

SSEN Distribution Response to RIIO ED2 - Draft Determination¹

Core Methodology, 3. Networks for Net Zero

Question ID	Core-Q3
Question	Do you agree with our proposal to adjust allowances to £2.68bn to account for the concerns highlighted by our assessment?
Associated Evidence	
Title	Link to Evidence
Annex 1 - Advocacy Annex	n/a
Annex 2 - Outputs Summary	n/a
Annex 7 - Deliverability Annex	n/a
Annex 11 - Load UM Annex	n/a
Annex 14 - Load EJPs addendums	n/a
Finance Annex A	n/a
Response	
<p><i>The level of proposed cuts put net zero at risk and place an excessive burden on future consumers.</i></p> <p>We disagree with Ofgem's overarching approach to adjusting allowances to £2.68bn. Ofgem's approach risks becoming an obstacle to the delivery of net zero through over-reliance on uncertainty funding to make up the gap should a non-System Transformation scenario eventuate. Without sufficient baseline funding, DNOs may not be able to intervene on the network at sufficient pace to supply capacity needed by LCTs, thereby foreclosing credible future net zero pathways. This goes against what we've heard from our stakeholders and our CEG – our ability to support their most likely scenario through facilitating the electrification of heat and transport avoids the network becoming a 'blocker' to LCTs, an outcome all stakeholders wish to avoid. Whilst we recognise uncertainty mechanisms go some way to allowing additional funding to be made available in a timely manner, sufficient strategic investment through baseline funding is critical to protecting future consumers from excessive costs playing catch-up. We believe GEMA's approach is not in the interest of current or future consumers, and by moving costs that have a high probability to be incurred from baseline into UMs is not transparent and does not recognise the impact on future consumers and overall cost increases.</p> <p>This approach would start to close off some of the most ambitious low-carbon pathways precisely at a time when the costs of living crisis and the war in Ukraine have put the UK's reliance on imported oil and gas into sharp relief and added fresh impetus to the accelerating the electrification of transport and heat. Delaying work net also increases net costs and pushes costs on to future customers which appears to go against Ofgem's core duties.</p> <p>Furthermore, the structure of the LRE package, balance of baseline to UM funding, and UM capitalisation rate is important in the overall financeability of the plan - see our response to SSEN-FQ30 and Finance Annex A for further detail on the overall balance of UMs to baseline and its impact on financing. The UM also interacts with the overall incentive properties of the regulatory deal</p>	

(through funding of connections). The evolution in incentive properties since ED1 is reflected upon across the whole package in SSEN-FQ41 and Finance Annex A.

Note this response does not pertain to the detailed disaggregated and Totex modelling undertaken by Ofgem; our consideration of the modelling is within our response to CORE-Q111, and the last section of this response signposts other relevant questions.

Our strategy to address the net zero Load trade off

We acknowledge Ofgem's characterisation of the trade-off between avoiding the networks being a net zero blocker (through not providing sufficient capacity for LCTs) and ensuring that consumers do not face unnecessarily high costs. Moreover, we agree that a blended approach between baseline funding and UMs is the right way to manage this risk, and in our final business plan submission we set out proposals for load that manages the trade-off at the optimal point:

- (1) Sufficient funding in baseline** to deliver the realistic minimum (in terms of network impact) net zero scenario;
- (2) UMs to unlock additional funding**, should the future reflect a more onerous scenario requiring greater capacity provision faster, and
- (3) Some additional strategic funding early in the period** to ensure that delivery of the most credible scenario always remains feasible.

In this way our logic is well aligned with the principles set out by Ofgem in the Draft Determination, however this is not reflected in Ofgem's baseline funding proposal, which is insufficient to cover even the least onerous scenario and to ensure no future pathways are foreclosed.

Our *ex-ante* LRE proposal supports 388,000 EV charge points by the end of ED2. This is already less than half of the 832,000 charge points which would be required under the future scenario supported by the majority of our stakeholder respondents (CT). Our analysis shows that cuts to LRE in the Draft Determination would reduce the number of EVs and HP at the end of ED2 by 30% - this translates to 50,000 fewer EV charge points over the ED2 period (as further detailed in our outputs impact assessment in Annex 2 – Outputs Summary).

Considerations- ex-ante funded versus UM funded

An appropriate balance between baseline and UM is necessary because this allows work which has a high degree of certainty to be planned and executed and protects consumers from high costs which would otherwise arise from a short-run, reactive approach to delivery. Ex-ante funding allows for greater efficiency in procurement, planning, and deliverability. The approach to delivering our ED2 plan, and the efficiencies which we will be captured through our planned approach, is described in more detail in Annex 7 on deliverability.

Too much *ex-ante* (up front) funding can, in low growth futures, lead to some stranding of assets. However, capacity interventions in the ED2 period are at a very low risk of being stranded for the foreseeable future, with LCT uptake and peak demand under all scenarios continuing to increase throughout ED3 and beyond. As outlined in our business plan, the peak demand at the end of ED2 –

even in the most aggressive Climate Change Committee (CCC) scenarios – is realised by the most conservative net zero compliant DFES scenario before the end of ED3. It is, therefore, a case of *when* the demand will arise, rather than *if* it will.

The potential customer cost of failing to provide sufficient and timely capacity for LCT uptake is likely to be much greater than the cost of a capacity solution being in place for a short period of time before the network becomes constrained. We must ensure that future pathways are not foreclosed, and the distribution network is a facilitator for, and not an obstacle to, the delivery of net zero. It is therefore both prudent and efficient for us to plan and invest now for this projected outcome, and to ensure that funding adequately provides for this, and that the right share of this funding is ex-ante.

Excessive reliance on UM funding could slow down the ability to deliver network capacity; accessing and allocating the funds adds extra time to the process of delivery (relative to allowances already granted as ex-ante, and particularly in the case of the primary network), which may result in net zero delays. UMs can also incur additional costs for the same capacity release relative to ex-ante funding. Such additional costs may arise from being unable to achieve economies by guaranteeing larger work packages for the supply chain, or to plan in as much work early in the period and, hence missing some synergies. Finally, the actual operation of these mechanisms can introduce additional regulatory burden for the regulator and the networks.

This kind of backloading cost inevitably increases net costs and amounts to not protecting future consumers; it is not consistent with GEMA's statutory duties.

Since the submission in December, we have seen increases in demand across multiple sites earmarked for ED2 works; these demand changes are reflected in our addenda to the load EJPs (see Annex 14 - Load EJPs addendums). Furthermore, the most recent view of our pipeline for major connections, based on accepted connection offers, has added approximately £80m of connections-related DNO-funded reinforcement for the ED2 period. The number of EV charge point MW associated with the most recent (2022) DFES ST scenario has also increased by c.25% (SSEN), when compared to our baseline plan. This additional information that has been revealed since our plan submission is further evidence that the forecasts that drive our plan were justified, and that the volume of works we set out is indeed necessary.

There should be some “optimal” point that balances these various trade-offs between the hypothetical extremes of putting nearly all the funding in baseline and putting a very large portion of it in UMs. Given the significant uncertainty about future demand scenarios it would be extremely difficult to calculate this analytically, but we believe the right point should be based upon, as outlined by ourselves and Ofgem, high certainty spend being allocated to baseline.

On balance, we believe Ofgem’s determination for baseline funding is too low, relative to an optimally efficient balance point between funding streams for certain, and less certain, customer needs.

Stakeholders' feedback from our engagements since June:

A number of stakeholders have questioned the logic behind Ofgem's decision to shift allowances from baseline expenditure to Uncertainty Mechanisms. Our suppliers have told us that one of the most challenging aspects their businesses face is attracting and retaining staff in the current jobs market. One key supplier told us that certainty of volumes not only enables businesses like them to attract resource, but it also gives them the best possible chance of retaining high performing teams which in turn, delivers significant efficiency benefits for all involved.

