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Tel: 01473 264804/01394 444538
Email: john.pitchford@suffolk.gov.uk /
lisa.chandler@eastsoffolk.gov.uk

eastangliaonenorth@pins.gsi.gov.uk

Dear Sir/Madam

**Planning Act 2008 (as amended) and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) Regulations 10 and 11
Application by Scottish Power Renewables (UK) Limited for an Order granting Development Consent for the East Anglia ONE North Offshore Windfarm
Response of Suffolk County Council (SCC) and Suffolk Coastal District Council (SCDC) to the Scoping Opinion submitted to the Secretary of State.**

1 Thank you for the opportunity to comment on the East Anglia One North and Two offshore wind farm Scoping Reports dated November 2017. This is a joint response of the two local authorities relevant under Section 43(1) of the Planning Act 2008.

2 The project includes: wind turbines, offshore electrical platforms, buried offshore export cable, transition bays, onshore substation, National Grid substation, and possible upgrades to the existing UK electrical network. Temporary works and ancillary infrastructure necessary for construction and operation of the project – on and off-shore.

3 The relevant National Policy Statement's are: EN-1, EN-3 and EN-5 and the Marine Policy Statement.

4 It is noted that HRA screening is to be undertaken in early 2018.

5 Para. 15 in both scoping reports fail to acknowledge that the point of landfall for the offshore cables is within the nationally designated Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB). Para. 26 (in both reports) do not include reference to the National Parks and Access to the Countryside Act 1949 with reference to designation of AONB.

6 It is also noted that the grid connection point at Sizewell has dictated the search area for the landfall and substation requirements. Previous advice from National Grid had been that there is not capacity to connect at Sizewell so further clarification as to how the additional capacity has been achieved is requested.

7 At this point, the joint local authorities would like the existing and other proposed energy infrastructure in the vicinity of Sizewell to be considered as there is a concern to the Local

Planning Authority that the cumulative and in-combination impact of these proposals combined is adequately and appropriately assessed and mitigated. This stretch of the coastline and inward is a nationally and internationally designated site and this must be considered a high priority in proposing development in this locality. The restrictive search area proposed for the onshore elements is a concern due to the number of constraints within the area identified already. It is suggested that this area is extended to enable avoidance of designated areas where possible.

8 Para. 49 (EA1N Scoping report) and para. 51 (EA2 scoping report) refers to Sizewell as the most economical solution following a review by National Grid. There is no reference to the environmental or social impacts arising from determining that Sizewell is the best location and this is a concern and an omission to the process.

9 Para. 53 (EA1N scoping report) and para. 55 (EA2 scoping report) identifies the constraints likely to apply to both schemes. However not all other potential infrastructure projects are referred to in para 171 (both reports) that deals with cumulative impacts. In particular, intercontinental connectors (Nautilus) have not been referred to. This is likely to be of a similar scale to the East Anglia onshore infrastructure and coming ashore in the same broad area. Although the interconnector project is likely to be dealt with through a different regulatory regime (Town and Country Planning Act) and no application has yet been submitted, the National Grid's Technical Register shows this scheme connecting in 2024, one year ahead of EA2. Clearly, to achieve this, it will be necessary for details to be available in parallel with that for the schemes currently the subject of this Scoping and certainly before the submission of this scheme's Environmental Impact Assessment. In an area very constrained by national and international landscape and ecological designations, it will be important that the in-combination effects of all of these schemes are considered. Additionally there are constraints in relation to the changing coastline, the eroding coastline and the unstable coastline (in areas).

10 The Horlock Rules (paras.62 – 64 EA1N scoping report, paras. 63-66 EA2 scoping report)) demonstrate that the majority of the coastline in the Sizewell – Thorpeness area would not be compliant therefore consideration should be given to moving the search area inshore away from the protected areas.

11 SCDC and SCC support the principle in para. 72 (EA1N scoping report) and para. 73 (EA2 scoping report) of installing ducting for the EA1 North project at the same time as the EA2 project to minimise future environmental impacts of trenching a second time.

12 The maximum turbine tip height is proposed to be 300 metres high – the biggest in the East Anglian Array to date and this will need to be reflected in assessments of the project undertaken, in particular on the visibility of the project from the coastline.

13 Coastal Processes

14 From its specific role as a coastal defence authority for areas of the coastline in the vicinity of the search area and within the search area, SCDC has the following comments:

15 1.5.3.1.1 Landfall Installation Methods (both scoping reports). Consider in-life operational (50 years?) maintenance of cables when assessing preferred method of cable landfall. For example the risk of uncovering by erosion is greater with the beach buried option than HDD to lower level and offshore break out point. Consider the need to monitor beach levels and impact of vehicles on

beach required to re-bury cables if/ when uncovered. Will shallow cables impose constraints on use of beach by other vehicles if cables are uncovered or depth of coverage reduces? Shallow cables would also require the operator to monitor.

16 1.6.3.9 Decommissioning Impacts (both scoping reports). Include consideration of potential decommissioning actions when assessing landfall installation methods.

17 Having regard to potential closures to the beach and the Suffolk Coast Path, this must be minimised as Sizewell beach is well used by fishermen and dog walkers and recreationally. Any closures would be resisted unless temporary and for essential health and safety justification. Diversions may be required.

