



**SCOTTISHPOWER
RENEWABLES**

East Anglia ONE North and East Anglia TWO Offshore Windfarms

Applicants' Comments Substation Action Save East Suffolk Deadline 11 Submissions

Applicant: East Anglia TWO and East Anglia ONE North Limited

Document Reference: ExA.AS-14.D12.V1

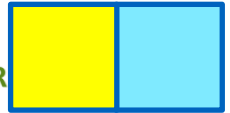
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Applicable to East Anglia ONE North and East Anglia TWO



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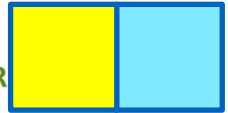


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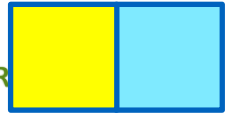
Glossary of Acronyms

AONB	Area of Outstanding Natural Beauty
CIA	Cumulative Impact Assessment
CION	Connection and Infrastructure Options Note
CoCP	Code of Construction Practice
DCO	Development Consent Order
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
ES	Environmental Statement
ESC	East Suffolk Council
ISH	Issue Specific Hearing
LVIA	Landscape and Visual Impact Assessment
NGET	National Grid Electricity Transmission
NPPF	National Planning Policy Framework
NPS	National Policy Statement
OLEMS	Outline Landscape and Ecological Management Strategy
OODMP	Outline Operational Drainage Management Plan
PRoW	Public Right of Way
RSPB	Royal Society for the Protection of Birds
SCC	Suffolk County Council
SuDS	Sustainable Drainage System



Glossary of Terminology

Applicant	East Anglia TWO Limited / East Anglia ONE North Limited
East Anglia ONE North windfarm site	The offshore area within which wind turbines and offshore platforms will be located.
East Anglia TWO project	The proposed project consisting of up to 75 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.



1 Introduction

1. This document presents the Applicants' comments on Substation Action Save East Suffolk's (SASES) Deadline 11 submissions as follows:
 - SASES' Post Issue Specific Hearing 16 Submission (REP11-171);
 - SASES' Responses Examination Authority's Questions 3 (REP11-172);
 - SASES' Responses to the Applicants Deadline 10 Comments on SASES' Deadline 9 Submissions (REP11-173);
 - SASES' Responses to Applicants' Deadline 10 Submissions concerning Ground Investigation Works and Quality of Stakeholder Engagement (REP11-174);
 - SASES' Post Issue Specific Hearing 17 Submission (REP11-175);
 - SASES' Responses to the draft Development Consent Order's Commentaries (REP11-176); and
 - SASES' Comments on the Drawings in the Design and Layout of the Substations Submissions in Response to R17QE (REP11-177).
2. This document also includes a summary of engagement undertaken within SASES since Deadline 11 regarding operational noise (see **Section 3**).
3. This document is applicable to both the East Anglia TWO and East Anglia ONE North Development Consent Order (DCO) applications (the Applications), and therefore is endorsed with the yellow and blue icon used to identify materially identical documentation in accordance with the Examining Authority's procedural decisions on document management of 23rd December 2019 (PD-004). Whilst this document has been submitted to both Examinations, if it is read for one project submission there is no need to read it for the other project submission.



2 Comments on SASES' Deadline 11 Submissions

2.1 Applicants' Comments on SASES' Post Issue Specific Hearing 16 Submission (REP11-171)

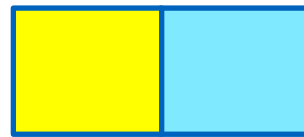
ID	SASES's Comment	Applicants' Comments
1	<p>Post-ISH16 Technical Submission on Flood Risk Matters in Friston Village due to Scottish Power Renewables proposed EA1N and EA2 Onshore Works</p> <p>This letter constitutes a brief technical critique of the flood risk related matters discussed during the Issue Specific Hearings 16 (ISH16) held on Wednesday 26 May 2021, and the additional documentation submitted by Scottish Power Renewables (SPR) before the Hearing, on Infiltration Testing.</p> <p>After formalities, the letter follows the agenda items and order determined by the Examining Authority during ISH16 on Flood Risk and Drainage.</p>	Noted.
Qualifications of Author		
2	<p>This letter has been prepared by Mr Clive Carpenter. Clive has a BSc (Hons) in Geology, an MSc in Hydrogeology and Groundwater Resources, is a Fellow of the Geological Society (FGS), Chartered Geologist (C.Geol), Chartered Member of the Chartered Institute of Water and Environmental Management (C.WEM, CIWEM) and Associate Member of The Academy of Experts (AMAE). Clive has more than 30 years of postgraduate experience in water resources management, water hazard mapping and risk reduction, flood risk assessment, climate change vulnerability assessment, and disaster risk reduction, both in the United Kingdom and overseas.</p>	Noted.



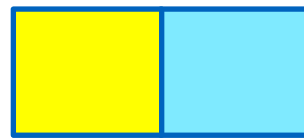
ID	SASES's Comment	Applicants' Comments
Instructions		
3	<p>SASES instructed Mr Carpenter in June 2019, to provide expert independent advice and review of the SPR environmental statement and related documentation, with respect to the flood risk impact on Friston Village, and to ascertain whether flood risk has been i) assessed in accordance with policy on site location; ii) adequately investigated; and iii) adequately mitigated.</p>	<p>Noted.</p>
Flood Risk and Drainage During Construction		
4	<p>The Applicants' position as stated previously is that the Construction Phase surface water management cannot be determined at this time due to a lack of detailed design of the proposed sub-stations and therefore a lack of detail on construction method statements.</p> <p>We note Suffolk County Council (SCC) disagreed with this position, stated they expect to see a similar level of flood risk reduction and water management control as the Operational Phase of the project (1 in 100 Year Return Period), and highlighted that the construction period requires water management over much larger areas, in different locations and sub-catchments to the operational footprint of the site, and has to address issues of turbidity due to soil stripping that do not exist during the operational phase.</p> <p>We GWP on behalf of SASES, in addition to agreeing with the SCC position, stated that the Applicant could readily evaluate the maximum disturbed area or even entire area within the Order Limits as assumed to require surface water management, and demonstrate that a conceptual scheme (or schemes), phased where necessary, could drain surface water run-off to sufficient</p>	<p>While the Applicants note the opinion of Suffolk County Council (SCC), and that GWP agrees, there are no mandatory requirements or any industry guidance that supports the requirement of a 1 in 100 year return period to be used as a design criterion for temporary works.</p> <p>It is accepted that construction works can mobilise sediments and that sediment transport needs to be minimised during the construction period.</p> <p>The only related guidance that is available for UK projects is CIRIA C649 Control of water pollution from linear construction projects (2006). This document recommends that if soil erosion is an issue, which could lead to pollution, then a 1 in 10-year return period could be adopted as a minimum together with an overspill contingency for greater events.</p> <p>The Applicants have confirmed that during detailed design phase, a hydrological study will be undertaken to assess the 'local' hydrologic characteristics and that once this information is available it can be used together with the guidance in CIRIA C649 to inform the assessment of the potential for soil erosion and to design suitable measures to mitigate these risk. It has also confirmed that it proposes to adopt a 1 in 15 year design return period, which is greater than the CIRIA recommendation.</p>



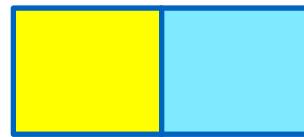
ID	SASES's Comment	Applicants' Comments
	<p>storm water storage structures in appropriate and necessary locations, size based upon the required LLFA design storm Return Period, and discharging at a rate consistent with reducing flood risk to Friston Village and achieving the necessary turbidity clarification.</p> <p>The Applicant has made no attempt to date to demonstrate that such conceptual construction phase surface water management is possible on the site and as such has not confirmed whether construction phase surface water management sufficient to prevent an increase in flood risk to Friston Village is actually viable.</p> <p>Instead, the Applicant referred to a lack of technical standards and procedures for construction phase drainage and stated the purpose of such drainage was to protect the construction site itself.</p> <p>This self-evidently misses the primary concern of SASES' challenge on this issue, which is that the Applicant has not, and continues to not, consider the increased risk of flooding to Friston Village due to increased run-off rates, volumes and turbidity generated during the construction phase.</p>	
Operational Flood Risk and Drainage		
5	<p>a) Results and Implications of Infiltration Testing</p> <p>Prior to ISH16, the Applicant submitted a document entitled 'Initial Infiltration Testing – Preliminary Results'. The Applicant reported in ISH16 that they had used the minimum results of these tests to inform the outline design of, and the areas required for, the Infiltration Only and Hybrid surface water management scheme options. The Applicant concluded the options were both viable.</p>	<p>The Applicants recognise the importance of undertaking the infiltration testing in line with BRE and CIRIA Sustainable Drainage Systems (SuDS) Manual and have shared the full results of the initial testing campaign with SCC. The <i>Infiltration Results (May 2021)</i> (AS-129) have been submitted to the Examinations.</p> <p>The Applicants acknowledge that preliminary testing undertaken prior to ISH16 only provided a single result for each location and not the required three. Further</p>



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	<p>We note SCC however challenged the validity of the infiltration tests and stated they would not accept the results. Specifically, SCC referred to the CIRIA SUDS Manual (2015) and to the requirement for 3 repeat tests in each trial pit, quoting the Manual directly:</p> <p><i>'It is important the test is carried out in accordance with the report [Bettess (1996) which is based on BRE (1991)] and that the test pit is filled three times. Repeating the test in this way can reduce the measured infiltration rate by at least half an order of magnitude each time the test is repeated, and is likely to reflect realistic event conditions ...'</i> Stating that in failing to repeat the tests three times, the Applicant was using infiltration values potentially one or more orders of magnitude to high, which given the values selected by the Applicant, would move the infiltration rates from being acceptable to non-acceptable, and the required areas from being achievable to unachievable.</p> <p>When questioned by the Examining Inspector as to why 3 tests were not completed in each trial pit, the Applicant responded that they had insufficient time to undertake the 3 tests and provide results to submit to ISH16.</p> <p>We GWP on behalf of SASES, in addition to agreeing with the SCC position stated above, made the following challenges to the inadequacy of the testing and use of their data:</p> <ul style="list-style-type: none"> i) 4 out of 10 tests (40%) did not achieve sufficient infiltration to enable an infiltration rate to be calculated as per the SUDS Manual and BRE (1996) formulae; ii) The Applicant chose to ignore these tests, describing them as invalid. This is not a correct use of the observed lack of infiltration – these tests actually 	<p>testing has subsequently been undertaken to provide three results at each location.</p> <p>It should be noted that while the Applicants agree that frequently recorded results decrease with subsequent testing, at two locations the recorded results increased in the later tests. This may be due to the silt washing away in clusters of more gravely soils, therefore creating more favourable conditions in the infiltration pathway as the three tests progressed.</p> <p>In agreement with SCC, the Applicants have taken a conservative approach and used an outline design infiltration rate of 40mm/hr for the infiltration element of the onshore substations SuDS basin, which is lower than the average of the values recorded within the proposed SuDS basin locations. The infiltration element of this SuDS basin also been designed using a Factor of Safety of 10.</p> <p>The Applicants arranged for the location of six of the seven infiltration tests undertaken in May 2021 to be positioned around the edge of the two separate general SuDS basin location footprints to ensure a distribution of results. The seventh test was located between the two proposed basin locations.</p> <p>The Applicants confirm that no groundwater was encountered within any of the test pits and that both test results and soil logs have been provided within the Infiltration Results (May 2021) (AS-129). The Applicants have not ignored any 'unfavourable' results and all results have been considered and supplied.</p> <p>The maximum retained water volume has been calculated to be below 10,000 m³, which is well below the threshold that would require the Reservoir Act to be applied.</p> <p>The Applicants will undertake further testing to inform the detailed design at a later stage.</p>



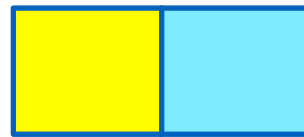
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	<p>demonstrate that ground conditions at these locations were so impermeable as to prevent infiltration disposal as being an option;</p> <p>iii) Lack of infiltration was observed at both the northern and southern infiltration basin locations;</p> <p>iv) Contrary to SUDS Manual guidance the testing was not undertaken within the footprint of the proposed basin areas but at the periphery;</p> <p>v) The Applicant failed to provide geological details of the trial pits – inconsistent with SUDS Manual requirements; vi) The Applicant has made no attempt to identify the depth to the groundwater table beneath the proposed infiltration basin areas – despite this being a critical parameter to determine infiltration basin performance, and being a stated requirement in the SUDS Manual.</p> <p>We conclude that these tests at best demonstrate that not only highly variable ground conditions exist on the site, including extremely low permeability strata incapable of supporting infiltration, but that the lateral extent of this low permeability remains unknown, as does the depth to groundwater, and therefore the viability of using ground infiltration remains entirely unproven.</p> <p>Moreover, the Applicant has chosen to ignore the 'unfavourable' readings, and use higher values to explore outline design.</p> <p>The Applicant responded that the failed tests were due to the collapse of the pits and that the only viable repeat test provided a higher infiltration rate than the first test.</p>	



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	<p>We GWP would highlight here that 2 of the 3 trial pits that collapsed actually gave acceptable infiltration rates, hence pit collapse cannot be used as a reason for discounting the tests per se, and indeed the Applicant's report states 'heavier, impermeable soils would not collapse ...'. The Applicant's response above is therefore factually incorrect and technically wrong.</p> <p>The Applicant has used the lowest calculated values (57mm/hr and 63 mm/hr) and reduced the Factor of Safety used in their calculations from 10 to 5, based upon their perceived reduced uncertainty around infiltration values.</p> <p>We note SCC challenged the reduction in the Factor of Safety (FoS), and referred to the SUDS Manual in which the consequence of damage occurring due to under design merits an FoS of 10. SCC stated they would only accept an FoS of 10.</p> <p>We GWP, on behalf of SASES, in addition to agreeing with the SCC position stated above, made the following points:</p> <ul style="list-style-type: none"> i) The infiltration tests, including the low permeability observations of negligible infiltration not used by the Applicant, demonstrate that infiltration varies on the site by at LEAST one order of magnitude and therefore an FoS of 10 remains valid to reflect this variability; ii) The basins are above ground on their western and southern sides, and could, by the Applicants own calculations, retain volumes of water up to and beyond the Reservoir Act (ie > 25,000 m³) behind landscaped bunds, creating a risk so significant immediately uphill of a residential village as to justify an FoS of at least 10, 	



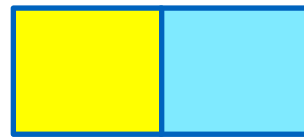
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	<p>given the consequences of infiltration non-performance, overtopping and bund failure.</p> <p>The Applicant's response regarding the Factor of Safety was confused and self-contradictory, with Mr Davis stating the FoS related to the consequence of design failure whereas Mr Innes stated it related to the likelihood of failure (ie due to ground conditions).</p> <p>GWP's response at the ISH16 was that the flood risk to Friston Village due to under-design of the structures was a function of likelihood and consequence, and that the unintended retention of up to 60,000m³ of storm water within the retention basins due to over-estimating the infiltration rate, created a risk so significant should the structures over-top and the bunds collapse warranted at the very least an FoS of 10, if not relocation of the proposed site altogether.</p>	
6	<p>b) Indicative Design</p> <p>The Applicant stated that using their selected infiltration values there are practical solutions available to address surface water management, but they would not be drawn on the final form, location, area of the SUDS basins as there were too many other variables to consider at this time.</p> <p>In response the Inspector asked whether the ability to drain the proposed site had been considered during site selection?</p> <p>The Applicant stated they had considered drainage during the site selection process, but they were constrained by the limitations of the area made available to them and other landscaping and biodiversity requirements.</p>	<p>As set out within Chapter 4 of the Environmental Statement (ES) (APP-052), the Applicants site selection process initially focussed on flood risk from fluvial sources. The locations selected for key elements of the Projects (e.g. the onshore substations) are within areas at low risk of surface water flooding (i.e. outside the extent of the 1 in 1,000 year surface water flooding event).</p> <p>During site selection a surface water conveyance route was identified which partly passes through the northern perimeter of what is now the proposed location of the National Grid substation. However, a surface water conveyance route does not in itself indicate the magnitude of a pluvial flood risk. For example, depth of surface water and velocity of flow are factors with multiple parameters (e.g. intensity and duration of a rainfall event, permeability of ground and topography etc.). Additionally, such features can easily be moved / accommodated elsewhere. The Applicants consider that the presence of a</p>



