

DONG ENERGY HORBSEA PROJECT THREE PEIR CONSULTATION. JOINT RESPONSE FROM
RIVER GLAVEN CONSERVATION GROUP (RGCG) AND CPRE NORFOLK

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OVERVIEW ON KEY ISSUES

The RGCG and CPRE Norfolk made separate submissions to the Phase 1B consultation, and also verbal input prior to that at the 'roadshow' events. The RGCG did so from the remit of enhancing and protecting the Gaven and its catchment, and CPRE from a wider remit with landscape being the main issue. However we have felt for some time that wildlife and landscape go hand-in-hand. This is particularly so in the context of a river valley and the catchment area, which have the key role in a wider ecological network, and so now make a joint submission. The reason is well expressed by Brendan Joyce, Chief Executive of the Norfolk Wildlife Trust when he said in the preface to the CPRE Norfolk policy document A Vision for Norfolk (July 2017):

The county is famous for its wildlife and habitats and extremely rich in its biodiversity, but so much of it is rare and endangered and confined to isolated, fragmented nature reserves. It is not enough to protect what is there from growing threats. Its future survival depends on us taking a more landscape approach to its conservation and this means creating more space for wildlife and repairing broken ecological networks.

It is only in recent years that we have realised the potential of the restoration of farmland ponds in repairing a key part of this network, particularly those on a watershed between the two river systems and this work was initiated on the Glaven-Bure catchment 'boundary'. Such an area, particularly if sited on a watershed, can be the weakest link in ecological network. Our experience shows us that rivers and aquatic habitats can, with the appropriate restoration techniques, regain their wildlife in a relatively short space of time. We attach as evidence on this point the RGCG Strategy 2016-20 to illustrate this; also what we now see as the greatest threats, arable run-off and invasive species. A recent RGCG Newsletter Autumn 2016 contains an article on the ponds work, and Spring 2017 on the Dong project at it was at that time.

However our most important evidence is a paper written by RGCG members on the Upper Glaven Ecological Network (August 2017) and is the result of many years of experience. However this remains an ongoing exercise, and we expect to contribute further on this and other topics throughout the whole Project Three timescale.

The 2008 Core Strategy of North Norfolk District Council refers to the importance of the North Norfolk Chalk rivers at Policy EN 9 on Biodiversity, and has a six page appendix B devoted to the ecological network, thanks to the good acceptance of the input of the Norfolk Wildlife Trust. In our view however the importance of this is still underplayed in the national planning system, in which there is a lack of connectivity. The planning system compartmentalises landscape and wildlife; and in wildlife there is a separation between habitats and species. There is a lack in consideration of the overall importance of the ecological network and how it embraces the component parts.

Clearly Dong Energy has to evaluate impacts and mitigation options arising from their development within the existing planning framework. However we would hope that Dong might be 'ahead of the game', and provide an overlay on the importance of the ecological network, and this might influence how they assess the effects and impacts' significance in the range from negligible to minor, and moderate adverse to major adverse. If that is a step too far in the present Environment Impact Assessment framework, then still apply in practice to what is considered to be appropriate mitigation measures to be taken, and do all possible to apply the best possible.

We could add further in support of this that the compartmentalisation extends to considering each impact event and fails to assess the cumulative impact across the whole length of the project. To put it crudely but illustrate the point, there is a need to completely avoid the potential territory of death by a thousand cuts and backfill. So we urge a 'generous' approach to mitigation measures all along the cabling route, especially where it is within an important ecological corridor.

The most important mitigation technique is the use of horizontal direct drilling, but at present the Glaven headwaters are only in the 'second league' of sites. We fully realise that Hornsea Project Three is a complex, massive and expensive project; and that open trench will be the norm, and that there is no transmission loss by cabling up a hill rather than going through by direct drill. We are of course aware also that the cabling route is designed to avoid sites of the highest nature conservation (and identified farmland ponds). We ask however that the use of HDD is given careful consideration in aquatic based an ecological network; and where there are important features such as hedgerows, woodland strips and meadows of wildlife value, In the context we add that it may be up to a decade between start and finish of the whole project and all cut and backfill work is completed.

In our previous verbal and Phase 1B comments we stressed the importance of sediment not entering the river system. A HVAC booster station at Hempstead, thankfully now set aside, would it seems only been concerned about the sediment levels at Holt Lowes, an SAC site just downstream from an entry point. We hope that this was just as a monitoring point, as of course all sediment (and associated chemical contaminant) moves downstream over time and effects all the in-river habitat and ultimately the coastal lagoon which is also an SAC.