18 Seascape, Landscape and Visual Impact Assessment (SLVIA)

19 The scoping report takes a mixed approach to this issue. Details of the offshore methodology are set out in considerable detail in an appendix, whilst the onshore methodology is dealt with much more briefly in the main body of the document.

20 The environmental statement will need to take a clearer, fuller and more joined up approach to SLVIA methodology both onshore and offshore. Furthermore there are significant technical issues to be resolved in respect of:

- a) The details of the approach to visualisations, including the representation of aviation and marine navigation lighting; the visualisations provided of the seascape to date (in Public Information Displays) have been 'selective' and should include night impacts. Along this stretch of coastline the Greater Gabbard / Galloper fields are often clearly visible. There was no in combination visualisations and it was very difficult to tell the comparative size and density of turbines from the different fields to date;
- b) The definitions of duration of landscape and visual effects; and
- c) Sequential visual effects on users of the Suffolk Coast path. It is particularly important to resolve this satisfactorily, especially given the relationship of this route to the designated landscape and the likely significance of long duration of impacts, like those identified during the consideration of the Navitus Bay application.

21 In addition in order to avoid issues identified in relation to the Navitus Bay Assessment the following are essential:

- i. A realistic worst case scenario to be used which takes full account of all onshore constructions;
- ii. A clear definition of the range of susceptibility of seascape and landscape types which should not be too narrow and selective;
- iii. That coast path users to be accorded the highest level of sensitivity throughout the length of the route and not just for the best panoramic views or designated viewpoints;
- iv. A clear understanding that an ongoing series of even less than moderate effects for coast path walkers can nonetheless still be significant because of the continuous experience; and

- v. That the thresholds of Significance need to be fully understood and agreed as part of the detailed methodology, prior to submission of the Environmental Statement.

23 The applicant should review the approach to clarifying methodologies previously used in the East Anglia THREE application as this is likely to be the most effective way to reach common ground on these technical matters.

24 It is recommended that these technical issues are resolved through discussion and by review of draft documentation by consultees prior to submission of the Environmental Statement in order to ensure that common ground is reached.

25 *Assessment of impacts on Seascape Character:* The effects of the proposals on seascape character will be evaluated using the seascape character assessment. This document is in preparation, an initial version will be available to inform the Preliminary Environmental Report. The final document will be available to inform the Environmental Statement.

26 *Assessment of impacts on Landscape Character:* The Scoping reports propose to assess the impact of the proposals on the landscape/seascape and visual amenity using the Suffolk Landscape Character (LCA) types as key receptors. In respect of the impacts of the offshore elements it is suggested that *only* those Landscape Character Types in which the sea is specifically stated to be pertinent to character will be dealt with.

27 This approach *is not reasonable or acceptable*, given the sensitivity and status of the receiving environment. It is also not reasonable given the scale and level of detail and terrestrial focus of the Suffolk LCA, for this to be used as the only source from which to define the contribution of the sea to the character of the landscape, particularly given the other information identified by the applicant in the scoping report.

28 Therefore, in order to reach common ground it is expected that the applicant's landscape consultant will *assess the contribution of the seascape to the character of all the receiving landscape/s* and on that basis the likely impacts of the proposal.

29 Given the size and extent of the study area, the contribution of the sea to character of terrestrial landscapes is likely to vary, not only between landscape types but also between locations, the assessment will need to take account of this.

30 It is recommended that these issues are resolved by discussion and through review of draft documentation by consultees prior to submission of the Environmental Statement in order to ensure that common ground is reached.

31 *Assessment of Impacts on the Character and Special Qualities of the AONB and Heritage Coast:* The evaluation of the impacts of the proposal on the landscape types identified in the Suffolk Landscape Charter Assessment *is not sufficient for this project*, as the applicant themselves identifies in appendix 4.1 para 27 (both scoping reports). A full understanding of the Suffolk Coast and Heaths AONB Special Qualities Document is necessary to meet the requirements of EN3 (2.6.203) where assessment is required of people's perception and interaction with the seascape. Para. 649 needs to acknowledge the defined Natural Beauty and Special Qualities document signed off by the AONB Partnership that can be seen at:

<http://www.suffolkcoastandheaths.org/assets/About-Us/V1.8Natural-Beauty-and-Special-Qualities-of-the-Suffolk-Coast-and-Heath....pdf>.

The AONB and Heritage Coast continues beyond the study area. SPR needs to address the matter of assessing the potential impact of the development on the setting of the AONB as well as the AONB itself, the attached offers further explanation and policy context in relation to the setting issue. Guidance on this is in the documents attached to our letter.

32 The SLVIA will need to *specifically and systematically* assess the impacts of the proposal on the Character and Special Qualities of the AONB as this information captures the significance and value of the AONB as a Nationally Designated Landscape.

33 Such an assessment is required in order that the potential effects of both the offshore and onshore elements of the proposal can be properly understood by both consultees and decision makers (EN3 para 2.6.207-9)

34 The approach to this element of the assessment requires further discussion in order to be clarified.

35 It is recommended that this issue is resolved by discussion and through review of draft documentation by consultees prior to submission of the Environmental Statement in order to ensure that common ground is reached

36 Cumulative and in-combination effects with other projects and combined effects between project elements:

37 Full assessment of combined onshore and offshore effects is critical where combined effects are experienced, either simultaneously or in near immediate sequence. All other relevant projects also need to be assessed under cumulative impacts.

