



SPR EA1N and EA2 PROJECTS

DEADLINE 12 – COMMENTS ON NGET RESPONSES TO EXA ISH 16 ACTION POINTS

Interested Party: SASES PINS Refs: 20024106 & 20024110

Date: 28 June 2021 Issue: 1

INTRODUCTION

1. NGET responded to Action Points 1,2,3 and 5, SASES has the following comments on its responses. but in addition NGET’s responses, together with those of the Applicants and NGV, raise broader issues concerning cumulative impact which are the subject of a separate Deadline 12 submission by SASES.
2. The absence of a comment by SASES on a response does not indicate that SASES agrees with the response.

ISH 16 ACTION POINTS

Action Point	Action	Response	SASES comment
1	National Grid Substation Your answer to ExQ 2 10.6 [REP 6-110] seems to state that it is highly unlikely that the proposed NG substation would be gas insulated for various reasons	In REP6-110 NGET said: “NGET’s current preference is to pursue AIS technology for the NGET substation as the AIS technology is easier to operate, maintain and repair and as such has lower operational costs which is important in meeting its s.9 duties. The GIS technology produces SF6 which has the equivalent impact of ten times the carbon equivalent of AIS technology. NGET’s current policy is to reduce its greenhouse gas emissions by 80% in advance of the target date 2030 set by the UK government.	The statement made at REP6-110 and reiterated here that: “ <i>The GIS technology produces SF6 which has the equivalent impact of ten times the carbon equivalent of AIS technology.</i> ” is completely meaningless in the absence of any parameters by which the factor of ten times is being measured. It is widely documented (e.g. Ref.1) that SF6 is an extremely dangerous greenhouse gas such that the release of one tonne of SF6 into the atmosphere has a Global Warming Potential

	<p>including lower operational costs, climate change and meeting government targets.</p> <ul style="list-style-type: none"> • Is this a fair summary? • Detail any potential reasons why a GIS substation may be chosen and the likelihood of such reasons occurring in this instance. • How important are your Electricity Act 1989 s9 duties when choosing technology for your substations 	<p>Where appropriate, NGET has pledged not to carry out procurement of any 275kV or 400kV gas insulated switchgear containing SF6 (excluding circuit-breakers) from 2024.</p> <p>However, NGET recognises that GIS technologies are evolving and there may be potential options for greener GIS in the future. As such NGET is keeping the GIS option open to allow for its use in the future if it is a greener option to AIS”.</p> <p>Accordingly NGET would comment as follows on ExA’s question:</p> <ul style="list-style-type: none"> • NGET agree that ExA’s summary of what NGET said in REP6-110 is a fair summary. The government’s climate change targets are the primary driver in addition to NGET’s commitments to Ofgem to reduce its SF6 inventory. • In this instance NGET’s strong preference is to construct an AIS substation, essentially a GIS substation would only be constructed if the DCO, if approved, restricts the type of substation to be constructed. NGET consider it is relatively unlikely that non-SF6 technology will be available in the time frames for the construction of the substation for this Project. NGET’s approach in relation to the construction of new GIS substations is that they shall only be considered where lifetime related conditions (such as pollution, permanent space restriction or public visual amenity) preclude the use of open terminal equipment. • NGET must comply with its s9 duties at all times, to develop and maintain an efficient, co-ordinated and economical system of electricity transmission. In deciding which technology to use NGET therefore consider the solution that would offer the lowest lifetime cost solution, taking a balanced view of safety, environmental implications, project delivery and whole life costs. Considering the environmental implications and whole life costs would involve factoring in the SF6 implications and will mean in practice that NGET will only construct GIS technology (in the absence of non SF6 	<p>(GWP) over 100 years equivalent to the release of 23,500 tonnes of CO2. SF6 is essentially indestructible and cannot be ‘got rid of’ once manufactured. It has a lifetime in the atmosphere estimated at 3,200 years. Electrical equipment using SF6 inevitably suffers leaks of the gas and it has been estimated (Ref. 2) that in a recent year the annual leaks of SF6 from electrical equipment and other releases into the atmosphere were equivalent to the annual CO2 emissions of <u>100 million cars</u>.</p> <p>The wind farm industry used to employ SF6 in its wind turbines but this use has now stopped (e.g. the Applicant’s EA1 wind turbines Ref. 3 page 2).</p> <p>Both Suffolk County Council and East Suffolk District Council have declared ‘Climate Change Emergencies’ so use of GIS switchgear would be contrary to these policy decisions. Other environmental bodies are similarly opposed to the continued use of SF6.</p> <p>The provision of land for the expansion of the National Grid substation has been well rehearsed in the context of:</p> <ol style="list-style-type: none"> a. the issue of operational land and permitted development rights b. the choice of GIS or AIS technology <p>GIS technology would free up land for expansion of the National Grid substation. Given NGET’s comments there would appear to be no apparent reason why the DCO should not restrict National Grid to AIS technology. However there is a clue</p>
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		<p>technology) where AIS technology is not an option for the reasons identified in bullet 2.</p>	<p>in the second bullet of their response with the reference to “<i>permanent space restriction</i>” – this text has been highlighted. Given the constrained nature of the substations site and the size of the SuDS basins required, there will be a permanent space restriction at Friston. This means that NGET are engaging in a project where they know now they will have to go down the GIS route to accommodate future expansion contrary to the Government’s climate change targets and NGET’s commitment to Ofgem in respect of the use of SF6.</p> <p>On all these grounds SASES therefore strongly opposes approval of a GIS option for the proposed NGET substation and would wish any NGET substation that may be consented to be restricted to AIS only.</p>
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