Potential cumulative impacts

Onshore cumulative impacts will be considered as part of the EIA process. Any other project with the potential to result in impacts that may act cumulatively with Norfolk Vanguard will be identified during consultation.

Mitigating the impacts

Firstly, mitigation of the onshore infrastructure would involve careful and sensitive site selection to minimise the potential impacts. This iterative process would consider environmental and technical matters, as well as important considerations relating to noise and vibration.

The construction works would use best practice methodology to limit the impacts of noise.

Operational mitigation measures likely to be considered as part of the Norfolk Vanguard include:

- Locating the substation and cable relay station away from noise sensitive receptors where possible;
- Selection of quieter equipment;
- Installation of acoustic enclosures;
- Installation of acoustic barriers;
- Screening substations further by the construction of a landform/embankment around the site could be considered where practicable;
- Silencing of exhausts/outlets for air handling/cooling units; and
- Locating equipment to take advantage of screening inherent in the design, i.e. from the substation hall(s) or control room buildings.

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If you have ideas, issues or concerns regarding the project and how we plan to minimise noise and vibration, please get in touch. You might also like to highlight relevant groups, stakeholders or data sources we should consult on this theme.

To contribute your views, register your interest and keep up to date with the project, use one of these means:

info@norfolkvangard.co.uk

01603 567995

@VattenfallUK using #NorfolkVanguard

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Norfolk Vanguard & Norfolk Boreas Offshore Wind Farm Information Sheet:

Noise and Vibration

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Noise and Vibration

This information sheet explains our planned approach to assessing and minimising the noise and vibration impacts of the project.

The sensitivity of those potentially affected (or “receptors”) within the scoping area, including residents, road-users, workers, recreational users and nature and conservation features will be a key consideration in deciding the final location of the onshore infrastructure. The substation and cable relay station will be sited away from noise sensitive receptors where possible.

What we plan to assess

The assessment would consider the impacts of the onshore elements of Norfolk Vanguard on noise and vibration, including impacts on ecological and other sensitive receptors from construction and operational activities.

Construction

Potential noise and vibration impacts associated with the onshore construction works for Norfolk Vanguard would be assessed using guidance BS 5228:2009+A1:2014, and would look at the potential impact of :

- Cable installation;
- Substation construction;
- Cable relay station construction; and;
- Construction of access roads.

Operation

Potential noise and vibration impacts associated with the operation of Norfolk Vanguard would be assessed using guidance and methodology contained in BS 4142:2014, and would assess noise impacts arising from:

- Substation operation; and
- Cable relay station operation.

Data sources

A desk-based assessment has been undertaken using existing available geographical information to identify noise sensitive receptors and noise sources present within the scoping area. Any additional data that may be appropriate to use will be agreed through discussions with stakeholders.

How we plan to assess the possible impacts

- Liaise with the local authorities to agree approach, methodology and criteria to be used.
- Undertake baseline noise surveys along the route of the cable corridor consisting of daytime and night-time attended noise measurements at locations representative of sensitive receptors.
- Undertake baseline noise surveys in the area of the substation consisting of unattended, continuous noise measurements at locations representative of sensitive receptors.
- Carry out a noise assessment for the cable laying activity (including at the cable landfall) and the construction of the cable relay station and substation.
- Assess construction vibration impacts (e.g. where piling may be required).
- Assess construction and operational noise impacts on any nature conservation areas in the vicinity of the cable corridor, the cable relay station and the substation.
- Assess construction traffic noise impacts; and
- Assess operational noise impacts of the substation and cable relay station.

What are the potential impacts?

During construction

The potential temporary impacts of construction noise may arise from:

- Activities carried out on the surface along the proposed cable corridor (mainly earth moving and excavation);
- Construction activities at the substation and cable relay station sites including any potential landscaping;
- Directional drilling activities under roads;
- Heavy goods vehicles delivering or removing materials (including spoil and fill) and plant;
- Vibration will only be considered as an issue where significant piling works are required.

During operation

The potential permanent impacts of operational noise and vibration from the substation and cable relay station that will be assessed are:

- The inherent operational noise from the substation and cable relay station;
- The proximity of the proposed development to noise sensitive premises and noise sensitive areas (although we would look to site infrastructure away from these receptors at the outset where possible)

There are unlikely to be any noise and vibration impacts relating to operational or maintenance vehicular traffic.

There are considered to be no significant sources of vibration associated with the operational scheme.