

HORNSEA PROJECT THREE OFFSHORE WIND FARM

PHASE ONE CONSULTATION EVENT OVERVIEW

Autumn 2016

Community Consultation Events: 31st October – 9th November


Hornsea 3
Offshore Wind Farm

DONG
energy

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1. Introduction

This Phase One Consultation Event Overview provides an introduction to the proposed Hornsea Project Three Offshore Wind Farm.

It provides initial information on the Project at this early stage, including the proposed infrastructure and site selection process. It also describes our plans for public engagement and your opportunities to find out more and have your say.

The first round of events for our Phase One (informal) Community Consultation will run from 31st October – 9th November 2016.



2. DONG Energy

DONG Energy is the global leader in the development, construction and operation of offshore wind farms, with over 25 years of experience. Headquartered in Denmark, the UK is DONG Energy's largest market, with national headquarters in London and further office locations throughout the UK.

DONG Energy is investing heavily in the UK with a total of £6 billion invested to date, and a further £6 billion expected by 2020. In the UK, we have eight operational offshore wind farms and a further four under construction. The UK is now our primary market for offshore wind power, but we also invest in the exploration of oil and gas, sell flexible solutions to our gas and electricity commercial and industrial customers and are investing in new technologies that convert household waste into energy.



The current installed capacity of DONG Energy's offshore wind farms in the UK has the potential to power almost **2 million** UK households each year.¹



DONG Energy is rapidly expanding in the UK. With fewer than ten employees in 2004, we have grown to over **700** today.



Our offshore wind farms in the UK are helping to offset UK CO₂ emissions. The emissions saved by the electricity currently generated from our offshore wind farms equates to taking **1.8 million** cars off UK streets for one whole year.²



¹ We have based this on a load factor of 42% and a household consumption of 4.1MWh per year.
² This figure assumes a load factor of 42%, and a CO₂ emissions factor of 430g CO₂ / kWh and an emissions saving per car of 1909 tons CO₂ / year.

3. Hornsea Project Three Offshore Wind Farm

DONG Energy is proposing to develop a new offshore wind farm in the North Sea, approximately 120 km off the North Norfolk coast.



If built out to full capacity (2.4 GW, which is 2,400 MW), Hornsea Project Three could be the world's largest offshore wind farm, providing green electricity for well over **2 million** UK homes.



Hornsea Project Three Offshore Wind Farm will be located approximately 120 km off the North Norfolk coast, within an offshore area over **17 times** the size of Norwich.

Background

In August 2015, DONG Energy acquired the rights to develop the remainder of the Hornsea Zone in purchasing SMart Wind Ltd, who were originally awarded the zone in The Crown Estate Round 3 bid process.

Hornsea Project One and Hornsea Project Two have both received planning consent and we are now exploring the potential to develop a third offshore wind farm to the east of these (Hornsea Project Three).

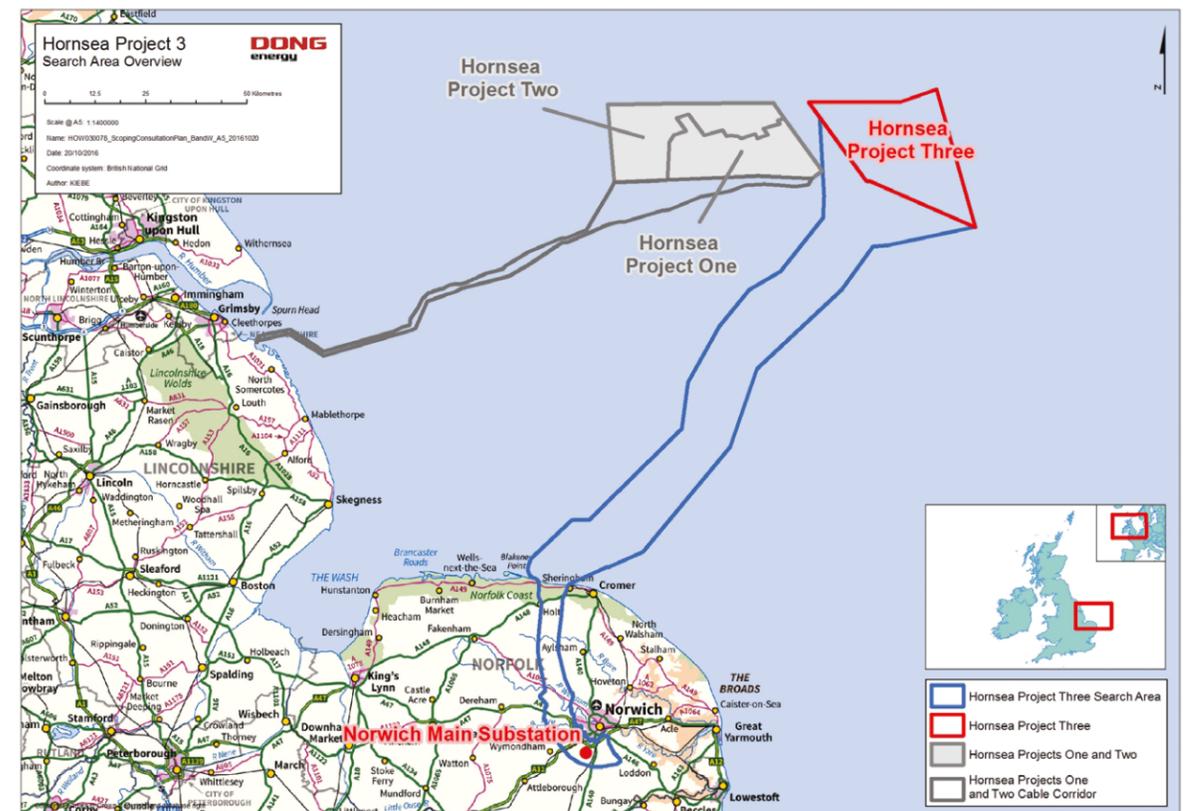


Figure 1: Map showing the Hornsea Project Three offshore array area in relation to Hornsea Project One and Hornsea Project Two.

