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To: [riio3@ofgem.gov.uk](mailto:riio3@ofgem.gov.uk)

**Ofgem Draft Determinations – Response to Consultation (Electricity Transmission)**

Dear Ofgem,

Sustainability First is a charity and think tank focused on social and environmental issues in the energy and water sectors with a record of engagement on policy and regulatory issues, including as past members of Ofgem’s RIIO-2 Challenge Group.

In this response we set out our answers to the questions relating to specific areas of interest to us in ET3, building on our past work:

- on **SF6** as a highly potent greenhouse gas, we are broadly supportive of Ofgem’s proposals which we see as drawing, in places, on the Grid Edge Policy “[Green Grids](https://sustainabilityfirst.org.uk/wp-content/uploads/2024/01/sf6_in_GB_networks_final_201123.pdf)” Report that Sustainability First supported;

- on **losses**, we welcome Ofgem’s acknowledgment of the importance of the issue and its criticism of how this is dealt with in the company business plans. We urge Ofgem to take steps to drive a stronger focus on this issue in ET3;

- and on **biodiversity**, we disagree with Ofgem’s position that customers should not pay for companies to go beyond the legal minimum. In addition to answers to consultation questions, below, we attach to this response links to a more detailed note and slide deck, setting out the legal requirements on Ofgem, along with evidence of consumer support for spend on biodiversity and the business and consumer case for such spend. Recognising that this is understandably not an area of expertise in Ofgem we would be happy to discuss further.

We have separately submitted a response covering gas distribution (and some elements on gas transmission). This includes some points - such as our support for an enduring role for the ISGs and a concern about reliance on reputational incentives for delivery of the EAPs - that are also relevant to electricity transmission.

Yours faithfully,

Martin Hurst, Associate

Maxine Frerk, Associate

Cc Judith Ward, Associate

**Ofgem Questions Electricity Transmission**

**ETQ8. Do you agree with our proposed design of the Community Benefit Funding pass-through mechanism?**

Sustainability First are strong advocates of Community Benefit Funding as a key part of empowering communities as we decarbonise our grid. Our blog commenting on the DESNZ proposals[[1]](#footnote-1) highlights the importance of taking communities on the journey. As a part of this, Sustainability First is working in partnership with the European Climate Foundation and The Local Storytelling Exchange to develop best practice guidance for electricity Transmission Operators on effective community engagement.

The Community Benefit Funding pass through provides the mechanism to put the scheme in place and we support Ofgem’s proposed approach. We welcome the comments around the efficiency of fund administration.

**ETQ9. What are your views on our consultation positions for the TOs' EAP commitments in RIIO-ET3?**

*Insulation and Interruption (IIG) emissions –* ***see also our responses to ETQ12-14 below****:*

We welcome the emphasis Ofgem places on the need to reduce SF6 leakage and to move away from using SF6 in new switchgear. This is vital given its very high GWP of 24300[[2]](#footnote-2) and long atmospheric life.

This is an area that we explored in depth in the Grid Edge Policy “Green Grids” report[[3]](#footnote-3), building on our earlier work reviewing the SF6 strategies in the ED2 Business Plans[[4]](#footnote-4).

Building on the detailed commentary[[5]](#footnote-5) we provided as part of our response to the Call for Evidence on the Business Plans, we remain concerned about the lack of clarity around the impact of the EU F-Gas Regulation on the availability of switchgear using alternative gases (and of non-SF6 gases for retro-fill) given the reliance of the TOs on EU based manufacturers. In particular, we note a recent set of FAQs[[6]](#footnote-6) coming out of the EU that state that the life cycle carbon cost derogation (for switchgear) does not apply as no methodology has been agreed under the eco-design framework. This derogation was previously seen as key to allowing C4FN based products (with a GWP radically below that of SF6 but still above the threshold of 1 set in the EU Regulation). On a more positive note, manufacturers, driven by the EU Regulation, would seem to be putting more focus on developing natural origin gas products – but these (or air insulated switchgear) may not be suitable for all situations in the GB.

As Ofgem sets out, the network commitments are to use alternatives “where technically and commercially viable” (and in NGET’s case also “timely”). We ask Ofgem to continue to test with the TOs the deliverability of their Commitments in this context, how they will evidence the viability (or not) of alternatives and what contingency plans they have in place.