Turning to protected species, the Glaven is vital for the native white-clawed crayfish, and we consider this requires a greater consideration when looking at the wider situation The battle for the long term future of its survival seems to have been lost in the Bure, Wensum and Tud. There still remains a 'clean' and healthy population from Letheringsett mill upstream to the Glaven headwaters. Translocations to other sites elsewhere, where neither the native or invasive Signal crayfish is present, have been made with 'balanced' population taken from the middle reaches of the Glaven.

There is a considerable focus on the great crested newt, which is fortunately relatively common in North Norfolk, and can be quick to colonise a restored farmland pond. Such ponds are quick to come back to life with a wide range of species, including aquatic plants, invertebrates, dragonflies and insects, amphibians; and a local concentration of farmland birds, and other such as the swallow. There may a return of fish, most notably the native crucian carp. In addition there is the wider function of the benefit to the ecological network as discussed above, the stepping stones across a fragmented countryside.

The documentation does have an impressive range of methods of approaches in order mitigate to against the adverse impacts which could potentially occur. Much of this is based on a very thorough desk research, but is being supplemented by field surveys in selected areas, and this continues. It is clear that Dong is aware of the high degree of heterogeneity in the geology derived from glacial deposits in the Glaven catchment. We therefore for the requirement for a more detailed study through field studies in the fine tuning of the cabling corridor down to 80 m plus the buffer area to reach the EIA stage which supports the Environmental Statement. We would also add that the geology is more likely to present an unexpected problem along the cabling route, and there is a greater need for awareness of this as regards a response to this in taking mitigation measures.

Finally on this overview we wish to place to record that we welcome the decision following the Phase 1B consultation to set aside the Henpstead and Pond Hills site for the location of a HVAC booster station. This was a great relief to us, particularly for the Hempstead site which had a high potential for damage to the Glaven, during construction and in operation, and have a severe impact in the landscape. We do understand why many people have a great concern on a booster station, and these are foremost in terms of profile; and understandably due to the complexity and much less obvious the types of damage that can be done but unseen.

We add that, as said in the previous response, the selected Little Barningham site is also in attractive and unspoilt countryside, but the contours and woodland on two sides offer more opportunity for screening and other mitigation techniques. The most desirable approach would be of course the use of HVDC and avoid the need for a booster station. We return to this issue later in this document.

SPECIFIC COMMENTS ON THE NON-TECHNICAL SUMMARY

The Non-Technical Summary makes a very useful overview, but also a 'way in' to reading the specialist chapters, which go in to considerable detail and length on a wide range of topics; and provide an overview of the specialist topics of particular interest. We make some comment on N-TS by referring to the numbered paragraph. We look to be brief and pick on points where we might either want to just note, support what we say above, and/or come back to later in the consultation process. We do this also with the ecology and nature conservation chapter, and the landscape chapter. We start with the NTS, and work down in order of paragraph number, and quote in full, abbreviate or paraphrase what Dong say to relate to the point we wish to make, or just note.

3.5.1.1: The two primary transmission types are HVAC and HVDC for off-shore windfarms; the UK has traditionally used HVAC. With interconnectors between countries HVDC will become more technically and/or economically viable as such are used on a number of projects in Germany. We assume there are more problems in connecting the UK to a wider European system. We understand the need for Dong to take both systems through all planning stages, but hope by then they will be in a position to use HVDC. We also assume that as wind energy is more variable and less predictable than 'conventional' energy production, there is a greater need and opportunity for flexibility to 'chase' demand if inter-connection between countries is widespread.

4.9.1.1: We note and welcome the statement: Hornsea Three will continue to develop and refine the project as it progresses towards a final application to Development Consent and beyond as it moves towards construction. The process will be informed by further stakeholder engagement and

interpretation of the outputs from ongoing engineering, commercial and environmental investigations.

5.1.1.1: In discussing the Environmental Impact Assessment (EIA) Methodology dealing with the construction, operation and maintenance and decommissioning of the project we have: Where **significant** effects are predicted, where **possible** it identifies mitigation to reduce the **significance** of these effects where that is **practicable**. The bold emphasis is ours, as this seems unduly negative in relation to what we say above. The technical term significant as associated with an EIA requires it must be determined in the Environmental Statement, but an issue deemed to be below this level gets less scrutiny. The word 'practicable' is capable of being interpreted in a range of ways, and can be taken as reluctance to deal with anything less than moderate/major adverse adverse significant.

5.4.1.5: We welcome: Onshore surveys taken to date include ecological field surveys (bird, bat, badger, invertebrate and reptile), archaeological desktop and geophysical surveys, baseline noise surveys and landscape and visual assessments.

