From:
Norfolk Boreas

**Subject:** Boreas Project EN10087. **Date:** 19 December 2019 19:07:02

## Dear planning inspectorate,

I would like to comment on the answers provided by the applicant in their response to your written questions.

## O3.0.1. Compulsory acquisition schedule.

In the book of references 4.3 version 2, Paul John King, Jacqueline Ann Claxton, and Colin George King, all have equal right of easement over the Necton substation land. In the compulsory acquisition objections schedule in appendix A. Paul John King is shown as having no land interests, and Jacqueline Ann Claxton is not mentioned. Lodge Farm and surrounding land totaling 681 acres was jointly owned by Paul King, Jacqueline Claxton, Colin King, and David King, from the early 1960s to the early 1980s, and Ardent listed them in the book of reference equally, I think there is an error.

## Q5.3.12.1. Clarify what is a noise sensitive location.

I would like to reiterate our position at Ivy Todd Farm. I explained numerous times, including at public consultation, that the field extending from our farm yard to the N.E. has been used for the last five years for an annual barbeque, and lends itself ideally for a holiday let site, so I feel this being closer to the substation than the farm house, this should be considered as a noise sensitive location.

# O9.2.2. Policy position for alternatives.

I do not understand the legal requirements for consideration of alternatives, but when the applicant starts a public consultation with the connection point already decided upon, it is frustrating, but more importantly when questioned at a Necton consultation drop in the applicant ended up stating "it's Necton or nowhere". This clearly demonstrates the problem, with taking this decision before the public consultation. No matter how large the problem is, discovered in the consultation, there are no alternatives available to consider, which could offer a solution. The applicant is under pressure, with no choice, other than, to make the one location work.

# Q9.2.4. Were there any changes following the decision to adopt HVDC technology.

The applicant lists five changes with advantages, and provides a full description including numbers and measurements. The sixth point states the onshore substation will consist of of an HVDC substation. I feel to keep continuity, this change also needs a full description, so the implications for Necton can be considered, and additional mitigation planned.

#### Q9.2.6. Cable corridor selection.

The four points listed demonstrates the easiest, and least expensive option was chosen, not the shortest, and least environmentally damaging. The fact Orstead then planned a suitable route to Swardesden, Norwich means the two acceptable routes can be assessed on one map. If each route is followed from landfall, to where the cables cross, and then exchange route where they cross, and carry on to the other developers substation, a distance of around a mile could be saved. This observation negates all difficulties that arise when it is suggested to the applicant that they should have made a shorter cable corridor to Norwich, allowing Orstead to then make a shorter corridor to Necton, to connect. This must be considered as the starting point of an assessment, as these routes could then be further refined to reduce the lengths further, with benefits to the environment, and improve efficiency losses.

# Q9.4.1. Height of structures at the substation.

The applicant states the HVDC and HVAC onshore substations were consulted upon during the Necton workshop. I cannot remember the applicant asking consultees at Necton, whether they would prefer HVDC substations at 19-25m high, with more infrastructure, or HVAC with smaller structures up to 15m high. If the applicant did, could they show how many consultees were in favour of HVDC.

## Q9.4.3. Bunding around substation.

The answer to point one describes the landscape as "gently undulating", where they suggest it would be inappropriate to place an earth mound with planting. How is it more appropriate to place a steel, solid structure in this landscape, on high level ground, than an earth mound with planting? Why does this gently undulating landscape, not warrant this more effective mitigation? As the height of the halls are 19m, and the applicant's design an access statement 8.3 states, the mitigation planting would only be 8m high, after 20 years, it would seem no attempt is being made to conceal the top half of the halls. The planned mitigation may have been appropriate to screen HVAC substation structures, but no alterations have been made, to take into account the extra solid mass, and height of the HVDC converter halls.

The applicant states, that it would take a huge amount of earthworks, without any mention of final ground level, or bund heights. The relevance of the SE corner of the site being naturally lower is questionable, as this has to be dealt with regardless of extra earthworks. As the project stands, is the applicant going to lower the site to the level of the low corner, which would be a start to lowering the site, and generating soil for the bunds, or are they intending building the corner up, making the halls more prominent

The extra mitigation would benefit, Ivy Todd, Necton, Bradenham, Holme Hale, and beyond, and particularly Vale House and Ivy Todd Farm.