38 The scale of the turbines, their proximity to the coast and the expected location of the on shore infrastructure, mean that combined landscape and visual effects between project components are likely to occur. As currently set out the scoping report tends to separate the offshore and onshore elements of the project and their effects on the receiving environment. This should not be the case in the final assessment and the agreed methodology should allow evaluation of these combined effects.

39 The scoping document identifies a range of potential or consented projects. Future projects include the Nautilus interconnector to be connected at an existing substation between Leiston and Sizewell.

40 Para. 167 of both scoping reports should not be used as a reason to exclude this project from the assessment. *“Only projects which are reasonably well described and sufficiently advanced to provide information on which to base a meaningful and robust assessment will be included in the CIA.”* Despite the fact that available information on this project only exists on the National Grid Technical Register and no further details are currently available, the applicant should not exclude the project from the CIA at this stage.

41 This is because of the expected location of Nautilus and likely interaction with the windfarm proposals in terms of *both* the onshore cable corridor and connection infrastructure location close to the Sizewell to Bramford 400kv line. Furthermore it is reasonable to anticipate, even at this

stage based on similar projects, that substantial infrastructure for a converter station will be required for Nautilus as well as modifications and or additions to NGET infrastructure.

42 Published details relating to the onshore elements of the Viking Link are very helpful in this regard. <http://viking-link.com/the-project/onshore-work/> .

43 At present it appears that all three projects will be located in and or adjacent to the Suffolk Coast and Heaths AONB and close to the existing baseline energy infrastructure at Sizewell for nuclear power and offshore wind.

44 It is recommended that these issues are resolved by discussion and through review of draft documentation by consultees prior to submission of the Environmental Statement in order to ensure that common ground is reached.

45 Detailed comments on the scoping report:

46 Appendix 4.1:

Para. 11 (both scoping reports) – In addition to the information cited here the applicant should be particularly mindful of the definition of seascape as set out in the NPS EN3 (2.6.198 – 210). In particular the applicant should have regard to paragraphs 2.6.203 and 2.6.205 of EN3.

“Where necessary, assessment of the seascape should include an assessment of three principal considerations on the likely effect of offshore wind farms on the coast:

- *limit of visual perception from the coast;*
- *individual characteristics of the coast which affect its capacity to absorb a development; and*
- *how people perceive and interact with the seascape.”*

“Magnitude of change to both the identified seascape receptors (such as seascape units and designated landscapes) and visual receptors (such as viewpoints) should be assessed in accordance with the standard methodology for SVIA.”

47 Para. 25 (both scoping reports) needs to acknowledge the defined Natural Beauty and Special Qualities document signed off by AONB Partnership that can be seen at <http://www.suffolkcoastandheaths.org/assets/About-Us/V1.8Natural-Beauty-and-Special-Qualities-of-the-Suffolk-Coast-and-Heath....pdf> .

48 Para. 26 (both scoping reports) the applicant seeks to pre judge the findings of the evaluation of the effects of the offshore elements, and furthermore does not recognise here potential impacts of the onshore elements of this project.

49 Para. 29 (both scoping reports) the applicant should note that a new and updated LCA for the Broads National Park has been published in November 2017.

50 Para. 34 (both scoping reports) It is not clear if the applicant is proposing to reduce the number of turbines in the event that 19MW generators are used, clearly fewer turbines would be required to produce the same output in that case. The reduction in turbine numbers would be likely to reduce the environmental impacts of the scheme.

51 Para. 41 (both scoping reports) the agreed approach to viewpoint selection and timing of baseline photography is an attempt by all parties to properly evaluate the impacts. However the CAA/MoD lighting requirements remain unknown; given the unprecedented size of the proposed turbines it is difficult for all involved to make reasonable assumptions regarding lighting at this point. Clarification from the regulators is required.

52 Para. 45 (both scoping reports) unfortunately visibility data for the Suffolk coastline does not appear to be available. The proposed use of Weybourne and Shoeburyness data is not very satisfactory. It has yet to be established if this data is in practice a reasonable proxy for the Suffolk and south Norfolk coastline. It is hoped that there is some correspondence between the two sets of data so that a reasonable inference may be drawn as to visibility through the year on the affected coastline.

53 It is important that the visibility data is refined as much as possible so that the expected conditions month by month or even week by week can be understood. It will also be necessary to understand how the visibility of aviation and navigation lighting will vary depending on the conditions.

54 Para. 50 (both scoping reports) It is important to be clear as to where and to what extent offshore windfarms form a characteristic element in *different parts* of the study area. It is likely that the magnitude of change and sensitivity of receptors will vary considerably in different locations and the assessment of cumulative impacts and the magnitude of change must not generalise in this respect. Further detailed discussion is required to resolve this issue.

55 Ecology

56 It would appear that there are some glaring omissions in the Ornithology sections. Although Seabirds (Gulls and their Allies) are discussed, there is no reference to anything relating to migrating birds.

57 Of particular concern is the lack of information in relation to Wildfowl and Waders (75% of Europe's population of wildfowl migrate North-South and South-North) and other birds such as Woodcock and Waxwings coming from East to West then returning West-East. No doubt, the RSPB and Natural England will pick this up but it is essential that it is included in the Assessment.

