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**Sent:** 01 February 2019 13:40  
**To:** Norfolk Vanguard  
**Cc:** [REDACTED]  
**Subject:** RE: Local Impact Submission - Norfolk County Council  
**Attachments:** Appendix 1 - Detailed Comments\_V2\_LLFA.PDF

FAO Steven Parker

Further to Norfolk County Council's submission of its Local Impact Report (LIR) below, I have attached an amended Appendix 1 of the LIR, which makes a minor factual amendment to paragraph 1.15 (proposed condition/requirement – surface water drainage).

The amendment is to the "reason" for the proposed condition/requirement, which now correctly cites the appropriate paragraphs in the most up to date National Planning Policy Framework.

The amendment has been highlighted in red text.

NB this does not materially change the comments in the LIR.

Kind regards

Stephen

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## Response to Norfolk Vanguard DCO Application - Detailed Environmental, Highway and Flood Risk Comments

### Public Rights of Way

- 1.1. It is noted that the onshore cable route intersects with Public Rights of Way (PRoW), including National and County Trails, at 45 locations. Mitigation for impacts on users of the PRoW network is in the form of embedded ('designed-in') mitigation and method statements.

### Comment

- 1.2. Norfolk County Council welcomes the use of HDD underneath some of the particularly heavily-used recreational routes (long-distance trails), particularly at landfall where the cables will intersect with the England Coast Path. HDD is also proposed for cable-laying across two further Trails managed by Norfolk Trails, namely Marriott's Way (twice) and Paston Way (both these sites are also designated County Wildlife Sites at the crossing points). This approach should result in negligible disruption to users of these Trails. It is noted that HDD is not proposed at the crossings of two further Norfolk Trails, the Wensum Way and Weaver's Way, nor the majority of the crossing points of the general PRoW network.
- 1.3. Mitigation for impacts on the majority of the PRoW and Trails network will be addressed by two documents: A *Public Right of Way Strategy*, and a *Code of Construction Practice (CoCP)*, draft versions of which have been submitted with the DCO application. The Council believes these documents should result in appropriate measures to manage impacts in relation to cable-laying. In relation to the discharge of the DCO requirement for the CoCP, the documents refer to liaison with the "relevant local planning authority" (e.g. CoCP, section 4; paragraph 71; p 16). However, when it comes to matters relating to PRoW and Trails, it is felt that the County Council as the Highways Authority should be the relevant local authority to agree the management of PRoW.
- 1.4. The County Council welcomes the intention of the applicant to liaise with the PRoW Officers and Trail Officers over short-term temporary diversions of PRoW or other potential impacts. This will be important in reducing the burden on NCC in managing matters relating to the PRoW network with regards to the cable-laying works. The County Council also welcomes the approach for providing advanced warning of works that would affect PRoW. Where Norfolk Trails would be affected, it would additionally be helpful if information could be provided for inclusion on the Norfolk Trails website.

### Ecology

- 1.5. The involvement of the County Council with regards to ecology has been with onshore works only. Representatives from the Natural Environment Team have been involved in the onshore Ecology Expert Topic Group (ETG).
- 1.6. The Ecology Chapter of the ES (Chapter 22) and the onshore Ornithology Chapter (Chapter 23) describe the ecological baseline and assess the impacts resulting from the onshore infrastructure requirements. The design of the scheme contains "embedded mitigation" for ecology. Where "additional mitigation" is required, potential impacts on terrestrial ecology will be delivered

as described in the Outline Code of Construction Practice (OCoCP) and the Outline Landscape Ecological Management Strategy (OLEMS). The final detail of the mitigation and enhancement measures will be provided through one or more Ecological Management Plans (EMP) which will act as a single document for all ecological mitigation considerations on site.