5.4.1.6: We welcome: In addition to the surveys which have already been undertaken, a number of surveys are ongoing (such as aerial surveys of birds and marine animals, and onshore ecological surveys) or are proposed (e.g. geophysical survey of the nearshore extent of the Hornsea Three offshore cable corridor) and will inform the EIA presented in the Environmental Statement.

5.5.1.1: We welcome: The Hornsea Three assessment uses an iterative approach. This has been employed in order to demonstrate mitigation of project-related impacts. The process of EIA has therefore been used as a means of informing the Hornsea Three design.

5.6.1.2: We note: The PEIR sets out all aspects on the environment likely to be significantly affected by the project (as required by the EIA Directive). Only effects in general judged to be of **moderate to major** significance are 'significant' in EIA terms (where this differs for specific assessments, this is explained within the appropriate PEIR chapters). Where effects are considered significant in EIA terms, this will normally trigger additional analysis, consultation and possibly further mitigation measures, where practicable. When the determining authority makes a decision for consent, it therefore does so in the knowledge of all likely significant effects on the environment. We comment: In this context we include on the latter that this should include an ecological network factor.

7.2.1.1: We note: The geology and ground conditions study area comprises of a 1 km buffer around the onshore elements of Hornsea Three. There are three geological SSSI within the search area; Weybourne Cliffs, Weybourne Town Pit, Kelling Heath.

7.3.1.3: The hydrology and flood risk study area includes a number of catchments and associated surface watercourses. These include the rivers Yare, Tud, Wensum Bure River Glaven (Gunthorpe Stream). We comment: Gunthorpe Stream is not affected by the cabling route, but is one source of flooding and accompanied by arable run-off. Arable run-off is a major problem within the catchment, including the upper Glaven. We are concerned that this is not exacerbated by open trenching operations.

7.3.1.6: The potential use of open cut trenching, Horizontal Directional Drilling (HDD) and other site activities, may impact surface water quality due to increases in turbid (murky) run-off, spillages and leaks of fuel, oil etc and an alteration in surface in surface water pathways. With the inclusion of

design measures such as the use of HDD at the Landfall the effects of these impacts have been assessed to be of **minor adverse** significance (not significant in EIA terms). We comment: this may be true for HDD at the Landfall, but in our view is NOT true for open cut trenching, particularly given the heterogeneity of the terrain throughout the Glaven catchment, and the long time that may elapse with excavated soil waiting to be back-filled. Turbid, mucky water contains sediment, as repeated many times a major problem in the Glaven catchment (and many others, not least the Wensum SAC).

7.4.1.3: Twenty statutory designated sites, including SSSIs, SACs and Ramsar sites were identified within 2 km of the development, with 126 non-statutory designated sites also identified. The desk top study and site specific surveys indicated the presence of protected or otherwise notable species including bluebell, holly-leaved naiad, sandy stiltball, white-clayed crayfish, whorl snail species, common lizard, great crested newt, grass snake, slow worm, breeding birds, wintering birds, migratory birds, badger, otter bats and water vole. We comment: near all are present in the upper Glaven, some in abundance, We will be adding more to this list, and also see the attached paper on the upper Glaven Ecological Network.

7.4.1.4: There are a number of possible impacts on onshore habitats with the open cut trenching required to install the export cable. The impacts include potential habitat loss, for example in designated sites, hedgerows and sensitive water courses, as well as disturbance to notable species. The significance of the effects of these impacts is assessed to be in the range **moderate to major adverse**. With the actions quoted it is claimed they would mitigate the effects of impacts on potentially sensitive habitats and species. Therefore, with the proposed mitigation in place the significance of these effects would be reduced to **negligible or minor adverse** (not significant in EIA terms). We comment: This is a sweeping and ill-considered statement, which generalises a wide number of situations; it would if taken at face value surely see an unacceptable impact on some species, some habitats, and most certainly result in considerable damage to the ecological network that is provided by the Glaven catchment.

7.6.1.3: This paragraph relates to the Historic Environment and states that in the cable search area there are 13 scheduled monuments whose settings may be affected by the proposal there are 167 listed buildings, of which seven are listed at Grade I, 23 at Grade II* and 137 at Grade II. Many of these are in the North Norfolk district. There are 11 Conservation Areas, which in North Norfolk are Weybourne, Hempstead, Baconsthorpe Upper Sheringham and Glaven Valley. We comment: This is the only mention we can find of the Glaven Valley Conservation Area in the Dong documentation. It is a very large rural area, designated primarily on landscape grounds, but also the vernacular architecture and cultural associations such as the churches within it. The area is almost as large as the river catchment, and we will propose to the Council that the GVCA boundary of this could be overlain by the ecological network boundary, which essentially is the Glaven watershed boundary. This would recognise and bring together landscape and wildlife, to be incorporated in the Local Plan.

