



Climate-i Ltd  
[climate-i.co](https://climate-i.co)

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To: [RIIO3@ofgem.gov.uk](mailto:RIIO3@ofgem.gov.uk)

## **RIIO3 SECTOR SPECIFIC METHODOLOGY CONSULTATION (SSMC)**

Dear Ofgem,

Climate-i is an early-stage start-up developing technology to mitigate fluorinated gas emissions through early and predictive leak detection and gas capture. We have begun by looking at how these technologies can be applied to sulphur hexafluoride emissions (SF6) from electricity transmission, distribution and generation.

In line with our area of focus, the comments below relate primarily to discussion on minimising networks' impact on the environment in the ET Annex of the SSMC document suite and question ETQ10.

We welcome the emphasis Ofgem and Transmission Owners (TOs) have put on reducing SF6 leakage to date and the fact that all TOs have adopted Science Based Targets. We support the minded-to proposal to retain the Financial Output Delivery Incentive (ODI-F) for Insulation and Interruption Gases (IIGs). Building on this, we would emphasise three areas for consideration in the design of RIIO-ET3.

- 1) **Improving transparency and accuracy of IIG emissions data.** The SSMC Overview Document has a welcome focus on data and digitalisation which we would like to see extended to the measurement and management of IIGs. Currently most SF6 leakage data is derived from top-up records which reflect cumulative losses, potentially over several years. We think real-time monitoring

of IIG leaks, even from old assets, is achievable in a cost effective way and has the potential to support more effective leak mitigation.

At the macro-level, particularly for leakage from exceptional events, it would be interesting to explore whether Ofgem and the Environment Agency could make use of the Met Office's atmospheric monitoring data to corroborate reported leakage events.

- 2) **Using updated Global Warming Potentials (GWPs).** The ET Annex refers to SF6 as having a GWP of 23,500 in line with the current HM Treasury Green Book and UNFCCC guidance. However, the International Panel on Climate Change's Sixth Assessment Report revised the GWP of SF6 to 25,200 (with a lifetime of 3,200 years)<sup>1</sup>. Given this revised value is likely to be adopted within the UNFCCC in future it would seem prudent to take it into account in the cost-benefit analysis of SF6 mitigation measures.
- 3) **Extension of SF6 measures to other fluorinated IIGs.** The most viable alternatives to SF6 at high-voltage are also fluorinated compounds with a significant GWP. We therefore support measures adopted in RIIO-ET3 on SF6 being applied to these gases too as far as possible.

Finally, as a start-up, we read Section 12 of the Overview Document on Innovation with interest and support a number of the ideas proposed there. We would be very happy to engage further with Ofgem on those, or any of our above suggestions, at an appropriate opportunity.

Yours sincerely,

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<sup>1</sup> [https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC\\_AR6\\_WGIII\\_Annex-II.pdf](https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_Annex-II.pdf)