The DESNZ Draft Updated Planning Policy for energy infrastructure (EN5) makes the use of SF6 a consideration for planning: *“Applicants should at the design phase of the process consider carefully whether the proposed development could be reconceived to avoid the use of SF6-reliant assets”* with evidence required as to the options considered if SF6 has to be used. This should help reinforce adherence to the commitments. We would encourage Ofgem to review the position once the final Planning Policy is published.

We also note the recent update to guidance on handling of SF6, leakage monitoring and reporting produced by Defra and the EA.[[7]](#footnote-7) While this does not introduce substantive new requirements it reinforces the importance of management focus on these issues.

Finally, we note the requirement at EU level to use recycled gas for maintenance from 2035 and would like to see preparation for this reflected in company strategies going forward.

These are complex and evolving issues and underpin our concern about Ofgem relying on reputational regulation to hold companies to account for delivery of their EAP commitments. We would therefore reiterate our call for greater scrutiny by Ofgem of performance in this area through the annual reports it produces.

*Transmission losses –* ***see also our response to ETQ10 below***

We welcome the positioning of losses as a system issue and the acknowledgment that “*Although ET losses are largely the result of NESO decisions regarding specification and usage of the electricity system, the TOs do have some influence - either directly or indirectly (eg asset procurement decision-making).*”

That said, and as highlighted in our detailed commentary on this aspect of the ET3 Business Plans[[8]](#footnote-8), we are concerned that the NESO itself claims that losses are outside its control[[9]](#footnote-9). Hence there would seem to be a lack of any overall ownership of these emissions at transmission level.

While we clearly do not expect the NESO to optimise the system for losses, we would expect it to be a consideration in the decisions it takes and would hope that Ofgem will reinforce that message, and encourage greater dialogue between the TOs and NESO on this issue.

We are aware that historically the SO had obligations to report on losses and to set out how they were considered in balancing the system[[10]](#footnote-10), this obligation was dropped with the establishment of NESO. We are unclear what the rationale for this was and would ask Ofgem to revisit this decision with DESNZ.

In terms of the TOs’ commitments, we endorse Ofgem’s criticism of the company plans in this area and are pleased that, as promised, Ofgem took account of this in its assessment of the Business Plan Incentive.

As a result, we are concerned about the overall positioning that Ofgem has “accepted” the commitments offered. We would have expected Ofgem to have signalled that it wanted to see stronger commitments in this area ahead of Final Determinations. We would ask Ofgem to make clear at Final Determination that it expects a much stronger emphasis on measuring and understanding losses through ET3 (and to cover this in the standard reporting that is required as part of the EAP). The networks should also be required to update and publish their losses strategy by a set date early in ET3.

*Embodied carbon:*

We note the progress on embodied carbon but would highlight that formal targets around reductions in scope 3 emissions need to be treated with some caution until the baseline is demonstrated to be robust and comprehensive.

We note Ofgem has rejected the proposed low carbon construction materials and opportunities UIOLI but read Ofgem’s position as supporting the use of low carbon construction where the costs are included as part of the business case. We would ask Ofgem to signal more clearly if innovation funding could be used to help develop solutions where they are not currently available.

We also question how Ofgem’s stance will work in a rapidly developing market such as those for low and ultra-low carbon steel and concrete, where prices will fall relative to conventional materials during the 5-year RIIO2 period. We note that in a similar position in RIIO2 – with regard to developments in low carbon vehicles – Ofgem and its challenge group criticised those companies which did not take account of likely technological development over the 5-year period.

We are aware that this is a difficult area, but it is one that is not limited to the power sector. We would like to see Ofgem encouraging greater awareness of and learning lessons from other sectors.

*Biodiversity and natural capital –* ***see also our response to ETQ11:***

In this area Ofgem’s proposed position actually represents a negative change since RIIO2. This seems to us fundamentally wrong.

We have provided in the attached documents comprehensive evidence of consumer support and consumer value from such spend. We also feel that Ofgem’s approach is contrary to at least the spirit (and quite possibly the letter) of recent legislative requirements on public bodies, and we wonder if Ofgem has consciously examined the implications for its decision making of the relevant Acts (the Environment Act and the Levelling Up Act).