4. Policy Background

The Climate Change Act 2008 legally committed the UK to reduce its greenhouse gas emissions by at least 80% by 2050, compared to the 1990 level³. Over the next couple of decades, much of the UK's existing electricity generation plant is set to close and the UK urgently needs to replace large volumes of its existing electricity infrastructure with low carbon generation.

Moving to a secure, low carbon energy system requires major investment in new technologies and changes the way energy is used by society. In 2011, the UK Government published a number of National Policy Statements (NPSs) for Energy, designed to help deliver new energy infrastructure, at the scale and speed required to meet the UK's current and future energy needs, whilst respecting the principles of sustainable development⁴. Development consent decisions on these Nationally Significant Infrastructure Projects (NSIPs) must also take into account the views of local communities.

As an island nation, with relatively shallow waters and high wind speeds, the UK has an abundant natural wind resource, and offshore wind power has the potential to contribute significantly towards this low carbon transition. The UK currently has more installed offshore wind capacity than anywhere in the world, with over 5 GW of operational capacity, enough to supply over three and a half million UK homes⁵.

As the market leader and with a strong pipeline of UK projects, DONG Energy has played a pivotal role in the growth of the UK offshore wind market, helping support the development of a sustainable UK supply chain and providing long-term high skilled jobs across the UK. We have been at the forefront of reducing the cost of offshore wind, bringing forward next generation turbines and standardising our methods.



³ Climate Change Act 2008. Available online: http://www.legislation.gov.uk/ukpga/2008/27/pdfs/ukpga_20080027_en.pdf

⁴ DECC (July 2011). National Policy Statement for Energy (EN-1). Available online: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47854/1938-overarching-nps-for-energy-en1.pdf

⁵ RenewableUK (June 2016). <http://www.renewableuk.com/page/UKWEDhome>

5. The Planning Process

As the proposed generating capacity of Hornsea Project Three exceeds 100 megawatts (MW), the Project is classified as a NSIP, and must apply for a Development Consent Order (DCO) under the Planning Act 2008 (the Act). Consents for the wind farm, offshore and onshore cable route (including substations and final grid connection) will be included in the DCO.



Hornsea Project Three is currently in the pre-application phase for our DCO, with a consent application expected to be submitted in 2018. One of the requirements of the Act is that applicants for a DCO must carry out consultation on their proposed applications before submission (pre-application consultation), and must take any responses received into account, adjusting the project as appropriate. This consultation includes;

- Consultation with prescribed bodies, host and neighbouring authorities and any landowners affected by the project (under Section 42);
- Consultation with the local community in the vicinity of the proposed Project (under Section 47); and
- General public consultation on the Project (under Section 48).

If the application is accepted, PINS will then coordinate the examination of our application with an independent Examining Authority panel, who will in turn make a recommendation to the Secretary of State (SoS) for Business, Energy and Industrial Strategy (BEIS). Decisions on DCO applications will be made in accordance with the NPS for energy, which sets out the need for new energy infrastructure⁶. The SoS will then review and comment on this before making a decision on whether to grant a DCO. If successful, construction of Hornsea Project Three is anticipated to take place between 2022 and 2025*.

Figure 2: Six stages of the development consent regime. The consultation process for Hornsea Project Three has been summarised below and further information is detailed in section 8.

