Norfolk Boreas Offshore Wind Farm

Consultation Report

Appendix 18.4 February 2018 newsletter

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Author: Copper Consultancy

Photo: Ormonde Offshore Wind Farm

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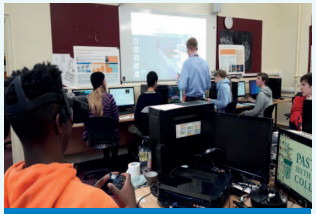
Out and about in Norfolk

SNS 2018

Vattenfall has a stand at the East of England Energy Group's flagship Southern North Sea conference. Taking place over two days at the Norfolk Showground Arena in Norwich, upwards of 1100 delegates are expected from across the industry and supply chain. Come and meet us there or join in via twitter **#SNS2018**.

Evaluation of our 2017 pilot skills programme

In response to calls for opportunities to develop and grow understanding for offshore wind industry career opportunities and STEM skills in Norfolk during our informal consultation, we collaborated with 3DWebtech to help young people appreciate the complexities and challenges of designing environmentally appropriate, economically viable and efficient wind farms. It has been a really rewarding experience all round. Learning from participants, we'll improve the programme for 2018 and build local capacity – empowering young people to learn from each other and develop new ways to enable more students to take part. Thank you to all the schools and colleges involved. Please see our website for the evaluation.



Students from Poston College engage in our innovative 3D-VR offshore wind development programme that focuses on employability skills and understanding wind industry innovations

Our Local Liaison Officer and Skills Champion, Sue Falch-Lovesey, is working with Norfolk County Council and New Anglia LEP, as part of the Enterprise Advisor Network to share some of her learning and experience to become part of a growing movement supporting Norfolk Schools and working towards the New Anglia LEP Youth Pledge Marque.

https://newanglia.co.uk/new-anglia-youth-pledge-marque/

The New Anglia Enterprise Adviser Network

The Norwich and Norfolk Eco Awards

We are proud sponsors of the Norwich and Norfolk Eco Awards, which celebrate positive steps being made to help us all live climate-smarter lives. Action at all scales is important – from large scale renewable energy developments to what you eat and how you dress. Vote for your Eco Hero before 28/02/18. The awards ceremony is on 20/03/18.

Join in on twitter **#NNecoawards**

Sponsors from L-R: Nick Drake, Veolia; Geoff Tucker, NORSE; our own Ruari Lean & Sue Falch-Lovesey; Jack Utting, Updata and Cllr John Fisher, Recycle For Norfolk.

Young creatives at Colby Primary evaluate and reflect on energy learning tools

Pupils are informing a scheme funded by Vattenfall that staff and pupils at Colby will share with other local primary schools.

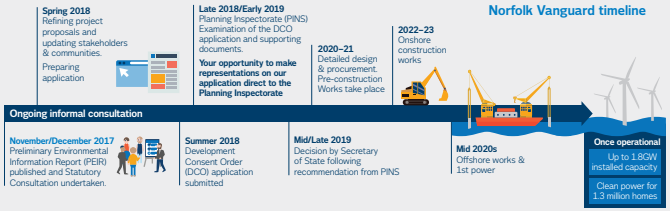
Here is a poem written by a pupil at Colby Primary, reflecting on the session:

"The calming sounds of the blades turning;
My imagination learning;
The feeling of excitement rushing through my mind;
I can't believe before I had been so blind..."

Local Liaison with Town and Parish Councils

Local Liaison Officer Sue Falch-Lovesey is arranging visits to local Town and Parish Councils to provide updates on Norfolk Vanguard developments and next steps. All Town Councils in the project area have been contacted, but if you are a Parish Council and would like Sue to visit, please get in contact.

Timeline and next steps



Over the next few months, we will:

- Finalise surveying for the Norfolk Vanguard Environmental Impact Assessment (EIA) process and continue our dialogue with those who own or occupy land along the cable corridor.
- Engage further with communities to discuss local mitigation options, for example around the proposed project substation site, building on and exploring ideas already proposed locally.
- Prepare our application documents – including the Consultation Report, which documents informal and formal engagement more fully - ready for a submission to the Planning Inspectorate this summer.

The timeline (above) looks ahead to the process coordinated by the Planning Inspectorate for examination of our proposals and we hope eventually a positive decision from the Secretary of State for Business Energy and Industrial Strategy to grant consent for our project.