58 At this stage with limited information available it is difficult to fully identify and assess or address any problems that may arise. Once appropriate data and reports have been made available a more detailed assessment of the impact of the proposals and potential mitigation requirements will be forthcoming. The various headings of the chapters dealing with survey effort seem appropriate for this matter and we look forward to seeing the evidence as it emerges.

59 There is an element of a "safety net" with the involvement of Natural England in a project such as this but the continued involvement of SCC's Natural and Historic Environment Team is of major importance to the conservation of, inter alia, habitats and species.

60 Our final comment on ecology is on the importance of ensuring that Suffolk Biodiversity Information Service is both consulted and kept up-to-date with respect to biological data. This is most important to enable appropriate records to be kept across the County.

61 Rights of Way

62 Para. 525 (EA1N scoping report) and para. 521 (EA2 scoping report) refers to other land uses including the Suffolk Coast Path and inland – numerous Public Rights of Way. This paragraph needs to include reference to open access land of which there is considerable in this area and show and label open access land in Figure 3.3. Public Rights of Ways include byways open to all traffic and restricted byways as well as bridleways and public footpaths.

63 Para. 531 (EA1N scoping report) and para. 527 (EA2 scoping report) - it is disingenuous to suggest that land users 'may potentially experience disruption'. Based on the current EA One project, it is clear that there will be an impact on users of the PRow and access network and this impact needs to be considered from the first stage to the last stage in the installation process, i.e. from pre-construction activities such as ecological work and archaeology surveys to the installation of the cables, the whole process as described in para. 111 (both scoping reports). This includes the physical disruption to the network of activities such as the preparation of the working width - topsoil stripping, as well as the potential for obstacles such as new fencing, gates, fencing of the corridor and unnecessary or unsuitable alternative routes.

64 It is unacceptable to install unnecessary obstacles such as fences and gates across the network. These have now been kept to a bare minimum on EA One (2 only) and this message needs to be clear for both EA1North and EA2.

65 Para. 540 (EA1N scoping report) and para. 536 (EA2 scoping report) states that '*The requirement for permanent closures would be kept to a minimum*' it is unacceptable for any PRow to be permanently closed as a result of this project. This area has a well used and coherent access network visited by local residents and visitors alike and this must not be put at risk. In addition, the impact on the amenity value of this network must be assessed with respect to the positioning and visual impact of the substations.

66 Transport

67 The onshore study area does not include the necessary parts of the highway network that will need study. For example as a minimum we would expect to see the transport impact modelled as far westward as and including the A12. Information is limited regarding the length of any ducting or location of onshore structures. This creates uncertainty in estimating the impact of construction traffic on the highway.

68 Abnormal Indivisible Load (AIL) delivery will need to be on agreed construction routes and timed to minimise disruption given the rural nature of the area around Sizewell.

69 Construction of the wind farm could be concurrent with other energy infrastructure – cumulative and in-combination impacts will be required to be assessed and if necessary mitigated or compensated. Assessing the onshore study area only is inadequate.

70 Flood and Water

71 From a flood/water management and water quality point of view the main points to make relate to the on-land construction phase: the construction / installation of cables in ducts underground requires the stripping back and stockpiling of overlying topsoil over a 50m wide strip along the length of the undergrounding before the 4 trenches (2 for EA1N and 2 for EA2) are dug for the ducts. There is potential for surface water runoff to be created in significant rain events and become concentrated flow (depending on gradient directions) along the windrow topsoil stock

piles. There is likely to be suspended solids in the runoff which needs to be managed so as not to 'pollute' watercourses. In areas of springs or high-water table, the duct trenches could fill with water and the ground needs to be dewatered. Suitable settlement processes will be required for the pumped water to remove suspended solids.

72 Having regard to the location of substations and other infrastructure associated with the offshore wind farm onshore, the scoping reports identify that the substation areas have the potential to increase flood risk caused by the replacement of permeable greenfield agricultural land with impermeable surfaces forming the substation. Mitigation by surface water infiltration methods are identified and where these are not feasible then run off rates are to be attenuated to the existing greenfield rate. This is an acceptable standard approach. However, it will be important to identify to a degree of accuracy, the required land area / space required for either of these approaches at a very early stage so that the correct substation compound dimensions are established and become part of the formal development approval process.

73 Archaeology

74 Suffolk County Council Archaeological Service (SCCAS) are pleased that both onshore and offshore archaeology and heritage have been included in the list of impacts to be considered as part of the EIA for the EA1N and EA2 schemes. As is made clear within the two scoping documents, Historic England and the Marine Management Organisation (MMO) are advising on the offshore elements of the proposal; SCCAS comments will therefore focus upon the onshore impacts solely.

75 SCCAS welcome that the scoping documents recognise, at a high level, the potential impacts of the proposed scheme upon above and below ground archaeology and heritage. From the information provided in the EIA scoping reports, all onshore elements of the scheme (the cable route, substation sites, and haul roads, compounds jointing bays, link boxes and HDD pits) will damage or destroy any surviving archaeological remains. However, the current onshore study area has in most parts never been subject to systematic archaeological investigation and, therefore, the character, extent and significance of surviving above and below ground heritage assets across this area has yet to be defined.

76 As such without further assessment to fully characterise the heritage resource, the impacts of the development upon above and below ground heritage assets cannot be fully understood.