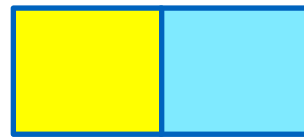
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	<p>SASES (both Richard Turney and GWP) challenged this point stating surface water flood risk and management had not been included in the site selection process, and the Applicants' statement that they had done so was wrong and misleading and reflected instead a consideration of river (fluvial) flood risk only and not surface water run-off (pluvial) flood risk or groundwater flood risk. Indeed, if pluvial flood risk had been considered, this location would have been highlighted as being problematic.</p> <p>GWP further stated the importance of infiltration to reducing Total Flows to pre-development levels to avoid increases in flood risk, and that all indicative designs discussed by the Applicant commenced with the ignoring of the unfavourable minimum infiltration responses observed during the recent trial pit tests.</p> <p>The Applicant then stated there was no evidence base for flood risk in Friston, based upon a numerical model. SCC challenged this statement saying Friston village was regularly flooded. GWP directed the Hearing to the substantive photographic evidence base provided by SCC of flooding in the village, as well as the lack of data available to calibrate the model effectively and the well-publicised comments of the residents that the model was under predicting the modelled flood event.</p>	<p>surface water flow route is in no way sufficient to discount a location from development. The Applicants also note that the Friston Surface Water Management Study (BMT, 2020), commissioned by SCC following the 2019 flooding events in Friston, determines that the National Grid infrastructure and onshore substation locations are only minor contributors to the flow upstream of Friston and that they have no significant surface water flood risk. The validated numerical model that informs the Friston Surface Water Management Study provides no evidence that the substation locations significantly contribute to any predicted flooded properties in up to a 1 in 100 year event plus climate change.</p> <p>From the outset the Applicants have committed to mitigating and managing surface water within the Order limits so as not to exacerbate flood risk to downstream receptors and the evidence supports that this is possible. In higher return period events, the Applicants anticipate the operational SuDS will provide a betterment to the existing surface water regime within the Order limits, in turn providing protection for both the Projects and the residents of Friston by containing excess surface water and ensuring it is discharged as a controlled rate.</p> <p>The Applicants have provided plans showing the locations of the indicative designs together with the calculations that support the sizing (Outline Operational Drainage Management Plan (OODMP) (AS-125)).</p> <p>The Applicants recognise the importance of infiltration and confirm their desire to maximise its use where practical.</p>
7	<p>c) Outline Operational Drainage Management Plan submitted at D8</p> <p>i) Infiltration/Hybrid Storage Volumes</p> <p>The Applicant verbally provided new revised volumes and areas in ISH16 based upon their selected infiltration rates from the infiltration</p>	<p>The Applicants acknowledge that preliminary testing undertaken prior to ISH16 only provided a single result for each location and not the required three. Further testing has subsequently been undertaken to provide three results at each location. Additionally, the Applicants have taken a conservative approach when</p>



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	<p>testing, advising both options were viable – this was not the case for the D8 submission, which concluded infiltration was not viable.</p> <p>The Applicant stated the volumes were smaller than in their D8 submission and that they would provide further details as part of their D11 submission.</p> <p>SCC raised concerns that all of the Applicants' surface water management scheme designs in D8 were caveated as subject to the availability of space required for other land priorities eg landscaping and biodiversity. SCC also raised concerns about the water depths in the basins stating these exceeded their SUDS requirements.</p> <p>We GWP, on behalf of SASES, raised the following points, which form part of the SASES D9 submission:</p> <ul style="list-style-type: none"> • The Applicants' calculations are based upon selected infiltration rates from tests already demonstrated to be unreliable and which selectively ignore the lowest observed infiltration rates in 40% of the trial pits; • The Applicant has provided verbal calculations directly into ISH16 only, providing no opportunity for evaluation, familiarisation and checking – this is unreasonable; • The Applicant always caveats the outline designs as subject to constraints and demands of land area for other site requirements; • The Hybrid Option in D8 does not maximise infiltration, it actually allows all water above the lowest 0.5m depth of retained water to be sent to surface discharge, this is not consistent with the SCC SUDS hierarchy; 	<p>interpreting the test results and have developed proposals that align with that approach. This approach was discussed and agreed with SCC.</p> <p>The Applicants have provided the output calculations undertaken for design of the SuDS basins, as well as layout plans and sections that illustrate the suitability and compliance of the proposed basins (OODMP (AS-125)).</p> <p>The Applicants confirm that no groundwater was encountered within any of the test pits and that both test results and soil logs have been provided to the Examinations (Infiltration Results (May 2021) (AS-129)).</p> <p>The Applicants will undertake further testing to inform the detailed design at a later stage and the use of infiltration will be maximised where possible.</p>



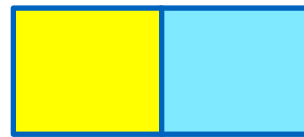
ID	SASES's Comment	Applicants' Comments
	<ul style="list-style-type: none"> No details of TOTAL flows discharged off-site are provided – there is a key requirement to not increase TOTAL flows leaving the site; The design volumes proposed at <2% larger than the calculated volumes required – this is unacceptably small, given the consequences of structure failure; The maximum volumes of water that could be retained by the structures if they do not work as intended exceeds the exemption of the Reservoir Act – demonstrating the risk these structure present to the village of Friston; None of the design work has considered the risk of shallow groundwater interfering with the infiltration performance; and There has been no assessment of increased groundwater flooding risk to Friston Village. <p>In summary we GWP conclude the viability of the infiltration and hybrid designs remains unproven due to the use of subjectively selected infiltration rates and no assessment of groundwater depth, the groundwater flood risk associated with the structures has not been assessed, and the proposed designs are too large a risk for this location, yet too small to adequately prevent flood risk from increasing.</p>	
8	<p>ii) Discharge to Friston Watercourse</p> <p>The Applicant provided no further details to its D8 submission of a buried outfall beneath the Friston Watercourse immediately north of Church Lane.</p> <p>SCC stated it had concerns about the risk of damage due to traffic loading on the pipeline and outfall due to its shallow burial depth,</p>	<p>The Applicants have provided further details on their proposed arrangement for the outfall into the Friston Watercourse within the OODMP (AS-125), with a concept design presented within Appendix 2. The concept design is deemed suitable for the requirements of the Projects and demonstrates that the solution can be delivered within the Order limits.</p>



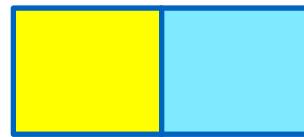
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	<p>and they advised they were awaiting advice from their Highways Team. But SCC stated its earlier concerns about blockage risk would be addressed if robust maintenance was undertaken under a legal binding maintenance agreement between the Applicant and the Environment Agency.</p> <p>We GWP, on behalf of SASES reiterated our position submitted at D9, as follows:</p> <ul style="list-style-type: none"> • Blockage risk to a small diameter pipe outfall due to the heavy sediment loads already experienced in the receiving water course and the location of the outfall on the watercourse bed; • Blockage risk within the discharge pipe due to the proposed presence of a wet woodland to be located within each stormwater basin – the basins should be devoid of substantive vegetation; • Crushing risk due to inadequate cover depth beneath the road and upstream watercourse which is also the farm access road; • Erosion and exposure risk due to the pipeline itself being located partially under the farm track, which is the Ordinary Watercourse. <p>We GWP, conclude the viability of the discharge to Friston Watercourse remains unproven, as resolving these risks is mutually exclusive – deepening the pipe burial to reduce crushing and erosion risks increases blockage risk from the receiving watercourse, and vice versa.</p>	<p>The Applicants commit to developing the design of the surface water drainage connection to the Friston watercourse in line with Local Highway Authority requirements at the detailed design stage. As noted in the Statement of Common Ground with East Suffolk Council and Suffolk County Council (document reference ExA.SoCG-2.D12.V6), SCC agree that the concept design of the substations operational surface water drainage connection to the Friston watercourse (the discharge pipe under Church Road, Friston) provided within the Outline Operational Drainage Management Plan (document reference ExA.AS-37.D12.V6) is acceptable.</p>
9	iii) Adoption and Maintenance	The Applicants have committed to working with SCC and East Suffolk Council (ESC) (the Councils) to develop a detailed design that suits the purpose, scale



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	<p>The Applicant confirmed they would maintain the systems during the operational phase.</p> <p>SCC stated that they would require the authority to regulate these structures, given they are storm water flood risk management structures in a highly vulnerable environment and this would necessitate appropriate engineering design and maintenance, and could not be a vegetated environment.</p> <p>East Suffolk Council (ESC) stated they wanted to regulate the design and maintenance, due to the integration of landscape and biodiversity needs.</p> <p>We GWP, on behalf of SASES, in addition to agreeing with the SCC position above, reiterated our D9 submission position that not only have no details of maintenance been provided by the Applicant during the operational phase, nor the post-operational phase, but that the size and risk posed by the volumes of water that could be retained in these structures required an engineering design and maintenance regime, including inspections, of equivalent rigor to that required under the Reservoir Act, and that this was entirely inconsistent with the soft landscaping bunds and wet woodland ecosystem environment proposed for the surface water management scheme basins, which will result in infiltration clogging, outfall pipe blocking, water volume rise and eventual overtopping of the structures.</p>	<p>and use of the Projects and is compliant with local and national standards and guidance. The final Operational Drainage Management Plan (ODMP) will be developed in consultation with the Lead Local Flood Authority (LLFA), SCC, and will include details of maintenance and inspection regimes in line with those detailed in the CIRIA SuDS Manual (Chapter 32 – Operation and Maintenance).</p>
10	<p>d) Relationship with the Outline Landscape and Ecological Management Strategy (OLEMS)</p>	<p>The Applicants confirm that in the updated Outline Landscape and Ecological Management Strategy (OLEMS) submitted following Deadline 11 (AS-127) reference to wet woodland planting has been removed and wet woodland no longer appears on the Outline Landscape Mitigation Plan (OLMP) figures within Annex 2. The updated OODMP submitted following Deadline 11 (AS-125) also</p>



ID	SASES's Comment	Applicants' Comments
	<p>The Applicant confirmed the outline of the SUDS basins on the OLEMS drawings submitted immediately prior to ISH16 are smaller than those in their D9 submission.</p> <p>SCC stated that they would not accept wet woodland inside the water storage structures nor on the bunds.</p> <p>We GWP, on behalf of SASES, in addition to agreeing with the SCC position above, stated the use of soft or non-engineered landscape bunds was inappropriate and inconsistent with water retention structures of such size that if full of water would present a risk so substantial that ordinarily they would need to be regulated under the Reservoir Act. The risk of uncontrolled over-topping of such non-engineered bunds could result in catastrophic failure of the bunds and release of the entire water volume.</p> <p>The Applicant's response was that the bunds would be designed with engineered overflow structures.</p> <p>GWP stated this had not been mentioned in any information provided by the Applicant to date, and we do need see how this is consistent with the high value landscaping and biodiversity enhancement that the OLEMS is attempting to deliver.</p>	<p>includes a commitment that trees or shrubs will not be planted inside or within 5m of the footprint of the SuDS basins.</p> <p>The Applicants have previously stated that all SuDS basins, regardless of type or size, will be fitted with a controlled overflow structure to ensure that emergency discharges and extreme events volumes greater than 1 in 100 plus 40% climate change are managed safely and do not undermine the structural stability of the bunds.</p>



2.2 Applicants' Comments on SASES' Responses to ExQs3 (REP11-172)

ID	ExA Question Ref	ExA's Question	SASES's Comment	Applicants' Comments
3.8 Historic Environment				
1	3.8.4	<p>Cumulative Impacts</p> <p>The ExAs note in the Clarification Note – Archaeology and Cultural Heritage [REP1-021] that the Applicants acknowledge that the public right of way trackway to the north of the Church of St Mary which follows the parish and Hundred boundary should be considered as a heritage asset in its own right. The trackway/public right of way links the Church of St Mary, a Grade II* listed building to Little Moor Farm, a Grade II listed building.</p> <p>Given the link that the acknowledged (undesignated) heritage asset trackway provides between the Church and Little Moor Farm, does this increase the significance of the two designated heritage assets, either individually or cumulatively (or both)?</p> <p>If yes, how would this significance be affected by the proposed projects?</p>	<p>SASES welcomes the Applicants' acknowledgement that the trackway to the north of the church, which follows the line of the parish and hundredal boundaries, should be considered to be a heritage asset in its own right. This trackway provides a link between the medieval settlement core of Friston, which focussed on the parish church, and the outlying farmsteads to its north. As such, the trackway serves as a physical testament to the historical relationship between the settlement, embodied in the church, and the farming economy which supported its population. It is our opinion that this connection between the designated heritage assets of the church to the south and the farm complexes to the north (primarily Little Moor Farm, but also High House Farm) does increase the significance of these heritage assets and serves to emphasise that these features do not stand in isolation but are in fact part of a coherent medieval landscape.</p>	<p>The Applicants have set out their position within the Archaeology and Cultural Heritage Clarification Note submitted at Deadline 1 (REP1-021), as well as in its response to the Examining Authorities written question 3.8.4 at Deadline 11 (REP11-090). As stated there, the trackway is considered to contribute to the significance of the church, rather than the farmhouses to the north, and this reflects the role of the church as a central place in its parish. The loss of the trackway and sequential views along it towards the church are recognised as harmful to the heritage significance of the church.</p> <p>This does not mean that the farmhouses are considered to stand in isolation in the landscape. Reference to the original assessments for Little Moor and High House Farm (Appendix 24.7 of the ES (APP-519 to APP-520)) will show that they were interpreted as part of a pattern of early settlement along the margins of Friston Moor. The moor itself is now enclosed and cultivated but the string of farmhouses, moated sites and small enclosures</p>



ID	ExA Question Ref	ExA's Question	SASES's Comment	Applicants' Comments
			<p>As has been discussed at length in previous submissions, it is considered that severance and removal of this historic trackway would have a strong detrimental effect on the designated heritage assets located at either end of it. This is in addition to the direct negative impact which the proposals would have on the heritage asset of the trackway itself. Previous submissions from SASES, the Applicants, the Councils and Historic England have all identified the impacts on the settings of the individual heritage assets which will be brought about by the dramatic change of landscape character caused by the construction of the proposed substations and National Grid infrastructure. A key element of this identified harm is the severance of the long views between the Church and the farmsteads to the north (and vice versa) and the removal of the trackway between them. Both of these impacts have the effect of breaking the historical link between the medieval settlement and its agricultural hinterland, which can presently still be clearly read in the landscape to the north of Friston. As highlighted here, it is considered that the legible survival of this interrelationship does enhance additionally the significance of the</p>	<p>that survive between High House Farm and Little Moor Farm can still be appreciated and contribute to the significance of the two listed farmhouses.</p>



ID	ExA Question Ref	ExA's Question	SASES's Comment	Applicants' Comments
			Church, Little Moor Farm and also High House Farm. Therefore, the detrimental impact of the proposed development on the significance of these assets would be similarly greater, given that they would result in the breaking and total erasure of this historical connection	
3.14 Other Projects and Proposals				
2	3.14.5	<p>Future uncertainty</p> <p>Bearing in mind any implications of the Norfolk Vanguard judgement, how would the parties propose the ExAs advise the Secretary of State in relation to the uncertainty about possible future development at Friston and in the wider area created by the precedent case, in the event that either one or both projects is approved, and by the clear evidence submitted to the examinations that (a) the potential to extend the proposed National Grid substation has been demonstrated and (b) the proposed Eurolink and Nautilus inter-connectors are exploring a landfall location between Thorpeness and Sizewell and the possibility of</p>	<p>In order to answer this question it might be of assistance to break it down into its constituent elements as follows.</p> <p><i>Bearing in mind any implications of the Norfolk Vanguard judgement, how would the parties propose the ExAs advise the Secretary of State in relation to the uncertainty about possible future development:</i></p> <p><i>(a) at Friston; and</i></p> <p><i>(b) in the wider area, created:</i></p> <p><i>(i) by the precedent case, in the event that either one or both projects is approved, and</i></p>	<p>The Applicants note SASES' position on future projects, but strongly disagree with SASES' allegation that they have failed to comply with the Environmental Impact Assessment (EIA) Regulations by not undertaking a cumulative impact assessment (CIA). The Applicants have now made several submissions to the Examinations on this matter.</p> <p>The Applicants maintain their position stated: <i>"the project team's commitment to good design, the extensive research and analysis undertaken of the existing environment and careful consideration given to the site's natural assets are an excellent starting point for this project"</i>. The design development undertaken by East Anglia ONE which was informed by the Design Council independent review, resulted in improvements to the East Anglia ONE onshore</p>



ID	ExA Question Ref	ExA's Question	SASES's Comment	Applicants' Comments
		<p>making a National Grid connection in the Leiston area, via onshore substations located within 5k of a National Grid substation?</p>	<p><i>(ii) by the clear evidence submitted to the examinations that:</i></p> <p><i>(aa) the potential to extend the proposed National Grid substation has been demonstrated and</i></p> <p><i>(bb) the proposed Eurolink and Nautilus inter-connectors are exploring a landfall location between Thorpeness and Sizewell and the possibility of making a National Grid connection in the Leiston area, via onshore substations* located within 5k of a National Grid substation?</i></p> <p><i>* SASES understands the reference to onshore substations to mean onshore converter stations</i></p> <p><u>Sub question (a) at Friston</u></p> <p>In relation to (a)(i) and the impact of the Norfolk Vanguard judgement, SASES refers to its deadline 6 submission on <u>Pearce v Secretary of State for Business Energy and Industrial Strategy (North Vanguard) (REP6-136)</u>. The Applicants have failed to carry out a cumulative impact assessment which they have freely admitted – see ID2 of the Applicants' Deadline 10 submission Applicants Comments on SASES Deadline 9</p>	<p>substation design which were incorporated into the procurement and detailed design stages of the project which delivered a 7m reduction in the maximum 'as built' building height and a 1m reduction in the maximum 'as built' external equipment height at the East Anglia ONE onshore substation.</p>



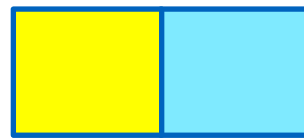
ID	ExA Question Ref	ExA's Question	SASES's Comment	Applicants' Comments
			<p>submissions (REP 10–020). Such failure is in breach of the EIA regulations and irrational, and the applications cannot lawfully be granted without such an assessment being carried out.</p> <p>In relation to (a)(ii), there is no substantive uncertainty about possible future development at Friston given such clear evidence of the desire to form connections in the Friston location. Moreover, the National Grid NSIP has been designed to allow (a) potential extension of the National Grid substation without any changes to the other substantial National Grid infrastructure (b) accommodation of further projects through the three cable sealing ends. In short, the existence of future connections in this location is not uncertain or speculative, but clearly anticipated and indeed “designed in” to the National Grid NSIP. Given this lack of uncertainty there is no excuse for the Applicants' failure to carry out a cumulative impact assessment. Such failure is in breach of the EIA regulations and irrational, and the applications cannot lawfully be granted without such an assessment being carried out.</p>	