Ofgem's overuse of Uncertainty Mechanisms has further concerned supply chain partners who are experiencing increased volatility in material and resource availability, excessive lead times, and inflating costs. Ofgem's decision to remove much-needed certainty could exacerbate these issues.

Supply chain partners we engaged with were unanimous in how planning and certainty regarding future demands are critical to mitigate the aforementioned issues. As a result of this engagement, we remain confident that our approach to baseline funding was entirely suitable and responsible, to enable our supply chain to efficiently prepare.

Interpretation of the least onerous scenario

Ofgem has sought to normalise all plans to an approach similar to SSEN's, by scaling them back to the least onerous scenario in terms of network requirements. This corresponds to our original plan, with the exception of the strategic investment ask described in the following section. In doing so Ofgem has created its own view of the volume of LCTs that characterize the System Transformation scenario and used these to scale Totex. We discuss a corrected interpretation of our own LCT forecasts that correspond to the System Transformation scenario in CQ105 and have submitted these figures to Ofgem and clarified the difference in interpretation. This is a critical issue as the misinterpretation of LCT volumes associated with our ex-ante allowances has driven a disproportionately large cut for SSEN through the demand-driven adjustment to Totex.

Our strategic funding required in years 1 & 2

The strategic spend of £23m largely provides for secondary (HV and LV) works (making up 93% of the total). Not having this allowance would mean that if CT transpires in Year 1, customers will experience delays in getting LCT connected due to the lead time for secondary works (typically 1-2 years). By having this funded upfront, we can do this work in advance, and then continue to do it in Year 3 though UM funding if the requisite LCT volumes materialise. This anticipatory investment wouldn't trigger normal use of the volume driver readily, as reporting metrics might characterize the current utilization as too low. It is also a key part of current supply chain engagement to drive efficiency. Not enabling this will lead to a 1–2-year delay for some customers wanting to connect EV chargers and HP – leading directly to avoidable consumer cost and unnecessary delays to achieving net zero (this is reflected in our outputs impact assessment in Annex 2 – Outputs Summary). The associated volumes were defined through the process outlined in our submitted final plan load Annex 1, section 6 - wherein we studied the full network requirements to deliver CT and optioneered and

costed alternative solutions, but only requested the amount of funding corresponding to the first 2 years of the period over and above ST.

Stakeholders' feedback from our engagements since June:

Stakeholders are overwhelmingly in favour of strategic investment in our network to enable consumers to benefit from the net zero transition and to ensure that electricity networks do not become a barrier to net zero.

Specific issues with cost assessment

There is an additional range of issues within Ofgem's modelling that we have addressed in our responses to other questions.

- Submitted volumes of MPANs for assessment of connection volumes, CORE-Q71
- CV1 SHEPD regional factor issue, CORE-Q67
- General disaggregated modelling methodology discussion, CORE-Q111
- CV2 MVA release figures not submitted consistently across DNOs, CORE-Q67

Demand Driver SSEN LCT figures not correct causing our adjustment to be too large, CORE-Q67

Question ID	Core-Q4
Question	Do you agree with our proposed secondary reinforcement volume driver and LV services volume driver and the associated controls?
Associated Evidence	
Title	Link to Evidence
Annex 11 - Load UM Annex	n/a
Finance Annex A	n/a
Response	
<p><i>We are supportive in principle of the introduction of a volume driver</i></p> <p>As stated in our submission, SSEN supports the use of a volume driver for load related expenditure as a solution that balances the need to protect current consumers from unnecessary expenditure, whilst ensuring there is sufficient agility in the regime to fund works needed to keep up with net zero related demand and protect future consumers. They do so by mitigating forecast uncertainty; DNOs need not plan the exact “right” amount of work for developments that will happen in the future but can respond in period as needs arise. In doing so, they can call upon a mechanism tied to the delivery of network capacity- something consumers value- and thus ensure that money is spent efficiently, but with confidence that funding is available.</p> <p>In general, our thinking is well aligned with Ofgem’s on the trade-off between delivering adequate funding in a timely manner, to keep up with net zero demands, and protecting consumers from unnecessary expenditure. We therefore see the need for controls to form a part of the overall package as well as agile methods of funding release.</p> <p><i>LV Services</i></p> <p>The following discussion pertains to the secondary network, but not the services unit rates proposed. We agree with the approach taken for LV Services of a “£/asset reinforced” rate, however we disagree with how the proposed rate has been set. The proposed rate is the expert view produced through the asset replacement assessment- as this is a different driver, it is inappropriate to apply to services replaced for load or connections drivers. We discuss this issue further in our response to Co-Q67 and propose an alternative approach.</p> <p><i>Setting the right rates</i></p> <p>Setting the right rates is critical to the proper functioning of this mechanism. Companies must be appropriately funded to deliver secondary network capacity, otherwise companies will be unable to deliver capacity at sufficient volume or speed to allow LCTs to connect and drive Net Zero. With Ofgem’s explicit strategy of setting baseline load allowances low and allowing DNOs to flex up if any but the least onerous net zero scenario eventuates, this increases the risk associated with the unit rates.</p> <p>Ofgem have proposed some rates with the Draft Determination (noting further data is required to arrive at a position on fuse upgrades). These are proposed to be the same across all DNOs. We believe there are four considerations missing in the composition of these unit rates:</p>	

- (1)** Company specific approach: For the following two factors, we believe these should be set based upon each DNOs own cost relationships. This helps mitigate the large range of apparent unit rates used in determining the median rates Ofgem applied in the Draft Determination.
We also believe there is a material error in how the submitted unit rates have been calculated- please see our response to question 67 for further detail.
- (2)** Indirect costs: There is a clear rational to include an indirect cost adjustment within the unit rates for PCBs. This builds on the established precedent from transmission and in through re-opener approvals for Green Recovery Mechanism and subsea cables in RIIO-ED1. In our response to RIIO-ED2 Draft Determinations SSEN Annex, SSEN-Q8 we set this out our full proposal for an OpEx Adjustor method applicable to volume drivers.
Our proposed OpEx Adjustor method is a calculated co-efficient that enables Closely Associated Indirect (CAI) spend per £1 of volume driver CapEx to be calculated and applied to specified volume drivers. When calculated at submission, this was ~30p per £1 of capex- however we suggest the methodology specified in the annex is reapplied by Ofgem for Final Determinations.
- (3)** Premium related to uncertainty funding; rates should reflect additional costs driven by the funding mechanism being uncertain. This has two facets cashflow and general financeability risks, which are addressed in Finance Annex A and supply chain inefficiency relative to ex-ante funded activity. The premium in pricing associated with shorter lead times has been estimated through analysis of our historic prices achieved, and these figures are presented in Annex 11 Load UM.
- (4)** Circuits should be treated separately depending on if they are overhead or underground. Underground circuits cost significantly more per kilometre; while this could be dealt with through a blended rate, this implicitly assumes all DNOs have the same split of UG to OHL circuits which is not correct. Splitting this unit rate into two categories greatly enhances how well the mechanism can reflect cost drivers without adding undue complexity.

Further detail and evidence on the rationale and quantification of these points can be found in Annex 11 and the Finance Annexes. Additionally, these rates are based upon those found through the disaggregated benchmarking process please see our responses to CORE-Q67 for our views on how these have been derived. As discussed in that response, we believe there are material errors which therefore impact the mechanism.

Funding of flexibility

We are concerned that the mechanism presented in the Draft Determination does not explicitly fund the use of flexible solutions, acknowledging Ofgem's discussion of the difficulties this presents. It is critical to protecting consumers and delivering net zero that there is not a situation where the package as a whole incentivises conventional solutions over flexibility - which may be the case in a scenario where baseline funding has all been allocated. We welcome Ofgem's invitation to continue working on this issue through the Working Group.