### **Comments**

- 1.7. The County Council welcome the above approach and agree the content of the outline CoCP and the OLEMS. In the second document, it is stated that “*Norfolk Vanguard Limited will work with the relevant local authorities to ensure appropriate resourcing is in place to monitor compliance with the provisions of the OLEMS, and the plans and schemes of which it forms the basis*”. The Natural Environment Team of the County Council would wish to be involved in this process.
- 1.8. The County Council welcomes the use of HDD where cable routes intersect with County Wildlife Sites. It is noted that a running track will still be necessary at the Wendling Carr CWS, but the need for this was discussed at the ETG meeting and is further described in the ES. The County accept that this approach is needed and believe the proposed mitigation is appropriate.
- 1.9. The County Council has previously raised concerns about the following matters, which have now been addressed:
  - The constraints on access for ecological surveys: The OLEMS states that due to access constraints only 50% of the onshore project area was subject to ecological field surveys, and only 40% of the ponds. It is noted that the use of the Norfolk Living Map to ‘fill-in’ data gaps at this stage, but recognise field surveys of the currently un-surveyed locations will be necessary post-consent, and these surveys may lead to further mitigation at specific locations.
  - Insufficient survey effort of CWS: At an early stage of the scoping process, the County Council advised that surveying of CWS close to the cable corridor was necessary (ETG meeting Jan 2107). This was accepted by Vattenfall and the surveys were completed. The results of those surveys are included in the ES.
  - The suitability of the bat surveys to enable delivery of appropriate assessments of impacts and therefore appropriate mitigation (ETG Meeting July 2017): Vanguard came back to the County Council on this matter with revised reports, and the County Council is now satisfied that the assessments are broadly valid and the proposed mitigation for is appropriate. It is noted that some surveys will still need to be made post-consent at locations where access constraints resulted in no or incomplete surveys (OLEMS, paragraph 68). It is also noted that during the design process, landfall has moved away from the key area of concerns for barbastelle bats at the Paston Great Barn SAC colony.

## **Historic Environment**

### **Onshore Comments**

- 1.10. Subject to the submission and approval of a revised version of Document 8.5 Outline Written Scheme of Investigation: Archaeology and Cultural Heritage (Onshore) to state that work will be carried out in accordance with the Norfolk County Council *Standards for Development-led Archaeological Projects in*

Norfolk (2018), the County Council is happy to recommend that the following requirements are placed on the consent if granted;

- 1.11. A) No development shall take place other than in accordance with the submitted and approved Outline Written Scheme of Investigation: Archaeology and Cultural Heritage (Onshore).

And, separately,

B) The development shall not be operated until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the archaeological written scheme of investigation approved under (A) and the provision to be made for analysis, publication and dissemination of results and archive deposition has been secured.

### **Offshore Comments**

- 1.12. The Offshore Historic Environment implications of the proposed development are considered in Chapter 17 of the ES (Offshore Archaeology and Cultural Heritage). The offshore historic environment below the low-water mark is not specifically within the remit of the County Council.

- 1.13. A decision has been made by Vattenfall to use a long HDD technique at the landfall of the cable route. As a result of this there will be no construction work, or resulting historic environment impact, within the inter-tidal zone on Happisburgh beach (where internationally significant archaeological remains of Palaeolithic date are known to exist). As such the County Council does not have any specific comments or recommendations to make on the offshore archaeology and cultural heritage of the proposed development. However, Vattenfall and their heritage consultants should continue to liaise with Historic England and other key stakeholders (e.g. Ancient Human Occupation of Britain) regarding any post-consent works.

### **Lead Local Flood Authority (LLFA) Comments**

- 1.14. The ES states that the crossing of ordinary watercourses would be by Horizontal Directional Drilling (trenchless) or open cut. Referring to Appendix 20.4 Detailed Watercourse Crossing Schedule Table 20.1 it is noted that it appears that the majority all Norfolk County Council ordinary watercourses are proposed to be crossed by open cut rather than Horizontal Directional Drilling for permanent works. If this is the case, or any other temporary works proposed as part of this project are likely to affect flows in an ordinary watercourse, then the applicant would need the approval of Norfolk County Council. The County Council would appreciate early consultation on the number of such crossings of Ordinary Watercourses and the required timeframes for approval. This will enable the team to have adequate staffing resources in place to ensure approvals are not unduly delayed and for and issues to be identified. It is also noted that other ordinary watercourse crossings would need consent approval from the relevant Internal Drainage Board (IDB). In line with good practice, Norfolk County Council seeks to avoid culverting, and its consent for such works will not normally be granted except as a means of access. It should be noted that this approval is separate from planning and temporary mitigation methods may be required while cable laying is undertaken.