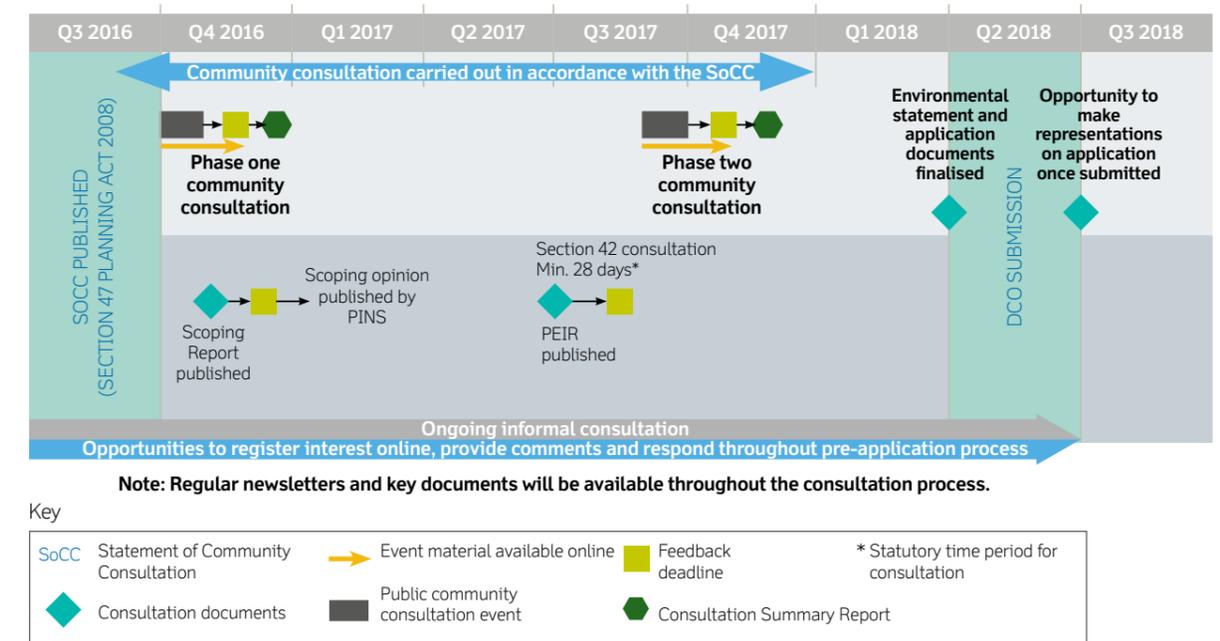


Figure 3: Public Consultation Diagram

⁶ DECC (July 2011). National Policy Statement for Energy (EN-1). Available online: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47854/1938-overarching-nps-for-energy-en1.pdf

* These dates are indicative and subject to change.

6. Project Description

Hornsea Project Three will have a total generating capacity of up to 2,400 megawatts (MW). Hornsea Project Three will connect to the Norwich Main National Grid Substation, located to the south of Norwich. The DCO will include all associated offshore and onshore infrastructure, including electrical grid connection works.

6.1 Infrastructure overview

The components comprising the offshore wind farm are likely to include (see Figure 4):

- Wind turbines (up to 400);
- Turbine foundations (up to 400);
- Array cables (linking the individual wind turbines to an offshore substation);
- Scour protection;
- Offshore accommodation platform(s) (up to 3); and
- A HVAC or HVDC transmission system including either:

HVAC (High Voltage Alternating Current)	HVDC (High Voltage Direct Current)
• Offshore transformer substation(s) (up to 12);	• Offshore transformer substation(s) (up to 12);
• Offshore interconnector cables(s);	• Offshore interconnector cables(s);
• Offshore export cable(s) (up to 6);	• Offshore converter substation(s) (up to 4);
• Offshore HVAC booster station(s) (up to 4 sub surface or 6 sub sea);	• Offshore export cables(s) (up to 6);
• Buried onshore export cable(s) (up to 6);	• Buried onshore export cables(s) (up to 6);
• Onshore HVAC booster station;	• Onshore substation; and
• Onshore substation; and	• Buried grid connection export cable(s).
• Buried grid connection export cable(s).	

The electricity generated from Hornsea Project Three will be transmitted via buried High Voltage (HV) cables using either Direct Current (DC) or Alternating Current (AC), or a combination of the two.

Technical Term	Definition
Array area.	This is where the offshore wind farm will be located, which will include the wind turbines, wind turbine foundations, array cables, and a range of offshore substations and offshore interconnector cables;
Offshore ECR corridor search area.	This is where the offshore export cable will be located, as well as the offshore HVAC booster station(s) (if required); and
Onshore ECR corridor search area.	This is where the onshore export cable will be located, as well as the onshore HVAC booster station (if required), onshore substation and connections to the national grid.

