



SPR EA1N and EA2 PROJECTS

DEADLINE 5 - COMMENTS ON APPLICANTS DEADLINE 4 SUBMISSIONS

Interested Party: SASES PINS Refs: 20024106 & 20024110

Date: 3 February 2021

Issue: 1

INTRODUCTION

1. These comments relate to a variety of the Applicants' submissions made at Deadline 4 excluding matters relating to and responses to the Applicants' comments on SASES' written representations which SASES made at Deadline 1, which are dealt with in a separate document. The fact that a comment has not been made any particular submission should not be construed as SASES agreeing with the submission and SASES maintains its views as set out in previous submissions.

EA1N SUBSTATION DESIGN PRINCIPLES STATEMENT

Introduction

2. SASES makes the following responses to the Applicants 'Substations Design Principles Statement' [[REP4-029](#)] submitted at Deadline 4.

National Policy Statements

3. Page 4 para 12 reiterates the National Infrastructure Commissions objectives to '*improve our environment*' and '*solve problems well*'. SASES disputes that the current proposals meet either of these objectives due to choice of a completely unsuitable site and an unsatisfactory proposed implementation.

Design Principles Adopted (page 6, para 18 and Table 5.1)

4. SASES view is that the Design Council's capabilities are greatest in the area of aesthetic design, and do not extend to Power Engineering design, although it is the latter which determines the size and disposition of the apparatus to be installed. SASES therefore **strongly emphasises** the request made in its Written Representations for independent Power Engineering oversight of the implementation of the project, in a manner analogous to that of the Design Council's involvement. This is a critical opportunity to '*solve problems well*'.

Onshore Substation Design Envelope (page 9 para 28)

5. SASES does not accept that 170m x 190m (**3.23ha**) is the smallest substation footprint that can be achieved and refers the Applicant to its Deadline 4 representations [[REP4-104](#)] which cross-refer to a **2.1ha** benchmark footprint for an 800MW HVAC substation as advised by NGENO in their report for the BEIS OTNR. Also a comparator may be made to the **3.22ha** footprint of the 1200MW Hornsea One HVAC substation which is 50% more powerful than the proposed EA1N substation and yet has a smaller footprint. The current SPR proposal cannot be optimum on this basis.
6. Further, SASES notes that the current proposals reserve some **7ha** of land for use by the initial or expanded NGET substation, when the Application makes no justification for the

taking of such a large area of land out of agricultural or recreational use. If such a requirement exists it should be clearly explained and justified.

7. It may further be noted that a project comprising two 2.1ha wind farm substations (NGESO metric) and the GIS version of NGET substation (1.7ha) would require no more than half the land currently reserved in Application for substation construction. How in that case can the current application be described as '*space efficient*' (para 28 line 2)?

Design Champion (page 14 para 34)

8. SASES notes the National Infrastructure Commission's recommendation that a '*board level design champion*' be appointed but requests sight of the proposed organisation structure in order to allow confirmation that the '*senior business representative*' will indeed be a member of a relevant Board, and in a role whose competences are appropriate to the task of Design Champion.

Onshore Substation Height (page 16 para 40)

9. SASES has previously referred to the use of low profile electrical equipment to reduce the height of substation equipment and buildings, citing the comparator site of the Rampion wind farm substation ([[REP1-227](#)] p165). The currently proposed reductions in structure height are welcomed but would still be highly visually intrusive in the landscape.
10. It is precisely with regard to issues such as these, and the trade-offs involved, that SASES wishes independent Power Engineering advice to be engaged.

Finished Ground Levels (page 16 para 42)

11. SASES is extremely concerned that the Applicant has yet to undertake sufficient investigations to allow the final finished ground levels to be established as these are fundamental to achievement of an adequate flood remediation plan. The stated current position demonstrates that the project is insufficiently defined to be consented.

