From: [redacted]
To: Norfolk Boreas
Subject: Norfolk Boreas Project EN010087
Date: 06 May 2020 19:02:35

Dear Planning Inspectorate,

These are my comments, on the comments of the applicant on deadline 8 submissions. The applicant suggests that: "*The screening seen in the visualisations of Viewpoint 3 and 7 relates partly to landform and partly to existing tree cover. In respect of Viewpoint 3, the mature trees around Lodge Farm (approximately 18m tall) reduce the extent to which the onshore project substation would be visible."*

The problem at viewpoint 3 is with the representation of land form only. The 3D Model View, fig:29.37b 2of2. produced by OS terrain 5. shows the converter halls mostly hidden by a land form. All diagrams suggest the halls to be more visible. The applicants latest cross section diagram supplied with their comments on deadline 8 submissions, show the halls 3/4 in view, using the land form contour, ignoring the trees for now. The Model View should therefore also show the halls 3/4 in view. This is important to gauge the mitigation needed.

Photo montage fig:29.37c 3of3. must be based on the 3D Model Views produced by OS Terain 5. as it shows the east converter hall totally screened by land form and a hedge, when actually the land in a NE direction from Lodge Farm rises from 70m to 73m. The converter hall again should be 3/4 visible in the montage.

The applicant refers to Lodge Farm trees, for the first time in these considerations, and includes them in their latest cross section diagram, suggesting they are present, and affecting the 3D Model View to give the screened effect, when that view is of land form only. This adds weight to the theory, that OS terrain 5. confused and combined the trees and ground level, to a degree, to produce an artificially high land form.

The stand of trees at Lodge Farm is 110m wide, and as such would screen 1 converter hall. In the viewpoint 3 visualisations, the east hall would be in full width view. In scenario 1, 3 halls out of the 4 would be in view.

Regarding viewpoint 7 the applicant suggests that: *"Similarly, from Viewpoint 7, there is tree cover along an intermediate field boundary which, owing to its closer proximity to the viewpoint, is of a comparable scale to the scale of the onshore project substation. While the Rochdale envelope is set at 25m to include the lightning masts, the building is set at a maximum height of 19m which may account for less being visible in the visualisations than might be anticipated.*

The applicant again has brought in an existing feature for the first time, which is not part of the discrepancy, referring to the single stand of trees on our land, that the converter halls can be seen through fig:29.29c.

The problem is, the montage showing 15 years of mitigation, shows the new mitigation trees concealing the halls to the full height. fig:29.29d. Considering the level steady rise in the land contour, from view point to converter halls, the mitigating trees after 15 years would more likely cover half the height of the 19m converter halls, as in previous diagrams.

The lightning masts at 25m have at no point been mentioned, or taken any part in my considerations, so to suggest that they may be causing the buildings in the visualisatons to be less visible than anticipated is surprising, and possibly missing the point.

Regarding noise sensitivity, the applicant reaffirms the operational substation noise limit set was arrived at in consultation with Breckland Council, and it was agreed to use the same limit as the Dudgeon substation, and in the Dudgeon considerations the closest

noise sensitive receptor was used to set the limit. *"Furthermore, in consultation with Breckland Council, it was agreed that potential impacts should be considered at the same representative closest noise sensitive receptors as the Dudgeon scheme, supplemented by additional project specific receptors based on the scheme footprint within the study area."*

My point is, the closest noise sensitive receptor for the Dudgeon project is a house less than 20m from the A47 main road SSR11, with an appropriately high average background noise level. This receptor's background noise level determined the 35dB 5mins and 32dB15mins at 450m limit.

The closest noise sensitive receptor in the Vanguard/Boreas project is SSR2, set in a quiet hamlet, with a distance of 1,620m to the A47, with an average background noise level of 28.4dB. (in the applicant's comments to deadline 5 submissions) With the Dudgeon Substation, and the applicant's project having such dissimilar average background noise levels, the noise limit set for Dudgeon cannot simply be transferred, and used for Vanguard/ Boreas. The two projects sound situations are totally different.