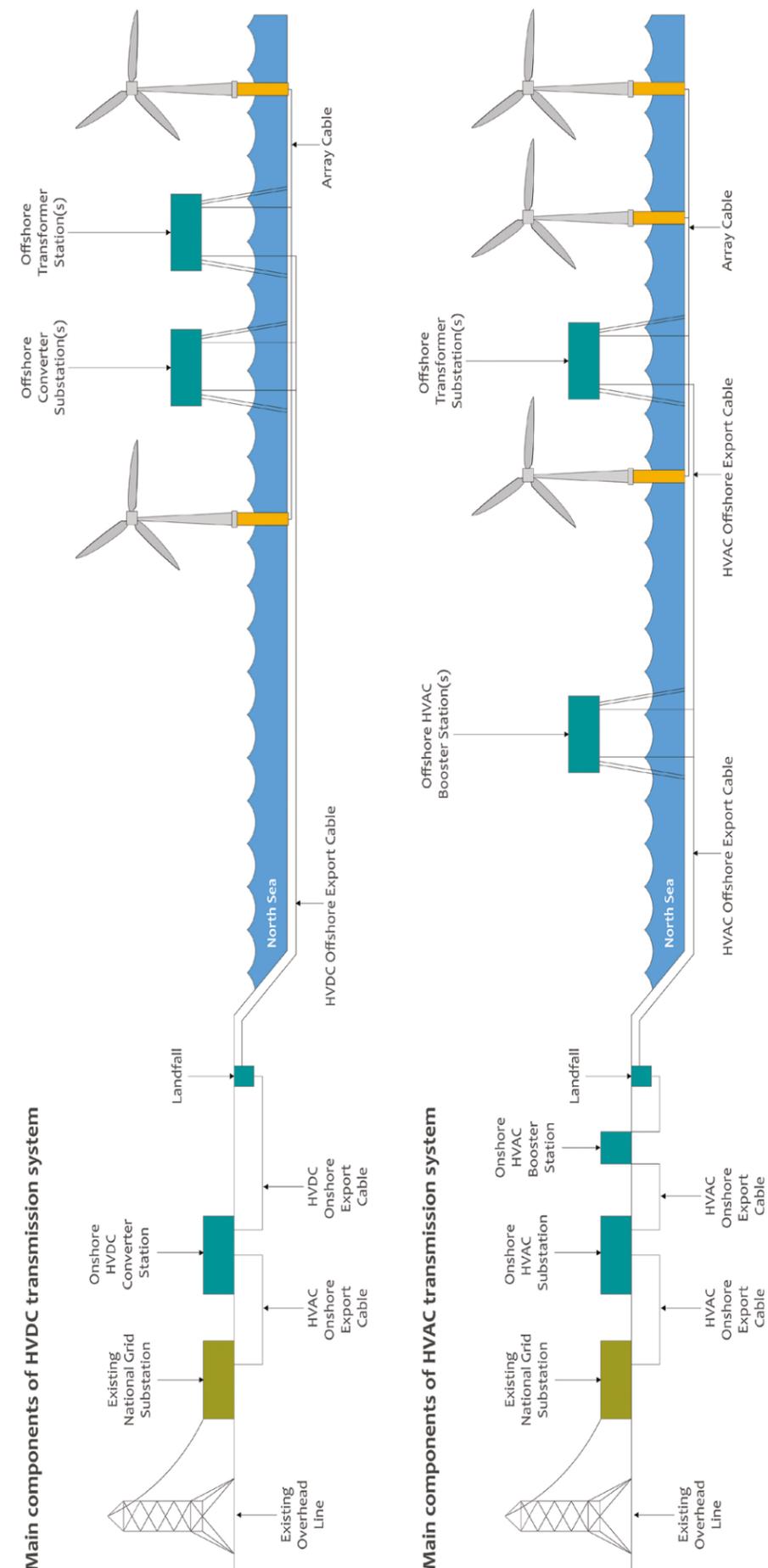


Figure 4: Main components of High Voltage Direct Current (HVDC) and High Voltage Alternating Current (HVAC) transmission options for Hornsea Project Three.

7. Offshore Works

Up to 400 turbines will be located within the offshore array area. We are currently exploring an area of 696 km², over 17 times the size of Norwich, located approximately 120 km off the North Norfolk coast.

Electricity generated by the offshore wind turbines will be brought onshore by up to 6 subsea export cables, via an offshore HVAC substation (if required) before making landfall along the North Norfolk coast in the vicinity of Sheringham. The Hornsea Project Three Offshore Export Cable Route (ECR) corridor scoping area extends from the Norfolk coast, offshore in a north easterly direction to the western and southern boundary of the Hornsea Project Three array area and the ECR corridor is approximately 120 km in length (Figure 5).