Engagement Strategy (page 21 para 8)

12. SASES maintains that in the interests of **transparency and democracy** all engagement with ESC to progress the *Landscape Masterplan* and *Architectural Framework* must be **in public**, with a reasonable number of community representatives present as observers, and subject to agreement, contributors. Otherwise community stakeholders may again be presented with a *fait accompli* with no opportunity to influence critical decisions or understanding of how they were determined.
13. The full Minutes of all such engagement meetings shall in any case be made public as promptly as reasonably possible.

Architectural Framework (page 22)

14. Para 17: The reference to design engineer should include independent design engineer for the reasons stated in 5 above.
15. Para 18: The reference to the East Anglia ONE North project would appear to be incorrect, it should presumably be East Anglia TWO.

Engagement Stage 1 (page 23 para 22)

16. SASES welcomes an Independent Design Review but reiterates that this must allow informed discussion of architectural, landscaping and Engineering decisions leading to the proposed project design, including comparison with other project implementations.

Parish Council and Local Resident Engagement (page 24 para 26)

17. The wording '*pre-defined topics*' is not acceptable and should be changed to '*pre-agreed topics*' to avoid concern that 'difficult' topics may be avoided.

Timescales (page 25 para 34)

18. Please refer to 8 above regarding engagement '*Prior to Granting of Development Consent Order*'.

CLARIFICATION NOTE NOISE MODELLING

19. Please see the Supplementary Submission on Applicants' Project Update Note and Clarification Note – Noise Modelling 13 January 2021 prepared by Rupert Taylor dated 3 February 2021 attached at Appendix 1.

CLARIFICATION NOTE SUDS INFILTRATION NOTE

20. Please see GWP report dated 3 February 2021 attached at Appendix 2.

OUTLINE OPERATIONAL DRAINAGE MANAGEMENT PLAN

21. Please see GWP report dated 3 February 2021 attached at Appendix 2.

LANDSCAPE AND VISUAL IMPACT ASSESSMENT ADDENDA

22. Please pages 3 & 4 of Landscape Briefing Note 6 prepared by Michelle Bolger attached at Appendix 3.

TRAFFIC AND TRANSPORT CLARIFICATION NOTE

23. As will have been apparent from various submissions made at ISH5 and open floor hearings, there is and remains a great deal of concern that HGVs and other construction traffic turning right off the A12 and left onto the A12 at the Friday Street junction will cause significant congestion and thereby cause further safety and congestion issues elsewhere. Suffolk County Council, quite rightly, are concerned primarily about safety issues at Friday Street. However there does not seem to be an appreciation or any analysis of the real risk particularly at peak holiday times that this will cause congestion and safety issues elsewhere.
24. The introduction of traffic signals for right turning traffic may well address safety issues. However notwithstanding Suffolk County Council's desk based calculations of capacity based on average volumes, there remains a very significant concern, particularly in peak holiday periods, that the introduction of signals will cause congestion. Further in trying to address a safety issue at Friday Street this will cause (or rather exacerbate) an existing safety issue of traffic turning right off the A12 before the Friday Street junction and using the narrow and twisty country lanes to seek access to the B1069 which runs past Snape Maltings and through Snape village (including the primary school). These country lanes are used by walkers, cyclists, horses and agricultural equipment.
25. It should be noted that the peak hours used in the modelling are non-standard at 07:30-08:30 and 16:30-17:30 and this is not explained.

