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FURTHER TO ORAL SUBMISSIONS AT ISH7

With particular reference to:

Important Hedgerows and Tree Preservation Plan Sheet 2 / Important Hedgerows 3 & 4

Hedgerows, Flora, Fauna in and bordering Plots 10; 12;13;14

During ISH7 / Biodiversity, the Applicant's representative, when questioned regarding surveys of soil, geology, flora and fauna with regard to the areas cited above (10;12; 13;14;) made frequent reference to "a suite of surveys" having been carried out, but to date no surveys have yet been carried out in the areas I cite. Rather, the areas in and around the proposed sub-station at Friston, the Hundred river, and associated plots seem to have been concentrated on.

Could the Applicant please be questioned again as to the date and extent of any surveys specifically undertaken on plots 10;12;13;14? Surveys undertaken some miles away can have no relevance to this area. Furthermore, in concentrating what survey work has been undertaken on identifying likely habitats for certain species, rather than recording the actual presence of such species, which has been independently recorded for many years, the Applicant has really done little more than have a quick look around, and failing, for instance, to stumble upon either the presence of the brown eared bat, or whatever the Applicant had deemed to be a viable habitat for such an individual, concluded that, contrary to extensive local reportage, no such species is present. Without wishing to be trivial or vexatious in any way, one really is reminded of the legend of Admiral Lord Nelson at the Battle of Copenhagen putting a telescope to his blind eye and declaring, "I see no ships"

In previous submissions I have entered a compendium of the many bird and wild-flower species recorded in the plots referred to above and in the environs of Wardens and Ness House. I will not take up space by rehearsing the entire list but would like to provide some vivid examples of how this area of land operates as an integrated ecosystem, where species are interdependent.

The process begins, of course in the very soil of the area, typically light and sandy, moisture being successfully present only because of the underlying saturated chalk layer – the Suffolk Chalk Aquifer, a report on which I submitted at D4 D5 and expand on in this submission above, as the original narrative part of my D5 submission is reproduced in print too small to be legible on the PINS website (a result I'm sure of my having attached it to relevant screen-shots rather than sending maps separately). Without this massive underground reserve of pure water, not only would the East Anglian region's people's water supply be adversely affected, but the foundation of the ecosystem itself – the very material that gives us "the birds and the bees" would be catastrophically diminished.

Some examples:

In Important Hedgerows 3 and 4 (scheduled for demolition) and the associated hedgerows linking and bordering plots 10;12;13;14 more than 40 species of wild flower have been recorded (cf my earlier submissions which include species recorded by Wardens volunteers and trustees over several decades). Amongst these flora are Red Valerian; Honeysuckle; Petunia; Sloe; Hawthorn; and numerous nectar-rich flowers. The species I name here are of particular relevance to several rare and protected species; three examples: the Hummingbird Hawk Moth; Lampyris Noctiluca (the Glow-worm); Elephant Hawk Moth.

These and the numerous other species of insects, moths, and butterflies, as well as being vital pollinators, are also part of the extending food-chain. As the aquifer feeds the soil, which grows the vegetation, which fees the insects, so the insects feed the birds - and the bats. This is how nature works. Remove one link and the whole chain fails.

Bats

Not appearing in the "suite of surveys" undertaken by the Applicant in plots 10;12;13;14 (because the "suite" did not come here) are the local bats – in the main they are recorded as Common Pipistrelle. These roost, feed, breed, and hibernate in the coppices, hedgerows, stables, and field shelters of the area. On balmier evenings following warmer days even as early as next month (March 2021 at time of writing) they will emerge to feed on the first hatchings of air-born insects. I will be observing them, as I have for over 13 years, caught in the shafts of moonlight against the naturally dark skies above my own garden. These super-sensitive protected mammals will suffer potentially catastrophic consequences not only from the interference to their food-supply caused by the demolition of environment, but also from the light, air, noise, and ground pollution resulting from SPR's industrialisation of the AONB.

Birds

Again, as a small exemplifying selection of the many species I have previously listed, in the same hedgerows, coppices, woodlands, fields, stables and field-shelters of plots 10;12;13;14 are memorable species in addition to the rich and diverse population of familiar British Field and Garden Birds. In particular, swallows, nesting through many generations, for as far back as local memory stretches, in the same stables, field-shelters, eaves, as the bats, and similarly completely reliant on the abundance of insect life supported by the vegetation. These join other summer and winter visitors which rely on the continuity and abundance of the local environment, amongst their number, Lapwing; Redwing; Martins; Nightingale; Swift; Fieldfare; Warblers including Garden and, only last year returning, Cetti's. Plot 13 also, with its pond, provides a respite site for migrating geese.