UM Controls- use of a cap

Setting a cap to protect against excessive use of the mechanism to the detriment of customers creates a risk of disadvantaging customers in a scenario where LCT growth is at its most rapid. Setting the cap based on the most aggressive, but credible, scenario available is therefore critical if such a cap is deployed at all. We remain opposed to the use of a cap in principle, where monitoring and reporting should provide a sufficient guard against consumers facing excessive expenditure, thus the cap only introduces risk of insufficient funding, with no additional mitigation of unnecessary spend.

Capturing the right metrics

The reporting metrics DNOs are required to produce will support Ofgem and stakeholders in assessing how efficiently the mechanism is being used. While we agree with the metrics to be developed set out under paragraph 3.76 of the Draft Determination, we also believe reporting should leave scope for uncertainties that may arise as increasingly high levels of LCT connect to our network; one potential example is that there may be network impacts such as voltage issues that require investment that would not obviously be represented in the proposed metrics. Leaving scope for such yet unknown issues to be captured therefore may be prudent.

This work is still in development within the working group, and we look forward to working constructively with Ofgem to progress this.

Question ID	Core-Q5
Question	Do you agree with our proposed LRE re-opener?
Response	
<p>We support Ofgem's approach to the LRE re-opener as it is simple, broad in scope, and has a re-opener early in the period. At this stage our main concern is the absence of the ability for DNOs to trigger the re-opener outside of the defined window an ability reserved by the authority. This would give further confidence that the process has sufficient agility to fund net zero developments in a timely manner. We look forward to working constructively and collaboratively on the final detailed design.</p> <p>Note that while we are comfortable with the design, this does not impact our view in CORE-Q3 on how much funding should be ex-ante.</p>	

Question ID	Core-Q6
Question	Do you agree with our proposed approach to the net zero re-opener?
Response	
<p>We agree with the proposed approach for the net zero re-opener. On materiality threshold we refer to our response to Q6 in the RIIO-ED2 Draft Determinations Overview Document. We note the need to ensure a robust process is in place to enable DNOs and other key stakeholders to provide evidence and input into any decisions by Ofgem to trigger the re-opener, to ensure the mechanism does not act as a blocker to change.</p>	

Question ID	Core-Q7
Question	Do you agree with our proposed approach to the value of the SIF?
Response	
<p>We broadly agree with the proposed approach to the value of the SIF.</p> <p>We continue to work with Ofgem and UKRI on the detailed governance of the SIF programme. We are keen to see that it remains agile in its governance approach to maximise the value of the learning generated, and experience gained during the ED2 period.</p> <p>However, we do have some specific concerns relating to the broader innovation needs of the sector. It is clear to us that SIF is not the most appropriate tool for all levels of innovation, the complexity and high cost of the process are not appropriate for the smaller incremental innovations and may be a barrier to SME participation.</p> <p>As a result, we welcome the continuation of NIA funding for this reason and to allow the servicing of specific stakeholder needs.</p> <p>A key emerging concern is that the SIF may become increasingly incompatible with opportunities to blend funding streams from other funding sources, we encourage the continued evolution of the SiF Governance arrangements to take these factors into account.</p>	

Question ID	Core-Q8
Question	Do you agree with our proposed approach to weighting SSMD criteria and benchmarking RIIO-ED2 NIA requests against RIIO-ED1?
Response	
<p>We believe the proposed approach is appropriate.</p> <p>NIA remains a critical part of our innovation strategy, it allows us to meet specific stakeholder needs and co-create with a range of partners in critical areas of consumer vulnerability and net zero transition, there for we believe the process used is appropriate.</p> <p>NIA funds only part of our innovation activity and will be supplemented by self-funding, other innovation funding sources and our commitment to be fully involved in SIF.</p> <p>Given the scale of current and future challenges relating to the themes we have identified in our innovation strategy, we believe that the combination of SIF, NIA and other sources provide adequate funding to address these growing needs.</p> <p>SSEN have a very strong track record in innovation, delivering financial, environmental, and wider societal benefits, as well as developing significant new learning in key areas to support the net zero transition. NIA Funding has played a fundamental part in the successful delivery of our wider innovation portfolio, and we see it as a crucial part of our future approach.</p>	

Question ID	Core-Q9
Question	Do you agree with our proposed approach to setting NIA allowances?
Response	
<p>We welcome the NIA funding that has been proposed for the first three years of ED2. However, we continue to believe that we will require further NIA funding for years four and five of the ED2 period to allow us to meet the needs of our stakeholders.</p> <p>As set out in our innovation strategy of our final business plan, the challenges that we face and will face beyond ED1 are significant. There is little doubt that innovation will play a key part in addressing these challenges.</p> <p>Our approach to NIA has always been evolutionary. We take a system led approach and leverage the output of a portfolio of projects to achieve a suite of successful outcomes. The three years of funding will let us continue to co-create with stakeholders to address customer vulnerability and net zero challenges, both of which are becoming increasingly important for our stakeholders.</p> <p>As identified in our final business plan Innovation Annex 14.1, we are planning to put in place a version of the ENA led Innovation Measurement Framework to ensure that we track the benefits from our deployed innovation. Over the long term this will allow us to more readily demonstrate that our NIA portfolio delivers benefits for customers.</p> <p>However, the lack of certainty created by the introduction of a three-year review will likely disrupt the ongoing development of solutions. This may result in a narrowing of the focus to shorter term or higher TRL projects, which may restrict the delivery of wider whole system benefits. We therefore question the rationale of introducing such a review, at a time where driving innovation is more critical than ever, and in the context of a five-year price control.</p> <p>In the transition from ED1-ED2 Ofgem recognised the importance of this continuity by allowing us to carry over NIA funding across the price control period. This has allowed us to maintain momentum, keep stakeholders engaged and continue to deliver benefits. It has been critical in enabling third-party participation in innovation activities in the sector, a clear stated Ofgem aim.</p> <p>To manage this risk, Ofgem must provide further details on the scope and timing of the proposed review. Coordination with gas and electricity transmission in future innovation projects will become increasingly important and we would hope that the intention of the review is to make this more straightforward. Understanding Ofgem's intention for the three-year review will allow us to manage our portfolio accordingly and gather evidence that will support the review. To be clear we would need visibility of the process and its outcomes with suitable notice to allow us to manage our portfolio beyond the end of year three and maintain the progress that we have made to date. It will also let us continue to co-create projects with our stakeholders to address their key challenges with a higher degree of certainty.</p>	

Question ID	Core-Q10
Question	Do you agree with our proposal to allow DNOs to carry over any unspent NIA funds from the final year of RIIO-ED1 into the first year of RIIO-ED2?
Response	
<p>Yes, we do agree and believe this a sensible and appropriate approach. It also avoids edge-effects and inefficiencies.</p> <p>Given the high levels of stakeholder participation in our innovation portfolio we would like this approach to be maintained for future price controls and transitional arrangements in innovation funding.</p>	

Question ID	Core-Q11
Question	Do you agree with our proposed approach for the Annual Environmental Report ODI-R?
Response	
<p>We accept the proposal from Ofgem, pending consultation on exact content to ensure best practice and stakeholder value is upheld, noting the following considerations.</p> <p>We have played an active role in helping to shape the environmental reporting for RIIO-ED2 and are committed to being open and transparent with our environmental reporting as outlined in our EAP. However, we still believe the right balance must be struck between ensuring reporting is proportionate while meeting the needs of stakeholders and sharing information that is relevant to them in a way that is easily accessible. Therefore, timing of the publication should be considered to ensure best use of resources and to ensure stakeholder value.</p> <p>It should also be considered that SSEN has a unique position in achieving net zero across license areas with different legal requirements – Scotland's legal net zero target date is 2045. Therefore, we would appreciate consultation on some aspects of the AER proposal including some of the specific KPIs.</p> <p>Whilst we remain supportive of the proposal, we were disappointed by the removal of the environmental scorecard incentive which could signal that protecting the environment is lower priority compared to other areas. Additionally, we note that some stakeholders would prefer there to be financial incentives placed on DNOs to ensure that performance is not assessed only on a reputational basis. We are committed to delivering an ambitious and progressive environmental improvement programme in RIIO-ED2 and believe that the time for strong positive action around the net zero pathway is now.</p>	

