opportunities for DSOs to create value through use cases such as those identified in paragraph 5.90. Although we broadly agree with the responsibilities set out here, in relation to helping the rollout of flexible low carbon assets, we note the moves by the ENA to expand the statutory voltage range around 230V. Whilst this seems a very positive move, assuming no customers suffer serious disbenefits, it will have an effect on DNOs' abilities to connect quickly and/or without reinforcement etc. This possibility needs to be taken into account in any DNO targets and incentives.

Q.69 In your view what would be appropriate metrics or KPIs by which the success of delivery of these responsibilities could be measured? For each of these metrics or KPIs, should this target be codified in a licence condition or otherwise incentivised?

We cannot give a definitive answer here, as the value of the use cases and cost/benefit of the DSOs building capabilities to address them is not yet clear to us. Before KPIs can be defined, a clearer cost/benefit case should be established.

Q.70 How can we support DSOs in getting access to useful 3rd party voltage data from assets such as EV chargers?

Data such as this should be covered by the digitalisation / interoperability activities, as per Q51-53. This would be the preferred solution, but as a back stop it might be worth considering if formal obligations be added to the smart charging infrastructure regulations.

Q.71 Do you support our proposal to include the reduction of reactive power injection on the transmission from distribution networks? Are there additional implications of this on the operation of distribution networks we should consider?

We would like to be assured that steps taken to control high voltages on the transmission system are rigorously analysed as reactive gain on an increasingly lightly loaded transmission system is part of the problem – although this clearly should be part any business case for investment or other solution. Solutions need careful analysis to ensure they are the lowest cost whole system solutions.

Q.72 For each of the options outlined for Providing Flexibility what are the advantages and disadvantages, and which would be your preferred option, including any that we have not considered?

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Q.73 Do you have any comments on the proposal for the creation of a new incentive for the provision of flexibility through demand reduction?

Giving NESO a free option to dispatch DSO voltage reduction has two bad effects: (a) it damages confidence that there is a fair market for flex; (b) it doesn't reveal the cost of flex and hence makes it very difficult to ensure that customers are getting the best outcome. Instead, DSOs should be expected to compete in the market, to reveal their costs, but on a basis that levels the playing field with other flex providers, in order to retain confidence in the markets. DSOs' privileged position, of using customer-funded assets, to provide these services must however be accounted for, e.g. via suitable reduction to their allowances for a portion of the revenues earned from these services.

We recognise the potential for DSOs to provide 1 GW of DRS via CLASS-style capabilities but think that the reason they have failed to do this during ED2 must be carefully considered. It could simply be that the investment required to build the necessary monitoring and control capabilities cannot be justified. Before the DSOs are incentivised to build these capabilities, the cost/benefit of doing so should be carefully and transparently evaluated. For example, what would the counterfactual cost of providing 1 GW of flex from grid-scale batteries or consumer led flexibility be? How can the cost of building suitable network monitoring and control be spread across other network management activities, and if so, how can this subsidised cost of providing a DRS service be accounted for in competitive markets?

The interaction of these services with BEET-style voltage reduction on the network must also be considered. If there is significant customer benefit (in terms of directly reduced energy costs) from reducing network voltage as close as possible to the lower statutory limit, then the networks may rarely have sufficient headroom to provide CLASS-style services. It is hard to see justification for increasing customer energy costs simply to create headroom for CLASS-style services.

Q.74 Do you support the requirement for a published voltage management strategy from each DSO, with an annual reporting requirement?

This would seem to us to be an appropriate requirement, to help create transparency into the DSOs' activities.

DSO Incentive Framework

Q.81 Do you agree that the proposed aims for the DSO incentive framework appropriately reflect the core functional areas for ED3 (flexibility services, network planning, voltage and loss management)? Are there any additional priority areas that should be included, and how should these be measured?

The proposed aims of the incentive framework (as described in 5.129 of the consultation) largely reflect the core functional areas for ED3, though voltage and loss management are implicit as currently described. However, the aims do not explicitly call out delivering (or facilitating the delivery of) whole system value, only co-ordination across the system.

Q.82 How should the incentive framework evolve to reflect the DSO's more proactive role in network planning, operational use of flexibility, flexibility market development, and whole-system coordination?

Across the regions, the distribution networks have very different needs and, as we consider the transformation of the system as a whole, the DSO incentive should aim to reward outcomes rather than outputs. In ED2 the DSO incentive has had a strong focus on flexibility market development and dispatch of flexibility, but if demand reduction flexibility isn't required to be dispatched in a region, then dispatching would add costs to the system and consumers. Thinking about ED3, having the ability to flex the emphasis between the plan aims described in 5.129 for each of the DSOs would better encourage them to deliver value where it most fits with regional needs, whether that's flexibility services, voltage or losses management. There might continue to be a strong focus on flexibility markets in some regions but in others there could be more value in voltage or losses management. In any case a DSO shouldn't be penalised for not delivering if there is no identified need. A rigid reward structure does not necessarily deliver the best outcome for customers.