Following the above, we would review our plans and invest further in detailed design. The DCO consent, if granted, will come with conditions, and we would work with relevant statutory bodies and local authorities to agree appropriate ways of fulfilling these conditions. These specifications would be set out in the final versions of the thirty or so draft documents submitted with the DCO application – e.g. Public Rights of Way strategy, Outline Landscape and Ecological Management strategy, Outline Traffic Management Plan, Outline Travel Plan, Outline Access Management Plan etc. Relevant bodies continue to work with us beyond this design phase, through construction and operation, monitoring our activities and ensuring that we fulfil all these conditions.

We would continue to work with a variety of local, national and international stakeholders, for example:

- Local skills and training providers, to help enable local people wishing to acquire the skills required to secure careers in the offshore wind industry or supply chain.
- Potential contractors and suppliers to encourage appropriate collaboration with local companies and to ensure we use the most advanced techniques possible.
- Local stakeholders and communities to ensure agreed & approved plans and strategies deliver efficient, minimally disruptive construction and operations.
- Local communities potentially impacted by our plans to look at how community investment might help mitigate adverse impacts and consider opportunities that meet their longer term interests and needs.

Thank you

Many people reading this newsletter have accompanied us on our journey to define the Norfolk Vanguard project, from scoping in the Autumn of 2016, to today and the proposals outlined in the previous pages. You will have seen how the project has evolved, and how much of your feedback has shaped our thinking. We'd like to thank you again for your input. For some, the process to date has been interesting and exciting, while for others it has been more challenging, even frustrating. Some people have expressed their disappointment because we haven't had all the answers at our finger tips. Our ethos has been one of meaningful engagement – an open dialogue before we make decisions – that way we all get the benefit of multiple participants' perspectives, and can make better, more robust and sustainable decisions for a better project that works for and with Norfolk and East Anglia.

The timeline shows there is a lot left to do before the project could be providing low cost, clean energy for UK homes and businesses. The work to prepare our DCO application will be occupying the technical team in the coming months, then yet more detailed design work happens post consent. However, we will continue to engage with you on local matters including mitigation, on skills, education and supply chain development. More updates will follow, online and via newsletters, as we approach some of the milestones outlined in the timeline. In the meantime, the Norfolk Vanguard project team is on hand to discuss our proposals and to answer your questions. All information currently available related to the project is contained within the project website: **www.vattenfall.co.uk/norfolkvanguard**

Contact details

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Landowner Enquiries: Bob McCarthy – vattenfallinnorfolk@consentsolutions.com
Maritime Enquiries: Jonathan Keer – jonathan@brownmay.com

Extraordinary levels of participation – thank you to everyone who responded to our Statutory Consultation.

Around 600 people attended eight public drop-in events to gather information and give their views about the project. We chatted with many more at pop-up information stalls. In all, nearly 800 written responses including from Statutory Consultees and landowners have helped refine the Norfolk Vanguard proposals.

Our report: "**Hearing Your Views III – February 2018**" **www.vattenfall.co.uk/norfolkvanguard** describes the consultation – from how people gathered information and chose to participate, to key ideas, concerns and issues raised. The volume and depth of the feedback we have received has been very helpful in understanding concerns, and in identifying opportunities to try to allay them. The report describes where and how we have taken suggestions on board and modified our plans.

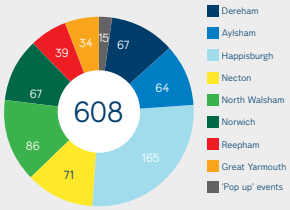
In this newsletter, we provide an overview of how our proposals for Norfolk Vanguard look now.

What's in this newsletter:

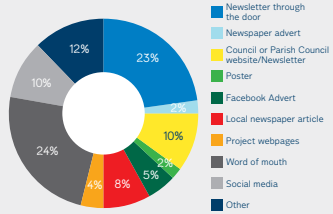
608 people
attended our public drop in events

783
individual written submissions during the statutory consultation period

People who signed in to Consultation Events



How did you hear about the Norfolk Vanguard Offshore Windfarm Consultation?



Key Feedback Themes

Key themes raised during our Statutory Consultation (07/11/17 - 11/12/17) include:

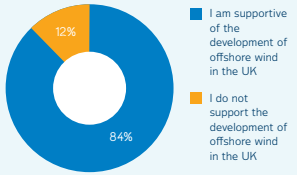
- HVDC or HVAC transmission; many expressed a strong preference for HVDC
- Concerns about visual, environmental and amenity impacts of onshore infrastructure (such as Project Substation and Cable Relay Stations)
- Issues related to impacts at landfall (such as concern over coastal processes, erosion and landfall siting)
- Construction traffic impacts (including extent of disruption during construction phase)

Responses also covered topics ranging from the consultation process itself to supply chain, employment, skills, education and training.