Key Omissions

26. The current desk-based modelling (which appears to suggest a signalised junction in this location would operate within theoretical capacity) has the following omissions.
- a. Introducing signals where they are currently none will delay traffic overall compared to the existing situation. This does not appear to have been modelled, therefore it is not possible to accurately compare exactly how much traffic will be delayed in the future compared to the existing situation.
 - b. Many concerns have been expressed over the capacity of this junction and a knock-on effect particularly at Snape crossroads during peak seasons. Our concerns over impacts during the holiday season are well founded. In the Transport Assessment submitted as part of the DCO for the Wylfa Newydd Power Station, a sensitivity analysis was undertaken to assess the impacts of DCO traffic in the month of August at a key section of the construction traffic route to/from the development site. Why has there been no such analysis in this case?
 - c. No account seems to have been taken of the new development near the Friday Street junction of an agricultural potato processing plant and weighbridge, nor of the ever increasing popularity of the Friday Street retail operation. Both of these destinations are close to the Friday Street junction and will generate increasing amounts of traffic.
 - d. It is unclear whether traffic has been assessed at the peak of construction movements with concurrent construction of EA1N and EA2.
 - e. The peak hours used are non-standard at 07:30-08:30 and 16:30-17:30. It should be clarified that these are in fact the peak hours and that they are also peak hours during the peak holiday season.
 - f. It is unclear whether the modelling undertaken by the Applicants has been independently audited.

The Consequences of Inaccurate or Incomplete Traffic Assessment

27. These concerns and omissions are not minor in themselves. However they also need to be considered of in the context of the consequences if the desk based assessments prove to be incorrect. Some of these will be as follows.
- a) **Congestion** on the A12 running back from the Friday Street junction, particularly in peak holiday period with events at Snape Maltings and in Suffolk Coastal area which are accessed by the A12. This could be a significant detractor to the Suffolk Heritage Coast as a holiday destination
 - b) **Safety** - rat running on the country lane network to the B1069 due to congestion on the A12. This is a significant safety issue both on the country lane network and on the B1069
 - c) **Congestion** on the B1069 running back from Snape crossroads
 - d) **Safety** at the Snape crossroads exacerbated by a busier A1094 with delayed and frustrated motorists trying to join the a 1094 from the B1069.
28. These are not imaginary issues. Local residents already live with them and they will get worse. Are Scottish Power and Suffolk County Council really sure that these safety and congestion issues will not arise?

Highway Works Timing

29. It seems to have been agreed between the Applicants and Suffolk County Council that the scheme is constructed before commencement of the projects. This should be included in the Requirements. Furthermore any construction works at this junction should be timed to avoid peak holiday season to reduce the impact on the local economy.

APPLICANTS' COMMENTS ON SASES' DEADLINE 3 SUBMISSIONS

Application and relevance of Schedule 9 Electricity Act 1989

1. The applicants contend that Schedule 9 is not relevant to the determination of the application. The applicants seem to focus on the duty under paragraph 1(2) of Schedule 9, which applies to the appropriate authority in determining applications for consent under s 36 or 37 Electricity Act 1989.
2. However, that ignores the duty on the licence holder imposed by paragraph 1(1) of Schedule 9. The licence holder (here, National Grid) in formulating its proposals
 - “(a) shall have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archeological interest; and
 - (b) shall do what he reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects”
3. The question which arises is what assessment was carried out to justify the selection of the Leiston area as the grid connection location. The answer is that there was no such consideration, or none which has been shared with the examination. Schedule 9 matters should have been considered prior to the selection of the Leiston area.
4. It appears from the applicants' response that, in fact, there was no consideration of alternatives in relation to the selection of the Leiston area.
5. The applicants now claim that Schedule 9 matters were addressed in the ES. However, none of those matters informed the selection of the Leiston area for the new national grid connection hub. Whilst there is passing reference to Schedule 9 in paragraph 17 of Chapter 4 of the ES, the applicants have not referred to any statement in the ES to the effect that the Schedule 9 requirements have been complied with.
6. Accordingly:
 - a. The applicants are wrong to assume that Schedule 9 has no relevance, since the identification of the Leiston area for the grid connection was the formulation of a proposal caught by paragraph 1(1) of Schedule 9, even though the infrastructure is not being consented under the 1989 Act;
 - b. Even if the Schedule 9 requirements are addressed in the ES, that is only in respect of the location of the infrastructure *within the Leiston area*. It does not

assist on the question of whether the statutory duty has been met in respect of the selection of the Leiston area (as opposed to another area in East Anglia).