ID	ExA Question Ref	ExA's Question	SASES's Comment	Applicants' Comments
			<p><u>Sub question (b) in the wider area</u></p> <p>SASES has commented on this matter in its Deadline 9 Submission Comments on National Grid Substation Extension Appraisal (REP9-075), in that there is information as to the nature of the proposals which is sufficiently clear to form the basis of an assessment both in terms of the landfall and part of the cable route. This is recognised in subparagraph (bb) above. However, no such assessment is before the Examinations. Further given the clear evidence concerning the extension of the proposed National Grid substation the National Grid connection will most certainly be at Friston in the "Leiston area". In addition it is known that the converter stations (which are up to 12 acres in footprint and up to 25m high) will be located in the local area and will no doubt require substantial landscaping in the same manner as the EA1N and EA2 substations and the National Grid infrastructure. Therefore in respect of (b)(i) following SASES submission in respect of Pearce the failure of the Applicants to carry out a cumulative impact assessment is in breach of the EIA regulations and irrational, and the applications cannot lawfully be granted</p>	



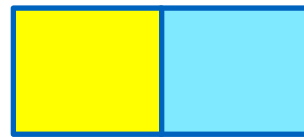
ID	ExA Question Ref	ExA's Question	SASES's Comment	Applicants' Comments
			<p>without such an assessment being carried out.</p> <p>In respect of (b)(ii) as stated above there is information which would enable a cumulative impact assessment carried out and such failure is a breach of the EIA regulations and irrational, and the applications cannot lawfully be granted without such an assessment being carried out.</p> <p><u>Broader Issues</u></p> <p>This question raises broader issues which require consideration by the Secretary of State including the following.</p> <p>National Grid NSIP - As SASES has previously submitted, the National Grid infrastructure is in substance a new National Grid connection hub designed to serve a number of projects not just EA1N and EA2. Some of the present difficulties concerning these applications might have been avoided had National Grid brought forward its own NSIP for a new connection hub on the East Coast to serve a number of proposed offshore windfarm projects and interconnector projects.</p>	



ID	ExA Question Ref	ExA's Question	SASES's Comment	Applicants' Comments
			<p>Design - whilst the focus of the examination has been the design of the Scottish Power substations and National Grid infrastructure there is a broader design point in relation to the continuing use of radial connections specific to each windfarm project. The establishment of the Offshore Transmission Network Review and comments in the House of Commons most recently at Prime Minister's questions demonstrate that the current design approach to onshore transmission is not "sustainable".</p> <p>National Grid's Compliance with the Electricity Act 1989 - SASES has made submissions that the choice by National Grid of Friston as a connection location requiring a new National Grid connection hub is contrary to the requirements of Section 9 and Schedule 9 of the Electricity Act 1989.</p>	
3	3.17.2	<p>Tourism Fund</p> <p>The ExAs note that the Applicants have committed to providing £150,000 to be paid to the Suffolk Community Foundation to market the area during the construction period of the projects [REP9-041]. The ExAs note that the</p>	<p>The Applicants have not properly assessed the risk to the tourism sector which is a key part of the local economy – see ISH5 Post Hearing Submission Agenda Item 3 (REP5-101). Also the Applicants have demonstrated a lack of familiarity with the area particularly in comparison with Bramford - see the Applicants' comments on SASES' ISH5 Post</p>	<p>The Applicants have undertaken a robust assessment and therefore disagree with the comments made.</p> <p>The Applicants have stated their position on the Tourism Fund in their response to the Examining Authorities written question 3.17.2 in the <i>Applicants' Responses to Written</i></p>



ID	ExA Question Ref	ExA's Question	SASES's Comment	Applicants' Comments
		<p>Applicants do not consider that the Projects will have significant impacts upon visitor perception during construction and direct impacts which could affect visitors already present in the area will be mitigated to not significant levels but that despite this they have committed to the Tourism Fund [REP9-009].</p> <p>Compensation sums that are not secured in the dDCO or accompanying certified documents or in another appropriate and enforceable instrument cannot be accorded weight and may not be able to be taken into account by the ExAs when considering their recommendations.</p> <p>Outline your views on the above statement and proposed fund, including consideration if relevant of how the Fund could assist the area. If the scenario arises that only one project were to be granted consent, would the Tourism Fund agreement remain the same?</p>	<p>Hearing Submission and SASES' response (REP8-232).</p> <p>Relative to the risk to the tourism economy the sum of £150,000 is insignificant. Furthermore there is no rationale as to why this is an appropriate sum. In reality it is merely a tokenistic gesture.</p> <p>No weight should be given to this fund.</p>	<p>Question 3: Volume 11 – 3.17 Socio Economic Effects (document reference ExA.WQ-3.D11.V1_11).</p> <p>The Applicants disagree that it is a tokenistic gesture.</p>

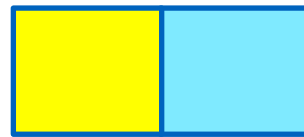


ID	ExA Question Ref	ExA's Question	SASES's Comment	Applicants' Comments
4	3.17.4	<p>Traffic and effects on tourism</p> <p>The Applicants response to ExQ2.17.9 states that no IPs have raised the impact of East Anglia ONE on the tourist economy of the Suffolk Coast of the AONB. To the Applicants:</p> <p>a) Provide further information on the anticipated and any quantified effects of East Anglia ONE on the local tourism industry, should you wish to do so. How do the scale of substations, cable route, and landfall location compare to that proposed in these projects in terms of traffic routes and tourist destinations/facilities? To any interested parties:</p> <p>b) Comment on the above, should you wish to do so.</p>	<p>SASES will await the Applicants' response to this question. In the interim SASES would point to the very different nature of the existing substation site at Bramford and relative to Friston its easy accessibility by road (REP5-101 EA1 Comparison).</p> <p>In terms of landfall and the cable route whilst the Bawdsey landfall and the initial part of the cable route are in the AONB, this area is on the southern edge of the AONB, closer to the A14 with much the intervening A12 being dual carriageway.</p> <p>In contrast the proposed projects are to be developed in the heart of the AONB and its surrounding area which contain many of the hotels, holiday houses/cottages, attractions, events, villages, seaside towns, cycle routes and footpaths which draw visitors to the Suffolk Heritage Coast all of whom travel on the single carriageway A12. The projects' landfall, cable route and substation site are to the north of the seaside towns of Thorpeness, Aldeburgh and Orford and the internationally renowned concert hall and retail destination at Snape Maltings, and south of RSPB Minsmere, the National Trust</p>	<p>The Applicants have provided a response to ExQs 3.17.4 within the Applicants' Responses to Examining Authority's Written Questions 3: Volume 11 – 3.17 Socio Economic Effects (REP11-090).</p>

Applicants' Comments on SASES' Deadline 11 Submissions
28th June 2021

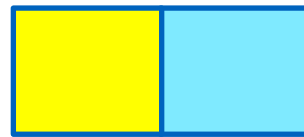


ID	ExA Question Ref	ExA's Question	SASES's Comment	Applicants' Comments
			site of Dunwich Heath, Walberswick and Southwold.	

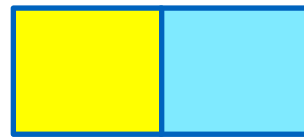


2.3 Applicants' Comments on SASES' Responses to Applicants D10 Comments on SASES D9 Submissions (REP11-173)

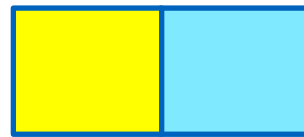
ID	SASES's Comment	Applicants' Comments
Introduction		
1	<p>The following responses are made on the Applicants comments on SASES' deadline 9 submissions (REP10-020) submitted at D10. SASES has only responded by exception.</p> <p>The fact that SASES has not responded to any particular comment made by the Applicants does not mean that SASES agrees with the comment.</p> <p>References to ID numbers are the ID numbers used in the Applicants' comments.</p>	Noted.
SASES' Comments on the Applicants' Deadline 8 Submissions in Respect of Noise (REP9-082)		
2	<p>ID4 - Because the Applicants have declined to provide key information including 1/3 octave band spectra to enable tonality to be assessed (in sharp contrast to other comparable schemes) the ExA and the Secretary of State cannot know whether the required noise limits are capable of achievement. This is not a matter which can be left to the "design process" post consent.</p>	<p>This comment is similar in many respects to those contained in ID9, ID10 and ID12 (as referred to in SASES' Deadline 11 Submission (REP11-173)) where it is claimed that information including 1/3 octave band spectra should be provided and that in the absence of such information the ExA and Secretary of State cannot know whether the required noise limits are capable of achievement.</p> <p>This response therefore responds to ID4, ID9, ID10 and ID12 as referred to in SASES' Deadline 11 Submission (REP11-173). The response is broken down into two separate questions:</p> <p>Has sufficient information been provided on tonality and other acoustic characteristics?</p>



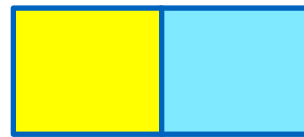
ID	SASES's Comment	Applicants' Comments
		<p>Has sufficient information been provided to demonstrate that the required mitigation can be delivered to give confidence that noise can be adequately controlled through the requirements of the draft DCO (document reference 3.1)?</p> <p>Has sufficient information been provided on tonality and other acoustic characteristics?</p> <p>Paragraph 5.11.4 of the National Policy Statement (NPS) for Energy (EN-1) requires, amongst other things, the Applicants to provide:</p> <p><i>“a description of the noise generating aspects of the development proposal leading to noise impacts, including the identification of any distinctive tonal, impulsive or low frequency characteristics of the noise”.</i></p> <p>It is noted that nowhere in NPS EN-1 is there a specific requirement to provide 1/3 octave band spectra to enable tonality to be assessed. NPS EN-1 does however require:</p> <p><i>“Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards¹³⁷ and other guidance”.</i></p> <p>SASES agrees that BS4142:2014+A1:2019 is the relevant standard that should be used to assess operational noise arising from the onshore substations. However, the Applicants note that BS4142:2014+A1:2019 does not specify that 1/3 octave band spectra should be used to assess tonality at the planning stage.</p> <p>The reason for this can be properly understood by having proper regard to its scope and the fact that it applies to existing as well as proposed new sources of an industrial or commercial nature. As such, the standard describes both measurement methods and prediction methods.</p> <p>In terms of predicting sound the standard advises:</p>



ID	SASES's Comment	Applicants' Comments
		<p><i>“Where possible, use recognized standards to establish the sound power level and the uncertainty (e.g. BS EN ISO 3740 and BS EN ISO 3747). Where it is not possible to use appropriate standards, describe the method of establishing the sound power level, report the uncertainty and state the reasons for using this method.</i></p> <p><i>Use a validated method of calculating sound levels, e.g. ISO 9613-2 or similar. If an alternative calculation method is used, fully describe the method and state the reasons for using this method.”</i></p> <p>Emission levels are typically provided in 1/1 octave bands rather than 1/3 octave bands. In addition, the ISO 9613-2 prediction method, like many other prediction methods, is an octave-band prediction method. That is why the information presented within Chapter 25 of the ES (APP-073) and subsequent information (for example, the Noise Modelling Clarification Note (REP4-043)) is presented in octave-bands. Furthermore, a lot of the recognised manufacturers of substation equipment do not provide emission data in 1/3 octave bands. It is simply not practical or reasonable therefore to predict noise levels in 1/3 octave bands at specified receptor locations.</p> <p>Since submission of the Applications (and the ES) there have been several if not numerous representations made by the Applicants, SASES and East Suffolk Council (ESC). The Applicants' submissions relevant to noise matters include:</p> <p>Noise and Vibration Clarification Note (REP2-011);</p> <p>Noise Modelling Clarification Note (REP4-043);</p> <p>East Anglia ONE Onshore Substation Operational Noise Assessment (REP5-022);</p> <p>Expert Report on Noise (REP7-041);</p> <p>Applicants Position Statement on Noise (REP8-039);</p>



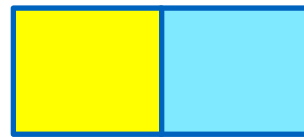
ID	SASES's Comment	Applicants' Comments
		<p><i>Applicants Comments on ESC Deadline 5 Submissions</i> (REP6-026); <i>Applicants Comments on SASES Deadline 5 Submissions</i> (REP7-054); <i>Applicants Comments on ESC Deadline 6 Submissions</i> (REP7-057); <i>Applicants Comments on SASES Deadline 6 Submissions</i> (REP7-059); <i>Applicants Comments on SASES Deadline 7 Submissions</i> (REP8-045); <i>Applicants Comments on ESC Deadline 8 Submissions</i> (REP9-011); and <i>Applicants Comments on SASES Deadline 8 Submissions</i> (REP9-013).</p> <p>Whilst the methodology used for the assessment of tonality differs from those presented for certain other schemes, it is a perfectly acceptable approach and certainly does not mean that the methodology used for these applications is:</p> <ul style="list-style-type: none"> a) not compliant with BS4142:2014+A1:2019 and b) is any less robust. <p>On the contrary, the 1/3 octave band data provided on these certain other schemes has only been derived using a number of assumptions. For example, the Triton Knoll Offshore Wind Farm (and subsequently for the Thanet Offshore Wind Farm Extension) used 1/3 octave spectra based upon measurements taken at a previous, unrelated substation development.</p> <p>The majority of DCO applications for offshore wind farm projects do not provide specific details of 1/3 octave band noise levels. Instead they rely on fixed limits specified within a DCO requirement with the expectation that these limits will be designed to during the detailed design process. This has been the case on numerous offshore wind farm DCO applications or consented via the Town and Country Planning Act, such as:</p>



ID	SASES's Comment	Applicants' Comments
		<p>Galloper Offshore Wind Farm; Hornsea Project TWO Offshore Wind Farm; Hornsea Project THREE Offshore Wind Farm; East Anglia ONE Offshore Wind Farm; East Anglia THREE Offshore Wind Farm; Norfolk Vanguard Offshore Wind Farm; Norfolk Boreas Offshore Wind Farm; and Moray West Offshore Wind Farm.</p> <p>When assessing noise from a new development the new noise is typically assessed by reference to existing equipment or facilities. In this case, the Applicants were fortunate to have access to information from East Anglia ONE, which is the most comparable facility to the substations for the Projects. Mr Baxter listened to the noise whilst standing on a footpath located about 110m from the East Anglia ONE substation. This was in the early hours of the morning with the windfarm operating at full capacity and with no masking noise from the nearby National Grid facility. No tones or other characteristics were audible or measurable.</p> <p>The Applicants consider that SASES have ignored the findings of the East Anglia ONE Onshore Substation Operational Noise Assessment (REP5-022). If SASES continue to claim that the report is flawed in its entirety, then it should provide an explanation of why it does not consider Mr Baxter's observations to be robust and cannot be extrapolated to the Projects. Rather than conjecture, SASES should provide evidence to support its assertion that the Projects' substations will be tonal.</p>



ID	SASES's Comment	Applicants' Comments
		<p>The fact that detailed measurements and observations have been presented for the East Anglia ONE project represents a robust if not superior approach to that used for other windfarms and one that can be relied upon.</p> <p>The Applicants do not currently have 1/3 octave band data for the Projects. Providing this information now would mean that the Applicants would have to apply assumptions using available information from unrelated schemes or making general assumptions for equipment where 1/3 octave band data is missing. This is considered to be a less robust approach than the assessment that has been presented for directly related development.</p> <p>The Applicants consider that sufficient information has been provided to meet the relevant policy tests relating to tonality and other acoustic characteristics.</p> <p>Has sufficient information been provided to demonstrate that the required mitigation can be delivered to give confidence that noise can be adequately controlled through the requirements of the <i>draft DCO</i> (document reference 3.1)?</p> <p>It is standard practice to control noise from fixed plant by way of DCO requirements or similar assurances. This applies to a whole range of Nationally Significant Infrastructure Projects (NSIPs).</p> <p>The reason why DCO requirements are commonly used to control noise from fixed plant is because mechanical equipment can be specified, designed and procured to meet specified requirements.</p> <p>As with other sectors, it is standard practice to apply noise limits and impose requirements through the DCO to control noise from offshore windfarms. The imposition of noise limits is a tried and tested approach which is explicitly allowed for in NPS EN-1. The rating levels set out in Requirement 27 of the <i>draft DCO</i> (document reference 3.1) are similar in many respects to those applied on other offshore windfarms. To date, no significant problems or issues</p>



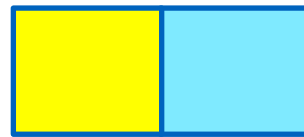
ID	SASES's Comment	Applicants' Comments
		<p>have been encountered regarding compliance with noise limits imposed in DCOs associated with other projects. For example, despite the fact that SASES do not agree with the East Anglia ONE Onshore Substation Operational Noise Assessment (REP5-022), East Anglia ONE has experienced no issues in complying with the noise-relevant requirements of its DCO.</p> <p>The Applicants consider that there is no reason why these Applications should be treated differently from other proposed offshore windfarms. There is nothing to suggest that the tried and tested methods for the control of absolute noise used on other projects cannot also be used with confidence to control noise from the Projects' substations.</p> <p>Control of noise from the Projects is considered to be significantly less challenging than the design challenges associated with fixed plant proposals on schemes that SASES' noise expert has promoted e.g. the Thameslink Programme, Crossrail and HS2.</p> <p>That said, SASES is correct in that sufficient information is required to demonstrate that noise arising from the operation of the Projects is capable of being controlled to practically meet the noise limits. A considerable amount of work has therefore been carried out by the Applicants to develop achievable controls for operational noise. The noise mitigation originally proposed has been scrutinised and further work undertaken to revise the controls for operational noise. In doing so, the Applicants have undertaken early engagement with the supply chain.</p> <p>A significant amount of technical information has been presented within Chapter 25 of the ES (APP-073) and the Noise Modelling Clarification Note (REP4-043), in accordance with BS4142:2014+A1;2019. As such it can be safely concluded that the test of sufficiency is amply met.</p> <p>The operational noise controls at present have been based upon a realistic worst case scenario of an outline design of the Projects. After the DCO has</p>