Support for offshore wind

A clear message came from very many responding to our consultation: the UK needs affordable, secure low-carbon power, but it must be developed sensitively, balancing local, national, and global climate-friendly interests.

Please tell us your views on offshore wind and its role in the UK's energy mix?



What's new?

Our revised Norfolk Vanguard proposals, take into account:

- Broad-ranging and in-depth feedback from a wide variety of local, regional and national communities and stakeholders
- On-going discussions with expert topic groups and with landowners and occupiers
- On-going environmental assessments, which help us identify and avoid sensitive features, including early geophysical surveys to help detect buried archaeology
- Technical design revisions following a strategic review of technology development in electrical infrastructure.

Vattenfall have taken a strategic decision to deliver projects adopting HVDC transmission technology where appropriate.

Since the inception of the Norfolk Vanguard project we have considered both HVAC and HVDC transmission options. Technical developments allow us to make this important decision, aligning with our climate smart industry leadership. We believe that this decision is the right one for these projects and signals to the international supply chain that we will be in the market for HVDC technology in the early 2020s.

Important features of our revised proposals to note are:

A Offshore – no significant changes in the windfarm area – we continue to work on design principles that prioritise fewer, taller, more efficient, modern turbines. **An HVDC system means fewer offshore cables, further minimising overall impacts.**

B Onshore – a narrower 45m cable corridor will accommodate buried transmission cables for both Norfolk Vanguard and Norfolk Boreas. An HVDC transmission system allows us to use fewer onshore cables than a comparable HVAC system, thereby minimising overall impacts and maximising flexibility to micro-site around sensitive features. We have undertaken extensive geophysical surveys early. This has guided our revised cable corridor, including for example the avoidance of heritage sites near St Mary's Kerdiston, and indications of a medieval moat north of Necton.

C Fewer transmission cables means the **landfall work will be completed more quickly**.

D We have opted for long HDD at landfall. This means no work is required on the beach. The location of the temporary working compound (60m x50m) will be agreed with local stakeholders within the new search zone, informed by geophysical and geotechnical surveys. There will be no requirement for construction vehicles to use public car parks in Happisburgh.

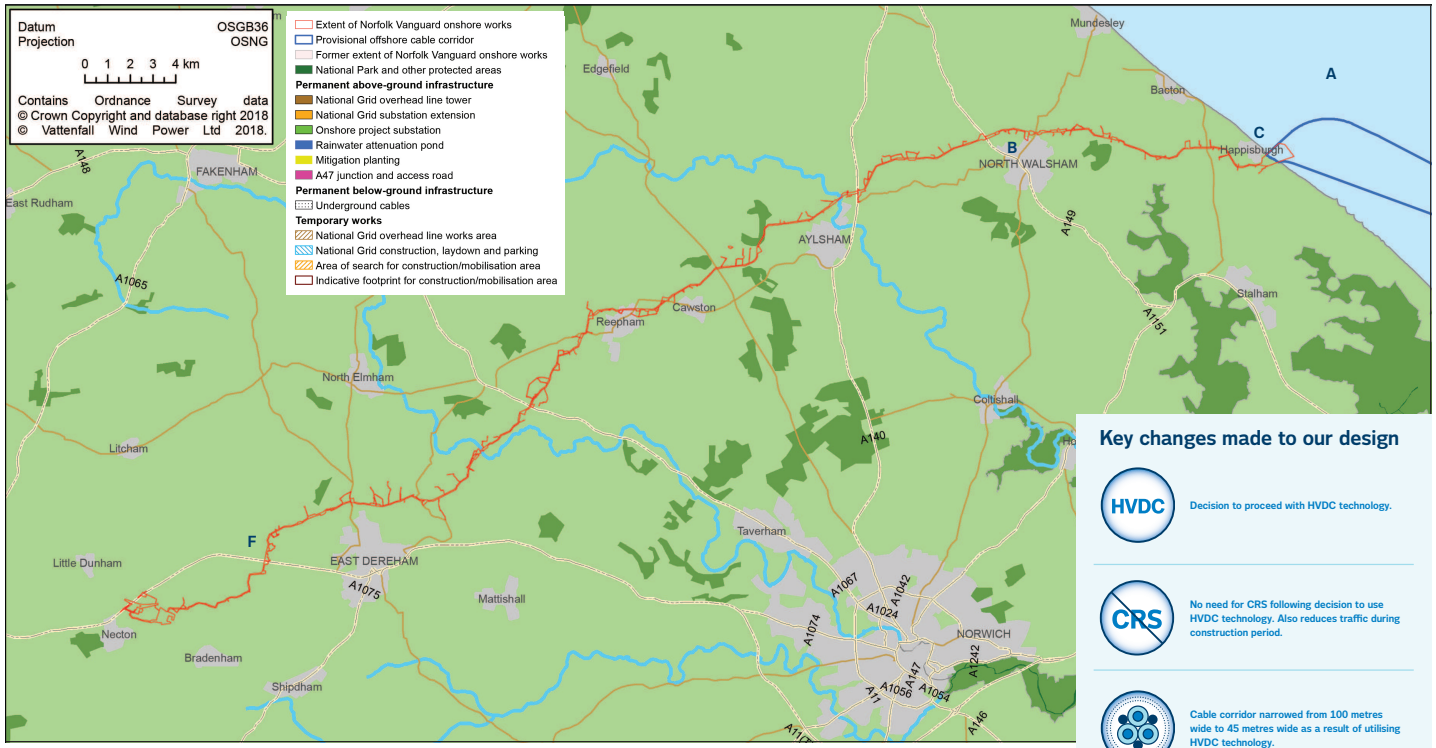
E No Cable Relay Station is required using HVDC transmission technology.