If this situation was recognised, and a more appropriate sound limit was set, the need to request a reduction in sound level over our farm,(something the applicant is unwilling to do) would probably no longer be required.

In setting noise limits, I found in tranquil areas, and in areas judged susceptible to noise creep, it has been normal to set the limit up to 10dB bellow the average background noise level, and yet the limit is set 6.6dB and 3.6dB above. With the noise limit of Vanguard/Boreas set at 750m, (nearest receptor) this gives an area of 768 acres potentially covered in sound energy at over 35dB 5mins and 32dB 15mins adjacent to the sound sensitive receptor. This must qualify as susceptible to noise creep, and an average background noise level of 28.4dB must qualify as tranquil.

Regarding the easement rights over the substation land, the applicant suggests the rights all depend on finding a 1972 document. My understanding is that a Title Register held by the Land Registry is legal, and supersedes paper documents.

In addition to the above points, I would like like to mention points that I feel are still of concern.

1. The potential to contaminate the Wissey Chalk (W. Norfolk) Aquifer, under the project site. The West Bradenham ground water abstraction source for public water, that supplies 3.75 million litres per day, that is 2.1km away from the project site and the North Pickenham abstraction source 3.77 million litres per day that is 5km away, both abstract water from this aquifer. It must therefore be imperative to pre-empt any possible contamination from the plane crash site, when crossing the Upper Wissey tributary, with the 400kv cable trench, or pile driving.

2. The change from worst case scenario in the Vanguard consultation, to scenario 1 or 2 in the Boreas process, and what parts of the Boreas project were influenced by the Vanguard consultation in worst case is confusing, and how the Vanguard and Boreas applications effect each other. The Vanguard consultation presented 2 options, HVAC and HVDC. There were drop in presentations and the Swaffham workshop presented with the two options. While there were the two options, which the applicant suggested had equal chance of progressing, we were asked which footprint we preferred, but we were not asked whether we preferred the AC or DC option. I personally gathered at the time from the drop ins etc. that it was decision that the applicant was making, depending on the economic availability of the HVDC technology, and not something IPs could influence. So when the applicant announced on the evening TV news and regional radio news that they had decided to commit to HVDC technology, because they had listened to IPs opinion, it was quite a surprise. This was the worst case scenario for Necton.

The DAS has been modified in the Boreas application,so are all changes made to the Boreas application automatically applied to to Vanguard application? If changes have been necessary for the Boreas application, then Vanguard should not gain approval without the

same changes pre consent.

3. The HVDC option should have included additional earth bunding to mitigate the additional 19m high converter halls, instead of stretching the HVAC tree mitigation. The tree mitigation for the HVDC substation was originally presented as the mitigation for the Vanguard substation as worst case scenario, and it is persisting through to scenarios 1&2. I can understand how trees can screen the mostly open structures of an AC substation, but I struggle to see how they can reliably screen solid structures.

4. The total size of the proposed substation complex at Necton scenario 1, or worst case, has I feel has been down played through the consultations, and through the application stage. Any unfortunate inaccuracies in the visualisations have tended to show an underestimation of the impact of the infrastructure, and an overestimation of the effect planted mitigation.

The agreed sound limit again shows the implications of this project on local residents is being down played and under estimated.

Dudgeon substation is 9 acres, and Vanguard/Boreas is 48 acres, of infrastruture without planted mitigation and the 400kv cable link areas. This means the Necton substation will be 6.4 times larger than it is now, and the extra area will contain a significant proportion of much more impact full solid 19m high buildings, and yet the same mitigation method is thought suitable. Any shortfalls in mitigation will not have a small effect.

5.The stream through Ivy Todd is coping at the moment with the drainage from Dudgeon, and I understand the drainage is controlled, but it remains a concern that the area of drainage is going to be potentially increased to 6.4 times larger.

Thank You For Your Attention, Colin King 20022983.