7. This matter is plainly relevant to the Secretary of State and thus the ExA. The lawfulness of National Grid's site selection process could warrant refusal of development consent under s 104(5) or (5) Planning Act 2008, regardless of any conclusions reached in respect of NPS compliance.

Section 9 Electricity Act 1989

8. The applicants seem to have misunderstood SASES's submissions on this point. They are that in the absence of any scrutiny of the CION process by Ofgem, the matter should be considered as relevant and important to the examination and to the Secretary of State's determination. The decision-maker on the application for development consent should scrutinise whether the proposal for a connection in the Leiston area is justified by reference to the need "to develop and maintain an efficient, co-ordinated and economical system of electricity distribution". EN-5 specifically requires this duty to be taken into account. It should be noted that the need for a "co-ordinated" system appears to be omitted from paragraph 2.3.5 of EN-5 and from the applicants' commentary on it, but clearly is relevant on the facts of the present applications.

Alternatives

9. SASES refers to its previous submissions on alternatives and does not repeat them. The ExA is reminded that development consent is sought *for* National Grid. The argument that the applicants' consideration of alternatives can lawfully be constrained by a prior decision *by* National Grid to locate the grid connection infrastructure in the Leiston area is flawed and unlawful for the reasons previously set out.

APPENDIX 1

**Supplementary Submission on Applicants' Project Update Note and Clarification Note
– Noise Modelling 13 January 2021 prepared by Rupert Taylor dated 3 February 2021**

East Anglia One North and East Anglia Two
SASES (Substation Action Save East Suffolk)

**Supplementary Submission on Applicants' Project Update Note and
Clarification Note – Noise Modelling 13th January 2021**

3 February 2021

1. INTRODUCTION

The applicants have produced the documents "Deadline 4 Project Update Note" and "Clarification Note Noise Modelling" dated 13th January 2021.

This supplementary report by Rupert Thornely-Taylor addresses issues that arise with respect to the content of the Clarification Note

2. DCO NOISE LIMITS

The two documents present new information summarised in the Introduction to the Clarification Note as "This Clarification Note also reflects ongoing engagement with the supply chain and designers regarding the mitigation of noise emissions from operational substation equipment, as described in the *Deadline 4 Project Update Note* (document reference ExA.AS-2.D4.V1). This has allowed a reduction of the maximum received operational noise rating levels secured within the *draft DCO* (REP3011) from 34dBA to 32dBA at any time at a free field location immediately adjacent to noise receptors SSR2 and SSR5 NEW"

This indicates that the degree of mitigation is being dictated by engineering considerations and not primarily by the need to achieve the requirements of EN-1 with regard to adverse effects due to noise.

3. UPDATED NOISE MODELLING

The updated noise modelling takes account of matters set out in 4.1 of the Clarification Note, including meteorologically dry conditions. Meteorology requires further detailed consideration, particularly with regard to (1) the relationship between onshore and offshore windspeeds, (2) the relationship between source sound levels and offshore windspeeds, (3) the relationship between offshore and onshore windspeeds and background noise levels and (4) the relationship between onshore windspeeds and sound velocity inversions, either due to wind gradients

or temperature gradients. Velocity gradients have the effect of negating much or all of the substantial soft ground attenuation included in the model.

Data Sources and Characteristics

Updated source noise levels are presented. While these data are limited to 1/1 octave bands and are not provided as 1/3 octave band spectra, the fact that the 125Hz octave band levels (which include the 100Hz 1/3 octave band) for the STATCOM Air Core Reactor, STATCOM Filter Capacitor Bank and Harmonic Filter are 35 dB or more greater than the adjacent 63Hz and 250Hz 1/1 octave bands is a clear indication that there is a strong likelihood of tonality, which should be further considered in order to ensure the feasibility of the additional mitigation which its presence would dictate.