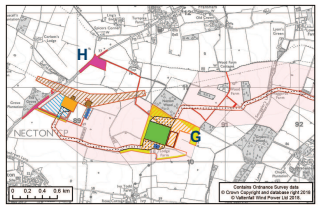
F Additional trenchless crossings (including HDD) will be deployed to avoid impact on all County Wildlife Sites. Already we had committed to trenchless crossings of habitats and features protected by national and international designations, now we shall avoid impacts to features including Paston Way & Knapton Cutting, Marriotts Way (twice) and Wendling Carr.

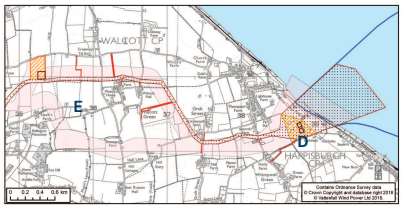
Illustrations of the HVDC onshore project substation near Necton have been shown during the consultation. Most of the electrical assets are enclosed within a building (the converter hall). Electrical assets outside the converter hall can be covered by close fitting noise enclosures. **These measures provide significant noise mitigation.**

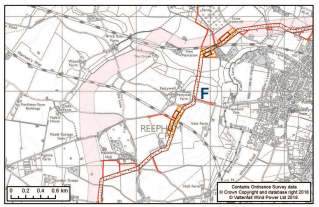
G Mitigation planting around the substation will be enhanced, building on expert and local suggestions provided in response to our consultation. Where possible we will utilise layered planting schemes and mixed native-trees of different heights for natural-looking screening.

H Works to undertake the National Grid substation extension will gain access via the existing junction off the A47 with a 'no right turn' traffic management scheme in place. For access to the Onshore Project Substation there will be a new access at Spicer's Corner, with a filter lane. **These measures mean all construction traffic is kept away from Necton and Ivy Todd**.









Norfolk Vanguard Onshore Development
The elements shown in this plan will be those included in the DCO submitted to the Planning Inspectorate for Norfolk Vanguard Offshore Wind Farm.

For more detail, please see our updated online interactive map: http://bit.ly/2C6iTfr

Key changes made to our design

HVDC — Decision to proceed with HVDC technology.

CRS — No need for CRS following decision to use HVDC technology. Also reduces traffic during construction period.

Cable corridor narrowed from 100 metres wide to 45 metres wide as a result of utilising HVDC technology.

Construction timeframes and construction traffic and transport reviewed - new accesses to our cable corridor and onshore works to help keep impacts to a minimum.

New trenchless crossings added to the route to minimise impact on sensitive areas along the cable route and reduce disruption.

Mobilisation areas are required to store equipment and provide welfare facilities. They would be located adjacent to the onshore cable route, accessible from local highways network suitable for the delivery of cable drums and other heavy / oversized equipment.