In the last 5 years, since the land was returned to arable use, particularly rare species have returned to inhabit the skies, hedgerows, coppices, fields, and woodlands of 10;12;13;14. Marsh Harrier; Wood Lark; and a much remarked on rarity, Firecrest.

Reptiles and Amphibians

As with bats and birds, so with the local population of reptiles and amphibians – species dependent on the successful continuing functioning of the natural environment; from soil to tree-top this is one interdependent bio-system. Part of this environment are the frequent, naturally occurring ponds and seasonal water features, a result of the self-same underlying chalk aquifer layer. Increasingly rare and protected species are present. Common Frog; Common Toad; Natterjack Toad (very rare); Grass Snake; Adder; Common and Sand Lizard; Slow-Worm; and, easily viewable during breeding season in the now threatened wildlife pond at Wardens Centre, Newt, including Great Crested. The same pond, and those naturally occurring in plots 10;12;13;14 also host multiple species of Dragonfly and Damselfly, reliant on the viability of the pond-water, and hence aquifer, for both food supply and location of eggs and subsequent larvae. Reptile and Amphibian mitigation measures, which we heard much of back when the Applicant was seeking to acquire Broom Covert for industrialisation, has not been planned – for the simple reason, it seems to me, that, as I have indicated above, the "suite of surveys" referenced by the Applicant did not include Plots 10;12;13;14.

Conclusions

All of the information offered above with regard to Biodiversity with particular reference to plots10;12;13;14 and the surrounds of Wardens Centre, Ness House, and Cottages is no more than a small snap-shot of an even smaller percentage of the flora and fauna present in this area, all of which will have its long-standing natural environment destroyed, permanently, by not just the industrialisation of the whole area, and by that I mean not merely the cable-route trenching, lay-down area, haul-road building, industrial storage facilities, 24hr light and noise pollution, pollution of water-source, demolition of hedgerows, coppices, woodlands, stables, field-shelters – that is only the projected works which may or may not be consented later this year, and commenced in the future, which many individuals and organisations are contesting.

Nearer at hand, scheduled to commence immediately, is the digging of over 30 trenches, and numerous invasive deep boreholes piercing the aquifer layer, currently presented as a pre-consent Archaeological Survey of plots 10 and 13. I have sent a copy of the map of these proposed works in my previous email.

This forms part of the process we heard described by [redacted] in his submission referencing NDAs. "A bribe" was his description on record. Our local MP, [redacted], similarly described the activity as resembling, "sharp practice". In addition to these specific, on-record references, I would like to add my own sense of shock and dismay at a growing body of evidence of what very much appears to be a process of unfriendly pressure, to say the least, on the part of the Applicant, aimed, in the main, at vulnerable and distressed residents.

I would like to conclude this part of my D6 submission by repeating my request for clarification of exactly where, when, and how the "suite of surveys" conducted by the Applicant are relevant to plots 10;12;13;14 and the surrounds of Wardens, Ness

House, and Cottages. Bats; birds; insects; flora; reptiles and amphibians with mitigation plans; a basic investigation of the aquifer itself – none of this has been undertaken in the square mile in which I live.

Why is this area so rich in species? Is it unusual locally? – No. It is part of an AONB equally diverse and rich. Hence the designation AONB in the first place, and the reason why the integrity of the area is protected. I respectfully request that the Inspectorate refuse consent to the destruction of this vital natural environment.

I would also like to add my support to those referencing the recent Vanguard High Court decision, in that the cumulative effects of the multiple projects must now be taken into account, and indeed are being emphasised in a refreshed approach to the managing of the East Coast as a whole in terms of energy supply-chain by H M Government.

With that in mind, in concert with many concerned and engaged organisations and individuals I would like to respond to Action Point 2, The Planning Balance from Open Floor Hearing 6

I respectfully urge the Examining Authorities to recommend to the Secretary of State a 'split decision' so that:

1. **The offshore turbines are recommended for consent.** (We are fully supportive of renewable energy and have no objections to the offshore elements of these DCO applications with the proviso all installations are acceptable to stakeholder concerns over the statutory purposes of the AONB affected by these proposals).