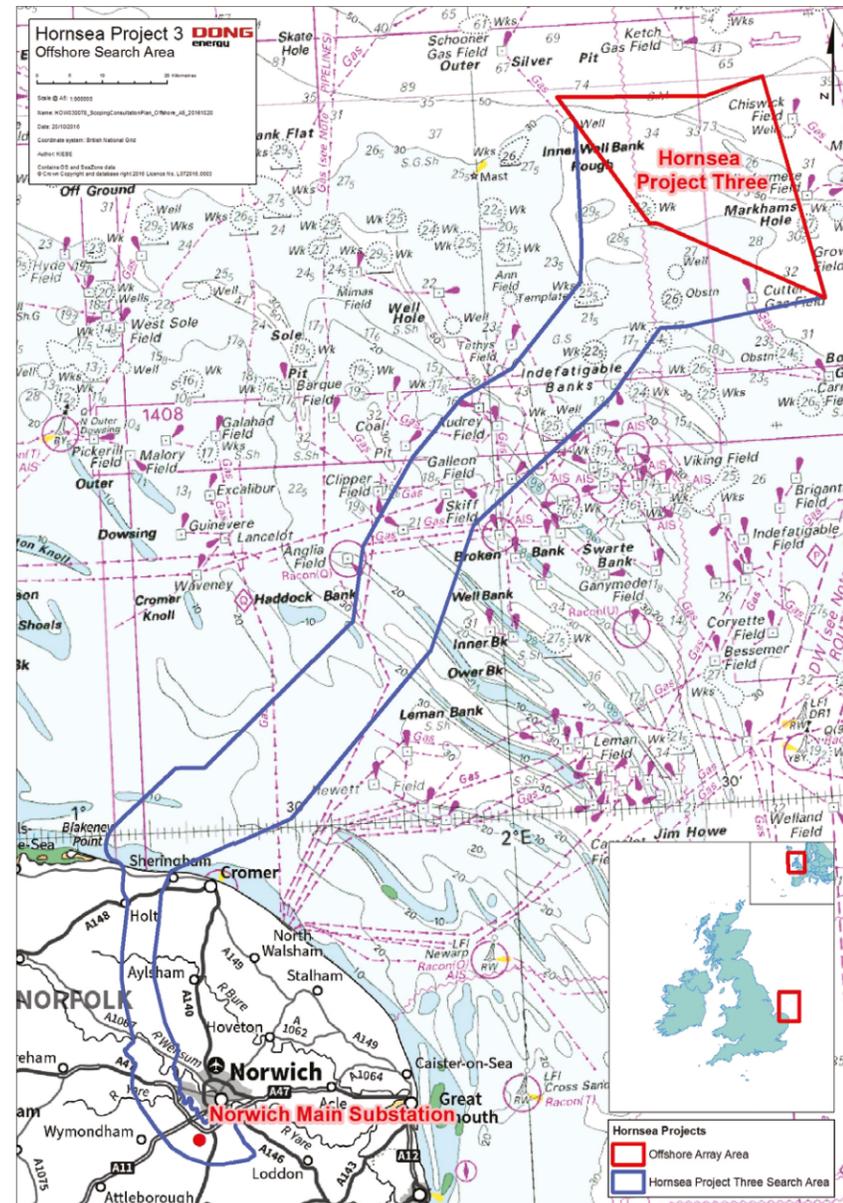


Figure 5: Map showing the offshore array area and offshore ECR search area.

8. Onshore Works

We are currently reviewing environmental constraints and collecting data from the onshore cable search area within a corridor approximately 5 km wide, extending from the proposed landfall area, in the vicinity of Sheringham on the North Norfolk coast, and travelling southwards to connect into Norwich Main National Grid Substation. This includes exploring potential sites for locating the onshore substation in the vicinity (3 km radius) of the existing Norwich Main National Grid Substation.

From the Norfolk coast, onshore cables will be buried and connect the offshore wind farm to an onshore High Voltage Alternating Current (HVAC) Substation/High Voltage Direct Current (HVDC) Converter Substation, which will in turn connect to the existing Norwich Main National Grid Substation. The onshore ECR corridor search area is approximately 55 km in length (Figure 6).

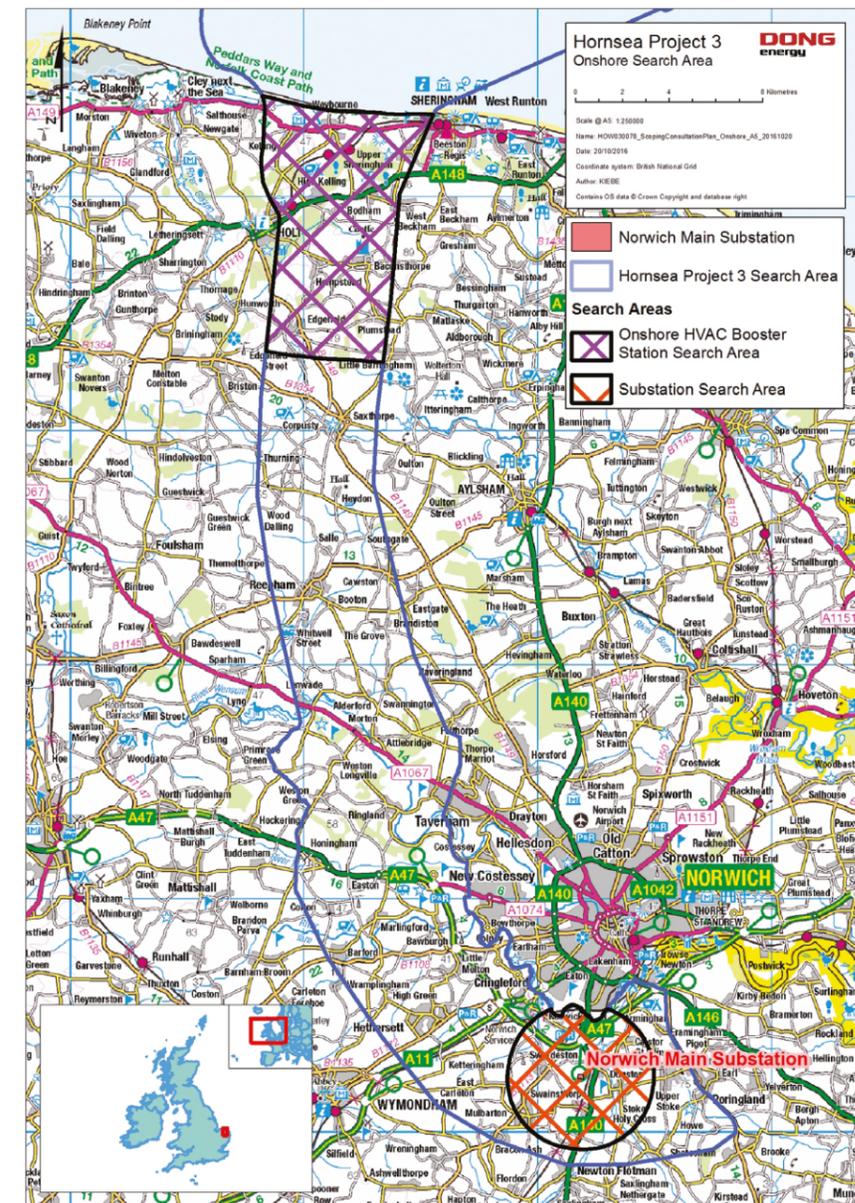


Figure 6: Onshore ECR search area, including substation search areas.

Should Hornsea Project Three be developed as a HVAC connection, the Project would need to construct a HVAC booster station to mitigate against transmission losses of power between the offshore wind farm itself and the national grid connection point. Depending on the outcome of the assessment process and technical feasibility the HVAC booster station could be situated offshore and/or onshore. Due to technical reasons, the Onshore HVAC booster station would need to be located as close to the cable landfall at the coast as possible, recognising environmental sensitivities. Therefore, Hornsea Project Three has sought to identify sites for the Onshore HVAC booster station within approximately 10 km of the coastline to make it effective.