77 We are pleased that the scoping documents recognise the need for archaeological assessment and mitigation work in association with the EA1N and EA2 schemes and also that provision has been made to assess the impact of the proposals upon the setting of above ground heritage assets.

78 As has been shown by the EA1 scheme, time will again be a critical factor for the EA1N and EA2 schemes. Archaeological and heritage assessments and mitigation phases must be programmed into the project at the earliest opportunity, with sufficient time allowed to enable fieldwork to be completed prior to the start of construction works, so as to avoid any delays to the development schedule.

79 We would strongly advise that a dedicated archaeological consultant is appointed to the project at this stage in project planning to try to ensure the smooth delivery of the archaeological requirements for the project alongside other elements of the scheme.

80 *Baseline Information*

81 Data regarding known above and below ground heritage assets present within the onshore study area comes from information recorded within the County HER and from designated heritage assets.

82 The EIA scoping documents have only identified designated heritage assets recorded within the onshore study area so far (Para. 53 EA1N scoping report and Para 55. EA2 scoping report). We are pleased that provision has been made to consult the County Historic Environment Record to identify known undesignated heritage assets within this area. The majority of sites currently recorded on the County HER within the study area have been identified through finds scatters and aerial photography.

83 The Hundred River flows throughout the study area, the majority of which is situated on light soils, meaning that this is a favourable location for archaeological activity from all periods. This is attested to by the multi-period finds scatters which have recorded throughout the study area.

84 Current recorded sites within the onshore study area include, but are not limited to:

- KND 004 A Roman villa site to the north-west of Knodishall, identified through large scatters of Roman finds and building material
- FRS 013 Friston Moor a former medieval common which is associated medieval occupation remains including a moated site, an enclosure and finds scatters (FRS 003 and KND 011, 014 and 015)
- KND 007 A ring ditch cropmark situated south of Grove Wood which is likely to be the remains of a prehistoric burial mound
- KND 003 A group of 9 upstanding tumuli on Coldfair Green
- ARG 019 and 073 Cropmarks and scatters of medieval finds, likely to relate to an area of medieval settlement to the south-east of Aldringham
- LCS 175 and 218 Prehistoric occupation and a number of cremation burials identified during archaeological investigations at Red House Lane, Leiston, partly extending into the study area
- LCS 214 and ARG 018 Cropmarks and earthworks of enclosures west of Sizewell common
- LCS 215 The site of a possible Bronze Age round barrow or medieval to post medieval mill mound surviving as a cropmark, to the east of Halfway Cottages
- ARG 017 A well preserved extensive group of Second World War anti glider ditch earthworks at The Walks
- LCS 148 and 150 Medieval settlement and industrial activity and the remains of a post medieval boat recorded during archaeological investigations immediately north of the study area
- LCS 161 Iron Age and Roman field systems identified during archaeological investigations to the north of the study area, which are situated within a wider area of recorded cropmarks
- Multiple prehistoric, Anglo Saxon and medieval sites have also been recorded to the north of the onshore study area during archaeological evaluations as part of the Sizewell C development

85 However, as the majority of the onshore study area has never been subject to systematic archaeological investigation, there is high potential for additional, and as yet unknown, important

heritage assets to survive across much of this area. Some of these may be of national significance and worthy of preservation in situ. This has been clearly demonstrated by the EA1 scheme, where a significant number of archaeological sites have been defined, the majority of which were not previously recorded on the County Historic Environment record, or associated with finds scatter or cropmark evidence which indicated the likely presence of surviving below ground remains.

86 Archaeological investigations immediately adjacent to the study area have yielded extensive multi-period archaeological remains. This highlights that similar archaeology is likely to continue into the study area, particularly given the comparative soils and topography.

87 As such, thorough desk top assessment and field evaluation is needed to allow the archaeological potential of the different parts of the study area and therefore the likely impacts of the proposed development, to be fully assessed. Evaluation will provide sufficient baseline information to enable design decisions to be made and to inform planning decisions.

88 Methodology

89 We would advise that the impact of this development upon archaeology and heritage cannot be assessed until a full archaeological evaluation has been undertaken. The results of this work will enable an accurate review of the nature, quality and extent of the archaeological resource across the onshore study area. Archaeology and heritage should be factored into the decision-making process regarding the final sub-station-site and onshore cable route (plus associated infrastructure locations); therefore, the information generated through archaeological evaluation must be available at an early stage.

90 As identified in the scoping documents, a desk based assessment would be appropriate in the first instance for the entire study area. This should include a historic map regression, a study of aerial photography (including historical imagery), an assessment of LIDAR data, and predictive modelling of potential based upon topographic and geological evidence. Datasets held by the County Records office and other archive sources may also need to be consulted where features merit more detailed research.

91 A settings impact assessment for above ground heritage assets should be undertaken and the impact of the proposals upon historic hedgerows, boundaries and other historic landscape elements should also be considered through the use of historic mapping and Historic Landscape Characterisation data.

92 SCCAS would advise that all areas which will be impacted upon by the different elements of the EA1N and EA2 schemes, or which form possible option sites, should be subject to archaeological field assessment at this stage in considering the location, layout and design of the substation site and cable route, to allow for preservation in situ where appropriate of any sites of importance that might be defined (and which are currently unknown) and to provide information to contribute to the site selection process.