**ETQ10. Do you have any views on whether the Innovative Delivery Incentive and/or SO:TO ODI-F should be used to incentivise TO action regarding transmission losses?**

We are pleased that Ofgem are seeking views on what increased role the TOs could play in managing the risks associated with increasing losses. As with distribution, one area that we would highlight is in relation to gaining a better understanding on where and when losses occur on the transmission network. Having an understanding of peak losses (rather than just overall % losses across the year) is key to understanding the system capacity impacts. Our sense is that this is still not well understood[[11]](#footnote-11).

While TOs do have an obligation to take account of losses in their procurement decisions we are unclear how much weight this is given in practice and would encourage Ofgem to ask questions in this area to ensure that low loss and super low loss options are being considered.

As set out in our commentary Ofgem should also ensure that the CBA framework properly takes account of the whole system costs of losses – not just their carbon impact – as this will be key to the networks being able to justify increased costs for low loss equipment as part of ASTI proposals, for example.

The newly proposed Innovative Delivery Incentive would seem to offer some potential for funding for innovative approaches to investment, recognising that this is often about finding ways to better manage competing objectives, not simply about reducing losses.

On the SO:TO ODI-F we can see that this could be of value in encouraging more effective inter-working between the SO and TOs on this issue. However, we are aware that for this incentive to be used, the NESO must be actively looking to address relevant issues. As noted above we have real concerns about the NESO’s current position on losses and Ofgem must address this first before use of this ODI can be considered.

**ETQ11. Do you have any views on our proposed approach to biodiversity funding, notably whether it is appropriate or not for consumers to fund biodiversity outputs beyond legislative requirements?**

We strongly disagree with Ofgem’s position here, and support proposals from all transmission companies to go further: indeed, we note that NGOs had pressed these companies to go further still in their business plans.

We support both: going beyond BNG where appropriate and where BNG applies (essentially in England) and wider biodiversity proposals in areas where BNG does not apply (across the piece in Wales and Scotland, and in England where there is no formal planning application).

We note that Ofgem’s approach in the draft determination is inconsistent both with their approach at RIIO2 and Ofwat’s approach in PR24. We also cannot see how it is consistent with wider legislative requirements: including the requirements on public authorities (including Ofgem) with regard to biodiversity/nature under the Environment Act and (with regard to protected landscapes) under the Levelling Up Act. It also appears to fly in the fact of Defra and Desnz targets and commitments on behalf of the English Government, including specifically on electricity transmission.

The document and slide deck, links to which are attached, set out the wide body of evidence for customer support for paying additionally for nature, and the customer value which this generates – including in terms of Carbon benefits, amenity/recreation, flood reduction and in terms of reducing opposition to/appeals against new transmission. These arguments also appear in the Treasury Green Book and reflect the government’s commitment to natural capital approaches.

We also believe that the transmission network has the potential to be a significant role to play in developing biodiversity corridors and therefore helping develop nature’s resilience to climate change. Other national networks – for example in transport - are already taking this seriously.

We believe, that while material in terms of cost, it is appropriate for Ofgem to fund non statutory BNG through the ET final determination, particularly since the impact on bills is in fact very small, less than 10p per customer per year.

More detail can be found in: [Nature-Based Solutions and Public Support for Biodiversity and Carbon in the RIIO-3 Context | Sustainability First](https://sustainabilityfirst.org.uk/publications/expert-viewpoints/nature-based-solutions-and-public-support-for-biodiversity-and-carbon-in-the-riio-3-context/)

**ETQ12. What are your views on our consultation position for the IIG ODI-F target methodology in RIIO-ET3, in particular the bespoke treatment of SHET?**

We are pleased that, under the proposed methodology, the targets now reflect more stretching ambitions than was the case in ET2, and that these have been aligned to the company science-based targets.

We support the bespoke treatment of SHET given the very different starting position they are in, with leakage rates that are already sector leading (as set out in the Green Grids report referenced above).