9. Site Selection Process

As the Project develops, we will refine the onshore and offshore export cable route areas, and provide a selection of potential turbine layouts for the purpose of assessing environmental impacts of the wind farm array. Further refinement of the Project Description will present one or more cable route(s), including required substation(s) options being considered. These will be presented during Phase Two Consultation for you to comment on.

Consultation will run in parallel to internal feasibility studies, to provide stakeholders with the opportunity to review and influence the route planning and site selection process as part of the overall project development.

The site selection process will take a number of factors into consideration, including the potential impact on the following;

- Biological environment (e.g. birds and marine mammals, onshore ecology, environmentally sensitive areas);
- Physical environment (e.g. marine processes, land use, ground conditions); and
- Human environment (e.g. fisheries, archaeological and cultural sites, developed areas, recreational activities, shipping).

Where possible the Project will adhere to the following principles, including but not limited to:

- Select the most direct route possible to reduce impact area;
- Avoid/minimise environmental and culturally designed sites;
- Avoid developed areas (e.g. residential and commercial areas and land allocated for residential and commercial development in the local development plan);
- Minimise road, river and rail crossings and other existing infrastructure;
- Avoid flood risk areas;
- Must have technical feasibility;
- Consider the anticipated cumulative impact with other existing and planned projects; and
- Avoid/minimise impact on recreational areas (e.g. Public Rights of Way).

More information on the Site Selection Process will be available in the Project Environmental Information Report (PEIR) in 2017 and the final Environmental Statement (ES) submitted as part of the consent application in 2018.

10. Pre-application Consultation

10.1 Statement of Community Consultation

Hornsea Project Three has published a Statement of Community Consultation (SoCC⁷) for Hornsea Project Three, in accordance with Section 47 of the Act. The purpose of this document is to clearly explain how we intend to consult with local communities in the vicinity of the development, on the proposed Project.

It explains how members of the public can access information on the Project, how they can engage in the consultation process and play an active role in developing the proposals, and finally how they will receive feedback and be kept informed about the progress and outcomes of the consultation.

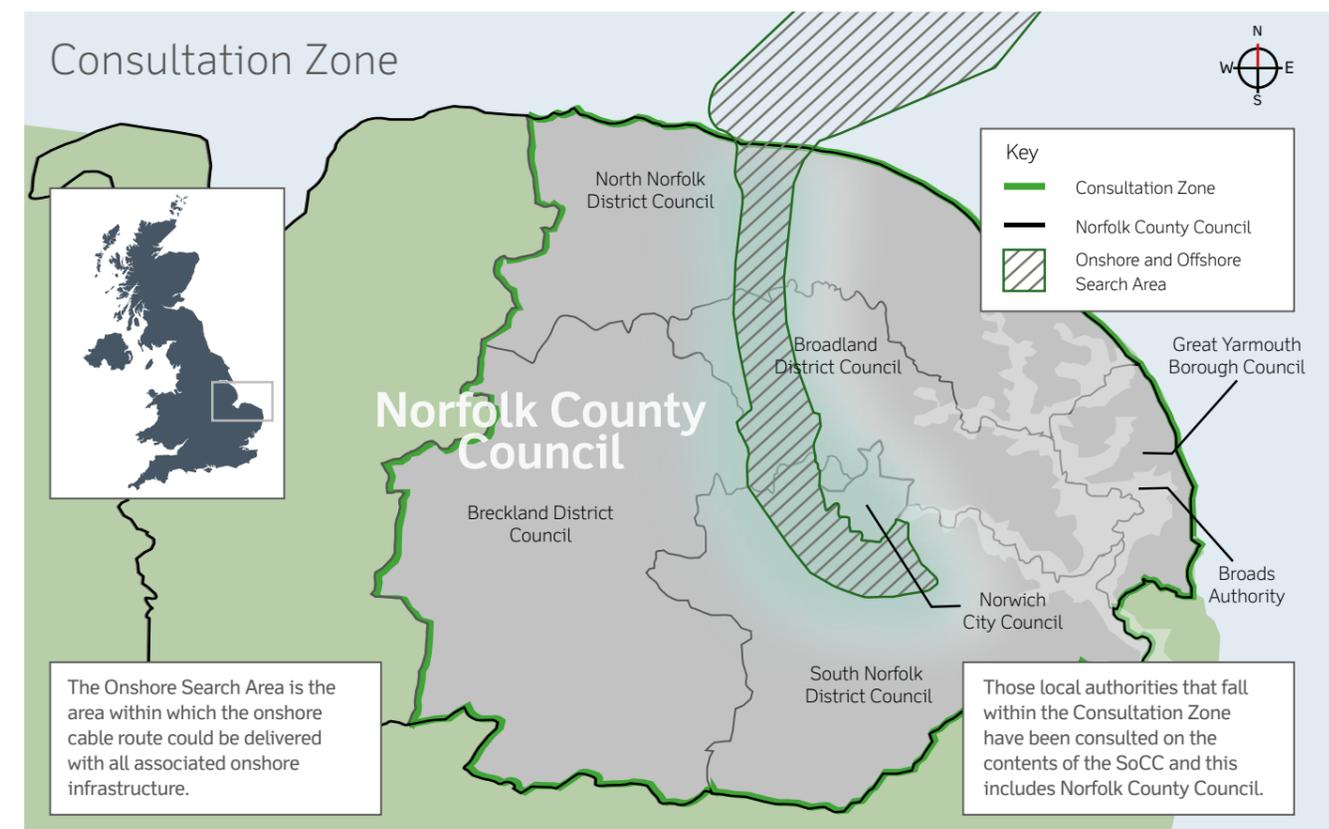


Figure 5: Map showing the onshore search area and Consultation Zone, including those authorities consulted on the contents of the SoCC (under section 47(2)). Since issuing the SoCC in September the search area has been refined slightly, the new area is presented in the Scoping Report and all public documents going forward.