93 The approach to evaluation can be refined following desk-based assessment.

94 Geophysical survey (a combination of magnetometry and resistivity as appropriate), also accompanied by fieldwalking and a metal detecting survey, and should form a first phase of field evaluation.

95 The results of these assessments should be used to then inform a programme of trial trenched evaluation, combined with palaeo-environmental assessment in river valley areas.

96 The scoping documents currently refer to trenching of the sub-station site, however, we would advise that all sites which will be impacted on by any element of the onshore works should be subject to trial trenching at EIA stage. Undertaking full archaeological evaluation at this stage will enable the results of the surveys to be used to assist with project programming and also to contribute to risk management. Upfront work will ensure all options can be properly considered (including giving proper thought to preservation in situ and alternative solutions), avoiding unexpected costs and delays post-consent. Evaluation at this stage will test the suitability of sites for development, given the reduced flexibility for mitigation through design once a sub-station location and cable route have been selected.

97 The combined results of the above assessments should then be used to develop a mitigation strategy for the selected sub-station site, cable route and all associated infrastructure. Some areas (as yet unidentified) may require localised preservation in situ where appropriate. For surviving below ground archaeological heritage assets, where (1) development impacts are proposed that will damage or destroy remains and (2) where mitigation through recording is considered acceptable, the resultant mitigation included should include proposals to record and advance understanding of the significance of heritage assets before they are damaged or destroyed. Appropriate mitigation techniques, such as excavation prior to development, will be based upon the results of the suite of evaluation and assessment work undertaken. Proposals for outreach and enhanced public understanding as part of this mitigation work should also be included.

99 All phases of archaeological evaluation and mitigation must be subject to detailed Written Scheme of Investigations, which must be agreed with SCCAS. All stages of the work will be monitored by SCCAS on behalf of the Local Planning Authority and Planning Inspectorate to ensure the written schemes are satisfactorily fulfilled. The reference to the role of SCCAS/HE is welcome within the scoping documents (Para. 584 EA1N scoping report and Para. 581 EA2 scoping report).

100 Specific comments

101 Para. 575 (EA1N scoping report) and para. 571 (EA2 scoping report): At EIA it should be ensured that comprehensive and clear assessment is given to the potential impacts of all elements of the scheme upon above and below ground heritage assets.

102 Para. 576 (EA1N scoping report) and para. 572 (EA2 scoping report): Any ongoing works during site operation must not take place within any areas where archaeological remains have been preserved in situ as part of archaeological mitigation strategies. If any areas of archaeology are to be preserved in situ, then a strategy for ongoing protection of these remains throughout operation must be agreed and included within the mitigation strategy for the development.

103 Para. 582 (EA1N scoping report) and para. 578/579 (EA2 scoping report): Cumulative impacts are considered and we would support synergies to minimise construction impacts. However, it is worth noting that, potentially, the two schemes may have significant cumulative impact, depending on the heritage assets affected and the final layout. In addition, depending upon site selection, whilst the footprint may not overlap with any other schemes, if adjacent to any other large development sites, this may contribute to cumulative impacts, particularly in terms of historic landscape and setting impacts.

104 Para. 583/584 (EA1N scoping report) and para. 569/570 (EA2 scoping report): Greater clarity should be given as to the nature, timing and extent of the evaluation work to be undertaken for this project. At present only trenching of the substation site is mentioned, without reference to evaluation of the other elements of the scheme such as the cable routes and other associated infrastructure. As outlined above, we advocate that all evaluation work should be undertaken up front, however at the very least, if there is, after discussion, post-consent evaluation required, the EIA and outline WSI should make clear what still needs to be done.

105 Para. 587 (EA1N scoping report) and para. 584 (EA2 scoping report) David Gurney's 'Standards for Field Archaeology in the East of England' (East Anglian Archaeology: Occasional Papers 14 2003) and SCCAS' own standard fieldwork requirement documents (2017) must also be followed throughout.

106 (There are a number of references to Appendix 2.7 throughout the document which we assume should read Appendix 2.6- Table 1.7 (both documents), Paras. 422 and 436 (EA1N scoping document) and Paras. 421 and 435 (EA2 scoping document)?)

107 Environmental Protection

108 The scoping report submitted lays out many basic principles and the main components of the project but is currently unclear in selecting an onshore route or a location for the transmission works. Much greater clarity will be needed with regard to: landfall for the cables, an onshore cable route, specific site location of the onshore substation and national grid connection point, before any specific implications can be identified. However, the following should be included within an Environmental Impact Assessment:

109 Site Construction

1. Noise Implications from Constructional Works

1.1. Detailed information as to the timing and duration of each phase of the development, indicating the programme of constructional works both offshore and onshore, should be provided.

1.2. A method statement of the specific type of constructional work, including named plant for boring, drilling, piling and other potentially noisy operations, should be provided.

1.3. Attenuation measures so as to achieve 'best environmental practice' should be specified for all such plant.

1.4. All operations, which may adversely affect nearby properties, should be identified by source, location and either a sound power level or sound pressure level at a given distance should be calculated.

1.5. The projected noise levels for all site construction works should then be calculated at all nearby noise sensitive properties. Noise Levels should be represented as LAeq(1hour) values during daytime hours (07:00 to 19:00 hours) and LAeq(5 min.) values for evening and night time hours (19:00 to 07:00 hours)

1.6. The hours of work and all anticipated transportation movements to and from the onshore cabling route and substation site should be indicated.