## **Proposed Condition/Requirement -**

- 1.15. Prior to commencement of development, in accordance with the submitted Environmental Statement for Application for Development Consent - The proposed Norfolk Vanguard Offshore Wind Farm, detailed designs of a surface water drainage scheme incorporating the following measures shall be submitted to and agreed with the Secretary of State or his delegated approving body. The approved scheme will be implemented prior to the first use of the development. The scheme shall address the following matters:
- I. Detailed infiltration testing to be undertaken in accordance with BRE Digest 365 within the study areas for the sub-station and the National Grid sub-station extension for the design of SuDs features.
  - II. If infiltration is not possible surface water runoff rates will be attenuated to the pre development 1 in 1 year rate (or 2 l/s/ha). Where applicable confirmation should be sought from the Internal Drainage Board that the proposed rates and volumes of surface water runoff from the development are acceptable.
  - III. Provision of surface water infiltration / attenuation storage should be sized and designed to accommodate the volume of water generated in all rainfall events up to and including the critical storm duration for the 1 in 100 year return period, including allowances for climate change, flood event.
  - IV. Detailed designs, modelling calculations and plans of the of the drainage conveyance network in the:
    - 1 in 30 year critical rainfall event to show no above ground flooding on any part of the site.
    - 1 in 100 year critical rainfall plus 40% climate change event to show, if any, the depth, volume and storage location of any above ground flooding from the drainage network ensuring that flooding does not occur in any part of a building or any utility plant susceptible to water (e.g. electricity equipment required at the converter / booster station and substation) within the development.
  - V. The design of any drainage structures will include appropriate freeboard allowances. Plans to be submitted showing the routes for the management of exceedance surface water flow routes that minimise the risk to people and property during rainfall events in excess of 1 in 100 year return period
  - VI. Details of how temporary works or temporary storage areas that will generate surface water runoff will be controlled to prevent a temporary increased risk of flooding. These details will also include what strategy/ plans will be provided to reinstate land to the pre-development state.
  - VII. Finished ground floor levels of the converter / booster station and substation should have a freeboard such that all infrastructure is above expected flood levels from all sources of flooding, including fluvial flooding associated with the ordinary watercourse, tidal flooding and any above ground storage or flooding from the proposed drainage scheme.
  - VIII. Details of how all surface water management features are to be designed in accordance with The SuDS Manual (CIRIA C697, 2007), or the updated The SuDS Manual (CIRIA C753, 2015),

including appropriate treatment stages for water quality prior to discharge.

- IX. A maintenance and management plan detailing the activities required and details of who will adopt and maintain the all the surface water drainage features for the lifetime of the development. This will also include the ordinary watercourse and any structures such as culverts within the development boundary.

**Reason:**

**New Text:**

To prevent flooding in accordance with National Planning Policy Framework paragraph 163, 165 and 170 by ensuring the satisfactory management of local flood risk, surface water flow paths, storage and disposal of surface water from the site in a range of rainfall events and ensuring the SuDS proposed operates as designed for the lifetime of the development.

**NB this reflects the most up to date NPPF**

**Text below to delete**

To prevent flooding in accordance with National Planning Policy Framework paragraph 103 and 109 by ensuring the satisfactory management of local sources of flooding surface water flow paths, storage and disposal of surface water from the site in a range of rainfall events and ensuring the surface water drainage system operates as designed for the lifetime of the development.

- 1.16. NB Further detailed technical comments will be sent to both the applicant and the Planning Inspectorate.