The SoCC is available to download on our website (www.dongenergy.co.uk/hornseaproject3) and hard copies are available at a number of council offices and Community Access Points (CAP sites) across the Consultation Zone. The SoCC has also been advertised locally in newspapers (in accordance with Section 47(6)) and via social media to ensure maximum visibility. Prior to publishing our SoCC, we consulted the relevant local authorities on the contents of the SoCC, to ensure that we selected the most appropriate methods of consultation for your area⁸.

Please see Appendix 2 for a full list of locations at which the SoCC is available.

⁷ Hornsea Project Three Offshore Wind Farm – Statement of Community Consultation (SoCC) (September 2016). Available online: <http://www.dongenergy.co.uk/SOCC>

⁸ The local authorities consulted on the SoCC were identified as those authorities which had the potential to be directly impacted by the proposed development, or those in close proximity to the impacted area who could be indirectly impacted.

10.2 Environmental Information

As Hornsea Project Three falls within the scope of the Environmental Impact Assessment Directive, an Environmental Impact Assessment (EIA) of the Project (for both offshore and onshore elements) will be undertaken in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009.

The following documents form part of the EIA and will be available to you during the consultation process:



Published:
Scoping Report

Information on the existing offshore and onshore environments in the location of the proposed development and the key issues for the EIA.



Preliminary Environmental
Information Report (PEIR)

This document will incorporate the findings of initial surveys and assessments and will enable consultees to develop an informed view of the potential environmental effects.



Final Environmental
Statement (ES)

The final ES will build on the PEIR and consultation responses to document the impact assessment and proposed mitigation measures.

The EIA Scoping Report has been published for information, as part of our Phase One Consultation. The report is intended to ensure that the Applicant (DONG Energy) has identified the key issues for the EIA. The Project will submit the Scoping Report to PINS who will seek comments on the report on behalf of the SoS from statutory and non-statutory bodies before issuing a Scoping Opinion that confirms the issues that must be addressed in the EIA. Copies of the Scoping Report are available via the Hornsea Project Three website once it has been issued to PINS.

An Environmental Statement (ES) will be submitted alongside our application for development consent in 2018, and prior to this a draft version of this document (also known as the Preliminary Environmental Information Report (PEIR)) will be available during Phase Two Consultation in 2017 for formal consultation seeking responses to this. The EIA will consider the environmental, social and economic impacts of the proposed development.



10.3 Community Consultation Events

The Project will hold a minimum of two rounds of community consultation events at various locations in local planning authority areas across the Consultation Zone.

These events fall into two phases. The first (informal) phase broadly coincides with issuing the EIA Scoping Report to PINS and the second phase aligns with formal consultation on the Preliminary Environmental Information Report (PEIR). See page 7 for a diagram of these phases, and Appendix 1 for a full list of community consultation events being held in 2016.

10.3.1 Phase One (Informal)

Publication of the SoCC on 30th September 2016 marked the start of Phase One (informal) Consultation. Informal consultation with stakeholders has been ongoing since March 2016.

At the first set of events, the Project will talk through and provide maps showing the onshore and offshore search area (the area in which the proposed development could be constructed). Members of the public will be asked to comment on these plans, and attendees will have the opportunity to complete a feedback form.

Following these events, we will review the feedback and produce a short summary report, which will capture the views and concerns raised during Phase One Consultation. The feedback we receive at the Phase One Consultation events will help us to refine our search area and inform the preferred cable route, which will be presented at the Phase Two (formal) Consultation.

10.3.2 Phase Two (Formal)

Information about the environmental surveys and progress on the Environmental Impact Assessment and proposed mitigation for the Project will be available during Phase 2 Consultation in the form of a PEIR.

This document in addition to other updates shown via charts, banners and leaflets will be available at the second round of community consultation events. This is scheduled to take place during the second half of 2017, where members of the public will also be able to view our preferred cable route and substation locations and comment on these plans.



11. Let us know your thoughts

We appreciate you taking the time to hear more about our Project and we hope that you have found the information presented in this information pack useful. We are in the early stages of Project development, and want to hear your views on our proposals. The information provided in this document is only our initial thoughts and more information will be available as the Project develops.

We would value your thoughts on all aspects of our proposal;

- Tell us what you think of our plans for public consultation;
- Tell us what you think of our initial proposal; and
- Let us know of any aspects relating to the Project that you think we should be aware of.