Question ID	Core-Q12
Question	What are your views on the proposed mid-period review on DNO environmental performance and their progress to targets?
Response	
<p>We can support this position but reiterate that the review should remain proportionate and balanced with a focus on delivering outcomes the customer supports.</p> <p>We have no significant concerns with being assessed on our performance to date at the mid-period point but note that some activities will not be fully completed until the end of the period, or beyond ED2, and that any performance assessment should be framed against this backdrop. We will use our reporting to present our progress and expected period end view clearly to stakeholders. However, it is our belief that the reporting provides value and therefore needs to be considered around the requirements as part of RIGs, the AER, and the requirement for an MPR.</p> <p>We believe that Ofgem needs to set out clearly the requirements in this area including any consultation requirements associated with the review process. More generally, we noted that mid-period reviews of outputs, especially in the context of a five-year price control, should be treated with caution, to ensure that the incentive properties of the price control are not inadvertently diluted, and companies not exposed to undue risk or additional costs associated with a change in outputs not otherwise accounted for in the price control.</p>	

Question ID	Core-Q13
Question	Do you agree with our consultation position for the DNOs' EAP proposals in RIIO-ED2 as set out in this document? (Further detail included in Appendix 1 of this document)
Associated Evidence	
Title	Link to Evidence
Annex 1 - Advocacy Annex	n/a
Annex 4 - Interactions with Ofgem	n/a
Annex 8 - Environment	n/a
Response	
<p>We do not fully agree with Ofgem's position on the DNOs' EAP proposals.</p> <p>We welcome Ofgem's approach to adopt the common environmental framework, requiring DNOs to outline activities undertaken to deliver an environmentally sustainable network in the form of the Environmental Action Plan (EAP). We fully support this approach as an effective, open, and transparent way to detail efforts that DNOs will make to improve and protect the environment. Further work is required in the run up to drive consistency across DNOs and help DNOs and other stakeholder to identify areas of best practice.</p> <p>We also note the significant work carried out by some stakeholders in assessing EAP plans and providing valuable feedback, which we would urge Ofgem to ensure it has considered in its decision-making.</p> <p>We are disappointed that for Distribution companies the RIIO2 framework is differing in that there is no financial incentive for SF₆, (this is incentivised in RIIO2 for Transmission Companies which includes 132kV in Scotland), nor have Ofgem included the ODI-F Environmental Scorecard for Distribution. During consultation on this topic through the February 2022 Decarbonisation and Environment Working Group (DEWG), we agreed that this was sensible for Distribution as the scorecard was not addressing material areas like SF₆ and Losses, and it was deemed more appropriate to tackle the material areas through baseline allowances. See extract from Ofgem slides below:</p> <ul style="list-style-type: none"> • Following consultation on the scope and design, our initial view is to <u>withdraw the ODI-F at Draft Determinations</u> for the following reasons: <ul style="list-style-type: none"> • Lack of materiality of the proposed impact areas. • Strength of the ED2 targets proposed in the EAPs and the baseline funding requests. • Lack of marginal benefits to consumers with its application. • The uncertainty in setting baseline and stretch targets due to COVID-19. • We propose to incentivise improvements in environmental impacts through the Annual Environmental Report (AER) only. 	

Whilst we agreed with the overarching approach, we note that Ofgem has proposed to remove key investments from our baseline plan tackling key priority areas for our stakeholders, such as SF₆, nature-based solutions for carbon removal, and our approach to fluid-filled cables. We disagree with Ofgem's proposals to reject these investments.

This is clearly inconsistent with stakeholder feedback, and Ofgem has not considered the potential impact on current and future consumers of its proposals in terms of reducing carbon emissions. Taken together with Ofgem's decision to remove any financial incentive in this space, we consider that the resultant framework does not encourage the necessary step-change in behaviour and mindset required in RIIO-ED2 to achieve net zero and mitigate the impact of the climate crisis, which is happening now.



An appropriately funded EAP is a powerful tool to deliver an environmentally sustainable network. Our EAP is open and transparent and fully supported by stakeholders, who prioritised all investment targeted at the environment. During Acceptability Testing the environmental initiatives received scores of 79%. Significantly, very few customers found the plan unacceptable with only 4% giving this score. The key reasons given for finding the plan unacceptable included the cost and the lack of ambition, particularly around measures to address climate change. In our Willingness to Pay studies environmental and net zero objectives ranked in the top 10. With BCF coming 2nd in the SSES and 4th in SSEH. FFC came 4th in SSES and 6th in SSEH as seen in the table below. Our acceptability testing can be seen in full in Annex 3.3 of our Final Business Plan submission - Business Plan Testing and Acceptance Results. [Acceptability Testing](#)

Table 12: Ranks by service/outcome area⁽¹⁾: households

Rank	South	North
1	Fuel-poor households helped 2023-28	Fuel-poor households helped 2023-28
2	SSEN's business carbon footprint by 2028	Avg duration of unplanned power cut (large improvement)
3	Avg duration of unplanned power cut (large improvement)	Number of 'worst served' customers
4	Replacement of oil-filled cables	SSEN's business carbon footprint by 2028
5	Low carbon heat pump connections by 2028	Low carbon heat pump connections by 2028
6	New electric vehicle connections by 2028	Replacement of oil-filled cables
7	Number of 'worst served' customers	New electric vehicle connections by 2028
8	Avg duration of unplanned power cut (small improvement)	Number of complaints resolved < 1 day
9	Number of complaints resolved < 1 day	Overall customer satisfaction score
10	SSEN's core fleet of vehicles to be electric by 2028	SSEN's core fleet of vehicles to be electric by 2028
11	Connections process	Connections process
12	Overall customer satisfaction score	Avg duration of unplanned power cut (small improvement)
13	Customers signing up to PSR	Customers signing up to PSR
14	Satisfaction score amongst PSR customers	Satisfaction score amongst PSR customers
15	Connection times for small/minor connections (EVs, low carbon heating)	Connection times for small/minor connections (EVs, low carbon heating)

(1) Red: Service to customers; Green: Environment; Blue: Network

Our plan was built up by stakeholders, our first engagement on our Sustainability Strategy was September 2019, where our stakeholders prioritised the UN Sustainability Development Goals for us in order of materiality for a DNO business. This has been the foundation of our approach; proposals that had to earn their way into the plan by being driven by stakeholder need. Our stakeholders have commended our approach, with some stating that we are leading the way, and introducing the step change required for others. We tested our thinking again post draft determinations, and our stakeholders are still very supportive of our approach (full details of our stakeholder feedback can be found in Annex 1 – Advocacy Annex). In several areas, this has meant that we are taking a different approach to reflect these needs and priorities in a changing world (particularly on SF₆, Flooding and FFC). However, we consider that this is in line with the intention of Ofgem's environmental framework and minimum requirements, and we are proud of our EAP's ambition.

Furthermore, we tested our thinking and proposals on our approach to the EAP with Ofgem at a bilateral on 26th May 2021 where we received good feedback and guidance from Ofgem and built that into our draft and final submission. We note that no negative feedback was received from Ofgem at draft, and that we received positive feedback from the Challenge Group, particularly in relation to our approach to SF₆.

On 27th July 2022 SSEN held an online sustainability and environment engagement session to give stakeholders the opportunity to provide feedback on Ofgem's Draft Determinations for SSEN RIIO-ED2

Business Plan in the areas of sustainability and environment. The results of this workshop are included in Annex 8 – Environmental Annex.