National Grid Infrastructure

This section introduces a completely new assessment methodology which is not part of BS 4142 or any other standard method, comparing Switchgear L_{Amax} with a "Measured Representative Maximum Level". If this event could occur at night specific consideration of sleep disturbance due to L_{Amax} events is required

Revised Operational Noise Assessments

The revised predictions that are presented continue to be based on background noise levels which show the environment to have a higher baseline noise background than is the case, resulting in incorrect conclusions about the effects of the noise.

Of particular relevance is the contrast between the background assumed for SSR9 and the measurement results presented for this location in the ES Appendix 25.3. At the noise session in ISH4, the applicant's expert witness did not agree that Friston is an exceptionally quiet area. Yet Appendix 25.3 shows that, using the methodology strongly relied on by the applicants, the mode of the L_{A90} results at SSR 9 was 18 dBA. In the ES, this result was discounted for the following stated reason:

A review of the measurement location chosen to represent SSR9 (as land access was not available) during the June to July 2018 baseline noise survey was undertaken. It was concluded that the measurement position was not representative of the soundscape at the residential dwelling(s) at SSR9 intended as the noise sensitive receptor. The following points were considered to justify this conclusion:

- The survey measurement location is approximately 350m further north than the most exposed façade of the residential receptor at SSR9 to the proposed onshore substation infrastructure;
- The survey equipment was installed on the opposite side of the residential receptor at SSR9 to the proposed onshore substation infrastructure; therefore, the amenity space and most exposed façade at SSR9 is located on the opposite side of the building to the measurement position; and

- The survey location does not take into account the total effect from any at receptor background noise emanating from the existing overhead lines.

None of these points justifies rejecting the SSR9 result, and substituting a value of 29 dB, 11dB greater than the measured figure of 18 dBA.

The reference to existing overhead lines supports the concern expressed by East Suffolk District Council's consultants, Adrian James Acoustics, and goes against SPR's rebuttal that the baseline measurements were affected by overhead line noise.

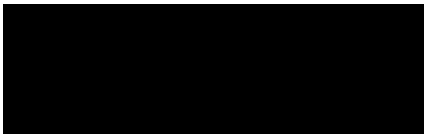
SSR9 is not far from SSR3, which is proposed as an additional control location in DCO Requirements 26 and 27.

If the BS4142 background was measured as 18 dB(A) in some of the most sensitive locations, it is now acknowledged by the applicants that this figure is below the measurement range of the instruments used so the true result is several dB lower after instrument self-noise is removed.

4. CONCLUSIONS

The material submitted by the applicants at deadline 4 leaves the noise assessment and proposed controls in an unsatisfactory state because (a) insufficient data are provided on the matter of tonal content of the noise sources, which may attract a 6dB penalty and threaten the achievability of the noise requirements, and (b) the noise assessments, and the proposed DCO noise limit requirements are not in all cases based on correct background noise levels.

Signed

A large black rectangular redaction box covering the signature area.

Rupert Thornely-Taylor
3 February 2021

APPENDIX 2

Report prepared by GWP Consultants dated 3 February 2021



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Michael Mahony

GWP Report No: 210205

Our ref: mm030221.let

Your ref:

03 February 2021

Dear Mr Mahony

Flood Risk Related Comments on Deadline 4 Submissions in respect of Scottish Power Renewables EA1N and EA2 Project Onshore Works near Friston

This letter constitutes a technical critique of the Deadline 4 Submissions made by Scottish Power Renewables (SPR) with respect to flood risk near Friston Village. Further comments are also provided on the regulatory role of Suffolk County Council. This work has been commissioned by Substation Action Save East Suffolk (SASES).

Qualifications of Author

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 post-graduate 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.

Instructions

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.