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		<p>been made, further engineering work will be undertaken during the detailed design. This will involve further engagement with the supply chain, consideration of options, equipment selection, development of performance specifications, testing and noise measurements, detailed design of enclosures etc. The Applicants may also conduct their own audits, inspections and, if necessary, tests to verify that the performance requirements can and will be met.</p> <p>It would be unreasonable, costly, and indeed not possible, for the Applicants to undertake detailed design before the DCO is made.</p> <p>It is the responsibility of the Applicants to meet the required noise limits as specified within Requirement 27 of the draft DCO (document reference 3.1). This will be achieved through the appropriate design of the infrastructure.</p> <p>It is for this reason that significant due diligence has been carried out by the Applicants and their engineers to ensure that the noise rating levels specified within Requirement 27 of the draft DCO (document reference 3.1) can be practically and reasonably achieved.</p> <p>Committing to the noise limits means that the Applicants carry this risk and not the residents.</p>
3	<p>ID7 - The statement concerning “additional distance” has no meaning as background noise is unaffected by distance. “Preference” is not a valid consideration as the determination of background noise and rating level is a matter of fact.</p>	<p>The Applicants clarify that the “<i>additional distance</i>” refers to the additional noise attenuation that would occur if the noise was predicted at SSR9.</p> <p>It is agreed that the background noise level is a matter of fact. So too is the need to apply BS4142:2014+A1:2019 correctly and consider context, as per section 11 of the standard, to properly derive Lowest Observed Adverse Effect Levels (LOAELs) and Significant Observed Adverse Effect Levels (SOAELs).</p> <p>The Applicants consider that SASES has failed to properly apply BS4142:2014+A1:2019 in this respect, where they advocate the derivation of</p>



ID	SASES's Comment	Applicants' Comments
		SOAELs through sole consideration of the rating level and the background sound level.
4	ID8 - The detailed explanation of context does not reduce the magnitude of the impact in the circumstances applicable in this case	SASES has been directed to Section 11 of BS4142:2014+A1:2019 on several occasions with the assistance of one of its authors, although the Applicants note ongoing differences of opinion on how this section should be properly interpreted and applied. The Applicants note that it is unlikely that agreement can be reached with SASES on this matter, although consider that sufficient material has been submitted to the Examinations for the ExA to preside over.
5	ID9 – The statement concerning the commitment to R27 is only correct if the necessary mitigation needed is shown to be practicably achievable prior to consent.	The Applicants refer to their comments at ID2 above.
6	ID10 – The recent Environmental Statements do not “assume”. They provide hard data concerning the likely tonality. The reference to an unspecified “range of measures” (last paragraph) indicates that the “state of the art” has been reached as far as noise control by selection, design and specification of each individual item of equipment is concerned. This is of concern given the necessary mitigation needs to be shown to be practicably achievable prior to consent.	The Applicants refer to their comments at ID2 above.
7	ID11 – “internally generated sounds” usually arise from heating systems, kitchen equipment and other items which do not normally operate at night. Because of the presence of room modes which may favour single-frequency sounds and enhance their level, sound indoors can be more perceptible than it is out of doors.	The Applicants again consider that SASES has distanced itself from BS4142:2014+A1:2019 and fails to properly interpret and apply the standard in full. SASES has previously been referred to the examples in Annex A of BS4142:2014+A1:2019, in particular Example 6. Example 6 assesses a situation at night where the external rating level is 29dB and the background sound level is 27dB. The sound is assumed to attract a 2dB correction for tonality and 3dB correction for slight impulsivity.



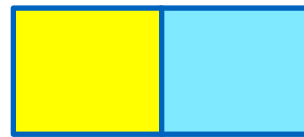
ID	SASES's Comment	Applicants' Comments
		<p>At page 31 the standard states:</p> <p><i>“In addition to the rating/background sound level comparison shown in Table A.6, the primary concern is the potential for disturbance of residents who could be sleeping with open bedroom windows.</i></p> <p><i>Other guidance, such as BS 8233, might also be applicable in this instance.”</i></p> <p>Then on page 33 it adds:</p> <p><i>‘The context is a new item of plant at a commercial premises with other plant elsewhere in a residual acoustic environment that, whilst relatively steady, includes regular events of a significantly higher level than that from the plant. At these times the noise-sensitive location is indoors with open windows where residual sound within the dwelling will further mask sound from the plant. Logarithmically subtracting residual level of 28 dBA from ambient of 36 dBA indicates source produces 35 dBA. BS 8233 indicates that 35 dBA sound level from the plant, equating to an internal level of around 25dBA or lower, with no significant acoustically distinguishing characteristics is suitable for a bedroom.’</i></p> <p>The above extracts suggest that residual sound within the dwelling will further mask sound from the plant. Secondly, an internal level of BS8233 with acoustically distinguishing characteristics indoors is suitable for a bedroom. Thirdly, it is noted that the residual and ambient level is considered as well as the background sound level.</p> <p>This example demonstrates how the absolute sound level should be considered and that internal masking also needs to be considered. The Applicants therefore do not agree with SASES claim that internal noise masking at night is irrelevant. In addition, SASES continuously fail to consider the residual and ambient noise</p>



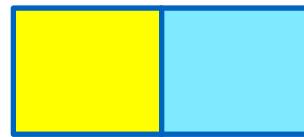
ID	SASES's Comment	Applicants' Comments
		in addition to the background sound level in accordance with Section 11(2) of BS4142:2014+A1:2019.
8	<p>ID12 – first bullet - Whether transformers and shunt reactors only represent a small proportion of the total number of individual items of equipment is irrelevant. Further their noise emissions are fully capable of detailed calculation, which has not been done. The tables do not provide the necessary 1/3 octave band spectra, as have been provided in other comparable cases.</p> <p>ID12 – second bullet - The word “middle” is misleading. The potential prominence of tonal noise above background is also likely around midnight and in the early morning which it is established are particularly sensitive times.</p> <p>ID12 – second paragraph - The practicability of such enclosures has to be demonstrated prior to consent. With regard to the statement “it is likely that any tonal components associated with the transformers will be significantly masked by emissions from other equipment” it is possible to calculate this probability/likelihood, and the ExA and the Secretary of State should not have to rely on an assertion unsupported by proper engineering analysis.</p> <p>ID12 - third paragraph – The procedures in annexes C and D concerning the assessment of tonality should be followed by the Applicants before the ExA and Secretary of State reach their conclusions.</p>	<p>The Applicants refer to their comments at ID2 of this response above.</p> <p>For the reasons explained, the comment that “<i>the procedures in annexes C and D concerning the assessment of tonality should be followed by the Applicants before the ExA and Secretary of State reach their conclusions</i>” demonstrates a fundamental misunderstanding or misapplication of BS4142:2014+A:2019.</p> <p>Annex D of the standard states: <i>“If the presence of audible tones is in dispute, the measurement procedure in this annex can be used to verify their presence.”</i></p> <p>Annex D presents a method for measuring audible tones. The Applicants cannot measure something that does not yet exist.</p> <p>We are dealing with a new source of sound, and it is for that reason that assessments and judgments have been made about the presence of tonal characteristics using the best available information that is currently available and relevant to the Applications.</p>
9	<p>ID13 - Agreed, tones are likely to require more demanding criteria than those given in NANR45.</p>	<p>The Applicants do not fully understand the point being made by SASES here, although maintain that NANR45 is not relevant and that audible tones are suitably addressed through the application of BS4142:2014+A1:2019.</p>



ID	SASES's Comment	Applicants' Comments
10	<p>ID16 - The necessary level of detailed prediction has been undertaken on other projects. The Applicants have not provided any reasoned explanation as to why they cannot do the same here.</p>	<p>The noise predictions have been carried out in accordance with ISO 9613 and the requirements of BS4142:2014+A1:2019. Please also refer to the Applicants' comments at ID2 above which refers to assessments undertaken for other projects.</p>
11	<p>ID29(e) - It does not follow that identification of the meteorological conditions ensures that appropriate meteorological conditions are chosen.</p>	<p>It has been repeatedly explained that Requirement 27(2) requires a scheme for monitoring compliance, which must be approved by the relevant planning authority prior to the commencement of the cumulative operation of Work No. 30 and the National Grid substation. The scheme will ensure that the operational noise from the onshore substations is measured under appropriate meteorological conditions.</p> <p>It is correct that commissioning tests will be undertaken on initial commencement and at some time or times after commencement. This is all standard practice but does not mean that monitoring of operational noise will only be carried out on two occasions.</p> <p>The noise rating levels specified within Requirement 27(1) of the draft DCO (document reference 3.1) represent enforceable limits and noise monitoring can be carried out by the Applicants or by the relevant planning authority at any time. It is envisaged, like elsewhere, that the scheme for monitoring compliance will specify acceptable meteorological conditions for monitoring and will contain provisions for further monitoring if circumstances change or otherwise at the reasonable request of the relevant planning authority.</p>
12	<p>ID30(a) - The Applicants' evidence is based on unjustified exclusion of the most relevant background noise measurement results at SSR9 and despite repeated requests no logical explanation for that exclusion has been provided. These results place Friston in a league of its own with the conclusion that the proposed substations site is simply in the wrong place.</p>	<p>ID30(a)</p> <p>The Applicants have provided substantial justification for the exclusion of data collected at SSR9, as detailed in numerous previous submissions (including the Applicants' <i>Position Statement on Noise</i> submitted at Deadline 8 (REP8-039)). It</p>



ID	SASES's Comment	Applicants' Comments
	<p>ID30(b) – As the Applicants' opinion is that this difference is negligible then presumably 30 dB can be accepted by the Applicants.</p>	<p>is reiterated that Friston is, indeed, a quiet rural area, but no different from other quiet rural areas throughout the country.</p> <p>ID30(b)</p> <p>The Applicants consider this comment stands at odds with SASES' earlier submissions that sufficient work should be carried out to demonstrate that the limits contained in Requirement 27 of the <i>draft DCO</i> (document reference 3.1) can be practically achieved.</p> <p>There is an indiscernible difference between a rating level of 31 / 32db and 30dB. The Applicants consider it unreasonable that SASES cannot acknowledge or agree to these rating levels, particularly when considering the initial position adopted by ESC on this matter and its subsequent acceptance of the revised rating levels.</p> <p>The Applicants refer to their comments at ID2 above, which explains that a considerable amount of technical work has already been carried out to enable the Applicants to commit to noise limits of 31 / 32dB at the monitoring locations specified within Requirement 27 of the <i>draft DCO</i> (document reference 3.1). A substantial amount of information has been provided explaining why the Applicants are confident of meeting the noise limits. SASES have only recently introduced their preference to control the noise rating to 30dB and it would be unreasonable to expect the Applicants to change the limits in the <i>draft DCO</i> at this stage in the Examinations.</p> <p>This comment also fails to acknowledge the fact that the onshore substations will not be designed so as to just meet the specified noise rating levels. Requirement 27 of the <i>draft DCO</i> (document reference 3.1) imposes legally enforceable limits. This means that there will be significant legal and commercial implications if the specified rating levels are not complied with upon commissioning of the Projects. Remedial treatment will be necessary if the commissioning tests demonstrate that the rating levels are not met. This is why</p>



ID	SASES's Comment	Applicants' Comments
		<p>it is common practice to build in an element of contingency to ensure that the limits can be comfortable met. Within this context, arguing about differences of 1 - 2dB is negligible.</p> <p>SASES position also fails to acknowledge the fact that the <i>Substations Design Principles Statement (AS-133)</i> states that “<i>The Applicants will seek to minimise the operational noise rating level below the limits set out in Requirement 27 of the draft DCO</i>”. This means that SASES's preferred rating level of 30dB will likely be met if compliance with this target level does not add unreasonable costs or delays.</p>
<p>Comments on Substation Design Principles Statement (REP9-078)</p>		
13	<p>ID5 – Design Oversight - The Applicants have failed to respond to SASES request that a Design Review Panel be appointed as recommended by the National Infrastructure Commission and the Treasury Report of November 2020. Given the variety of Engineering project challenges raised during the examinations SASES regards such a Panel as essential. It must include knowledge across all aspects of the project so as to be able to function effectively as a “critical friend”.</p> <p>SASES notes that current Design Council promotional material (Ref. 1) documents their ability to run design reviews with expert skills on a wide variety of topics, not just architecture. Extension of the standard Design Council review skill set beyond aesthetics to include broad engineering expertise able to help set and review detailed design proposals, including the substations themselves, and landscaping, would help address this issue. But such a review panel must be independent and operate openly with full public transparency</p>	<p>The Applicants are not establishing a design panel for the Projects.</p> <p>A comprehensive <i>Substations Design Principles Statement (AS-133)</i> has been prepared which includes principles which seek to reduce the environmental impact of the Projects where practicable and cost effective to do so, and confirms the basis of further public engagement post consent on the landscaping and architectural design of the substation area.</p> <p>The <i>Substations Design Principles Statement (AS-133)</i> also provides for the appointment of a Design Champion in line with the “Climate, people, places, value - design principles for national infrastructure” published by the National Infrastructure Commission, will provide a board level champion to ensure these design principles are implemented effectively.</p> <p>The Applicants have also committed through the <i>Substations Design Principles Statement (AS-133)</i> for the design to be informed by a design review with the Design Council (or similar body), in consultation with the relevant local planning authorities. Indeed, the East Anglia ONE project has been successfully developed through a similar process. In response to the East</p>



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		<p>Anglia ONE project's initial design brief submission the Design Council stated: "the project team's commitment to good design, the extensive research and analysis undertaken of the existing environment and careful consideration given to the site's natural assets are an excellent starting point for this project". The design development undertaken by East Anglia ONE which was informed by the Design Council independent review, resulted in improvements to the East Anglia ONE onshore substation design which were incorporated into the procurement and detailed design stages of the project which delivered a 7m reduction in the maximum 'as built' building height and a 1m reduction in the maximum 'as built' external equipment height at the East Anglia ONE onshore substation.</p>
14	<p>ID6 – Design Oversight - SASES is surprised by the response. At the public meeting held at Thorpeness Country Club on 15 October 2018 Ian MacKay for the Applicants stated, in response to questioning as to the derivation of the EA1N and EA2 substation designs being presented, that the designs were taken from the EA1 substation. The floor plan and general arrangement of electrical apparatus proposed for the EA1N and EA2 substations is clearly very similar to that designed for EA1, including the undesirably prominent harmonic filter stacks, initially specified as being enclosed and 21m high at the Phase 1 PIDS. Although obviously some redesign will be required to reflect the increase in system voltage from 220kV to 275kV the provenance of the current proposed design seems clear</p>	<p>The deployment of good design principles for the East Anglia ONE project are clearly influencing the outline design of the Projects, and this good design will continue through the detailed design process to ensure a safe and efficient substation design is progressed which seeks to reduce the environmental impact where practicable and efficient to do so.</p>
15	<p>ID7 - SPR Substations Rochdale Envelope - The preliminary design footprint of the EA1 substation was specified in Requirement 10 of the EA1 DCO (Ref. 2) as having a maximum size of 190m x 150m (28,500m²), and this was also the As Built size. It should be noted that the original expectation was that this footprint would house a 1.2GW HVDC Converter Station whereas in fact only a 700MW HVAC substation was built. SASES maintains the view that its</p>	<p>The comparative metrics presented by SASES is of no relevance. The Applicants have sought consent for Projects which have defined maximum parameters appropriate for this outline stage of project development. Furthermore, design principles have been established to ensure good design continues through the detailed design process to ensure a safe and efficient</p>



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	comparative metric of EA1N and EA2 against EA1 and other projects has significant merit.	substation design is progressed which seeks to reduce the environmental impact where practicable and efficient to do so.
16	ID10 - SPR Substations Rochdale Envelope - SASES has provided further information on this topic in its D10 submission [REP10-058]. At ISH16 Mr McGrellis for the Applicants accepted the feasibility of the proposed split capacitor bank approach.	<p>See ID15. Reference to the capacitor bank is misleading. It is clear from the complete discussion that all buildings and equipment (including the harmonic filters) must be considered and designed in an integrated way to ensure a safe and efficient substation design which reduces the environmental impacts where practicable and cost effective. The example given by Mr McGrellis at Issue Specific Hearing (ISH) 16 illustrates that reducing the height of the harmonic filters may not have a benefit in terms of visual impact given the presence of the GIS building and other infrastructure, but there may be other consequential impacts such as restricting the ability to reduce the substation footprint or resulting in increased noise levels.</p> <p>This demonstrates the importance of an integrated design of the substations in delivering a safe and efficient design.</p>
17	ID12 - National Grid Substation Design Issues - The Applicants make clear that specification of modern designs of GIS equipment should lead to a lower overall building height but that the existing Rochdale Envelope would also allow the use of older style equipment. On this basis SASES believes that the proposed GIS building height specification should be reduced to only that required by modern equipment.	<p>SASES is misrepresenting the statement made in ID12. The full statement is reproduced below, and the key text highlighted in yellow for the Examining Authority's benefit:</p> <p><i>"National Grid GIS buildings generally have heights ranging from around 13m to in excess of 15m. Older and Traditional GIS buildings tend to be in the range between 14 and 15 m but these all depend on site specific issues which are taken into account in the detailed design. The reference to "standard size requirements" is made in the context of the provision of parameters. National Grid provide parameters within which they can work. The detailed design would then determine the final building height within these parameters."</i></p> <p>It is therefore wholly appropriate for the National Grid infrastructure parameters to remain unchanged, ensuring that design flexibility is maintained, the importance of which is recognised in EN-1.</p>