Stakeholders' feedback from our engagements since June:

Our stakeholders are clear that now is not the time to renege on net zero commitments, with many urging that the cost-of-living crisis should spur on decarbonisation efforts. There was a strong belief that industry, business, and local authorities are keen to work collaboratively to meet legally enshrined net zero targets and there is concern that Ofgem has aimed low on net zero through its Draft Determinations

We provide our response against individual elements of the EAP Draft Determination below:

1. Business Carbon Footprint (BCF)

We agree with Ofgem's position as stated in the Core Methodology Document in section A1.2 to accept our Science-Based Target (SBT). Our SBT will target a 55% reduction in GHG emissions by 2033, meaning at least a 35% reduction in our Scope 1 & 2 emission in ED2. We welcome Ofgem's approach to SBTs and would like to see the framework evolve to encourage all companies across the sector to set ambitious science-based targets aligned to at least a 1.5° pathway. We firmly believe that a 1.5° target should be a minimum requirement across the sector. An approach supported by Ofgem's Challenge Group, our CEG, Sustainability First and wider stakeholders and consumers. At our sustainability and environment workshop on 27th July 2022 we were praised for our transparency in our approach to setting SBTs, as well as for including Scope Three targets and we were encouraged to implement this approach as a matter of urgency. However, Ofgem's proposal to disallow costs associated with key activities that directly impact our SBT like SF₆ for emissions reduction, combined with decisions affecting our ability to transition away from diesel on our islands, will compromise our ability to meet this target.

Furthermore, Ofgem's decision to reject our Nature Based Solutions for carbon removal proposal directly impacts our ability to meet longer-term UK Climate Change legislation. Following further discussions with Ofgem and their core methodology requests, we have provided further evidence to support our original submission. This can be found in Annex 8, Section 2.2.

It is critical that Ofgem's FDs enable us to address all material factors contributing to our business carbon footprint – including SF₆ and Diesel to meet our SBT, and NbS for removals so that these collectively can enable a credible and ethical Net Zero. Acting now reduces the burden on future generations and we truly believe is the only way to protect current and future consumers from the cost of Net Zero.

2. SF₆

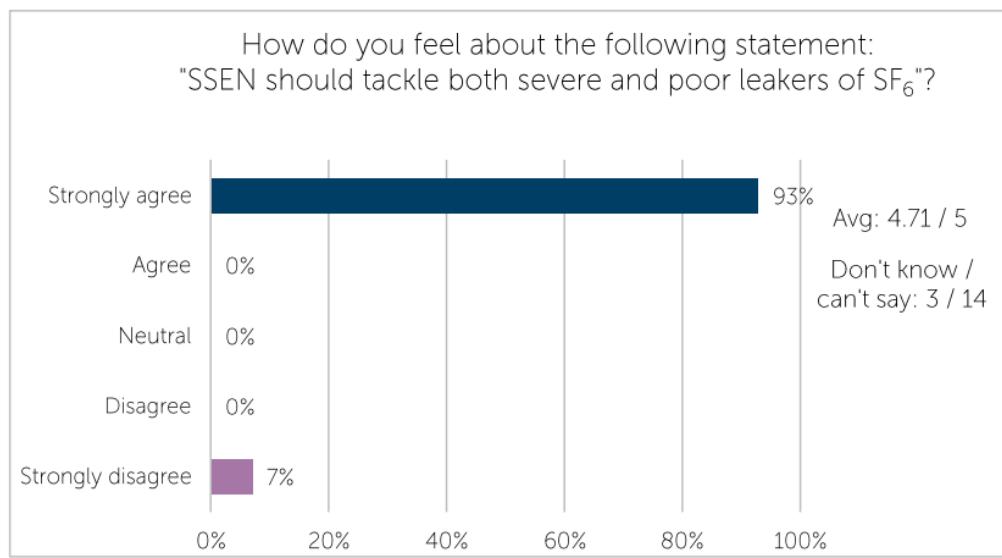
We do not agree with Ofgem's consultation position to reject our proposals for tackling our SF₆ emissions as stated in Table 15 of the SSEN Annex Document. We consider that Ofgem has not considered the short and longer-term impact of its position on our ability to reduce carbon emissions, and its proposal to reject activities in this space is not in the interest of current and future consumers.

However, we do note that positive discussions around SF₆ were held at the bilateral meeting conducted on 14th July 2022. Ofgem have raised concerns regarding the varying costs between the two options proposed in our SF₆ EJP and how this may impact the level of leak reductions delivered. Ofgem have referenced a cost of circa £45/KG for *option 1 – replace severe leakers only* and a cost of circa £62/KG for *option 2 – replace poor and severe leakers*. It should be noted that the driver of difference between these costs is because the *poor and severe* category contains a higher number of 132kV assets which have a significantly higher unit cost when compared to the unit cost of lower voltage assets. For example, the business as usual (BAU) unit cost of a 132kV CB (Air Insulated Busbars) (OD) (GM) is 73.83% higher than the BAU unit cost of a 33kV CB (Air Insulated Busbars) (OD) (GM). It is therefore inaccurate to compare costs in this way without considering the asset categories and numbers within each category.

We note that Ofgem are approving all other DNOs SF₆ proposals without amendment. We have included a detailed SF₆ strategy linked to our investment in Appendix B of our final Business Plan Environmental Action Plan in line with the Ofgem minimum requirement, which mandated DNOs to implement a strategy to efficiently manage SF₆ assets. Ofgem's proposals fail to recognise our comprehensive and robust approach which sets out a clear strategy to reduce SF₆ emissions as well as decrease our inventory of SF₆, to effectively reduce emissions in the longer-term. We have included this work under our Environmental Action Plan and data tables, to provide clarity for stakeholders and Ofgem on progress against what will be delivered in ED2 to tackle SF₆ emissions head on. This aligns with the Ofgem aim to ensure that DNOs are reporting transparently on the environmental impacts arising from their networks and demonstrate how these are being mitigated. We have had further positive discussions with Ofgem on this matter and have provided our full response on why we do not support this consultation position alongside additional information requested by Ofgem at the bilateral meeting in section 2.1 of Annex 8 – Environment.

During SSEN's sustainability and environment engagement workshop on 27th July 2022 we asked stakeholders for their opinion on our SF₆ proposal as shown below:

1. Do you think SSEN should tackle both severe and poor leakers of SF₆?



Stakeholders' feedback from our engagements since June:

Stakeholders have particularly welcomed our SF6 strategy identifying it as one of the most comprehensive and ambitious, and as such are deeply concerned with Ofgem's decision to remove the much-needed investment for SF6.

Stakeholders Comments:

"It seems like this is such a potent greenhouse gas. If this is approaching the levels of problem we have with carbon, then it's a no-brainer." Environmental group

"I agree that this is a good idea. We have had a lot of pollution incidents over the years, and this would help to reduce the amount of pollution across our catchment. However, I would stress that both leakers are key for us." Utility

"Absolutely, these leakers seem to be a problem and need to be tackled." Government

Participants in the breakout rooms largely disagreed with Ofgem's consultation proposal to remove the SF6 investment for SSEN, whose costs were thought to be considered and justified.

In addition to our workshop, we have carried our Bilaterals with key stakeholders, such as Sustainability First who commented that 'SF6 is an unseen long term asset management risk, which if it's not addressed in ED2 it is stacking up problems and customers will end up paying more.'

3. Carbon Offsetting or Removal

We do not agree with Ofgem's proposal to disallow our proposal for Nature-based Solutions (NbS) for carbon removal. In Table 15 of the SSEN Annex Ofgem state that "we do not believe this to be good value for money for consumers as the restoration efforts are not linked to network projects.". An effective carbon removal strategy is a requirement under the SBTi net zero Standard framework and a key part of our credible, and legally mandatory, pathway to Net Zero.