SPR Deadline 4 Submissions relating to Flood Risk at Friston

The Applicant submitted two new documents prior to the Deadline 4 hearing. These were:

- i) Clarification Note on the SUDS Infiltration Note (10 pages); and an
- ii) Outline Operational Drainage Management Plan (OODMP).

These two documents were referred to extensively by the Applicant in previous submissions and responses to earlier Deadlines and were clearly considered to be critical documents for the Applicant on the issue of on-site water management and off-site flood risk.

In reality neither document contains any substantive more detail, other than the Infiltration Clarification Note concluding an infiltration only scheme is unviable. The OODMP contains insufficient details to confirm the viability of the scheme, and in fact presents a design which is clearly inadequate, requiring the use of the freeboard volume and landscaping areas to work.

Neither document does anything to address the more fundamental issues of:

- i) Failure to adequately define baseline (pre-development) on-site and off-site storm run-off hydrology;

- ii) Failure to adequately assess flood risk to Friston Village;
- iii) Failure to demonstrate viable flood mitigation from the operational site;
- iv) Failure to adequately consider flood risk and mitigation from the construction phase of the development.

We have the following detailed observations to make on each document:

Applicants' Clarification Note on SUDS Infiltration Note

The Note commences by stating the scheme design is for the attenuation ponds to discharge to Friston watercourse – ie without infiltration – stating this is a reasonable design. Consistent with SCC, we GWP advise this is not a reasonable design, it does not follow SUDS hierarchy.

The design parameters still use a Factor of Safety (FoS) of 1, but the document includes a sensitivity analysis using an FoS of 10. The consequence of this work is the Applicant now concludes they cannot achieve an infiltration only drainage design due to long storage retention times – so will have to now use a combined infiltration & attenuation design.

The provided calculations are consistent with this conclusion that an infiltration only scheme is unworkable. Nonetheless the calculations do not use appropriate input parameters, factors of safety nor provide sufficient details on design.

The Applicant still refuses to undertake pre-consent infiltration testing. This means the uncertainty over the infiltration rate (which could vary over at least 4 orders of magnitude) remains considerable and the scheme viability therefore unproven.

The attenuation ponds on the provided drawings appear to show a 5m fall on the surrounding topography – resulting in the ponds being above ground surface on their down-slope side. This risk of above ground storage retention and bund failure has not been assessed at all.

Importantly, there are no calculations showing resulting Peak and Total Flows having to be discharged to the Friston Watercourse – ie for a combined infiltration and surface water discharge system, nor comparison with pre-development Peak and Total Flows.

Applicants' Outline Operational Drainage Management Plan

The OODMP is largely limited to general drainage principles and options, with summary tables on calculated required volumes to achieve certain off-site discharge rates.

The OODMP does use the climate change allowance requested by SCC. There is no detail on the scheme design working for smaller events – it has to work for all events, not just the large storms. There are no details of sizing of the oil interceptors. This is important as the interceptors are up-gradient of the storm water attenuation ponds.

The OODMP states the existing Greenfield (ie pre-development) Run-off Rate (GRR) will be confirmed during detailed design. This being the case, how can the Applicant state the outline scheme can reduce off-site flow rates to < GRR, which is a statutory requirement ?

Reported design discharge at Q_{bar} (7 & 5 l/s) have no details as to which storm events have been considered, nor what assumptions have been made regarding what infiltration and floor area, with what FoS, nor whether the emptying times meet SCC requirements.

As throughout all the documentation to date, the Applicant focuses only on Peak Flows. There is no consideration of Total Flows – which is inconsistent with national and local flood policy.

There are no hydraulic model (MicroDrainage) calculations provided – note they were provided for the Infiltration Note. These results are therefore unsubstantiated. The summary details provided however show that the required design storage is exceeded, and actually requires the emergency freeboard and perimeter track to be available. That is not an acceptable design – and does not meet acceptable UK practise - freeboard cannot be used as part of the operational storage! The calculations show the design fails.

Lastly, and obviously the OODMP does not consider Construction Phase drainage – which remains essentially absent from the Applicant's submissions.