What is the rationale for bunding the west side?

I have included three photographs looking at the south boundary of the substation site. The first photo shows Lodge Farm trees on the left, which the substation would be behind, but would be double their height, and Necton Wood to the right, which the substation would be in front of.

The second photo shows the existing Dudgeon and National Grid substation, and connection point, showing how poorly the mitigation is working there.

The third shows the existing landscape, where Boreas is proposed. I feel higher planted mounds would fit well with near and far wooded areas. Every effort is made to negate negative effects on environmental matters, equal respect should be shown to affected residents.



Lodge Farm Trees.

Necton Wood



Trees to the left of existing Dudgeon substation.



Existing landscape.

## Q9.5.1. Landscape and visual mitigation.

In a visit from Vattenfall to the farm on 25 Jan 2018 it was suggested, it was possible to break up the shape of the converter halls, and cover them in various colours to help them blend in. Also at a Necton parish council meeting with Vattenfall giving a presentation, they said it was an advantage to have the HVDC converter halls because they could be covered to blend in, and the buildings would make it easier to contain the sound. In the applicants answer to this question, they state no parts of the substation will take part in the visual mitigation.

## Q9.6.1. Policy requirements for good design.

In general, the lack of planning, of the cable corridor, and the lack of extra substation mitigation required, with the change from HVAC to HVDC, in my view cannot be considered good design.

Specifically, planning statement 8.2 Norfolk County Council DPD. DM2.Core River Valleys, should be considered. The total substation site would be split by a tributary of the river Wissey. National Grid and Dudgeon to the west, and Vanguard and Boreas the east. This stream is in the bottom of a wide valley. Because of its position and course, it can only be considered as natural and ancient. The fields to be used for the substation site were waterlogged, with large areas unproductive, until my grandfather Robert Haydn King undertook a large drainage project, which was covered by the local press, in the early 1950s. Therefore these fields should be regarded as the valley floodplains. The stream runs through the large, recorded Medieaval moated area at Lodge Farm, and with the valley, forms the character of Ivy Todd. Lodge Lane, identifiably ancient with its eroded depth, leads to the moated area, and used to extend through to Fransham, and fords the stream. All this is appreciated by locals, and walkers. This project, and Vanguard, intends to cross this stream and valley with I believe a concrete encased, 400kvac cable, with possibly restricted access. What physical form this restriction would take, is not clear.

Dudgeon and Nation Grid, (10 acres) already drains their water into this stream, which historically floods Ivy Todd. The addition of Vanguard and Boreas will take the total runoff area draining into this stream, to more than 70 acres.

As this stream valley is fundamental to Ivy Todd, and arguably a reason for the original settlement, Norfolk County Council, and Vattenfall should regard this area similar to, if

not as a core river valley. At the moment this natural feature is not being respected by the existing development, (as in photo) and being totaly overlooked by the applicant.

DM2. requires proposals to enhance the form, local character and distinctiveness of the landscape, and natural environment of a river valley. Also the functionality of the floodplain should not be impeded.

Breckland Council's DPD. CP11.requires the development to have particular regard for, maintaining the aesthetics and biodiversity qualities of natural, and man made features including trees, hedges, woodland, rivers and streams, or other topographical features.

DC13. Flood Risk. The development will add to the flood risk in Ivy Todd.

DC15. As the project stands, the substation will have a cumulative, detriment on the surrounding landscape.

DC16. The substations will not preserve or enhance the existing character of the area. The development will not compliment the natural landscape, natural features, "and built from that surround it". The substations will not comply to density, height, massing, and scale considerations in this particular landscape. Building detailing and materials are not provided

Design And Access Statement 8.3.

Page 18 shows an Indicative onshore project substation layout-HVDC. The applicant does not show an indicative layout of the National Grid extension, connection, and link from the Boreas and Vanguard substations. It would be helpful to include a car, van, or person, to gauge the scale.

Page 21 states the mitigation planting would be 8m high after 20 years.

Thank you for your attention, Colin King 20022983.