Q.83 Are the current parameters (Stakeholder Satisfaction Survey and Performance Panel) an effective way of measuring DSO performance? How do you view the role of Regularly Reported Evidence (RRE) in complementing these assessments?

The performance panel is a useful way of measuring DSO performance, but Ofgem should consider if there are other more outcome-based ways of measuring performance against a well-evidenced region-specific DSO development strategy. It is also important to hear the voices of local stakeholders. The DSOs are regularly engaging in a variety of forums on the different performance areas and collect their own stakeholder feedback which they use to inform current operations and in planning for future. This could potentially be used to give a stronger indication of what stakeholders think about the areas they are involved in. The stakeholder survey, as currently designed, is flawed: many stakeholders engage with only one aspect of the DSO function and are unable to provide an informed score on other areas. The scores are easily skewed by how stakeholders score areas in which they have little knowledge.

Regularly Reported Evidence complements the Performance Incentive, providing useful context. Consideration should be given to utilising historic data on voltage and losses, dispatch of flexibility, accuracy of forecasting etc in setting the emphasis between DSO aims.

Q.84 How can the DSO Incentive be designed to complement, and not duplicate, other mechanisms such as the Connections Incentive, BMCS and the Interruptions Incentive Scheme?

At this stage of the development of incentives for ED3 it is hard to be specific about where the potential overlaps will occur, or even where incentives may not be aligned. We believe this is an

issue for Ofgem to take into account in the design of the overall ED3 package and we would expect that inappropriate interactions will be designed out through Ofgem's ongoing engagement with DNOs and stakeholders.

Resilient Networks

Q.85 Are there additional risks, dependencies or policy areas that we should consider strengthening network resilience in ED3 beyond those set out in this chapter? (chapter 6)

We have not identified any additional risks or policy areas.

Reliability

Q.98 What is the impact of short interruptions on consumers and are certain regions or customer groups more affected? Do you expect the severity of these impacts to change over the ED3 period? If so, in what way and why?

Whilst understanding the negative effects of SDIs, we would expect that progressively the technology improvements of customers' equipment will reduce the deleterious effects – e.g. by appropriate use of non-volatile memory and short duration storage – so we should be wary of using historic descriptions of customer dissatisfaction. To the extent that SDIs are a trade off with longer duration interruptions, care needs to be taken that the reduction of both are appropriately incentivised, rather than one at the expense of the other. It is worth a review of this. Historically the trade-off of converting longer duration interruptions into SDIs was a key driver of the automation of DNOs' high voltage networks. After 20 years of such investment, it is likely that the balance of incentives should change to put more weight on avoiding SDIs.

We note Ofgem's arguments that issues like climate change and increased distribution system complexity may drive up SDIs. Whilst we agree with this, we are wary that this implies a loosening of relevant performance expectation. We would want the regulatory framework to incentivise DNOs to find mitigation strategies against these increasing risks.

Q.99 What drives short interruptions and how can these be reduced? Could innovation, data analytics, and enhanced network visibility play a role in reducing the frequency and impact of short interruptions? If so, how?

Most SDIs are associated with faults on DNOs' assets – so using the increasing availability of innovative and high-quality asset condition information should promote a reduction in faults which cause interruptions. Most, or all, DNOs are already using technology and innovation to detect and respond to incipient faults on their networks. Although these approaches are far from mature, effective development of them may well be aided by appropriate incentives on SDIs.

Q.100 Do you agree that a formal mechanism should be introduced to recognise and address the experiences of customers significantly impacted by short interruptions? If so, what form should this mechanism take (e.g. enhanced reporting, adjustments to existing incentives, or alternative mitigation approaches)?

Yes. As commented above we are unsure about an effective structure for financial incentives for SDIs. But we believe that at least all SDIs should be recorded. As we understand it the current

counting of SDIs is confined to the higher voltage networks. As automation starts to appear on the LV network, we would suggest that all SDIs, whatever the origin, are included in the metrics.

Q.101 Are long-duration outages becoming a more significant concern, and could a targeted IIS incentive or penalty for 12+ hour events effectively address this? How could such a mechanism work and are there system or data barriers to implementing it?

We would support incentives on DNOs to reduce the number and duration of longer interruptions – certainly under normal conditions. However, there would need to be appropriate consideration of long duration events that the DNOs has little control over, i.e. there would at least be an interaction with the severe weather exceptions. Similarly, penalties on DNOs for incidents which are genuinely outside of the security planning standard may be inappropriate.