ID	SASES's Comment	Applicants' Comments
SASES' Comments on National Grid Substation Extension Appraisal (REP9-075)		
18	<p>ID6 – the Applicants have quoted paragraph 4.9.2 of NPS EN-1 which states that “wherever possible, applications for new generating stations and related infrastructure should be contained in a single application”. The Applicants’ position is that “related infrastructure” should not only extend to the Applicants’ substations but the National Grid infrastructure as well (substation, cable sealing ends and pylons/realignment works). However this does not bear examination as whilst the infrastructure will provide a connection for the Scottish Power projects it will also be a connection hub for other projects. Therefore it cannot be regarded as “related infrastructure” in the context of the Scottish Power projects.</p> <p>The Applicants further state that the “<i>The National Grid infrastructure is of a size and scale that is necessary to enable the connection of the East Anglia TWO and East Anglia One North projects only</i>” (emphasis added). This statement is incorrect since the Nautilus and Eurolink interconnectors will be able to connect at Friston by merely extending the National Grid substation (which is described by National Grid as “standard”) and which will require no changes to the three cable sealing ends or to the connection to one of the circuits direct from the National Grid substation. Further for the purposes of the Scottish Power projects there is no need for there to be a connection to all four of the Sizewell to Bramford circuits (the Galloper windfarm only connects to one circuit at Sizewell) or for one of the cable sealing ends (which is the largest and has the greatest landscape and heritage impact) to include a circuit breaker which will break the line between Sizewell and Bramford. No rationale has been provided as to why the Scottish Power projects require one of the circuits to have this facility. Further if only one of EA1N and EA2 is</p>	<p>The Applicants and National Grid have confirmed to Examination on a number of times that the National Grid substation proposed by the Applicants, is not a connection hub. Continued reference to this by SASES is misleading.</p> <p>The National Grid substation is clearly related infrastructure, as set out in the Applications and submitted to Examinations.</p> <p>The Applicants have clearly set out the need for each project to connect to four circuits and why a circuit breaker is necessary in order to comply with National Grids design standards. The Applicants have no further comment to make on this matter.</p>



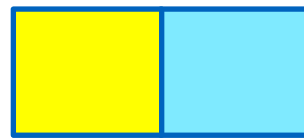
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	<p>constructed, and given that there will be no reduction in size of the National Grid infrastructure, this will result in National Grid providing unnecessary capacity and causing unnecessary environmental damage contrary to Section 9 and Schedule 9 of the Electricity Act 1989.</p> <p>In addition if the National Grid infrastructure is only necessary to enable the connection of the Scottish Power projects then the Applicants should be able to accept SASES proposed addition to the requirements in the draft DCOs that the National Grid infrastructure and the operational access road will only be used for EA2 and EA1N.</p>	
19	<p>ID9 – as so often confidentiality is a convenient excuse. Whilst NGET, NGESO and NGV are separate divisions they are all part of National Grid. If there was a genuine willingness to engage with the issues, matters of confidentiality could be addressed particularly in the context of assessing the environmental impacts of multiple infrastructure projects.</p>	<p>SASES fail to recognise that National Grid Electricity Transmission (NGET) and National Grid Electricity Systems Operator (NGESO) are regulated companies and that confidentiality is inherent and indeed essential in any grid connection application, thus protecting the interests of all parties in this highly sensitive stage of early project development. Indeed, one of the underlying themes of the Electricity Act and the associated regulatory framework is the promotion of effective competition wherever possible. Generation is one of the parts of the system where competition is actively promoted, and which is achieved by providing a fair and consistent process for grid connections for new projects. It is therefore essential that sensitive connection information is safeguarded. This is also the reason why NGESO is heavily regulated. In addition, other parties such as transmission owners are also regulated, and are obliged to support NGESO in that process.</p> <p>The consent application stage of projects is the appropriate time for considering cumulative impacts of projects in a planning context, in line with the Planning Inspectorate's Advice Note 17 on CIA.</p>
20	<p>ID15 – the Applicants refer to processes which “allow comment and scrutiny”. However the most important process in the context of these</p>	<p>Confidentiality is inherent and indeed essential in any grid connection application, thus protecting the interests of all parties in this highly sensitive</p>



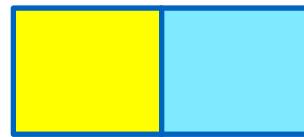
ID	SASES's Comment	Applicants' Comments
	<p>and other projects is the CION assessment process. As the examining authorities are aware SASES has met strong resistance from National Grid in disclosing CION assessment documents under the Environmental Information Regulations receiving only highly redacted versions of the relevant assessments. More recently in response to SASES' second EIR request for the latest CION assessments, including for the North Falls and Five Estuaries projects, National Grid has even refused to provide redacted versions of the CION assessments leaving the only avenue of recourse to the Information Commissioners Office which is not feasible given the timescale of the examinations.</p>	<p>stage of early project development. The consent application of any subsequent scheme will examine the suitability of the project as a whole.</p>
21	<p>ID26 & 28 – the Applicants seem to have misunderstood the issues with regard to land use which is not just in relation to land use at the substations site itself, but the land required in the vicinity of the substations site (which will almost certainly be entirely, or at least to a great extent, the best and most versatile agricultural land) required for the two 12 acre footprint 24m high convertor stations plus the substantial landscape screening which will undoubtedly be necessary.</p>	<p>There is no misunderstanding. Land use has been fully assessed within Chapter 21 of the ES (APP-069) and the Land Use Clarification Note submitted at Deadline 1 (REP1-022). The Applicants have nothing further to add.</p>
22	<p>ID29 – it is notable that the Applicants seem to have no difficulty in making an assumption about the interconnector projects when the assumption might be in their favour.</p>	<p>The Applicants note that the reason for the assumption that the National Grid equipment for any extension is similar in nature to that proposed for the Projects, is because there is no information available on such extension projects. This reaffirms the position that the Applicants cannot undertake a CIA on projects that are at such an early feasibility stage and not yet in the planning process.</p>
23	<p>ID31 – the Applicants admit that the upper elements of the National Grid substation will be visible notwithstanding the mitigation planting.</p>	<p>The Applicants have drawn on national guidance and local knowledge in establishing growth rates for the purpose of assessing the Projects' landscape mitigation and note that within the Statement of Common Ground with East</p>



ID	SASES's Comment	Applicants' Comments
	As always even that degree of mitigation is dependent upon optimistic growth rates.	Suffolk Council and Suffolk County Council (document reference ExA.SoCG-2.D12.V6) ESC and SCC agree that the proposed mitigation planting within the OLEMS (AS-127) is based on appropriate and realistic growth rates.
24	ID37 – the Applicants have referred to the Photomontages with Potential National Grid Extensions Bays (REP8 - 071 – REP8–073). In considering these together with the drawings attached to the Design and Layout of the Substation (Additional Submission - EA1N&EA2 Applicants' Response to Rule 17 Questions of 13 May) prepared by the Applicants dated 21 May 2021, there are omissions and errors in both in a key photomontage and the drawings relating to the representation of the pylons and cable sealing ends. Further details are set out in SASES' Deadline 11 submission, Comments on the Drawings in the Design and Layout of the Substations. SASES has previously raised concerns about the accuracy of the photomontages which the Applicants have denied.	The Applicants note SASES response and refer to their comments to the Applicants' Comments on SASES' Comments on the Drawings in the Design and Layout of the Substations provided in Section 2.7 of this document.
SASES' Comments on Applicants' Deadline 8 Flood Risk Submissions (REP9-080)		
25	As many of the issues raised within these comments were discussed at ISH16 SASES refers to its post ISH 16 Submission submitted at Deadline 11.	Noted. The Applicants refer to their comments at ID4 to ID10 within section 2.1 .
26	ID3, 12, 26 & 27 – the Applicants refer to infiltration being the primary option for drainage. Based on the Applicants' own submissions this is clearly not the case.	The Applicants have now undertaken initial infiltration testing within the proposed SuDS basin locations and a revised the OODMP (AS-125) has been submitted to the Examinations based on an attenuation only SuDS basin for the National Grid substation and a hybrid infiltration and attenuation SuDS basin for the onshore substation. The Applicants will undertake further testing to inform detailed design at a later stage and opportunities to maximise infiltration will be sought.



ID	SASES's Comment	Applicants' Comments
27	ID8 – See paragraphs 16-19 of SASES Post ISH 16 Submission submitted at Deadline 11.	The Applicants refer to their comments at ID4 to ID10 within section 2.1 .
28	ID9 - the Applicants' statement that they have “continually considered both fluvial and pluvial (surface water) flood risk” is incorrect. The RAG assessment on which the Applicants' site selection was based did not include a consideration of pluvial flood risk.	<p>Regarding the consideration of flood risk in selecting the locations of the National Grid substation and the onshore substation, the Applicants note that this primarily focussed fluvial sources, as set out within Chapter 4 of the ES (APP-052). Regarding surface water run-off, the Friston Surface Water Management Study (BMT, 2020) commissioned by SCC following the 2019 flooding events in Friston determines that the National Grid infrastructure and onshore substation locations are only minor contributors to the flow upstream of Friston and that they have no significant surface water flood risk. The validated numerical model that informs the Friston Surface Water Management Study provides no evidence that the substation locations significantly contribute to any predicted flooded properties in up to a 1 in 100 year event plus climate change.</p> <p>Presence of a surface water flow route does not in itself indicate the magnitude of a pluvial flood risk (i.e. the depth and volume of surface water). For example, the depth of surface water and the velocity of flow is a factor of multiple parameters (i.e. intensity and duration of a rainfall event, permeability of ground and topography etc.). On its own, the presence of a surface water flow route is not considered sufficient to discount a site. From the outset and as stated at Paragraph 129 of the Flood Risk Assessment (APP-496), the Applicants have committed throughout to mitigating and managing surface water within the site so as not to increase flood risk to downstream receptors. Further, the Applicants note that flood risk represents only one element of the wider environmental constraints evaluated as part of the site selection process and cannot be considered in isolation.</p>
29	ID13 & 26 – the point is “the Applicant has not proven whether QBAR flow rates will mitigate (or even increased) flood risk in Friston”.	The Applicants have followed local and national standard practice when calculating the Qbar flow rates for the site. Furthermore, the Applicants applied



ID	SASES's Comment	Applicants' Comments
	[emphasis added]. A mere statement of commitment does not result in "no increased risk of flooding to Friston".	a conservative rate to the calculations undertaken which is lower than the allowable Qbar rates imposed by SCC.
30	<p>ID28 – this is incorrect SASES refers to the cross-section of the SuDS basins set out in the latest OODMP (REP8-064) at:</p> <p>Appendix 4: Infiltration Only Scheme Figures</p> <p>Appendix 6: Hybrid Scheme Figures</p> <p>Appendix 8: Indicative Attenuation Only Scheme Figures</p>	<p>The Applicants have now undertaken initial infiltration testing within the proposed SuDS basin locations and a revised the OODMP (AS-125) has been submitted to the Examinations based on an attenuation only SuDS basin for the National Grid substations and a hybrid infiltration and attenuation SuDS basin for the onshore substation.</p> <p>The Applicants have provided the output calculations undertaken for design of the SuDS basins, as well as layout plans and sections that illustrate the suitability and compliance of the proposed basins (OODMP (AS-125)). The 1m design depth requirement is met.</p>
31	<p>ID30 – a "concept" and figures "provided for indicative purposes only" are inadequate for the purpose of demonstrating the feasibility of the Applicants' proposed flood risk mitigation.</p>	<p>The Applicants note the concept designs at this stage have been worked up on a worst-case scenario deemed to be realistic, in line with the Rochdale envelope approach used for consenting Nationally Significant Infrastructure Projects (NSIPs). The Rochdale envelope approach sets out the maximum parameters of a project, whilst allowing a degree of design flexibility for the Applicants to work within. The design of the outfall, including its exact route, capacity and form, will be refined and more precisely specified post-consent, when detailed information on the final design of the substations (including the final area of impermeable surfaces and associated runoff volumes) are known.</p> <p>This is a standard approach to consenting NSIPs and represents a perfectly reasonable mechanism for demonstrating the feasibility of a drainage scheme and surface water management, thereby controlling any associated flood risk.</p> <p>Additionally, the OODMP (AS-125) that has been submitted to the Examinations is based on initial infiltration testing and design criteria discussed and agreed with SCC.</p>



ID	SASES's Comment	Applicants' Comments
32	ID34, 35 & 36 – SASES refers to its Comments on National Grid Substation Extension Appraisal(REP9-075).	The Applicants responded to SASES' comments on the National Grid Substation Extension Appraisal (REP9-075) within the Applicants' Comments on SASES' Deadline 9 Submissions (REP10-020) and have no further comment here.
SASES' Comments on Draft DCOs Submitted at Deadline 8 (REP9-079)		
33	As many of the issues raised within these comments were discussed at ISH17 SASES refers to its post ISH 17 Submission submitted at Deadline 11.	Noted.
SASES' Comments on the Applicants' CAH3 Submissions REP9-077		
34	ID3 - SASES responses to comments on its proposed Pathfinder are below (ID11 and ID14).	Noted. See responses at ID39 and ID40.
35	ID4 - SASES notes that the Applicants have failed to confirm their intention to build out both their projects to maximum capacity by increasing the power output in the latest drafts of the DCOs to beyond 100MW despite indicating that they might be prepared to increase the figure for power output.	The Applicants have confirmed that it is their intention to build out both projects to their maximum capacity (see ID4 in Section 2.5 of the Applicants' Comments on SASES' Deadline 9 Submissions (REP10-020)) however for the reasons set out in ID5.1 of Applicants' Responses to ExA's Comments on Draft DCO (REP6-067) the Applicants do not consider it to be necessary or appropriate to specify the capacity of the Projects on the face of the draft DCO. The approach taken by the Applicants is consistent with that taken in the recent Hornsea Three Offshore Wind Farm Order 2020 as well as the non-material changes to the Dogger Bank Creyke Beck A and B Order and Dogger Bank Teesside A Order granted in March and August 2020 respectively.
36	ID5 - A major concern SASES has about reductions in power output to below the maximum authorised by DCOs is that historical evidence (e.g. EA1 and Rampion OWFs) shows that when this occurs there is no commensurate reduction in land area taken or provision made to	Historically there was considerable uncertainty regarding both turbine and grid technologies. This is no longer the case. The Applicants have a very clear understanding of the nature of the turbine technology that will become available. Furthermore the CfD process has incentivised making the most efficient use of



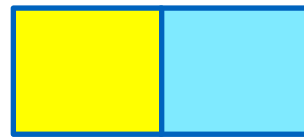
ID	SASES's Comment	Applicants' Comments
	<p>subsequently build out projects to full capacity. Such as by installing OFTO infrastructure capable of the maximum consented power for later OWF construction. This results in reduced economy, efficiency and coordination, contrary to the Electricity Act 1989.</p>	<p>the grid capacity. As noted above and in previous submissions, it is the intention of the Applicants to build out both projects to their maximum capacity and the Applicants have engaged extensively with the turbine and grid supply chains on this basis (see for example Letter from Siemens Gamesa Renewable Energy Limited (REP4-030)).</p>
37	<p>ID6 - The issue is one of acceptable site selection. An increase in cable route length should not be used to justify selection of a site which is fundamentally flawed due to flood risk, noise and other environmental impacts as previously documented by SASES. A senior representative of the Applicant speaking in a private meeting with SASES representatives on 18 July 2018 described the cost of the onshore cable route as being only a trivial item in the overall project cost. This strongly supports the Harrow Lane and Old Leiston Airfield sites being worthy of proper evaluation and they should have been included within the original site selection process, which was deeply flawed as previously documented by SASES.</p>	<p>The information presented at the Projects' Examinations has shown the acceptability of noise control measures (with the noise limits agreed with the Councils) and flood risk (with the majority of the onshore substation site located within the lowest classification of flood zone possible and a viable surface water management solution being demonstrated (as agreed with the Councils)). All other matters have been fully assessed and mitigation secured where appropriate. Neither the selection of the substation site, or the site selection process, is "fundamentally flawed" as suggested by SASES.</p> <p>The substation site has been selected through a robust site selection process which is presented within Chapter 4 of the ES (Site Selection and Consideration of Alternatives) (APP-052), with further consideration of the site presented within ES Appendices Appendix 4.5 (APP-446) and Appendix 24.3 (APP-514)</p> <p>The quote presented by SASES is taken out of context. As set out in paragraph 136 of Chapter 4 – Site Selection and Consideration of Alternatives (APP-052) (emphasis added):</p> <p><i>"During consultation at the December 2017 site visit and workshop, the Local Planning Authorities expressed concern that siting substations in the eastern half of the Onshore Site Selection Study Area could have a significant impact on the Suffolk Coast and Heaths AONB and recommended that crossing Aldeburgh Road be formally assessed for engineering feasibility. In addition, the Local Planning Authorities requested that the additional cost to the Applicant of</i></p>