Comment on Lead Local Flood Authority Mandate

The Lead Local Flood Authority (LLFA) is Suffolk County Council. The LLFA is responsible for the management of pluvial (surface water) run-off risk and its mitigation using the planning and permitting processes. Pluvial risk management is not the responsibility of the Environment Agency.

There may well be other issues which influence and constrain the options for on-site drainage schemes, for example the footprint available may be constrained by biodiversity and ecology habitat protection, landscape and visual concerns, or even traffic and noise limits which constrain road locations. However, irrespective of these influences and constraints on the surface water management schemes, the schemes themselves have to fundamentally ensure no increase in flood risk due to the development and ideally a reduction in flood risk – and this remains solely the responsibility of the LLFA.

I trust the above is self-explanatory.

Yours sincerely



Clive Carpenter
Partner and Head of Water Resources

APPENDIX 3

Landscape Briefing note 6 prepared by Michelle Bolger dated 2 February 2021



Landscape Briefing Note 6

Project: 1080 East Anglia One North and East Anglia Two
Date: 2nd February 2021
Purpose: Notes responding to SPR's Deadline 4 submissions
Reference: 1080 BN06 Responses to Deadline 4 submissions final .docx

EN010077-003454-ExA.AS-25.D4.V1 EA1N&EA2

Applicants' Comments on SASES' Deadline 1 Submissions

Implications for landscape and visual impacts of the length of construction period

1. In response to the issues that were raised with regard to the uncertainty of the length of the construction period should the two SPR substations be built consecutively, the *Applicants' Comments on SASES' Deadline 1 Submissions* refers (page 125) to EN010077-001534-6.3.29.5 EA1N ES Appendix 29.5 LVIA Cumulative Assessment. However that appendix which does not provide any detailed information about how the individual elements of the proposals would be scheduled. It merely states the adverse effects should the two substations be built consecutively would be medium term (5-10 years) rather than short term (1-4 years) if they were built concurrently.
2. It does not answer the following questions:
 - Is there a commitment (rather than just an assumption) that the construction of the NG substation (48 months) is concurrent with the SPR substation? If not the construction of just one SPR substation could result in medium term adverse impacts.
 - Is there any commitment to no delay between commencing construction on the first SPR substation and commencing construction on the 2nd?
3. Even if the construction of the 2nd SPR substation begins immediately the first one is completed the construction period and associated adverse impacts would be 5 years with a consequent five-year delay in the implementation of the bulk of the mitigation measures. If there is no commitment that there will be no delay between the construction of the two substations the construction period could theoretically be extended for 7½ years or more years. Effectively this means Yr 15 when planting is assumed to have established may be 22½ years after the start of construction



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4. As noted in *EN010077-003208-sases deadline 3 mb 1080 BN04 Landscape 151220* whilst the commitment to install the ducting for both projects at once along the cable route is welcomed no such commitment has been given with regard to the substations although it would clearly be a potential mitigation measure with regard to the adverse landscape and visual impacts at Friston. As a consequence, the uncertainty over both the length of the construction period and the date on which the vast majority of the mitigation planting can be implemented remains.

RAG Assessment

5. Throughout the *Applicants' Comments on SASES' Deadline 1 Submissions* there is an insistence that *'The RAG assessment does not, however, in itself identify the chosen onshore substation site. It was a tool that allowed sites to be compared and progressed to further assessment stages and considered holistically in terms of all environmental criteria.'* It is unclear on what basis the site selection was made if it was not based on the RAG assessment. The Connection and Infrastructure Options Note (CION) process does not include an adequate assessment of landscape and visual factors. The RAG assessment concluded the Friston site was less environmentally sensitive than the other sites considered and so it was chosen. As has been set out previously, that assessment was flawed.