2. **The onshore infrastructure is rejected in favour of full consideration of better locations for this infrastructure where the adverse impacts are minimised at a brownfield site.**

As an Affected Person and Interested Party, I have participated throughout the course of the Hearings and I think one thing has become clear, the adverse impacts of this particular onshore site location substantially outweigh the benefits of the application when taken as a whole. The impact on our environment and the local communities and economy would be devastating but importantly needlessly devastating. There are alternative sites available which could avoid this destruction by their virtue of being at a brownfield site.

These Applications have come at an unprecedented time of consensus around the importance of offshore wind in reducing the UK's carbon emissions and meeting the government's 2030 offshore wind targets. They have also come at an unprecedented time of consensus around the acutely detrimental impacts of radial connections which these Applications propose. There are still 9 years to go until the Government's 2030 offshore wind targets. There is time for Scottish Power Renewables, National Grid and the Department for Business Energy and Industrial Strategy (BEIS) to get this planning Application right **without** jeopardising these important targets.

A 'split decision' would mean that no time is wasted with respect to the construction of the offshore turbines but would give the opportunity to rethink the onshore aspects of this project to fall in line with current government aspirations.

"We will safeguard our cherished landscapes, restore habitats for wildlife in order to combat biodiversity loss and adapt to climate change, all whilst creating green jobs."

"To minimise the impact on local communities, we will implement a more efficient approach to connecting offshore generation to the mainland grid."

The Energy White Paper

EXPANDED AQUIFER INFO UPLOADED FOR DEADLINE 6

I will hopefully be adding a geological cross-section of Suffolk terrain and seabed to enhance this slightly updated report. I would be most grateful if you could retain the paragraphs below within my D6 submission, as, probably due to my adding screenshots to the same page, on the PINS website the text of my D5 submission is too small to be read.

Many thanks once again for reviewing the information presented below with reference to additional information requested for Deadline 5 supporting previous submissions on the importance and vulnerability of the aquifer contained in the continuous chalk layer underlying the East Anglian region in general, and with specific local relevance to Wardens Centre / Ilex House / Ness House / Ness House Cottages / the long-standing grazing rights and vulnerable status of the livestock in the paddocks adjoining Ness House, and the centuries-long usage by farms, local businesses, and individuals.

I would very much like this submission and information to also be made available to Anglian Water and EDF, as organisations also likely to be adversely affected by the danger of the aquifer being compromised and polluted. The following additional information I believe has an immediate bearing on both the Applicant's proposed Landfall site choice, and the pre-consent archaeological surveys, comprising over 36 trenches and numerous deep boreholes immediately adjacent to the properties indicated above, which the Applicant is currently seeking to commence during the next two months, planned to extend into 2022. Details and a copy of the map illustrating these highly intrusive works can be supplied either at the next Hearing, or by / before Deadline 6.

For Deadline 5 Submission: The levels in the private water supply at measure by Veritas Water Engineers Ltd, the company retained by the Wardens Trust and Gimson family to install and maintain water purity for the Wardens Centre, Ness House, Ilex House, Ness House Cottage 1 and 2, were reported as follows, measured on 26/01/2021: "The well is 13.1 m deep measured from floor level in the pump house, the rest water level (surface of the well water) is 11.7 m. hence a depth of 1.4 m of water in the well" The following two screenshots display the elevation above sea-level at site of the well at Ness House (map 1, upper) and at the proposed Landfall site,

Thorpeness Point, at cliff edge (map 2, lower) Ness House : 46 ft / 13.8m above sea-level Landfall site cliff edge: 21ft / 6.3m above sea-level The extremely shallow depth of the water in the well at Ness House / Wardens, at 1.4m / 4.67ft is a clear indicator of the extensive lateral size of the Suffolk Chalk Aquifer. For such a shallow depth of water to supply, for a period of time that exceeds living memory, and in the case of Ness House, then known as The Tea House on 19th century o/s maps, and also in the case of Suffolk farmland usage, for a period that stretches back even further in time, and for the water source not have run dry must surely indicate a very substantial body of water.

In my previous submission for deadline 4, I quoted from, and referenced, two authoritative sources of information regarding the overall dimensions and vital importance of the Suffolk Chalk aquifer, a continuation of the single chalk-layer aquifer underlying, and supplying water to, the whole of the East Anglian region and beyond.

