

**From:** [REDACTED]  
**To:** [Norfolk Boreas](#)  
**Subject:** Boreas Project in lieu of attendance at hearing 3, deadline 4. EN10087  
**Date:** 22 January 2020 15:37:17

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Dear planning inspectorate,

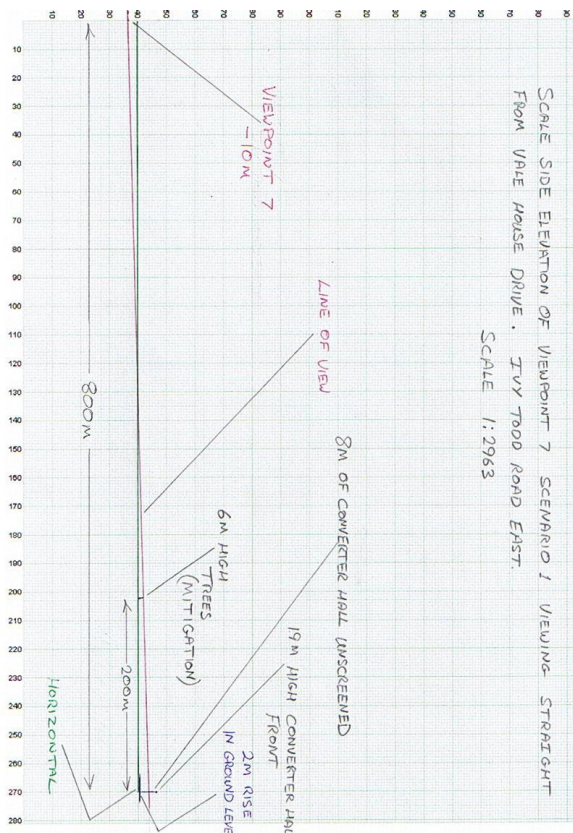
I would like to make comments on the responses provided by the applicant to my submission at deadline 2.

The second response states, there is no prescribed required distance for electrical infrastructure from residential areas, and in urban areas high voltage substations can be adjacent or amongst residential areas. This comment seems only to justify my concerns, as the applicant is suggesting it would be acceptable to site the total 70 acre, 4GW, HVDC converter substation, adjacent or amongst residential areas. This is a strange response to my concern. I did suggest to reassure and demonstrate this is a coherent project, that the applicant could provide examples of similar sized HVDC/HVAC substations. It would demonstrate if the extra noise produced by the HVDC conversion can be successfully controlled, and what methods should be adopted at Necton.

The fifth response suggests I am concerned how changing from Vanguard's worst case scenario to Boreas's scenario 1 and 2 effects the environmental statements. In my submission I did not mention the environmental statements. My concern is with the Vanguard and Boreas combined consultation, where the footprint for Boreas was selected under worst case scenario, and then the methodology changed to scenarios 1 and 2 in the Boreas application, showing for the first time moving the Boreas footprint if Vanguard is not built. This was not presented for consideration at the appropriate consultation. Should there be a scenario 3 where Vanguard is built, but not Boreas, and Vanguard moves to Boreas scenario 2's footprint?

I have to disagree with the applicants response to my observation, that the photo montages at Lodge Lane North are flawed. The applicant suggests they do not know whether the the rise in landform to the fore of the onshore project substation actually occurs or not, and it cannot be determined from the baseline photograph, as the mature woodland associated with Lodge Farm screens this portion of the view. Using Google Earth Pro, ground levels through Lodge Farm trees shows that the land continues to gently fall to the west, away from the lane, as it does all the the way along the lane, up to Lodge Farm. I have also walked the area and I can confirm this, with no concealed ridgeline. I disagree with the applicants opinion, that the more critical point in terms of screening is the extent to which the landform falls away to the south. I agree the land falls approximately 5m from Lodge Farm to the viewpoint, but the land continues to rise a further 3m beyond Lodge Farm, to the converter halls. With the comparable distance from the viewpoint to Lodge Farm, and from lodge farm to the converter halls, the further 3m rise behind Lodge Farm negates most of this critical screening effect, and yet the photo montages show the converter halls with a 17-18m screening effect. I have included a scale side elevation diagram of viewpoint 3 to demonstrate the situation, and it shows the converter halls in full view. As the ground continues to fall at a similar gradient to Lodge Lane South viewpoint 2, from viewpoint 3, the same issue applies, and the converter halls will be far more visible than shown in the montage.