ID	SASES's Comment	Applicants' Comments
		<p><i>the length of cable route should be discounted from the RAG assessment as this should not be a factor associated with site selection.</i></p> <p>The Applicants have already detailed in previous submissions the key constraints in respect of the Harrow Lane and Leiston Airfield sites, see ID5 of section 2.2 of the <i>Applicants' Comments on SASES' Deadline 5 Submissions</i> (REP7-054).</p>
38	<p>ID7 - SASES believes that the economies in cabling and cable trenching resulting from the use of HVDC can more than compensate for any project challenges involved. Indeed the Applicants were originally proposing to deliver 3.6GW of power from its offshore wind farms to Bramford using HVDC with three 1.2GW HVDC connections. And the currently planned implementation for EA3 demonstrates that in just a few years technology has advanced sufficiently for the original requirement for two cable trenches per 1.2GW to be reduced to one (now carrying 1.4GW) with related cost savings in cabling and civil works.</p> <p>NGESO have made clear in their report from the 2020 Offshore Coordination Review that the issue of raising the SQSS 1320MW Infeed Loss Limit to 1800MW will be reviewed at the beginning of the Phase 2 activities of the Review (Ref. 3). This should simplify the use of HVDC Bipole for 1.7GW by removing any concerns about simultaneous tripping of both poles.</p> <p>SASES suggests that the ExAs should require National Grid and the Applicant to revisit, update and publish the cost justifications for a Grid Connection at Friston substation, with associated new NGET substation, taking into account the outcome of the OTNR and technology advances since the original Grid Connection was agreed.</p>	<p>If the Connection and Infrastructure Options Note (CION) process were to undertaken again it would produce the same result. There has been no change to the technologies available to connect the projects.</p> <p>SASES continue to focus on comparative cable costs. As was explained by Mr green at ISH2, HVDC technology has much higher offshore and onshore infrastructure costs and lower cable costs when compared to HVAC technology. SASES have not mentioned the offshore infrastructure costs in any of their submissions. In carrying out a comparison all elements of the infrastructure need to be factored in. NGESO has been given the task of overseeing the CION process. They have the necessary expertise to undertake the task and ensure that it is undertaken having regard to the legal and regulatory framework.</p> <p>Infrastructure projects of this scale cannot be brought forward on the basis that there is a hope that SQSS rules might change in the future. Careful consideration will have to be given due to the effect this could have on the stability of the grid and security of supply. In addition there are also commercial constraints including the CfD cap of 1500MW. This is also the project scale recently imposed on the Round 4 bidding by the Crown Estate. These are not matters that can just be changed to suit individual projects.</p>



ID	SASES's Comment	Applicants' Comments
	This work should be completed before any conclusions are reached about the validity of the current proposals.	
SASES' Updated Pathfinder Clarification Note (REP9-076)		
39	ID11 - Loss of Connection Issues - SASES notes the Applicants' comments on the SQSS limit and the impact of tripping and is continuing its enquiries. SASES has previously pointed out that during the NGESO Coordination Review considerable support was offered to the increase of the 1320MW Infeed Loss Limit for wind farms to the 1800MW limit applicable to other offshore power sources such as Interconnectors, and that this avenue should be explored before dismissing the feasibility of SASES proposals.	The Projects have been designed to comply with the current Grid Code, not speculatively on what might happen in future years.
40	ID14 - CION Compliance - It is incorrect to state that SASES has not considered implementation costs of its Pathfinder proposal. High level assessments have been made by SASES to compare the overall costs of HVAC connections to either Bramford or Friston compared with a HVDC connection to Bramford, based on publicly available information from a variety of sources. The draft results support an HVDC connection to Bramford as being economic, efficient and coordinated, as well as having lower adverse environmental impact.	The CION process considered all the options, including Bramford, and confirmed the most economic and efficient solution was a connection in the Leiston area.
SASES' Comments on Other Deadline 8 Submissions (REP9-083)		
Outline Landscape and Ecological Management Strategy (REP8-019)		
41	ID6, 7 & 8 – the Applicants' use of the expression "best chance" whilst noting that "differences of professional opinion remain regarding the growth rates" underlies why the forecast growth rates and not merely the maintenance regime need to be secured in the	The Applicants have drawn on national guidance and local knowledge in establishing growth rates for the purpose of assessing the Projects' landscape mitigation and note that within the Statement of Common Ground with East Suffolk Council and Suffolk County Council (document reference



ID	SASES's Comment	Applicants' Comments
	<p>DCO. At the moment only the maintenance regime is secured. The Applicants' reference to "anecdotal evidence" is completely unsatisfactory. By contrast SASES has the expert opinion of Jon Rose who has over 40 years direct and hands on experience within the horticultural and landscape industries. All of this has been in Suffolk and the immediate surrounding counties. His report forms the last three pages of SASES' Landscape and Visual Written Representation REP1-365. His view is that:</p> <p><i>"The expected growth rates of 30cm per year for the first five years followed by 50cm per year for the ten years following is in my opinion optimistic given the present dry summers experienced in Suffolk. I would say that these growth rates are only possible given a nursery situation of intensive irrigation and care."</i></p> <p>Further</p> <p><i>"Given the latest predisposed weather conditions of very dry Springs with little if any rain during the critical establishment period and given the types of soils in the area; high losses could be expected. I have seen losses up to 70% - 85% in nearby locations, necessitating a replanting program."</i></p>	<p>ExA.SoCG-2.D12.V6), ESC and SCC agree that the proposed mitigation planting within the OLEMS (AS-127) is based on appropriate and realistic growth rates.</p> <p>A single growth rate has not been used within the photomontages which have informed the impact assessment. A variation tolerance of +10% to -10% has been applied to allow for variation in growth, above and below the adopted average annual growth rate and to provide differences in canopy height in the photomontage visualisations.</p> <p>To maximise the chance of successful establishment and optimise the growth rates of landscape planting, the Applicants have committed to an adaptive management strategy (at Work Nos. 19, 24, 29 and 33) within the OLEMS (AS-127), as was requested by and agreed with the Councils. The 10 year adaptive management period increases in duration depending on growth during this term. As stated in the OLEMS (AS-127), the Applicants will ensure that the final Landscape Management Plan includes provision for the implementation of adequate watering of newly planted tree or shrub and established trees during the aftercare management period.</p> <p>Details of landscaping maintenance and management are set out within the OLEMS (document reference 8.7). A final Landscape Management Plan (which accords with the OLEMS) must be submitted to the relevant planning authority for approval in line with Requirement 14 of the draft DCO (document reference 3.1). As stated in the OLEMS (document reference 8.7), the Applicants have committed to undertaking an adaptive planting maintenance scheme (dynamic aftercare) for specified Work Nos. which is intended to de-risk the timely delivery of planting, achieve optimum levels of plant growth and provide greater confidence that effective screening from the tree planted areas will be achieved before the end of the adaptive planting maintenance period.</p>

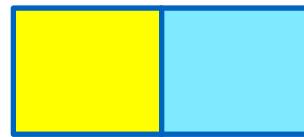


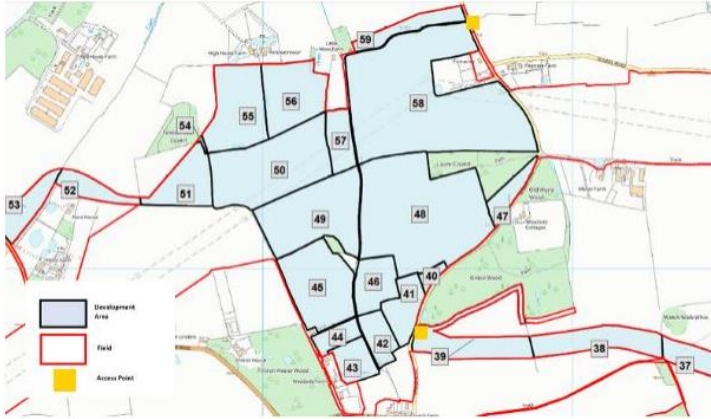
ID	SASES's Comment	Applicants' Comments
		Whilst the Applicants have committed to a programme of stringent management measures to provide the best chance of the landscape planting meeting the assessed growth rates, it is considered inappropriate to specify growth rates within the DCO.
SASES' Comments on the Quality of Stakeholder Engagement (REP9-081)		
42	See separate submission (A) Statement Regarding Ground Investigation Works (REP 10– 029) and (B) Response to Applicants' Comments SASES' Quality Of Stakeholder Engagement Submission (REP 10-20 Section 2.9).	Noted.



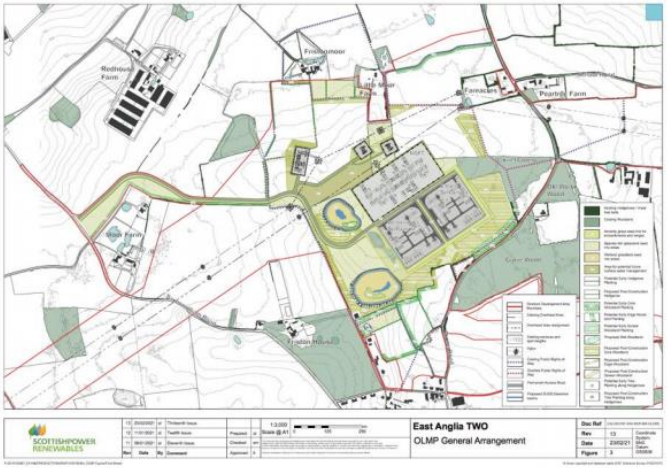
2.4 Applicants' Comments on SASES' Responses to the Applicants' D10 Submissions concerning Ground Investigation Works and Quality of Stakeholder Engagement (REP11-174)

ID	SASES's Comment	Applicants' Comments
1	<p>The above two submissions by the Applicants, dated 6th May 2021, have similar content and are therefore dealt with by SASES together in one response.</p>	<p>Noted.</p>
2	<p>Signage for the ground investigation works was first seen in Friston on 8th April. This aroused considerable concern from local residents, particularly those in Friston who were aware that this is the breeding season for wildlife, skylarks were already nesting on the proposed substation site, and leverets had been seen.</p> <p>Concern heightened in mid April when it became evident that the fields at the substation site, as well as land in Aldringham and Sizewell had been sprayed with sterilising weedkiller. Local residents know that farmers do not normally use this type of weedkiller during the Spring months, particularly where there may be ground-nesting birds. However the Applicants have denied responsibility and continue to maintain that the landowners were responsible for the spraying. The dying vegetation can be clearly seen in Plates 2.4, 2.5 and 2.6 of the Applicants' own submission at REP10-029 with trial-trenching underway, dated 23 and 26 April 2021. The fields are now barren.</p> <p>Such was the concern that Suffolk County Council promoted a meeting between the Applicants and SASES to discuss issues in relation to the site investigation works. The meeting took place on 30th April with a further meeting on ecological issues on 14th May. Some aspects of communication have improved since the initial meeting, however concerns regarding the ground investigation</p>	<p>The investigations are undertaken with a team including an independent Ecological Clerk of Works (ECoW) and an Agricultural Liaison Officer (ALO).</p> <p>All work areas are inspected by an EcoW prior to commencement and throughout the investigation works and no work is undertaken if there is a risk of disturbance to any protected species or nesting birds.</p> <p>Appropriate buffers are maintained around all ecological receptors, trees and hedgerows as specified by the ECoW.</p> <p>Any transient constraints that may arise, such as nesting birds, are monitored by the ECoW and appropriate exclusions implemented throughout the entirety of the works.</p> <p>Relevant bodies such as Natural England and the Royal Society for the Protection of Birds (RSPB) are regularly liaised with regarding both particular species and protected sites, as well as the mitigation being implemented on site.</p> <p>There has been no instruction by the Applicants to landowners to spray in advance of, or during, the onshore ground investigations. Spraying of land is a regular activity undertaken on the intensively farmed fields and is not related to the Applicants onshore site investigation works.</p> <p>The Applicants welcome the comment regarding an improvement in communication and remain committed to keeping the public informed throughout the current survey campaign and beyond.</p>



ID	SASES's Comment	Applicants' Comments
	works persist. SASES strongly disputes the statement made by the Applicants at paragraph 55 of REP10-029 that the complaints are a result of a “concerted effort to discredit the management of the site investigation works”	
3	<p>Local people have been alarmed about the physical scale of the investigation works, which go beyond the actual proposed construction area. The Applicants' published a map of the extent of the works in Friston in mid-May, which is shown below. Of particular concern have been extensive investigation works in Fields 51, 55 and 58 in the north of the site, where no construction is proposed with very little landscaping, as well as the inclusion of Fields 42 and 43 to the south. This only increases speculation as to what may be being planned for the future. The map below can be compared with the Outline Landscape and Ecological Management Plan [the latest version being included with REP10-005, Annex 2].</p>  <p><i>Site investigation works in Friston – April 2021 onwards</i></p>	All investigation works are being undertaken within the Order Limits.



ID	SASES's Comment	Applicants' Comments
	 <p data-bbox="277 834 763 855"><i>Outline Landscape Management Plan at Deadline 10 (May 2021)</i></p>	
4	<p data-bbox="277 898 1055 995">The Applicants made it known that they would be using the Public Rights of Way for access for the plant, machinery and workforce and that they had the landowners' consent for this.</p> <p data-bbox="277 1023 1043 1190">This has led to significant deterioration of the surface of the footpaths during a particularly wet May and raises concerns over the proposals to use PRowWs for access for the potentially more intrusive Pre-Construction Works planned as part of these Applications.</p> <p data-bbox="277 1217 1070 1315">There have also been safety issues with open unfenced trenches and trial pits, parking on PRowWs and conflicts between drivers and pedestrians on the footpaths. This has on occasion felt intimidating.</p>	<p data-bbox="1106 898 2051 1211">The Applicants have implemented a number of measures to ensure public safety around the site, including the use of banksmen / vehicle marshals to safely manage the people and plant interfaces, installation of designated access routes to avoid public rights of way where practicable, and traffic calming to reduce speed limits in the vicinity of site access points to allow for safe access and egress for workers and members of the public. Reduced speed limits are also being implemented on public rights of way and all vehicle movements to support the works are carried out in accordance with the traffic management plan approved by Suffolk County Council.</p> <p data-bbox="1106 1238 2051 1334">It should be noted that the Applicants have permission to use public rights of way as a means of travelling between sites, but minimises their use during the investigation works. Pre-condition surveys were undertaken prior to investigation</p>




ID	SASES's Comment	Applicants' Comments
	<p>An annotated selection of photographs of the investigation works is attached at Annex 1.</p>	<p>works commencing to allow for any reinstatement to the previous condition on completion of the works.</p> <p>The Applicants have endeavoured to ensure that any excavated trenches in close proximity to public rights of way (PRoWs) and highways are always demarcated using Netlon fencing at the end of the working day to ensure public safety should they stray from the PRoW into private land or walk into a private field from the public highway.</p>
5	<p>The working hours for the current works are from 7am to 7pm Monday to Friday and 7am to 1pm on Saturday. During the Late Spring Bank Holiday weekend, the Applicants chose to trim the vegetation from Field 53, which created a significant amount of noise on a very pleasant, warm morning, when nearby residents would be enjoying their gardens.</p>	<p>The Applicants note that the strimming activity took place within the stated working hours on a Saturday, and not the Bank holiday Monday.</p>
6	<p>In its submissions the Applicant states that “regular (at a minimum every few days) updates have been and will continue to be provided to the development area parish councils, key interest groups and other individuals..”. This is not the case and the Applicant cannot show this regularity of information to residents since the inception of the works. The Applicant would however be able to show a deluge of emails from concerned residents.</p> <p>The Applicants' responses also refer to a “dedicated area on the project website for a targeted community engagement programme”. This has not been implemented as of the first week in June.</p>	<p>The Applicants disagree and have provided regular updates to Parish Councils, key interest groups and individuals. Notifications and updates have been sent out on the following dates:</p> <p>17/03/21, 09/04/21, 27/04/21, 01/05/21, 06/05/21, 11/05/21, 12/05/21, 14/05/21, 19/05/21, 20/05/21, 28/05/21, 03/06/21, 08/06/21, 10/06/21, 15/06/21 and 21/06/21.</p> <p>The dedicated area of the project website for a targeted community engagement programme went live on 3rd June 2021. This provides information on current and future investigation works. This is in addition to the Applicants' other communications such as letter drops and emails. See link to dedicated website area below:</p> <p>https://www.scottishpowerrenewables.com/pages/east_anglia.aspx</p>




ID	SASES's Comment	Applicants' Comments
		<p>In addition, the Applicants have altered the subscription area of the website to enable people to select if they would like to receive Local Works Updates of relevant projects/works via email. See link to the subscribe area below:</p> <p>https://www.scottishpowerrenewables.com/pages/east_anglia_contact_us.aspx</p>
7	<p>The Applicants advised that the site investigation works in Friston would be complete by the end of May, however these are still on-going in the first week of June.</p>	<p>The Applicants stated that it aimed to complete the geotechnical and geo-environmental works by the end of May but that this date was subject to change based on site progress. Intrusive ground investigation works were completed at Friston on 14th June 2021.</p> <p>It should also be noted that ground investigation works are separate to archaeological investigations, which are ongoing.</p>
8	<p>At paragraphs 9 and 10 of the Applicants' Statement regarding Ground Investigation Works Update, it is stated that groundwater will be investigated during the works and also be supplemented by monitoring. It is also stated that a topographical survey will be undertaken to establish ground levels. SASES submits that this is essential data, which should properly be part of the Examining Authorities' assessment of the suitability of the site for development.</p>	<p>No major infrastructure project undertakes ground investigation works prior to consent being granted.</p> <p>The Applicants are undertaking these works to support the detailed design of the Projects and not the consenting phase.</p> <p>Groundwater investigation and monitoring, as well as topographical surveys have been ongoing activities during the ground investigation works. Groundwater levels and quality will continue to be monitored.</p>
9	<p>The quality of communication by the Applicants has been, and continues to be, poor. On 28th May, just two days after ISH16, Update emails were received from SPR advising that infiltration testing in Friston would be complete by 3rd July. Having discussed at some length at the hearing that the Applicants need to submit their further infiltration results with a degree of urgency, this caused SASES some consternation. On enquiry with SPR, they admitted an error had been made.</p>	<p>The full set of infiltration results has been provided to, and discussed with, SASES and SCC. A technical meeting was held between the three parties on the 16th of June.</p>





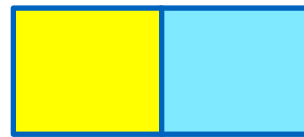
ID	SASES's Comment	Applicants' Comments
10	<p>The undertaking of these investigation works has very much brought it home to the local community the enormity of the impact on Friston, if the projects were consented. Recent visitors to the village have also been shocked at the scale of what is proposed. It is not to be overlooked that these works were programmed to start immediately following the planned close of the Examinations.</p>	<p>The Applicants have no comment to make.</p>
11	<p>Annexes</p>  <p><i>Annex 2: Looking North from Footpath 6 towards Field 58 where works taking place</i></p>	<p>The Applicants have no additional comment to make on the images provided and consider the responses above address the matters raised.</p>