From the maps below, together with the current readings at the Ness House / Wardens site, we can see that the rest water level, ie the surface of the water in the well, lies at no more than 2.1 m / 7ft above sea-level (calculation being ground elevation @13.8m minus depth below ground-level of surface of aquifer @ 11.7m) At the proposed Landfall point, the cliff edge at Thorpeness Point, this same differential between elevation above sea-level of ground surface and rest water level of the aquifer below ground surface, (6.3m minus 11.7 m) would place the aquifer at 5.4m below sea-level at the foot of the cliff / top of the beach. Again in my previous submission at Deadline 4, in the description of the Suffolk Chalk Aquifer quoted from Natural England, the chalk layer containing the aquifer waters is described as lying on a gentle slope, running downward from NW to SE of the region, to continue its trajectory under the bed of the North Sea. The angle of this slope can be reasonably estimated by comparing the above / below sea-level figures quoted above, namely 2.1 m above sea-level at Ness House, sloping down by a net fall of 7.5m in the course of the approximately 1200m distance between Ness House and the proposed Landfall point, a gradient of 0.625m in 100m / 0.006 in 1.

At a depth of 5.4m below sea-level at the foot of Thorpeness cliff it might be thought that the aquifer might be below the level of HDD drilling proposed by the Applicant, which has referred to the under-beach level of the cable ducts as being 3m below beach level. However, seaward from the foot of Thorpeness cliff, both the beach and the subsequent sea-bed shelve at a far steeper gradient than that of the aquifer, the top-of the beach dropping over 3m in elevation in 50m travel to the shoreline, and the sea-bed then shelving to a depth of over 5m in a similar distance. It seems therefore extremely likely that the aquifer-bearing chalk level proceeds under the sea-bed at an angle that brings it in very close proximity to the sea-bed floor above it.

Without a specific geological survey of the depth under the sea-bed at which the aquifer lies, at frequent points of measurement between the proposed Landfall point and the planned “punch-out” point, it is impossible to say for certain at what exact depth the aquifer lies, along that trajectory. However, it is surely also clear that drilling down to a depth sufficient to undermine both cliff and beach at Thorpeness, the Applicant’s HDD process cannot avoid piercing and boring through the aquifer from

above. Equally clearly, the progress back up through the sea-bed strata to arrive at the “punch-out” point cannot avoid drilling through the aquifer for a second time from below, this time adding sea-water to the pollutants entering the major source of underground water-supply to the East Anglian region, and further afield.

As a specific, local example of how vulnerable the aquifer is to pollution, I can offer our own personal experience at the Ness House Cottage / Wardens site. For most of the years since moving here in 2007, the surrounding fields (currently adjoining Ness House and earmarked for industrialisation as part of the proposed cable-corridor) sustained mixed farming, alternating arable, root crops, and occasional single years of pig farming. For one period of no more than 3 years, pig-farming was unrelieved by intervening arable or root cropping. The result was that, for the first time in living memory - and the memories of our neighbour [redacted]’s parents at that point went back over 8 decades - the water in the well became compromised as drinking water by pollutant corrosive elements leaching down into the chalk aquifer layer, resulting from extended presence of the pigs. It was as a result of this, on the advice and subsequent insistence of council authorities, that the filtration and purification equipment currently installed at the pump-house at Ness House was installed.

In addition, therefore, to damage and pollution from the HDD process, the extensive trenching and inevitable industrial waste and run-off from all the proposed works, from Landfall extending along the whole proposed cable-corridor, seem certain to severely compromise and possibly render unusable the local area’s water supply, and in time that of the wider region. The question has been asked of the Applicant, in person by local landowners, and in writing at previous Hearings and for previous Deadlines - quite simply, what will they do to remedy this damage. Like many IP and AP contributors, I have been shocked to see vital and relevant questions such as this brushed aside by the Applicant with an answer that contains no specific information - merely the stock reply that Best Practice will be used, should anything go wrong. I respectfully request the Inspectorate to press the Applicant on this question. What we need to know, in the unhappy event of the project proceeding as planned, is what specific things the Applicant plans to do if our water supply is compromised - exactly how will they remedy the situation, and precisely when?

With great thanks as always for considering my submission for inclusion.

Yours sincerely

Richard Reeves