One continuing concern that we have is the use of top-up as a measure of leakage. As set out in the Green Grids report there is a concern that this understates the level of leakage. At one point historically SHET used top-up plus boiler plate leakage (to reflect the low level “BAU” level of leakage). When it changed its metric to align with the rest of industry in just using top-up, its reported emissions dropped markedly. While we understand that there is not currently a robust alternative measure we would like Ofgem to explore with industry how with more monitoring equipment and sensors being installed, the current metrics based on top-up could be validated and / or improved over ET3.

We would also ask Ofgem to ensure that in focussing on top-up as a metric it still encourages innovations around capture of leaked SF6 leakage (which could then be recycled). Under the current formulation it would seem that this would still be counted as leakage (despite not going into the atmosphere).

**ETQ13. Do you consider that we should use the IIG Exceptional Event mechanism to manage potential issues with historical IIG inventory data? If so, why?**

The Exceptional Events mechanism allows the networks to apply for certain major leaks to be excluded from the IIG incentive mechanism (so penalties do not apply) when they are outside their control.

We support the proposal to redefine the threshold for Exceptional Events to ensure that only material events are in scope and to encourage networks to focus on learning lessons from one-off major leaks and continuing to explore how they might be prevented / mitigated.

We were initially concerned about the inclusion of end-of-life discrepancies in the Exceptional Events mechanism as we believe full tracking of SF6 from “cradle to grave” is an important aspect of effective management of emissions. However, we have some sympathy with the argument that for very old equipment there is a risk of records being inaccurate and that we would not want to discourage the networks from replacing that equipment (which a substantial penalty under the IIG might otherwise do). Use of the Exceptional Event mechanism would allow Ofgem to look at the evidence in each case and as such it seems a reasonable approach. Ofgem might also want to make clear that the mechanism can only be used for equipment installed prior to a certain date.

**ETQ14. What are your views on our consultation position for the SF6 Asset Intervention PCD in RIIO-ET3?**

The PCD covers the funding that the networks need to make in replacing SF6 assets to meet their targets under the IIG incentive.

We support the inclusion of this funding and the tracking of it through PCDs. With the stretching targets now in place (ref ETQ12) the networks need base funding for the investments to enable them to reach these levels.

1. <https://sustainabilityfirst.org.uk/blog/empowering-communities-as-we-decarbonise-our-energy-grid/> [↑](#footnote-ref-1)
2. Latest figure from AR6 - <https://ghgprotocol.org/sites/default/files/2024-08/Global-Warming-Potential-Values%20%28August%202024%29.pdf> [↑](#footnote-ref-2)
3. <https://sustainabilityfirst.org.uk/wp-content/uploads/2024/01/sf6_in_GB_networks_final_201123.pdf> [↑](#footnote-ref-3)
4. <https://sustainabilityfirst.org.uk/wp-content/uploads/2022/02/Sustainability_First_-_Commentary_-_DNO_ED2_SF6_STRATEGIES_-_final09022.pdf> [↑](#footnote-ref-4)
5. <https://sustainabilityfirst.org.uk/wp-content/uploads/2025/04/sf-cfe-et3-plans-100225.pdf> [↑](#footnote-ref-5)
6. <https://climate.ec.europa.eu/document/download/cfe52d31-9203-435d-b043-62f74900fd96_en?filename=policy_f-gases_stakeholders_switchgear_faq_en.pdf> – Q4 E

   Also a summary Q&A produced by EU manufacturers - [here](https://www.switchinggearsfornetzero.com/content/files/2024/06/SG4N0---F-gas-Regulation-manual-questions.pdf) [↑](#footnote-ref-6)
7. <https://www.gov.uk/guidance/how-to-operate-or-service-high-voltage-switchgear-containing-sf6#full-publication-update-history> (Updated arch 2025) [↑](#footnote-ref-7)
8. <https://sustainabilityfirst.org.uk/wp-content/uploads/2025/04/sf-cfe-et3-plans-100225.pdf> [↑](#footnote-ref-8)
9. <https://www.neso.energy/data-portal/transmission-losses> [↑](#footnote-ref-9)
10. <https://www.neso.energy/document/46481/download> - condition 4I.1 [↑](#footnote-ref-10)
11. <https://utilityweek.co.uk/where-did-all-that-power-go/> [↑](#footnote-ref-11)