Influence of the existing transmission lines

6. In *Applicants' Comments on SASES' Deadline 1 Submissions* there is a repeated insistence that the overhead transmission lines *'exert an important influence on the way that the landscape is experienced'* This was not the conclusion of the LVIA. The LVIA describes the pylons as *'notable visual elements'* that *'tend to distort the sense of scale'* but nowhere does it suggest that they are the key characteristic exerting an important influence on the way that the landscape is experienced, of greater importance than other distinctive characteristics. Rather the LVIA describes the landscape as *'Quiet farmland, with a simple, rural character but a strong sense of agri-business land use evident amongst the medium to large fields towards Fristonmoor and Little Moor Farm.'*

EN010077-003433-ExA.AS-3.D4.V1 EA1N&EA2 Landscape and Visual Impact Assessment Addendum

7. It is welcomed that the revised photomontages in the Appendices to the *Landscape and Visual Impact Assessment Addendum* now include an existing image that can easily be compared to the photomontages and that the overly optimistically 'early' planting has been omitted. It is a shame that the opportunity was not taken to revise the smooth green field with the newly planted whips/transplants in Vp 1 which, as pointed out at the ISH2, is quite unrealistic. Creating a more realistic image which acknowledged the likely soil conditions around the planting would not have been difficult. Vp 1 is also a very clear example of the limitation of the approach to showing just Yr 1 and Yr 15. The Yr 1 image is quite unrealistic and there is no real indication of how that viewpoint will look over the period that it will take for the planting to establish.
8. As previously stated, the loss of the open view across the landscape from Vp 1 has not been recognised in the assessment as an adverse impact. I do not agree with the conclusion that the magnitude of change on visual amenity at Yr 15 years is negligible and not significant.
9. The revised photomontages from Vp 5 which is presented on two frames now illustrates more clearly the impact of the development on the distinctive character of the landscape to the north of the village in which the presence of the church makes a significant contribution. The revised photomontages from Vp 5 illustrates how the landscape to the north of the substations will be severed from the village and there will be a total loss of the current relationship between this landscape and the village. The *Landscape and Visual Impact Assessment Addendum* accepts that the changes made during the examination process will not reduce the visual impact from this viewpoint or other viewpoints to the north. From Vp 5 the effect will remain significant, adverse and permanent.
10. In *Applicants' Comments on SASES' Deadline 1 Submissions* the applicants lists in a number of places (e.g. Page 148) the factors that they consider have reduced the visual impact of the development. Not listed is the rearrangement of elements within the substations. As set out in *EN010077-003522-sases deadline 4 Submission - Appendix 1 to Comments on Applicants' Deadline 3 Submissions* this accounts for some of the reduction in visual intrusion between the original photomontages and the revised photomontages in Vps 2 and 9. As the layout of the substations is not currently a controlled element of the DCO any improvement as a result of the rearrangement of equipment cannot be relied upon. If a specific arrangement is being relied upon to reduce visual intrusiveness there needs to be a specific requirement with regard to the layout.

Conclusion

11. Some of the Applicants' Comments on SASES' Deadline 1 Submissions relate to changes that have been made during the examination which have already been addressed in subsequent SASES submissions. It is not considered helpful to reiterate the points that have already been made but it is important to note that:

- I do not consider that the issues raised with the site selection process have been adequately answered and that I remain of the view that the RAG process which informed the choice of the site in Friston was misleading and failed to identify the key sensitivities of the landscape.
- I remain of the view that the LVIA is unhelpful in not identifying the level of adverse effects and relying simply on effects being significant or not significant.
- The reduction in footprint and a commitment to reduce the height of the equipment is welcomed, however the development would remain incongruous and out of scale with the receiving landscape.
- The changes would not be enough to significantly reduce the magnitude of change for either landscape or visual effects. Those effects which will remain as **major adverse** during construction and through Year 1 (potentially a six-year period or longer) only reducing to **moderate/major** at year 15, based on optimistic assumptions with regard to tree growth rates.