ID	SASES's Comment	Applicants' Comments
	 <p data-bbox="414 742 869 762"><i>Annex 3: Looking South on Footpath 6 towards village – 12th May 2021</i></p>	





ID	SASES's Comment	Applicants' Comments
	 <p data-bbox="427 884 925 903"><i>Annex 4: Footpath 6 looking south from Little Moor Farm - 8th May 2021</i></p>  <p data-bbox="376 1335 983 1355"><i>Annex 5: Open Trench adjacent to Footpath 6 on 12 May 2021 – note dead vegetation</i></p>	



ID	SASES's Comment	Applicants' Comments
	 <p data-bbox="510 799 801 815"><i>Annex 6: Footpath 6 after rain on 9th May 2021</i></p>  <p data-bbox="436 1235 853 1251"><i>Annex 7: Workman's truck parked on Footpath 6 – 21st May 2021</i></p>	



ID	SASES's Comment	Applicants' Comments
	 <p><i>Annex 8: Vehicle with bowser for infiltration testing on Footpath 6 on 25th May 2021 .</i></p> <p><i>Annex 9: Site facilities adjacent to hedge with generator running constantly during nesting season</i></p> 	



2.5 Applicants' Comments on SASES' Post Issue Specific Hearing 17 Submission (REP11-175)

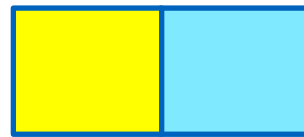
ID	SASES's Comment	Applicants' Comments
Agenda Item 2		
1	<p>1. SASES notes that it still has a large number of unaddressed concerns in respect of the dDCOs.</p> <p>a. <u>Article 7</u>. SASES still does not consider that it is appropriate to seek to disapply the normal controls on statutory nuisance without requiring the undertaker to use best practicable means to avoid such a nuisance occurring. The purpose of Article 7 is to avoid proceedings for statutory nuisance being instituted, but that purpose can equally be served whilst requiring the undertaker to use BPM;</p> <p>b. <u>Schedule 1 Part 1</u>. The Applicants have indicated they would agree to a minimum power requirement of 600MW although this is only two thirds of the planned capacity for EA2 and three quarters of that for EA1N. This minimum of 600MW represent the scheme benefits which fall to be assessed against the adverse impacts of each of the projects provided this minimum output is included in the final draft of the DCOs to be submitted at Deadline 12 otherwise 100MW has to be considered as the benefit of each scheme. This is particularly important when considering the scale and impacts of the National Grid infrastructure.</p> <p>c. <u>Schedule 1 Part 3</u>. SASES remains concerned on the following points:</p> <p>i. <u>Parameters</u>. See further submissions below on good design. Given uncertainty about finished ground levels, the AOD figures for all elements of the Scottish Power and National Grid infrastructure should be specified in the DCO not just referred to in SDPS.</p>	<p>The Applicants have already responded on all of these matters in previous submissions and their position has not changed.</p>



ID	SASES's Comment	Applicants' Comments
	<p>ii. Potential alternative uses for the <u>operational access road</u>, not least given its potential width of 7 m.</p> <p>iii. The <u>use of the cable sealing ends</u> and the National Grid substation for projects other than EA1N and EA2. This is also relevant to whether these projects in truth need to connect to all four circuits and whether there is a need in respect of <u>these</u> projects for a very large cable sealing compound which includes a circuit breaker seemingly unrelated to the EA1N and EA2 projects.</p> <p>iv. In respect of <u>construction working hours</u>, the reduced working hours are <u>not</u> secured in the DCO (see requirements 23 and 24). No explanation has been given for not giving effect to this agreed change, which is reflected in paragraph 48 of the draft COCP.</p> <p>v. <u>Operational noise</u>. The ongoing concerns are not repeated here. The Applicants have failed to engage with SASES's noise expert (although a further meeting has since been offered). Further submissions will be made on this as necessary. However in summary:</p> <ol style="list-style-type: none"> 1. The background noise level issue has not been resolved; 2. It is unclear why the Applicants have rejected a tonal noise requirement; 3. It is unclear why the Applicants have rejected a 30dB threshold; 4. The requirement should apply to cable sealing end compounds; 5. The requirement should apply to all sensitive receptors; 6. It remains unclear how the requirement will be achieved. <p>d. Discharging authority for drainage matters. SASES maintains that given the particular drainage and flood issues here, the County</p>	



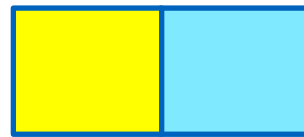
ID	SASES's Comment	Applicants' Comments
	<p>Council as LLFA should be the discharging authority for drainage design since it has the competence to do so. There is nothing unusual in requiring the approval of one matter by one authority, and other matters by another. That is precisely what will happen in respect of highways matters so far as they relate to other aspects of design. SASES supports SCC's position on this matter.</p>	
Agenda Item 3		
2	<p>2. SASES notes that the proposals are for “standalone” consents, and should be assessed on that basis. The particular concerns are:</p> <p>a. How will consents operate where NG infrastructure (and by necessity its landscaping mitigation and flood risk mitigation) is built under another DCO other than for EA1N and EA2, for example under the DCO for the Nautilus project? SASES has consistently raised this point and it has yet to be addressed. The issues raised in sub paragraphs b – f below are further compounded in such a circumstance.</p> <p>b. It is unclear how single, or sequential, development will address e.g. flood mitigation measures. It is unclear how later development could come forward consistently with the final drainage design for the first phase of the Applicants' development;</p> <p>c. It is unclear who will be responsible for maintenance, etc., of the mitigation measures where they emerge piecemeal. For example, perimeter planting will be required for any development, but it is unclear whether the first developer will retain responsibility for that or whether it would then pass to the subsequent developer. The dDCOs contain no process for managing these matters;</p>	<p>The requirements within the draft DCO have all been carefully drafted to manage the interface with the National Grid Infrastructure and to ensure that each DCO can operate as a standalone consent.</p> <p>Protective provisions within Part 5 of Schedule 10 to the draft DCO deal with the relationship between the Projects and ensure co-operation and co-ordination between the undertakers.</p> <p>The Applicants disagree that there is a lack of clarity over who will be responsible for mitigation measures. The undertakers are responsible for compliance with the mitigation measures secured through the requirements of the draft DCO.</p> <p>The matters raised by SASES will be managed through the discharge of requirements process.</p> <p>See ID17 of the <i>Applicants' Responses to the ExA's Commentary on the Draft DCOs</i> in relation to the approach that will be taken in respect of masterplans. This approach has been agreed with the Councils.</p>



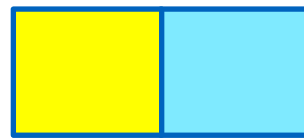
ID	SASES's Comment	Applicants' Comments
	<p>d. There is no requirement for comprehensive master planning if one project comes forward alone;</p> <p>e. No consideration appears to have been given as to how the first project will ensure that the site is not unduly constrained for the delivery of the second project. This will be relevant to all approvals e.g. in respect of mitigation measures;</p> <p>f. On their face, there appears to be risk of inconsistency between the two dDCOs since their implementation will necessarily require the development of site wide measures which may be incompatible with later delivery of the second project.</p> <p>For example, it would obviously be unacceptable for the first project to propose no mitigation planting on the undeveloped site of the potential second substation, but the subsequent removal of that mitigation planting would be inconsistent with the management obligations in the first DCO.</p>	
Agenda Item 4		
3	<p>3. SASES has fundamental concerns about the supervision of the detailed design of the infrastructure. These were in part addressed at ISH16, where the Applicants indicated that the “power” design (i.e., the actual infrastructure as opposed to mitigation) will be settled – and even procured – before (a) any further consultation with residents and (b) submission for approvals under requirement 12. In essence, this means that the approvals stage will be too late to influence the selection of equipment and its disposition within the site.</p> <p>4. Whilst the local planning authority could refuse an application under requirement 12, it is not equipped to review power design It</p>	<p>The Applicants have made submissions both orally and in writing on this matter (see section 2.1 of the <i>Written Summary of Oral Case</i> (ISH16) [REP11-083]).</p>



ID	SASES's Comment	Applicants' Comments
	<p>follows that, unless further controls are introduced, there will be no proper external scrutiny of the power design, and indeed this is a deliberate choice by the Applicants.</p>	
4	<p>5. SASES has repeatedly submitted that the parameters are too broad, and give more flexibility than is required in practice. However, in the absence of any scope to review or control the power design, they are in essence the only check on the scale of the infrastructure which will come forward.</p> <p>6. In terms of design review, the SDPS limits this mitigation measures. The “design champion” is not a substitute for design review because he is (a) inexperienced and (b) charged with delivering the project. In any event it is wholly unclear how an SPR design champion, can influence the NG infrastructure.</p>	<p>The Applicants consider the parameters to be entirely appropriate and reflective of the parameters assessed.</p>
5	<p>7. What is required is far more sophisticated supervision of the power design through proper design review. Design review must be:</p> <ul style="list-style-type: none"> a. Independent; b. Informed by engineering expertise; c. Have regard to the National Infrastructure Commission design principles; d. Occur prior to submission of designs to the planning authority under requirement 12. <p>8. This request is not novel, and has been included in other DCOs including the Silvertown Tunnel.</p>	<p>The Applicants have made submissions both orally and in writing on this matter (see section 2.1 of the Written Summary of Oral Case (ISH16) [REP11-083]). It should be noted that the Substations Design Principles Statement (REP11-047) will ensure that a design review is undertaken by the Design Council (or similar body) and such elements which can be influenced by the local community are consulted upon. It is wholly inappropriate for consultation on matters which may affect operational safety, grid code compliance or overall efficiency of the onshore substations.</p>
6	<p>9. The Silvertown Order imposes the following requirement:</p>	<p>See responses to ID3 and ID5 above.</p>



ID	SASES's Comment	Applicants' Comments
	<p><i>“Design principles and design review panel</i></p> <p><i>3.—(1) The authorised development must be designed and implemented—</i></p> <p><i>(a)in accordance with the design principles; and</i></p> <p><i>(b)in general accordance with the general arrangement plans.</i></p> <p><i>(2) TfL must consult with—</i></p> <p><i>(a)the Silvertown Tunnel Design Review Panel; and</i></p> <p><i>(b)the Silvertown Tunnel Stakeholder Design Consultation Group, during the detailed design of the authorised development and in the manner provided for by the design principles and have regard to the responses received.”</i></p>	
7	<p>10. As previously noted, a design review panel is also used on HS2. It is consistent with Government policy in the HM Treasury National Infrastructure Strategy (referred to in SDPS).</p>	<p>See ID5 above</p>
8	<p>11. Further, a requirement for design review is consistent with EN 1:</p> <p><i>“4.5.1 The visual appearance of a building is sometimes considered to be the most important factor in good design. But high quality and inclusive design goes far beyond aesthetic considerations. The functionality of an object — be it a building or other type of infrastructure — including fitness for purpose and sustainability, is equally important. Applying “good design” to energy projects should produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible. It is acknowledged, however that the nature of much energy infrastructure development will often limit the</i></p>	<p>See ID5 above. The Projects will be subject to a Design Review.</p>



ID	SASES's Comment	Applicants' Comments
	<p><i>extent to which it can contribute to the enhancement of the quality of the area."</i></p>	
9	<p>12. Such a requirement would also be consistent with planning policy, e.g. in paragraph 129 of the NPPF:</p> <p><i>"129. Local planning authorities should ensure that they have access to, and make appropriate use of, tools and processes for assessing and improving the design of development. These include workshops to engage the local community, design advice and review arrangements, and assessment frameworks such as Building for Life. These are of most benefit if used as early as possible in the evolution of schemes, and are particularly important for significant projects such as large scale housing and mixed use developments. In assessing applications, local planning authorities should have regard to the outcome from these processes, including any recommendations made by design review panels."</i></p>	<p>See ID5 above. The Projects will be subject to a Design Review.</p>
10	<p>13. The solution in the absence of a commitment to design review in the SDPS for the power design is to impose a further clause to requirement 12. We suggest that no application for approval should be made until design review has been carried out and the outcome reported with the submission for approval.</p>	<p>See ID3 above</p>
11	<p>14. SASES suggests the following additional paragraph to be inserted in Requirement 12:</p> <p>“(dr1) No application for approval under this requirement shall be made unless:</p> <p>(i) The proposal has been submitted for design review; and</p>	<p>For the reasons set out above and in previous submissions, the Applicants do not agree that the requirement proposed by SASES is necessary and consider that requirement 12 within the draft DCO is appropriate as currently drafted.</p>



ID	SASES's Comment	Applicants' Comments
	<p>(ii) The undertaker includes in the application the conclusions of the design review panel and a report summarising any steps taken by the undertaker as a consequence of the design review.</p> <p>(dr2) For the purposes of this requirement:</p> <p>(i) "Design review" means independent consideration of the design of the part of the proposed development for which approval is sought by a design review panel;</p> <p>(ii) "Design review panel" means a panel of experts convened by the undertaker to consider the design of the relevant part of the proposed development which shall be independent from the undertaker and include at least one person who is expert in the following specialisms: a. Electrical engineering, in the field of electricity transmission infrastructure b. Architecture c. Landscape architecture.</p> <p>(iii) (iii) Design review under this requirement shall be carried out in accordance with the Design Principles of the National Infrastructure Commission."</p>	
12	<p>15. SASES also remains concerned about the delivery of the proposed growth rates for mitigation planting. Since the site mitigation relies almost exclusively on mitigation planting, the growths rates which the Applicants are confident of should be directly secured in the DCOs rather than indirectly and incompletely through a maintenance obligation which does not provide adequate assurance that the growth rates will in fact be achieved. Further the</p>	<p>The landscaping mitigation measures have been appropriately secured through requirements 14 and 15 of the draft DCO, the wording of which has been agreed with the Councils. The Applicants do not agree with SASES' comments.</p>



ID	SASES's Comment	Applicants' Comments
	Applicants should provide more detail as to how these growth rates will be achieved and what steps will be taken in the event that those rates prove to be optimistic and are not achieved.	
Agenda Item 5		
13	16. Whilst the ExAs' suggested amendments to requirement 12 would be an improvement, they do not address SASES's concerns in full. The proposal is that the undertaker would define the extent of operational land in making submissions for detailed approval of the substation infrastructure, and that permitted development rights would otherwise be removed by requirement 44. This proposal would provide some further clarity and is an improvement on the present position in the dDCOs.	The Applicants have made their position clear and have no further comments.
14	17. Whilst these changes would provide some clarity, they would remain problematic: a. The extent of operational land would be in the gift of undertaker submitting the plan and it is unclear on what basis such a submission could be refused by the approving planning authority; b. It would not prevent the identification of operational land beyond the fence line of the proposed compounds. SASES can see no justification for any land outside the compounds having the benefit of permitted development rights; c. It is unclear why the proposed requirement refers to the SDPS, which does not grapple with this issue.	a). and b). The Applicants have responded to these matters. If the requirement were to be added the Applicants do not agree with SASES' interpretation. The Applicants would have to have the plan approved to gain the operational land status. Furthermore there are permitted development rights which relate to electric lines (class B (a) and (b)) and these are not restricted to operational land. These are critical permitted development rights which keep the transmission and distribution systems operational.
15	18. Accordingly, SASES considers that the proposed approach should be further modified to ensure that only land within the proposed compounds (as built) is included on the suggested	The Applicants do not agree. If the plan included land that was not operational land the Council could refuse to approve the plan in question.



ID	SASES's Comment	Applicants' Comments
	onshore operational land plan, and that the land shown should be “reasonably required to be operational land for the purposes of the undertaking”, to ensure that the approving authority could refuse to approve the plan in the event that the land included was excessive.	