In terms of incentives on DNOs, we wonder whether this could be linked to the concept of a customer damage function (see our answer to Q108 below); by this means the longer the interruption the more it costs the DNO, commensurate with the increasing value of damage suffered by the customer.

Q.105 Should the IIS be amended to reflect the expected increase in planned interruptions from the increase in network investment in ED3? If so, how, and how can this be done whilst ensuring that customer impacts are effectively mitigated?

It is not obvious to us that there is an argument to significantly change the existing arrangements. We note the possibility of more planned interruptions, but we would wish to retain strong incentives on the DNOs to keep these minimised. This is probably just a routine issue for agreeing the targets for a new price control period.

We understand that the financial effect of planned CIs and CMLs are reduced compared with unplanned CIs. We think the historic logic was that because the outages are planned, this has less of a deleterious effect on customers. Whilst this is true, it also weakens the incentive on the DNOs to find ways to avoid or reduce these interruptions, both in number and duration. For example, the higher the cost of planned interruptions to a DNO, the more likely the DNO is to find ways to be purchase flexibility to offset the outage, at least to some extent.

We would also support the inclusion of planned interruptions into the overall BMCS.

Q.107 Is the current threshold for defining WSCs still appropriate? If not, what principles should guide any revision to ensure it remains fit for purpose?

We support the existing WSC mechanism. A possible extension might be to include LV faults. We appreciate that the drivers and solutions of LV faults are usually completely distinct from HV faults and probably have a much shorter final resolution timeline. Nevertheless, to customers, the nature of the assets involved in their interruptions is irrelevant, and in terms of focussing appropriate investment we are not convinced it is inappropriate to include LV faults in the WSC mechanism.

Q.108 Is it appropriate to update the VoLL for ED3? Do you think price control mechanisms that utilise VoLL should use a more dynamic value? If not, how should the results of the study feed into a revised uniform figure

We believe a thorough overhaul of the use of VOLL is long overdue. In reality the value of unsupplied load increases over time: for example, customers would pay far more to be resupplied after many hours without electricity than they would pay to be reconnected after only ten minutes.

We believe that VOLL should be replaced with customer damage functions, i.e. VOLL is not really a value it is a function of both time and customer type. We fully understand the significant difficulties in establishing robust customer damage functions, but difficulty is not a reason not to make progress on this. We do not see a strong argument for persisting with a revised uniform figure.

Resilience Re-opener

Q.109 Do you agree with our proposal approach to introduce a resilience re-opener? Why?

We fully support the introduction of a resilience reopener as, should the need for it arise, either as a result of instances mentioned in the SSMC or beyond, this would enable necessary actions to be taken on behalf of customers without undue delay. We would wish there to be close monitoring of all deliverables associated with the use of such a mechanism.

Cyber

Q.110 Do you agree with our proposed approach to cyber resilience in ED3, and do you have any suggestions for improvements?

We welcome the suggested approach and, in particular, the detail contained in paragraph 6.177. The cyber security landscape could shift markedly, and we have seen very significant attacks in recent times. We have no knowledge of any DNO's policy response on Ransomware attacks but are conscious that the King's speech included proposals to make the payment of ransoms by public sector bodies and critical national infrastructure operators illegal and would expect all DNOs to comply with the law. Hence, the ability to take all steps necessary to protect the networks and services to customers, along with the funding in order to do so, is essential.

Supply Chain and Workforce

Q.111 Do you agree with our proposal to require a ten-year Delivery Strategy (ED3+ED4) that embeds supply chain and workforce plans? Are the content expectations complete and proportionate? Where should we be more/less prescriptive and why?

We agree that a long term, proactive business planning and robust delivery accountability approach is required. Volatility will further damage the already shaky supply chain confidence in deliverability (See our response to Q1) so secure long-term plans are essential in order to not only secure existing supply chain deliverables, but to enable the enhanced supply chain that is clearly necessary given all the competition for resources, not just within DNOs but across multiple sectors. We welcome Ofgem's proposals to seek detailed delivery strategies across multiple price controls but consider it essential that positive investment signals are given beyond a 10-year horizon when we see other sectors (e.g. water) laying out plans that extend as far as 2075.

On workforce plans, we note with some concern the lack of prominence given to Equality and Diversity in DNOs workforces. The industry has significant deliverability issues linked to its inability to attract talent from across the communities they serve, not least from women and in ethnically diverse cities like Bradford in the Yorkshire license area. In the ED2 price control Ofgem gave due prominence to these issues corporately and challenged the wider sector and we would encourage Ofgem's Chief Executive to repeat his previous interventions to demonstrate to DNOs that the social

license to operate should be implicit in their network license to ensure representation is a requirement as part of sustainable and resilient operations.