Our proposal is the most efficient long-term solution to carbon removal as it effectively protects current, and future, consumers from drastic increases in carbon costs to offset residual emissions. The median 2028 cost of carbon unit, as published by BEIS in 2018, was £72.10; this is the figure used by DNOs in the Ofgem CBA templates. However, BEIS revised the 2028 cost of carbon unit in 2020 and revised the figure to £272, with the 2045 figure revised to £351. It is clear from historic trends, and future trajectories, that the cost of carbon will continue to rise sharply. This cannot be avoided.

Our research proves that utilising Nature-based Solutions (NbS) for carbon removal is the best approach in the long term for consumers. The primary driver for this investment is to deliver a credible net zero pathway, avoiding potentially unethical carbon offsetting. Alongside credible Science Based Targets you do require some form of carbon removal – we believe the most credible way to do this is through NbS.

Our proposed investment for carbon removal and reduction utilising Nature-based Solutions will deliver potential carbon removals and reductions to help us achieve our credible net zero target, whilst

also providing vast biodiversity benefits in our license areas. This level of investment will achieve a sequestration rate of at least 260,000 tCO₂e by 2043. Therefore, alongside our own Science Based Targets for carbon reduction, with this investment, we would achieve our net zero in line with current Scottish and English legislation or potentially before.

As the carbon sequestration potential in NbS increases rapidly over time (i.e., progression after 10–15 years) this investment has the potential to total 855,225 carbon units (t CO₂e) over 45 years and 1,354,869 carbon units over 100 years. This accounts for over 1.3 million carbon units over a 100-year period. Moreover, there is also potential to deliver 4,674 Biodiversity Units and a wide range of wider environmental benefits including: the survival of culturally significant rare species, air quality improvements, flood prevention, water quality improvements, enhanced health and wellbeing, and general climate change adaptation and mitigation.

By investing in Nature-based Solutions, in line with our proposal detailed EJP 447_ENV_NATURAL_CAPITAL, the equivalent cost of carbon (using the 2045 date) could be approximately £125/tCO₂e. However, the sequestration rate accelerates over time and at 45 years the cost to the consumer, per unit of carbon sequestered, would be around £40 - £70.00, based on a sequestration potential of 400,000 tCO₂e. It appears that GEMA is taking a short-sighted approach here and not properly acting in the interests of current and future consumers.

Ofgem has requested additional information on the location of our proposed nature-based solutions. The native woodland and peatland restoration projects we proposed will look to be situated within our license areas, in areas where there is greater likelihood of success. Planting and restoration activities not sited in appropriate areas can fail and, for that reason, we need to select the most appropriate sites. Additionally, further tree planting next to electricity infrastructure introduces an unacceptable additional safety risk and would result in additional maintenance to manage any tree or vegetation growth at or close to our assets.

Ofgem also commented in Table 15 that “SSEN have not provided a sufficient methodology for how long-term carbon sequestration will be accounted for within our science-based targets”. Carbon removals cannot contribute to an organisation’s SBT, according to the rules set by the Science Based Target Initiative (SBTi). However, carbon removal is critical to manage residual emissions. This was discussed with Ofgem at a bilateral on 15th of July 2022 and acknowledged as a misunderstanding.

We were the first UK DNO to set 1.5°C Science Based Targets accredited by the global recognised body The SBTi and this will ensure we do everything we can to reduce our emissions. Only after all opportunities for carbon reduction have been exhausted should companies consider carbon removal to close the gap to Net Zero. Options include purchasing carbon credits through offsetting companies or choosing a nature-based approach which allow us more control over the selection of locations and type of restoration we carry out. Once these restoration investments have matured, we can then claim the carbon sequestration values – and using these values to balance our residual carbon. Nature-based Solutions is the option we have chosen, as we have concerns about the stability and legitimacy of the private carbon trading market.

Our option will also provide additional wider benefits including biodiversity enhancements and improved habitat, air, and water quality local to the communities we serve. This is valued by our stakeholders and consumers particularly as outdoor spaces became more significant to us all throughout the pandemic.

Our acceptability testing in this area was very strong at 79% and 79% thought it was affordable. Our approach has been consistently supported by our stakeholders and consumers – in fact we retested this position following Ofgem’s Draft Determination to see if opinion had changed, during our engagement event on 27th of July 2022, 86% percent of attendees either agreed or strongly agreed with this approach, and 75% of attendees either agreed or strongly agreed that a nature-based approach was a sensible approach to manage the cost of carbon the future. Further details of the event can be seen in section 2.2 of Annex 8 - Environment.

Our CEG noted in their company report on the final plan, published on 17th of January 2022, that we were the only DNO to align to the net zero Standard and have a credible delivery plan. The CEG and the Challenge group have expressed concerns over consumers funding offsetting activities but have commended SSEN for taking a nature-based approach. Ofgem acknowledge this in paragraph A1.42.

Sustainability First also noted in their report on the final business plans, published on 9th February 2022, that we were the only DNO to set a 1.5° SBT in line with the SBTi framework including losses as a scope 2 emission, which they welcomed and recognised that this presents a particular challenge for us given our high levels of diesel generation.

We agree with Ofgem’s proposal in paragraph A1.44 to accept all DNO proposals and fund through a price control mechanism if the DNOs provided satisfactory information and evidence. This request for further information is detailed in paragraph A1.43 and we have provided this in our Annex 8 - Environment.

We also disagree with Ofgem’s proposal to required DNOs to carry out further joint consumer testing of carbon removal and offsetting proposals. Firstly, our proposals went through rigorous stakeholder and consumer testing as part of our business plan development process, including acceptability and affordability testing, a citizens’ jury, and CEG challenge. Further details are available in our original submission 447_ENV_NATURAL_CAPITAL. This is supplemented by existing research in this space, which we provide further information on in Annex 8 - Environment. Secondly, we do not consider that joint testing of carbon removal and carbon offsetting would be appropriate, as these are fundamentally different activities that cannot be compared. Finally, Ofgem have not set out indicative timeframes for this activity, or how any results would factor into its decision-making processes for RIIO-ED2. We do not think it would be in the interests of consumers to delay these activities into RIIO-ED3. However, we would welcome further discussions in this space at industry-level as we prepare for RIIO-ED3 to share best practice and drive consistency where appropriate.

Stakeholders' feedback from our engagements since June:

Our stakeholders have commended our approach to nature and to the delivery of Net Zero. Stakeholders believe that nature-based solutions will deliver multiple benefits and facilitate Net Zero and carbon sequestration.

Our full business plan is based on delivering a credible and ethical net zero, and why our plan is based on a 1.5-degree Science-based Target (SBT). The route to net zero is not delivered by carbon emission reduction alone: we must abate all that we can through our SBTs and then look at removals to manage residual emissions and close the gap to net zero. Based upon extensive engagement with our stakeholders, alongside scientific evidence, we selected a nature-based approach for residual carbon removal.

Stakeholders have also pointed out the amount of input that our Customer Engagement Group gave to this area of our Business Plan, providing further evidence of the robustness of our proposals.

4. Reducing Emissions from building energy use

We agree with Ofgem's proposal as stated in section A1.20 to accept DNOs' baseline funding requests for substation and building refurbishment to reduce energy consumption and have provided Ofgem with additional information regarding the sites and substations we are planning to tackle that was requested as part of the EJP response. The additional sites identified can be found in Annex 8 - Environment, section 3.4.

We note Ofgem's comment that all funding in this space is subject to submission of evidence to address concerns regarding SLC 43B (prohibition on Generation) we confirm that our proposals do not include any form of generation, and therefore assume that no further evidence is required to secure the funding. However, we will continue to keep SLC 43B under review in case it starts to drive inefficient outcomes.

5. Electricity Distribution losses

We agree with Ofgem's proposal to accept the commitments made by all DNOs in their strategies without amendment. We note that in paragraph A1.9 you reference the SSMD decision to incorporate losses into the EAP and not to leave it as a standalone activity. We agree with this position but would urge Ofgem to go further and clarify to all DNOs their understanding of the classification of losses with regards to GHG Scoping Categories.