1.7. A proposed 'complaints procedure', detailing who will undertake investigations on behalf of the construction company and the scope of amelioration in the event that complaints are justified, should be provided.

1.8. The Scoping document indicates that noise disturbance from the constructional piling works of the offshore turbines and platforms are unlikely to impact on any residents. However, in the event

that constructional noise complaints are received in respect to offshore work from local residents and be considered justified by the Environmental Protection Section at Suffolk Coastal District Council, then mitigation measures may be deemed necessary for night time piling operations.

110 2. Lighting Implications

2.1. Details of the location, height, design, sensors and luminance of all floodlighting used during construction should be indicated and proposed measures to:

2.1.1 Limit obtrusive glare to nearby properties; and

2.1.2 Minimise sky-glow;
should be stated.

2.2 An assessment of any reflected light and any artificial lighting, which is required on the completed offshore structures or onshore facilities, should be presented.

111 3. Air Quality Assessment

3.1. Details of all potential construction site works which may give rise to dust (e.g. excavation, demolition, movement of vehicles, loading and stockpiling of soil and rubble, crushing of material etc.) shall be specified together with the location and the particular methods of dust suppression to be used for each specific activity.

3.2. Atmospheric concentrations of particulate matter (PM10) arising from all potential construction works, which may give rise to airborne dust shall also be predicted at the nearest relevant receptor locations and submitted for the purposes of the Local Air Quality Management Regime. The predicted concentrations for each receptor shall be formatted for comparison with the objectives included in the Air Quality (England) Regulations 2000 (SI928) and Air Quality (England) Amendment Regulations 2002 (SI3043).

3.3. If any of the Air Quality Standards or Objectives in the Air Quality (England) Regulations 2000 (SI928) and Air Quality (England) Amendment Regulations 2002 (SI3043), set for Local Air Quality Management, are predicted to be exceeded by the above mentioned activities, further assessment will be required. This may include monitoring at relevant receptor locations, detailed computer modelling and investigations of solutions to reduce pollutant concentrations.

112 4. Contaminated Land Implications

4.1. A full site survey indicating historical records and analytical reports for the presence of contaminated land should be undertaken for the study area, including; the landfall location, onshore cable corridor, onshore substation and National Grid infrastructure/connection locations. Where investigation indicates the presence of contaminants, a remediation plan detailing the safe handling, removal or encapsulation of material, should be provided.

113 5. Movement and Storage of Waste

5.1. Detailed information in respect to;-

- All licensed contractors and disposal facilities used for the movement of waste materials during the construction of this development,
- The storage of waste materials (both liquid and solid) produced during the construction phase of the development,

Should be provided in addition to the requirements of the Environment Agency.

114 6. Health and Safety Implications

6.1. A health and safety risk analysis for site workers and members of the public should be provided for the constructional phase of the works.

115 7. Other Environmental Issues

7.1. Details of any site worker accommodation indicating; extent of use, number of workers accommodated, amenities and drainage, should be provided.

116 Operational Impacts

8. Implications from Wind Turbine Operation

8.1. The Scoping Report indicates that the normal operational turbine noise will be imperceptible from the offshore windfarm site at distance of 36km. Hence, assessment against ETSU-R-97 criteria is not deemed necessary for this EIA. Similarly offshore; air quality and shadowing from the turbine

blades are not considered necessary for this EIA.

8.2. A detailed health and safety risk assessment should be provided to cover public safety for all onshore facilities once the wind farm is operational.

8.3. The cabling route and all power lines connections which may generate an Electro-magnetic radiation field and potentially impact on members of the public shall be comprehensively assessed and the details should be provided.

8.4. Any telecommunication or television interference which may arise at nearby residential properties due to the installation of the cabling route or new power lines should be assessed and provided.

8.5. A decommissioning plan, detailing all site reinstatements and removal of commercial waste, should be presented.

117 General

118 It is noted that there is potential to upgrade or relocate two National Grid pylons (para. 124). SCDC would resist any increase in the number or height of pylons in this sensitive location.

119 Decommissioning – the potential impacts / effects of leaving ducts / cables in situ will need to be assessed.

120 Restoration will be key to a successful decommissioning plan.

121 SCC will need to ensure that a planning requirement is applied that requires the promotor to agree appropriate emergency arrangements with the Authority in relation to the statutory Sizewell Off Site Emergency Plan for any activity that takes place within the DEPZ (Detailed Emergency Planning Zone). Such emergency arrangements must be agreed and put into place before work can take place within the DEPZ. This requirement is essential to ensure that SCC can remain compliant with nuclear emergency preparedness legislation and avoid regulatory interest.

122 Onshore topics (Table 1.7):

123 Add socio-economic

- Skills / training
- Education
- Construction workers
- Impact on local residents
- Cumulative impacts with other projects

124 Having regard to para. 184 (EA1N scoping report) and para. 183 (EA2 scoping report)– suggest an additional document having regard to skills is required as well as a proper assessment in relation to tourism impacts of the project during construction and operational phases.

125 Offshore impacts – The local authorities will rely predominantly on others having regard to this area except in the matter of seascape, landscape and visual impact analysis and assessment with particular reference to lighting of the structures offshore.