2.6 Applicants' Comments on SASES' Deadline 11 Submission – Responses to dDCOs Commentaries (REP11-176)

ID	dDCO Commentary	ExA's Commentary	SASES's Comments	Applicants' Comments
Schedule 1				
1	Pt 3 R12	<p>R12: Detailed design parameters onshore: 'overall design and layout plans'</p> <p>The ExAs R17QE has requested the production of 'overall design and layout plans' for the main development scenarios and asked whether and if so, how such plans might be secured and whether it would be appropriate that development should be required to be in general accordance with a submitted plan. Please comment on the following possible means of providing for and securing the production of the plans and ensuring that development is in general accordance with a submitted plan.</p> <p>a) The 'overall design and layout plans' are submitted before the close of the Examinations and form part of the substations' design principles statement' and/ or the 'outline landscape and ecological management strategy'.</p>	<p>This comment was not directed to SASES but its opinion was sought at ISH17. Accordingly SASES provides the following response.</p> <p>There is an overall concern that the use of the drawings submitted by the applicants in response to EXA's R17QE might indicate some agreement that such plans are acceptable. As the ExAs are aware there are many concerns with the footprint and height of the Applicants' substations, the National Grid substation and the National Grid cable sealing ends. In relation to the latter there is the question as to whether three are necessary and whether the largest cable sealing end (containing a circuit breaker breaking the connection between Sizewell and Bramford) is required for these projects.</p> <p>Provided these issues are addressed by including:</p> <ul style="list-style-type: none"> a design principle that the works are to be designed only to meet the requirements of the EA1N and EA2 projects; and 	<p>The Applicants maintain their position set out in ID17 of the Applicants' Responses to the ExA's Commentary on the Draft DCOs [REP11-081] in relation to the approach to 'overall design and layout plans' and this has been agreed with the Councils. The Applicants do not agree with the comments made by SASES and do not consider the approach proposed by SASES to be necessary or appropriate.</p>



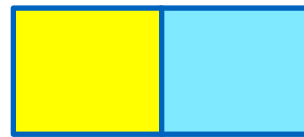
ID	dDCO Commentary	ExA's Commentary	SASES's Comments	Applicants' Comments
		<p>In this case, is anything then necessary to be done to amend the dDCOs to secure the drawings? Can R12 as currently drafted can be argued to be sufficient?</p> <p>b) The 'overall design and layout plans' are submitted to the relevant local planning authority. In that case, does R12 require amendment to ensure that the relevant drawing is submitted and approved and then forms part of the 'substations design principles statement', or the 'outline landscape and ecological management strategy', or is a free-standing document required (a new paragraph to R12 would be required to achieve this); and</p> <p>A provision that no stage of the relevant works (indicatively Works Nos. 30, 33, 38, 41 – [and any other Works?]) may commence until an overall design and layout plan has been submitted to and approved by the relevant planning authority.</p>	<ul style="list-style-type: none"> a requirement (as previously requested by SASES) that works 38, 41 and 34 can only be used in connection with the EA1N and EA2 projects, <p>and if the plans were expressed to be both indicative and not to be considered in any way as fettering the ability of the relevant planning authority to ensure that the design of all the relevant works is as "low-impact" as possible then,</p> <ul style="list-style-type: none"> in relation to (a) the plans could be submitted into the examinations and form part of the substations design principles statement, the outline landscape and ecological management strategy and the outline operational drainage management plan given the presence of the SuDS basins in relation to (b) one would expect that in seeking approval that the Applicants would submit updated plans but it might be helpful to include an express reference to this in Requirement 12(5) including a statement that such plans would form part of the SDPS, the OLEMS and the OODMP 	



ID	dDCO Commentary	ExA's Commentary	SASES's Comments	Applicants' Comments
			<ul style="list-style-type: none"> in relation to (c) such a provision would be helpful. In relation to the works listed, work number 34, the operational access road, should also be included as should work number 39 given the impact of the four new larger pylons (including one additional pylon) on the landscape. 	
2	Pt 3 R 12	<p>R12: Defining onshore operational land for purposes of the 1990 Act</p> <p>Concerns have been expressed about the extent of operational land that would benefit from substation permitted development rights under the Town and Country Planning (General Permitted Development) Order 2015, Schedule 2, Part 15, Class B (a), (d) or (f). ESC has submitted that the potential adverse effects of permitted development could be such that removal of those rights would be justified. The Applicants in turn have submitted that removal of operationally normal permitted development rights for a substation would unduly burden the proposed substation facilities once operational and would not be justified. In this context, a possible alternative mechanism is to provide that the extent of onshore operational land benefiting from</p>	<p>See SASES' ISH 17 Post Hearing Submission at paragraphs 16, 17 and 18. For ease of reference these are reproduced below.</p> <p><i>Whilst the ExAs' suggested amendments to requirement 12 would be an improvement, they do not address SASES's concerns in full. The proposal is that the undertaker would define the extent of operational land in making submissions for detailed approval of the substation infrastructure, and that permitted development rights would otherwise be removed by requirement 44. This proposal would provide some further clarity and is an improvement on the present position in the dDCOs.</i></p> <p><i>Whilst these changes would provide some clarity, they would remain problematic:</i></p> <p>a. <i>The extent of operational land would be in the gift of undertaker submitting the plan and it is unclear on what basis such a</i></p>	<p>The Applicants have set out their position in response to Pt 3R12. They have no further comment</p>



ID	dDCO Commentary	ExA's Commentary	SASES's Comments	Applicants' Comments
		<p>substation permitted development rights is reduced to the minimum necessary and clearly defined. An 'onshore operational land plan' is a potential mechanism whereby that could be achieved.</p> <p>The Applicants responded to the February 2021 Commentaries [PD031] highlighting their view that it was not possible to submit an onshore operational land plan during the Examinations but set out its view that the operational land could be limited in extent and identifying that R12 could be amended to ensure that such a plan could be provided after the relevant operational areas had been commissioned.</p> <p>On that basis, the ExAs have proposed amendments to R12 to secure the production of an onshore operational land plan after commissioning and a new R44 providing that permitted development rights can only be exercised within the land defined as operational land on the plan.</p> <p>a) Does the proposed amendment set out below and at R44 add sufficient certainty about the extent of onshore operational</p>	<p><i>submission could be refused by the approving planning authority;</i></p> <p><i>b. It would not prevent the identification of operational land beyond the fence line of the proposed compounds. SASES can see no justification for any land outside the compounds having the benefit of permitted development rights;</i></p> <p><i>c. It is unclear why the proposed requirement refers to the SDPS, which does not grapple with this issue.</i></p> <p><i>Accordingly, SASES considers that the proposed approach should be further modified to ensure that only land within the proposed compounds is included on the suggested onshore operational land plan, and that the land shown should be "reasonably required to be operational land for the purposes of the undertaking", to ensure that the approving authority could refuse to approve the plan in the event that the land included was excessive.</i></p>	



ID	dDCO Commentary	ExA's Commentary	SASES's Comments	Applicants' Comments
		<p>land and clarify that the exercise of permitted development rights on that land would be appropriate?</p> <p>b) Are the correct Works within scope?</p> <p>c) If not, what alternative measures should be provided for?</p> <p>Add the following paragraphs to R12 after current paragraph (21)</p> <p>(22) The undertaker must submit a plan for approval by the relevant planning authority showing the extent of the completed works that comprises operational land onshore for the purposes of the 1990 Act ('the onshore operational land plan') no later than three months from the completion and commissioning of {Work No. 30, Work No. 38 or Work No. 41}.</p> <p>(23) The extent of the operational land shown on the onshore operational land plan provided by the undertaker pursuant to paragraph (22) must accord with the substations design principles statement and be within the Order limits.</p> <p>It should be noted that the timescale for approval and circumstances where the relevant planning authority did not</p>		



ID	dDCO Commentary	ExA's Commentary	SASES's Comments	Applicants' Comments
		<p>approve a submitted onshore operational land plan would be matters addressed or capable of being resolved under Schs 16.</p> <p>See also R44 (proposed).</p>		
Schedule 15				
3	Paragraph 6	<p>Costs</p> <p>The ExAs have considered responses to matters raised in the February Commentaries. The Hornsea 3 DCO is argued by the Applicants as providing precedent for the form of the arbitration provisions in the dDCOs. Paragraph 6 (Costs) to Schedule 13 (Arbitration) of the made Hornsea 3 DCO applies the planning principle to an award of costs, which is that absent unreasonable behaviour, costs lie where they fall. In that DCO the recoverable costs of the Arbitrator are met by the parties '<i>on the general principle that each party should bear its own costs</i>'. However, the Applicants' drafting in these dDCOs remains different from the approach in Hornsea 3, on the basis that '<i>in arbitration, costs and expenses usually</i></p>	<p>As any arbitration will be in a planning context it is appropriate that the usual planning approach to costs should apply, namely each party bears its own costs. The argument made by the Applicants is more usual in commercial arbitration but this is a planning matter not a commercial dispute. The reality of the Applicants' position is that they want to reduce the risk of challenge on the basis of the "chilling effect" of adverse costs on a party with limited resources.</p>	<p>The DCO covers more than planning matters (for example, the protective provisions deal with the interface between statutory undertakers and other commercial entities and the Applicants). The Applicants consider the approach to costs set out within the Arbitration Rules to be entirely appropriate in the circumstances and in accordance with standard arbitration practice as well as DCO precedent.</p>

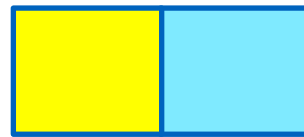



ID	dDCO Commentary	ExA's Commentary	SASES's Comments	Applicants' Comments
		<p><i>follow success and that is the rationale for this drafting.'</i></p> <p>a) The ExAs ask again for the justification for what is still understood to be a novel approach in a provision for a planning arbitration, where costs are proposed to run with the event?</p> <p>Given the reliance placed on Hornsea 3 to justify the arbitration provisions more broadly, is there not an argument that the drafting in these dDCOs should follow the rationale in that Order, which is based on the generally applicable principle in planning proceedings that each party should bear its own costs?</p>		



2.7 Applicants' Comments on SASES' Comments on the Drawings in the Design and Layout of the Substations Submission in Response to R17QE (REP11-177)

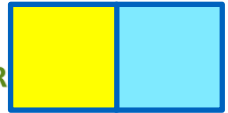
ID	SASES's Comment	Applicants' Comments
Introduction		
1	In response to a question issued by the Examining Authorities (R17 QE.1) in respect of the overall design and layout of the Friston substations site under various scenarios, the Applicants submitted a number of drawings. Some features are missing from these drawings and they highlight errors and omissions in certain photomontages.	The Applicants have responded to the detailed points raised by SASES at ID2 to ID5 within of the following rows of this table.
Errors and Omissions In Photomontages		
2	<p>SASES has been and remains concerned that the photomontages are not accurate. By way of example SASES refers to the following submission by the Applicants.</p> <p>Substation Photomontages: Figure 29.17 Update Viewpoint 5 Public Rights of Way, near Moor Farm (REP8-057).</p> <p>This includes a photomontage of the proposed western substation and National Grid GIS substation which shows the westernmost cable sealing end with two gantries.</p>	<p>The Applicants note that the landscape and visual impact assessment (LVIA) presented within Chapter 29 of the ES (APP-077) is based on a Rochdale envelope approach. The photomontages have been prepared to show considerably more detail using detailed 3D models, including the NGET substation and overhead pylons provided by National Grid. These have directed the assessment to consider much more of what is shown within the detail of the visualisations and this detail is clearly being scrutinised to a much greater degree, than if photomontages had just shown a 3D Rochdale Envelope of the maximum development parameters. The photomontages are accurate and provide a clear representation of the likely appearance of the substations, however there are inevitable limitations in what they can currently show using the 3D models available at this stage. In response to the example referred to by SASES, Figure 29.17 Update Viewpoint 5 Public Rights of Way, near Moor Farm (REP8-057), the Applicants note:</p> <p>a) The overhead lines (OHLs) do not end on the right-hand pylon, they carry on in the photomontage to the east of the right-hand pylon but are</p>



ID	SASES's Comment	Applicants' Comments
	 <p>There are a number of errors.</p> <ul style="list-style-type: none"> a) The OHLs end on the right hand pylon, when of course they continue on b) The quad core OHLs are shown as thin cables c) The cables are inaccurately positioned on the tension pylon, they should be much higher d) None of the OHL insulators are shown (they will be especially prominent on the tension pylon by the western most sealing end) e) The many cables and insulators and hardware from the sealing ends and gantries up to the OHL are not shown. 	<p>just faint in the image due to the exposure of the sunlight in that direction.</p> <ul style="list-style-type: none"> b) The cable thickness has no material influence on the visual effects arising from the proposed development. c) A higher position of the cables on the tension pylon would only be likely to reduce the visual effect. d) The addition of OHL insulators on the tension pylon has no material influence on the visual effects arising from the Projects. e) Gantries are clearly shown in the photomontage of the cable sealing compound, however the cables up to the OHL are not shown. The contribution to the overall visual effect of the Projects by such cables would be minimal, given that these cables will be viewed with a backdrop of, and subsumed within, either the National Grid substation or the cable sealing end compounds themselves. As such, the Applicants consider that the photomontages provide a fair representation of the visual effects likely result from the Projects.
3	<p>Photographs of complete sealing ends are shown on page 111 of Chapter 6 of the Environmental Statement, Project Description.</p> <p>These show how much more visible the typical final solution is. Further the westernmost cable sealing end has two gantries and two sets of conductors from the gantries up to the OHLs compared to the single one shown in these photographs.</p>	<p>The Applicants note the image on page 110 of Chapter 6 of the ES (APP-054). The photograph shown in this example is taken from a viewpoint located at close proximity to the sealing end compound for illustration and inevitably shows a higher level of visibility of the elements which make up the compound than would be experienced in the majority of views of the Projects.</p>



ID	SASES's Comment	Applicants' Comments
4	<p>Further it is not clear whether these photomontages reflect the larger footprint and more robust design of the four new pylon towers (including the one additional pylon tower) which are shown reflected in the drawings attached to the Applicants' Design and Layout of the Substations submission referred to below.</p>	<p>The Applicants note that the maximum number of reconstructed and / or relocated pylons is three, plus the addition of up to one new pylon in close proximity to the existing overhead pylons, as described in Table 6.30 of Chapter 6 of the ES (APP-054) and as shown in Outline Landscape Mitigation Plan (OLMP) Figure 3 General Arrangement within Annex 2 of the OLEMS (AS-127). The photomontages show a 3D model of the overhead pylons as provided by National Grid and are indicative of the 'more robust design' compared to the existing overhead pylons.</p>
Errors and Omissions In Drawings		
5	<p>The series of drawings attached to the submission shows in addition to the substations, two smaller cable sealing ends, the larger cable sealing end which includes a circuit breaker, and four new pylons. However in none of these drawings is the connection between the two smaller sealing ends and the pylons shown.</p> <p>The attached plan shows such connections and how the cable sealing ends might be configured assuming that the larger cable sealing end (including circuit breaker) is not required for these projects and particularly if only one project is consented or developed.</p>	<p>The Applicants note that there will be above ground cables connecting the smaller cable sealing end compounds with the OHL pylons and that these are not illustrated on the OLMP or shown in the photomontages. However, from the majority of angles, these cables will be viewed with a backdrop of, and subsumed within, either the National Grid substation or the cable sealing end compounds themselves. In this context, such cables will not represent a prominent visual feature and not materially affect the outline landscape proposals or the visual effects arising from the infrastructure as presented within the LVI A Addendum submitted at Deadline 4 (REP4-031) and the LVI A GIS Addendum submitted at Deadline 11 (REP11-028).</p>

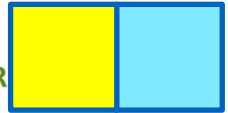


3 Post-Deadline 11 Engagement with SASES

4. A meeting was held between representatives of the Applicants, East Suffolk Council (ESC) and SASES' on 16th June 2021 to discuss areas of outstanding agreement regarding operational noise. This section sets out the key discussion points and aims to highlight the specific matters where agreement has been reached and those matters for which agreement remains outstanding, together with the Applicants position. Such matters are discussed in turn below within **Section 3.1** to **Section 3.3**.
5. Noting that controls relating to operational noise have been agreed with ESC, this section primarily focusses on the positions adopted by the Applicants and SASES.

3.1 Absolute Sound Levels

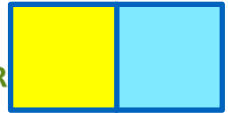
6. SASES have confirmed that it would accept a noise limit based on a rating level of 30dB.
7. Although this remains a matter of disagreement there is in effect little separating the Applicants and SASES on this matter, when it is considered that there is an indiscernible difference between a rating level of 31/32dB and a rating level of 30dB. As such, there is no demonstrable benefit of choosing 30dB compared to 31/32dB.
8. A considerable amount of technical work has been carried out and presented to enable the Applicants to commit to noise rating levels of 31/32dB at the monitoring locations specified within Requirement 27 of the **draft DCO** (document reference 3.1). A lot of information has also been provided throughout the Examinations explaining why the Applicants are confident of meeting the specified rating levels.
9. The rating levels specified within Requirement 27 of the **draft DCO** (document reference 3.1) represent legally enforceable limits. This means that there will be significant legal and commercial implications if the specified rating levels are not complied with upon commissioning of the Projects. Remedial treatment will be necessary if the commissioning tests demonstrate that the rating levels are not met. This is why it is common practice to build in an element of contingency to ensure that the limits can be comfortably met. Within this context, arguing about differences of 1 - 2dB is negligible.



10. In addition, the Substations Design Principles Statement states that “*The Applicants will seek to minimise the operational noise rating level below the limits set out in Requirement 27 of the draft DCO*”. It is therefore likely that SASES’ preferred rating level of 30dB will be met if compliance with this target level does not add unreasonable costs or delays to the Projects.

3.2 Assessment of Tonality

11. Paragraph 5.11.4 of the NPS for Energy (EN-1) requires, amongst other things, the Applicants to provide:
12. “*a description of the noise generating aspects of the development proposal leading to noise impacts, including the identification of any distinctive tonal, impulsive or low frequency characteristics of the noise*”.
13. SASES maintain that the Applicants have declined to provide key information including 1/3 octave band spectra to enable tonality to be assessed (in sharp contrast to other comparable schemes) and that the ExA and the Secretary of State cannot know whether the required noise rating levels specified within Requirement 27 of the **draft DCO** (document reference 3.1) are capable of being achieved.
14. The Applicants and SASES continue to disagree on this matter. The Applicants position is that:
 - an abundance of information has been provided and numerous representations have been made on tonality and other acoustic characteristics. The Applicants refer to ID2 within **Section 2.3** above, which addresses tonality in detail; and
 - a robust assessment of tonality and other acoustic characteristics has been carried out in accordance with BS4142:2014+A1:2019.
15. SASES argue that noise mitigation should be considered further when 1/3 octave band spectra are provided to enable tonality to be assessed. The Applicants’ position is that a robust assessment of tonality and other acoustic characteristics has been provided. This assessment has concluded that the noise from the substations is unlikely to be tonal. No further information or technical work is therefore necessary at this stage.
16. As requested and support by ESC, the Applicants’ are committed to providing an Operational Noise Design Report post-consent (as stated within the **Substations Design Principles Statement** (AS-133) which will provide further assessment of tonality at the detailed design stage when more information on the specification of the substation equipment is known.



3.3 Monitoring of Operational Noise

17. SASES have expressed a concern that the monitoring provisions may only allow for limited testing or testing under unfavourable meteorological conditions to demonstrate compliance with the noise rating levels specified within Requirement 27 of the **draft DCO** (document reference 3.1).
18. The Applicants refer to their comments at ID11 within **Section 2.3** where further detail on this matter has been provided.
19. It is believed that the Applicants and SASES may be close to overcoming this concern and reaching agreement on this point.