SSEN have classified distribution losses as a Scope 2 emission, in line with GHG protocol and they therefore form part of our SBTs. We appreciate the carbon value of losses is likely to be addressed by the decarbonisation of the grid, but losses should still be an area for concern for the energy industry, especially considering the amount of energy that is lost from our network that the consumer must still pay for, and in the context of rising energy bills. We also realise that losses are a function of the electricity network and are therefore to a certain extent out of DNOs' immediate control. However, there are ways in which DNOs can act, and our strategy is targeted at those areas.

We also note that Ofgem have decided to remove the ODI-F Losses Discretionary Reward for RIIO-ED2, and whilst we agree this mechanism in its current form could be improved, we are concerned that an opportunity may be lost to target losses in an effective way that will deliver real results, especially given the energy bill, and cost of living crises every consumer is experiencing at present. Furthermore, we note that in A1.12 you reference that all DNOs have indicated that the total losses on the networks are predicted to increase. We believe this to be true and emphasises and reinforces the need to ensure that, as an industry, we do all that we can to manage them.

6. Reducing emissions from operational and business transport

We agree with Ofgem's proposal as stated in section A1.16 of the Core Methodology document to accept the EAP commitments for fleet replacement activities in ED2 made by SSEN.

7. Reducing emissions from temporary generation

We agree with Ofgem's proposal as stated in section A1.22 of the Core Methodology document to accept, without amendment, the DNOs' commitments to reduce the environmental impact and carbon emissions associated with their mobile generator fleet, and we have provided further information to better justify our EJP, 10/SSEPD/ENV/GENERATION, in Annex 8 - Environment.

Our proposed commitment to replace 50 diesel generators with hybrid generators will reduce noise, greenhouse gas emissions, and particulate matter in the air so aiding communities and our own commitment to net zero. They will also have reduced running costs compared to our diesel generators. We have provided more information on our replacement targets within Annex 8 – Environment.

8. Embodied Carbon

We agree with Ofgem's proposal as stated in section A1.24 of the Core Methodology document to accept, without amendment, the DNOs commitments to baseline, measure and report on embodied carbon of new projects as an essential first step to managing emissions. Our proposal will support us in meeting our voluntary Science-Based Target to tackle our Scope 3 Emissions.

However, to measure and report on our embodied carbon effectively we are reliant on a new IT system called Envirotrack (EJP reference - 25_SSEPD_IT_ASSET_ENVIROTACK), which is currently considered unjustified by Ofgem. This is an area which will also be impacted by the significant cuts to our overall IT programme, which we discuss further in CORE-Q79. We have provided Ofgem with additional information which can be found in IT Annex 16.

We also agree that DNOs should collaborate and share best practice and we are actively participating in this through the industry wide ENA Sustainability group - Carbon Management.

9. Supply Chain Management

We agree with Ofgem's proposal as stated in section A1.26 of the Core Methodology document to accept the EAP commitments made by the DNOs without amendment and will ensure that we report transparently on actions taken and associated consumer benefits.

10. Sustainable resource use and waste reduction

We agree with Ofgem's proposal as stated in section A1.28 of the Core Methodology document to accept all EAP commitments made by the DNOs without amendment. We are committed to achieving "zero waste to landfill" by 2028, and this along with other areas of our business plan ensures that the environmental value added is sustainable in the long term and not dealt with in isolation.

11. Fluid Filled Cables

We agree with Ofgem's proposal in A1.35 to accept baseline funding subject to DNOs providing additional information and evidence. We confirm that we have provided all additional information requested in A1.34 of the core methodology; a summary can be found below. We note your proposal to consider the use of a PCD where appropriate – we would welcome the application of a PCD as proposed in our submission.

We do not agree with Ofgem's engineering assessment on our EJP (8_SSEPD_ENV_CABLE_FFC). However, following a positive discussion at the bilateral held on the 14th of July 2022, where Ofgem asked for further clarity on our methodology, we were able to better understand their concerns. We have responded to all requests in full in our Annex 8 - Environment, section 2.3.

In response to the request in section A1.34, we aim to replace 71.87km of fluid-filled cables during RIIO-ED2; reducing leakage by 20% relative to FY2019/20 which translates to 20,925.6 litres.

In response to the request in section A1.35 in the core methodology document, we have supplied supplementary information below to detail our primary and secondary investment drivers, the associated costs, risks to delivery and our optioneering and environmental benefits to deliver our proposed replacement plan.

The approach we have taken to identify the assets for replacement puts additional weighting on environmental criteria, therefore whilst also considering the health and performance drivers our risk-based approach also captures three environmental investment drivers, outlined below:

- Prevention of environmental contamination from FFC oil leakage;
- Align SSEN oil leakage rates with sector benchmarks; and
- Address environmental concerns and expectations of Stakeholders.

Replacement of the proposed cables is driven by health and circuit performance, leakage history, and pollution potential risk. There are also drivers identified through our efficiency and deliverability assessment. The make-up of our 71.87km replacement plan is shown below:

- Cables with a risk score of 50 to 100 (38.08km)
- Cables which are identified in HI5 of asset health index and cables in the same trench/circuit (12.86km)
- Cables located in the Portsmouth Water SPZ (20.92km)

We aim to reduce the risk of leakage from our cables near drinking water sources and areas of SSSI in the SEPD network. We also aim to reduce customer interruptions from the underground FFC network failure due to age and soil movement.

FFCs represent an ageing population of legacy assets and therefore have increasing maintenance and intervention costs. For the RIIO-ED2 period, a risk-based approach for cable replacement has been developed. Replacing the highest risk cables also will provide other non-environmental benefits including improved quality of service and lower operating expenditures because of reduced inspection, maintenance, and fault repair activities.

The key risks presented are; FFCs close to Portsmouth Water drinking water resources and Special Protection Zones (SPZs); FFCs with Health Index HI5; and specific assets identified from our asset management risk scorecard.

This 71.87km volume has been assessed by our deliverability teams and we believe this to be achievable as it is consistent with our run rate in ED1.

To ensure we were not overcommitting to replacement, we ran a traditional CBRM model which suggests that a figure of up to 156km could be identified for replacement - more than double of that identified in our proposal - demonstrating that we have not included unnecessary volumes. A replacement programme of the scale suggested in the CBRM model would not be achievable within a five-year PC without significant disruption to the network and considering the investment programme in the round (PCB replacement programme), we believe that this would not be advantageous to consumers. Therefore, this has informed our rationale and as a result we have proposed a programme of replacement that delivers on stakeholder and asset need, that is deliverable within ED2.

We appreciate that there is an inherent potential risk where assets could fail outside the identified routes and earlier intervention may need to be applied, however, we believe our selection model manages this risk adequately. Our asset management programme and inspection, and maintenance plans, will continue to manage this risk throughout ED2.

Fluid filled cables typically have excellent reliability from an electrical perspective. Deterioration in asset health usually leads to oil leaks that are hazardous to the environment. However, when leaks occur it is often possible to maintain the circuits in service whilst the leaks are located. The risk to customer supplies is only increased for the duration of the planned repair following location of a leak. Fluid filled cables operate at 33kV and above where the level of security of supply is stable, therefore, a failure of a fluid filled cable will be very unlikely to result in interruptions. As such, the risk to the environment is the primary concern in relation to these fluid filled cables.

At the bilateral, held on 14th July 2022, we discussed the utilisation of a hybrid PCD approach to tackle the different drivers; resulting in the funding of 35.83km of replacement under the PCD. However, it would be our preference to cover all the investment costs and volumes detailed in CV22. This would mean we could continue to report openly and transparently against one BPDT which would be simpler for reporting and communicating to our stakeholders against progress. However, we are happy to discuss this further.

The costs associated with this, along with the other options considered and our stakeholder evidence are detailed further in our Annex 8 – Environment and even further in our EJP.