126 Having regard to para. 584 (EA1N scoping report) and para. 581 (EA2 scoping report) – SCDC as local planning authority have responsibility in relation to Grade II listed buildings so should be involved in consultation in relation to mitigation if listed buildings are involved.

127 Para. 595 (EA1N scoping report) and para. 592 (EA2 scoping report) – error please amend, SCDC not SCWC.

128 It should be re-iterated that cumulative and in-combination impacts having regard to noise could be critical in relation to both wind farm projects proposed.

129 SCC Archaeology concerns with regards to wider discussions concerning the current selected study area and the benefit of linking this project in with other forthcoming schemes, from an archaeological point view, we would fully support the possibility of locating substations from different schemes together on a single site in order to reduce the overall impact on both above and below ground archaeology and the historic landscape as a whole. Cumulatively, multiple different substation sites throughout this landscape have the potential to have a significant impact upon heritage and the historic environment. Again there is potential to link up with sites which have already been developed for similar uses, but also if there was a possibility to utilise previously developed and therefore disturbed land, this is likely to reduce below ground archaeological impacts. The land to the north of the current onshore study area certainly has more scope for screening of substations through the presence of existing woodland and therefore may also help to limit some of the historic landscape impacts of the proposal. The advice regarding archaeological assessment and mitigation provided in the scoping response would however continue to apply for any areas or sites selected.

130 Wider scheme aspects

131 Table 4.2 (page 211 both scoping reports):

132 We would suggest that cumulative and in-combination impacts will require further assessment than that proposed.

133 Socio-economic – there is potential to need more mitigation than just the skills strategy from EA1 being updated – there will be other developments running concurrently with this development, putting pressure on the existing (low) workforce) and the impact on tourism from the two offshore windfarm projects proposed is likely to be significant and require mitigation / compensation.

134 Tourism: the mitigation hierarchy should be implemented – compensation may well be required if mitigation of adverse effects is not possible. Para. 653 (EA1N scoping document) and para. 650 (EA2 scoping document) should include and consider impacts of offshore windfarms on the typical AONB visitor experience – knowledge of the construction work could be damaging for those many visitors who value the unique Suffolk experience.

135 Para. 677 (EA1N scoping report) and Para. 674. (EA2 scoping report) refer to the 3km buffer beyond the onshore study area, having regard to tourism impacts this may not be large enough. Given the size of the substations proposed in the sensitive landscape this may well need to be extended in order to assess fully impacts in relation to tourism in the vicinity.

136 Para. 711 (EA1N scoping report) and paras. 709 (EA2 scoping report), the timing of the construction period and the potential for any crossover / in combination impacts with the construction of Sizewell C will be critical from a tourism perspective and in relation to availability of skills and construction / workforce capacity – this is a risk that needs to be investigated and mitigated.

137 Para. 724 (EA1N scoping report) and para. 722 (EA2 scoping report) do not indicate or make reference to what SPR are planning to do about impacts on national and regional supply chains – the scoping study needs to be more specific.

138 Para. 740 (EA1N scoping report) and Para. 738 (EA2 scoping report) refer to potential impacts during operation, it appears that impacts on tourism generally are effectively dismissed in one sentence – this is not acceptable. There needs to be properly researched, evidence and analysis of the current visitor economy and the potential impacts of disruptive construction projects in the area.

139 Having regard to para. 746 (EA1N scoping report) and para. 744 (EA2 scoping report) desk based research and consultation with stakeholders is not sufficient to properly analyse the impacts on tourism and recreation of the proposed project. There needs to be current research, local visitor surveys and a proper understanding of the importance of tourism to the local economy via up to date data collection and analysis in addition to that proposed.

140 The Crown Estate report “Understanding the impacts of offshore wind farms on wellbeing” 2015 (p.26) identified in a review of studies on tourism that the loss in tourist number and expenditure can be estimated. The 2008 study from Glasgow Caledonian University found the displacement effect for the *whole of Scotland* to be 0.1%. The localised effects of such displacement would clearly be a more significant percentage of visitors to specific resorts or locations. Further research seems to demonstrate that sensitivity of viewers seems to be related to age – Suffolk Coastal has a high proportion of older residents. It is not reasonable for the dismissive approach taken by Scottish Power in both scoping reports submitted for opinion.

141 A haul road is proposed with a 50 metre working width. Is a constructed haul road necessary or could temporary tracking be used? This is queried as there is a massive length of haul road being installed for EA One, which could be replaced for the most part with the use of temporary tracking and tracked vehicles (depending on soil conditions). Positioning jointing bays near to road access would enable any haul road to be kept to a minimum. Installing a haul road results in additional vehicles and importation of materials and takes time and has a cost involved that could be minimised and possible environmental impacts avoided.

142 Conclusion

143 In conclusion there are several areas where there is not considered to be enough work / assessment proposed within the scoping reports submitted for both offshore wind farms. It is suggested that additional work in the identified areas – including skills and tourism, be identified and taken forward to ensure that any future environmental statement is significantly robust.

Yours faithfully

Handwritten signature of John Pitchford in black ink, appearing as 'FJ Pitchford'.

John Pitchford
Head of Planning
Suffolk County Council

Handwritten signature of Philip Ridley in black ink, appearing as 'Philip Ridley'.

Philip Ridley BSc (Hons) MRTPI
Head of Planning & Coastal Management
Suffolk Coastal and Waveney District Councils