7.11.1.2/3 and 4: This relates to the activities of the New Anglia Local Enterprise Partnership (NALEP) and other major developments that might interact with Hornsea Three. There is much activity in Greater Norwich as a Growth Area. As such the Northern Distributor Road (NDR) is to be completed next year. There is a proposal for a Norwich Western Link (NWL) road to take the NDR across the Wensum Valley to the A47 west, on which dualling will start in 2020, and a Food Hub site has been

given consent for a site to the west of Easton Village, and the purpose of which is to bolster and justify the county council aspiration for a NWL road. The timescale for any NWL road would be beyond that for Hornsea Three, but the cabling route crosses the A47 and run through the middle of the Food Hub site, the Local Development Order being made within the context of the Greater Norwich Food Enterprise Zone (FEZ) in which the Hub is located.

COMMENTS ON ECOLOGY AND NATURE CONSERVATION

3.2.15: We note that the PEIR assessment is based on the wider 200 m wide onshore cable corridor search area which includes the proposed locations for the onshore HVAV booster station and onshore HVDC converter/HVAC substation. The final 80 m wide cable corridor construction area (60 m wide permanent cable corridor) will continue to be refined before being confirmed in the final DCO. It is anticipated that a number of potential impacts identified through this assignment will be mitigated or removed, through the refinement of the onshore cable corridor, particularly where the onshore cable corridor search area currently crosses designated sites. We comment: This 'wriggle room' might be particularly useful for avoiding impact on the restored (and those yet to be restored) farmland ponds in the upper Glaven, proving to be important as a key link in the ecological network.

3.3.1.4, Table 3.1, Field surveys undertaken and associated survey area: We note in this list in particular the comments on hedgerows, white-clawed crayfish, great crested newt, bats, otters and water voles. All present in the upper Glaven, see attached Ecological Network document.

3.9.1.3 and Table 3.11; and 3.9.2.2 and Table 3.12: We note the impact assessment criteria and definition of terms relating to the sensitivity of the receptor, and the magnitude of the impact. We comment: we agree with the hierarchy order of importance and sensitivity of an international designation (very high), national designation (high), county or regional level (medium), district level (low) and local level (negligible). We comment: BUT this is part of the compartmentalisation issue as all on a wider basis might be part of an ecological corridor, have in that sense a greater importance than when done in isolation. In the refinement and mitigation stage of the cabling route this needs to be taken into account.

3.10.1.3 and Table 3.14: We welcome the design measures adopted in selecting a cabling route. In particular as a Valued Ecological Receptor (VER) features such as ponds and Local Wildlife Sites (LWSs); these have been avoided where possible; likewise standard trees. Also as a pre-construction measure the surveys of ponds; where a trenchless installation across a water course will be undertaken where water voles, Desmoulin's whorl snail, white-clawed crayfish and/or otters have been recorded. On construction methods that the landfall cable installation may be by trenchless method beneath Weybourne Cliffs SSSI, we assume by HDD.

Table 3.14 continued to page 38: There are two lists where measures to minimise the potential for pollution incidents, and options for trenchless installation. The first lists places where they are identified, seven in all and include the rivers Wensum, Tud and Bure, and associated water bodies. The second list of four locations are being considered and may be identified following the completion of species survey, and include **Kelling Heath SSSI** and **River Glaven head waters and tributaries**. We urge that these should be 'promoted'. The first because heather is difficult if not impossible to regenerate following an open cut and backfill; it forms part of an area where much effort has been taken to restore heathland also at nearby at Salthouse, Wiveton Downs and Holt

Lowes. There is an impact on Landscape as well as species, and in addition to being much walked they are part of the North Norfolk tourism 'offer'. On the Glaven headwaters, and at the risk of repeating a mantra, we would argue for the central role in the ecological corridor, and that the numbers of protected species would out-compete the other three rivers, albeit not well recognised,

3.11.1.3/3.11.1.4: Weybourne Cliffs are mentioned again, and notes that they are designated SSSI for its geological features, and about 1.8 ha of the land falls within the Ecology and nature conservation area. We comment: this is helpful reminder of in depth on one topic but segregation of others, including landscape and tourism interests. On a specific point, the sand martin colony does need checking ahead of construction. After many years of being located under the Coastguard Cottage, some 3-4 years ago they moved to about 1 km to the east.