12. PCBs

We agree with Ofgem's proposal to address certainty through baseline and to apply a volume driver to address the uncertain PMTs. We do not agree with all PMTs moving into the UM as we have certainty over these volumes. Further detail on our PCB position can be read in our responses to CORE-Q16 and CORE-Q90.

13. Noise Pollution

We agree with Ofgem's proposal as stated in section A1.40 of the Core Methodology document to accept all the EAP commitments made by DNOs without amendment.

Summary

We acknowledge that since Draft Determination we have been engaging closely with Ofgem to ensure that our plan and the positive action we had planned is fully understood and that we remain consistent with our credible net zero pathway trajectory. We want to ensure that Ofgem recognise the unique challenges we have in our license areas and understands how our proposed outputs seeks to take the most cost-effective route to delivering a credible net zero at lowest cost to customers.

Question ID	Core-Q14
Question	Do you agree with our proposal to withdraw the Environmental Scorecard ODI-F for RIIO-ED2?
Response	
<p>No. As per our response to CORE-Q11, we are of the view that this erodes environmental incentives, as the ODI-F has not been replaced with additional incentives. Therefore, given the strength of stakeholder interest in ensuring that DNOs improve their performance in RIIO-ED2, we believe that the removal of any financial incentives, alongside the removal of key investments in our baseline undermines the environment as a critical area of focus. Removing both results in a weakened framework overall.</p> <p>We state that the use of reputational only incentives is not commensurate with both the customer interest, and in ensuring that companies strive to deliver positive outcomes.</p> <p>We remain committed to protecting our current and future consumers by reducing and improving our impact on the environment, but we raise that this creates a tension within the framework where financial incentives draw increased focus and question whether this balance is right.</p> <p>We believe this is a risk that needs to be understood and that it has been created from a watering down of policy between SSMD and Draft Determination.</p>	

Question ID	Core-Q15
Question	Do you agree with our proposed approach to design of the Environmental Re-opener?
Response	
<p>We do not agree with the position. We believe that reopeners can and should, especially for the environment, be able to be triggered by both DNOs and Ofgem. We have concerns that the scope of the re-opener is too narrow and risks items being excluded from being dealt with through this uncertainty mechanism. As has been stated at the Decarbonisation and Environment Working Group (DEWG) it is likely that all DNOs will face similar challenges at the same time, and this re-opener is specifically designed to only be triggered for unexpected new developments. The likelihood is that these topics will be unknown to Ofgem ahead of a re-opener but having the ability to trigger from a DNO's perspective reduces uncertainty. We feel the re-opener process needs this to help manage the risks that could emerge during RIIO-ED2.</p> <p>Ofgem should revise the scope, materiality threshold and the triggering party to ensure that this re-opener is able to respond to any developments in RIIO-ED2. We are concerned that the focus primarily on EAP activities only will exclude any changes in legislation that fall on compliance. Therefore, we request that the re-opener is broadened. We believe that the scope can be clarified and not made too wide.</p>	

Question ID	Core-Q16
Question	Do you agree with our proposal for addressing PCB contamination in PMTs through a volume driver in RIIO-ED2?
Associated Evidence	
Title	Link to Evidence
Annex 8 – Environmental Annex	n/a
Response	
<p>In the main, we agree with Ofgem's proposal for addressing PCB contamination in Pole Mounted Transformers (PMTs) through a volume driver in RIIO-ED2. However, we do not agree with all PMTs being dealt with through the UM and believe the PMTs where there is certainty should continue to be dealt with through baseline volumes as applied in the Draft Determination.</p> <p>However, we would like to note that at the point of submission, we still had uncertainty around how we would have to deal with Ground Mounted Transformers (GMTs) and therefore included them in our UM assumptions in our final business plan submission. We note Ofgem's position that oil testing and GMT decontamination or replacement volumes are now reasonably certain. We agree that there is now greater certainty of volumes: given the legal obligation applies both to PMTs and GMTs, and that there is no other suitable mechanism to ensure we are appropriately funded for GMTs, we have adjusted our baseline volumes to prioritise all predicted GMT related activity through baseline funding. This will mean an amendment to our baseline & UM volumes, we are resubmitting CV22 to reflect this.</p> <p>We note that in paragraph 3.180 Ofgem state "When considering the lifetime of these assets and the decarbonisation objectives, we also consider the possibility of upsizing transformers to be appropriate as long as the DNOs provide sufficient evidence to justify the incremental costs to consumers." We welcome this approach and will look to ensure that we assess each replacement asset and select the size that is in the best longer-term interest of consumers, when considering wider decarbonisation objectives. We propose to provide any additional appropriate evidence through our annual regulatory reporting pack.</p> <p>We note that in paragraph 3.181 Ofgem state a preference for a sunset clause linked to the legislative compliance deadline, we agree that this is in the best interest of consumers to ensure that consumers only pay for the assets that are mandated to be replaced relative to the DNOs' compliance obligation with the PCB Regulations. We expect for this clause to be aligned with the legislation, and any extension to the legislation must also result in an extension to the sunset clause.</p> <p><u>Unit rates for the UM</u></p> <p>We agree with the methodology proposed by Ofgem in that the form of the volume driver should be based on the unit cost of the number of individual units installed (£/unit). We also support the proposal to calculate licensee-specific unit costs for PMTs and to include tiered unit rates to accommodate upsizing, where appropriate and justified. We welcome the ability to respond to a separate Ofgem consultation on this topic to develop the guidance document as outlined in paragraph 3.177.</p>	

We note that under paragraph 3.179 Ofgem state that “transformer replacement is a business-as-usual activity for the DNOs, and the unit costs can be reasonably determined prior to the commencement of RIIO-ED2.” We agree that transformer replacement is a business-as-usual activity, and for this reason expect that the **starting point for the UM URs should be based on the URs for the BAU activity as applied in CV7 for both SHEPD and SEPD license areas**. We would add that whilst this work is BAU, the delivery is not, not at this scale and to such tight timescales, the scale of this work across the UK is unprecedented and we expect supply chain issues to drive unit costs up. New frameworks were put in place in 2020 that doubled the number of suppliers we could use. Since then, we have been actively engaging with our supply chain to secure capacity and determine achievable URs. With PCBs we are expecting the manufacturing supply chain to have little if any capacity (outside the forecasts and advanced purchases shared up to 18 months in advance) due to the additional demand therefore we would be faced with making ‘spot buys’ on potential capacity which will attract a premium, with further cost premiums applied due to market cost increases. We seek to apply an **additional premium to the baseline UR** (using CV7 Draft Determination rates as our starting point) to deal with this uncertainty (based on volumes that cannot be built into forward orders). We propose this premium to be 34%.

OpEx Adjustor Method

There is a clear rationale for including an indirect cost adjustment within the unit rates for PCBs. This builds on the established precedent for electricity transmission and the Green Recovery Mechanism and subsea cables reopener approval in RIIO-ED1. In our response to RIIO-ED2 Draft Determinations SSEN Annex, SSEN Q8 we set this out in our full proposal for an OpEx Adjustor method for volume drivers.

The OpEx Adjuster method we propose will ensure DNOs are funded through an automatic mechanism for varying operational costs associated with specific capital investments delivered through volume drivers. It will provide DNOs with OpEx allowances when CapEx allowances are funded through the relevant volume driver and ensures that those OpEx allowances are consistent with those set for baseline allowances.

Our proposed OpEx Adjustor method is a calculated co-efficient that enables Closely Associated Indirect (CAI) spend per £1 of volume driver CapEx to be calculated and applied to specified volume drivers.

This straightforward method enables indirect to be funded for specific volume driver UMs at a level in line with the assessed baseline cost level. This mechanism will ensure DNOs will have allowances particularly for volume driven UMs to enable design, planning and other indirect activities associated with capital delivery which are not part of the unit rate.