The only explanation for these discrepancies in my opinion is, the OS 5m DTM software used has an accuracy of +/- 2.5m rural, and less accurate where trees and buildings cover the terrain. The aforementioned mature woodland associated with Lodge Farm, has the capacity to cause a ridgeline great enough to cause the effect we are seeing at viewpoints 2 and 3 Lodge Lane, and the +/- 2.5m accuracy over the distance involved with viewpoint 7 could be enough to produce the photo montage in question. Working with the limitations of this accuracy on a project of this size it could be suggested that an on foot survey should be carried out to check for obvious anomalies, but I do not consider this to be a satisfactory solution, capable of producing images accurate enough, to be used to plan successful mitigation, and to generate photo montages of successful mitigation to show residents, interested parties, and the planning inspectorate. A more accurate system is needed for a cumulative project of this size, where the distances involved are so large from the project to viewpoints, a 5m inaccuracy in the height of a mitigating screen, natural or not could make the photo montage virtually useless.

I strongly feel that if we are expected to accept this not insignificant construction, and live with it, we could be afforded more reliable positive mitigation, that is not based on the above method. Earth bunding was mentioned early on in the Vanguard, Boreas consultation as a possibility. It would massively help the visual mitigation, and also prove beneficial to the noise mitigating measures.

Thank you for your attention Colin King 20022983.

**From:** [REDACTED]  
**To:** [Norfolk Boreas](#)  
**Subject:** Norfolk Boreas Project EN10087.  
**Date:** 30 January 2020 18:16:28

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Dear Planning Inspectorate,

I would like to follow up from my relevant representation regarding the drainage situation of the substation site. The soil of the site has a slow natural drainage rate, because of the high clay content, so I think it is generally agreed that natural drainage cannot be used. The solution, as with the Dudgeon site, is to run the runoff water into attenuation ponds and drain these into the existing water courses. Dudgeon already runs into the Wissey tributary, which runs through Ivy Todd. I include photos showing the result of 30mm of rain in 20 hours, and of the result of a heavy summer storm in 1982, that flooded through 4 houses, when the stream gets overwhelmed.

The Vanguard attenuation pond is placed at the west end of the site, suggesting it will run water into the Ivy Todd stream. The attenuation pond for Boreas is placed at the east end of the site, and is closer to the water course that runs through West End Bradenham. I also include photos of the West End road flooded as a result of 25mm of rain in 24 hours, causing the little stream to spill onto the road.

All that I am aware of, is there will be attenuation ponds to empty, but no detail of where and how. Will Boreas's water run through West Ed Bradenham? Does the applicant and Norfolk County Council fully appreciate the present issues through Ivy Todd and West End? As our property and others will be at risk of flooding if the system fails, could there be some detail on the way the water will be controlled, to demonstrate the issue is being considered with due importance, and hopefully reassure people with local knowledge.

following up on my concerns over the operational noise, I would like to use the 1000mw Deadalus HVDC converter substation as a comparison. In 2017 the Deadalus applicant prepared an Audible Noise Assessment for a planning application. the document clearly sets out, and describes:

Audible Noise Contributors, and their main characteristics,  
Calculation Method Description,  
Noise Impact From The Converter Station,  
With 10 subsections.

This is backed up with tables, maps and pictures of examples equipment, eg. audible noise enclosures. One over head picture of the site shows all the nearest receptors. The converter substation is represented, encircled with noise level lines, of different colours representing 62.5dB(a) to 27.5dB(a). The closeded receptor is on the 27.5dB(a) line. This clearly shows the applicant was working with a generous tolerance as the imposed limit was set at 30dB(a). Why is the limit for this project set at 32dB(a) and why doesn't the applicant demonstrate predicted noise level, also well under the 32dB(a) limit.

Following up on the land easement issues over the Necton substation site, [REDACTED] and [REDACTED] have not had any communication regarding this issue from the applicant, and the last one I had was on the 20-2-19 asking if we had any documents regarding the easements, so I am unaware of any progress.

For our farm to remain viable through and beyond the phasing out of the farm basic payment subsidy, we intend to take full advantage of the arable environmental schemes, that are available, and create a holiday let on our field, near the substation site, in the form of a 1963 Italia showmans lorry, already purchased. To successfully coexist, we need successful visual and noise mitigation. I notice in the consultation summary document autumn 2017, the map of the onshore project substation shows residential buffers set at a 400m radius, around residential receptors. This buffer covers our land perfectly, and if it



could be used as a 32dB(a) boundary, it would suggest a successful coexistence could be possible, with regard to Ivy Todd Farm (1825).

Thank You for your attention Colin King. 20022983.

West End Bradenham 27-11-19 25mm Rain in 24 Hours.





Ivy Todd Flooded 1982.



Ivy Todd Stream 27-12-17 30mm Rain in 20 Hours.