3.11.1.5: Kelling Heath returns with a statement that 5.2 ha of heathland habitat falls inside the onshore cable corridor, which is 5.2% of the SSSI. Then we have: Although restoration would be put in place, restoration of heathland is not guaranteed and can take many years to succeed. In addition the maximum design scenario would involve three separate trenching operations over an 11 year period, and it is considered that heathland restoration would not succeed except potentially in the very long term given the repeat disturbance that would result in this scenario. We comment, and make some general points here: **Much effort has been put in to extend precious habitat, such as heathland, and we should not be reversing this by knocking lumps off in some places. Further the EIA 'system' rightly takes a view as a safety net that the impact of a maximum dimension should be considered as a scenario. However an 11 year vacuum in many situations would be ruinous, not least by some pernicious weeds (as defined by Defra) such as thistles; but also invasive plant species such as Himalayan Balsam, which on the Glaven the RGCG spend much time seeking to eradicate. There is also a major issue on many and various individual sites of sediment run-off. Should you wish to visit an area already badly affected by Himalayan Balsam, then visit the Wensum or Bure; the same applies there for arable run-off, and near extinction of the white-clawed crayfish. The EU Habitat Regulations state that a development for a river such as the SAC Wensum should not make matters worse than the already are. The same principle should apply to our other Chalk Rivers. The Water Directive Framework seeks to improve the ecology status of all our rivers, those affected by the development are described as moderate condition, except the Bure classified as poor.**

There are other paragraphs that we have 'marked up', but to comment would become repetitive and unnecessary as regards ecology and nature conservation; and some have appeared in the N-TS section. For this and the Landscape Chapter we will respond again at the next consultation step, and in addition likely to submit further information on the Glaven for species and habitats in the context of the ecological network.

LANDSCAPE AND VISUAL RESOURCES

Paragraph 4.2.1.3: We note the main on shore elements to consider for the development are:

1. The onshore cable corridor, including the intertidal area, the two options immediately landward of the beech. The onshore cable corridor between the onshore HVDC converter/HVAC substation and Norwich Main Substation

2. The main construction compounds, to be decided.
3. The onshore HVAC booster station; and
4. The onshore HVDC converter/HVAC substation

We comment: it is these structures that will receive the larger part of the overall public response as they are of high visibility and prominence in undeveloped countryside, and may also be near settlements, and as such are sensitive. This is an important and understandable point and a matter of concern also to CPRE Norfolk. However we would not like to see these concerns imply that the less obvious potential impacts raised by undergrounded cabling all along the on-shore route are treated as secondary because they are less well known and recognised. Both need detailed consideration and comprehensive mitigation measures and treated as a proposal until this is secured and there is any acceptance in the DCO to come. The magnitude of this development, the third and much the biggest offshore windfarm to make the landing at Weybourne, implies a highest standard for mitigation measures. To help with this there are landscape and seascape character assessments published by Natural England, the District Council and the AONB Partnership.

4.7.1.2: We note that all three bodies above will comment on how it affects the AONB, and very extensively, and make proposals on routing and mitigation. As such we will concentrate on the Little Barningham site for a booster station, which is in a non-designated landscape; but notable as an area of strong and largely unchanged landscape, with single track roads network shown by the 1797 Faden Map of Norfolk. It is a quiet and tranquil area with dark skies. The site is at a point where the parishes of Edgefield, Little Barningham and Corpusty and Saxthorpe meet, which is reflected in the tree line boundary. The study area for the potential for sighting at 1 km and 5 km distance is shown a Figure 4.2 at pages 11,12.

Page 56, Table: The maximum design scenario for the onshore booster station has a largest footprint up to 25,000 sqm and the largest area requirement for temporary works also 25,000 sqm. The single building option has the largest built area (150 m long x 30 m wide x 12.5 m in height). This will also be the most inflexible of the building options. Firewalls are of 15 m height and lightning protection height of 17.5 m. In terms of construction vehicles, the maximum design scenario is likely to be the six building solution, if the six buildings are built at the same time. The three phase partly-parallel construction programme is considered to be the maximum design scenario.

CPRE Norfolk will be responding to proposals for landscaping and mitigation for the HVAC booster station when they are finalised. However, even with best possible mitigation, the development must leave an imprint on the landscape character of the wider area. We therefore hope that by the time that construction is due to start that HVDC will be established and be installed without the need for a booster station.

END

Ian Shepherd 20th September 2017.