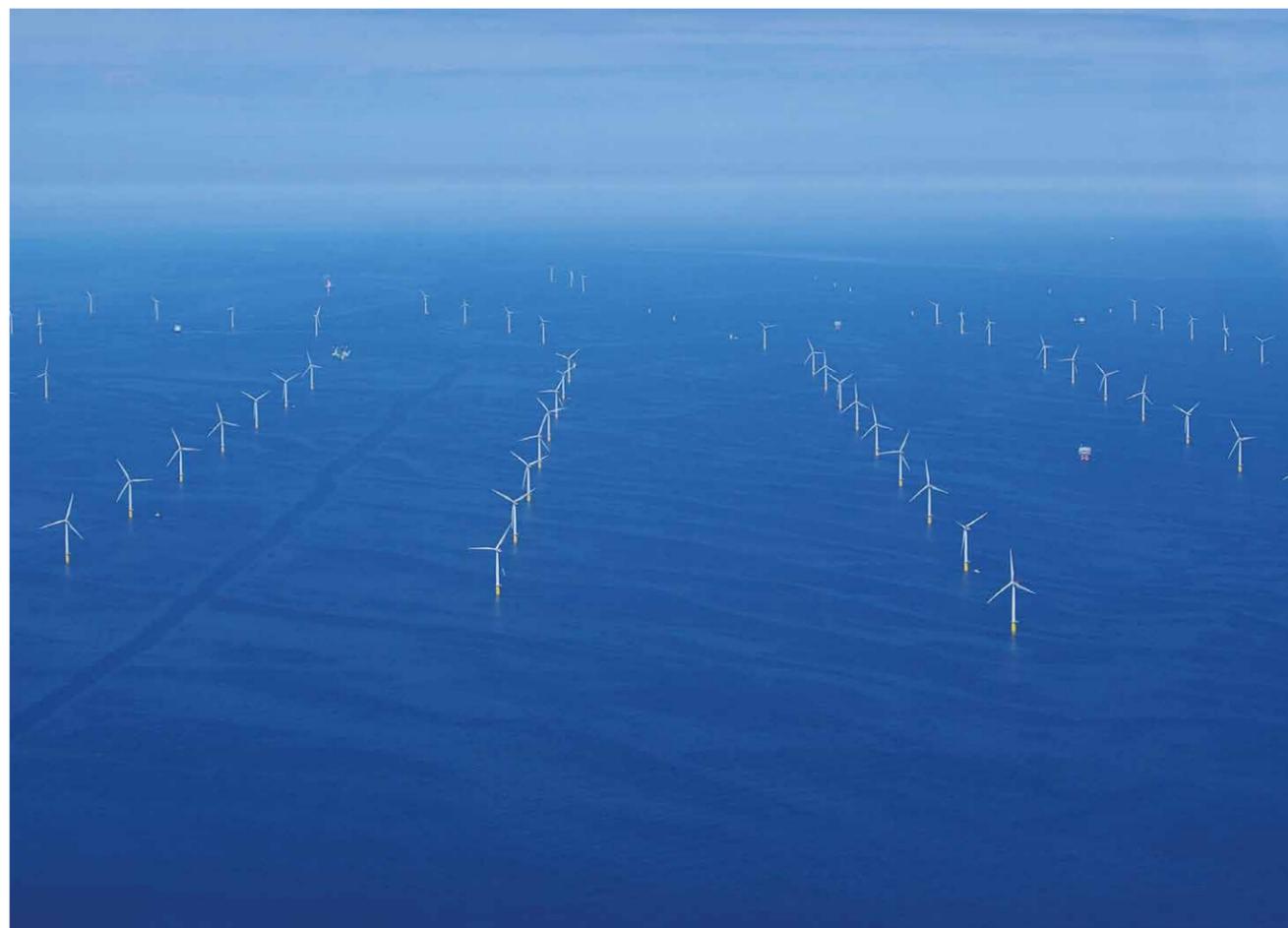
You can provide feedback on this initial information by;

- Talking directly with a member of the team at one of our consultation events;
- Drawing/commenting directly on our foam boards at one of our consultation events; and
- Completing a feedback form (online version available).

The deadline for submitted information at this initial stage of the consultation process is **Monday 28th November 2016**.

A period of time will then be given for us to review all of the feedback we have received at this first stage of (informal) consultation, and a Consultation Summary Report will be produced which will summarise your views and concerns.

You can also comment on our plans throughout the consultation period using one of the channels on the next page.



12. Project Contact Information



Website: www.dongenergy.co.uk/hornseaproject3

Read the latest information on Hornsea Project Three, including our plans for public consultation on our dedicated website.



Freephone Information Line: 0800 0288 466

This Freephone information line is open for calls between 9am and 5pm, Monday to Friday, with an answer phone facility to take calls outside these hours. The information line allows members of the local community to ask questions about Hornsea Project Three and the consultation process.



Enquiries Email: contact@hornsea-project-three.co.uk

The enquiries email allows members of the local community to put general questions or comments in writing about Hornsea Project Three.



Community Access Points (CAP sites)

CAP sites are places where the public can obtain information about Hornsea Project Three. They are local sites easily accessible to people in the area, such as shops, libraries and community buildings. You can find your nearest CAP site by using our online mapping tool on our website.



Newsletters

Quarterly newsletters will contain information about Hornsea Project Three and the progression of the consultation process. Newsletters will be sent to local authorities, council offices and CAP sites, as well as being available online through the website.



Events

We will keep local communities up to date at events such as exhibitions and meetings during the consultation period. Event details will be published in our newsletters, on our website and shared with local groups such as Parish Councils.



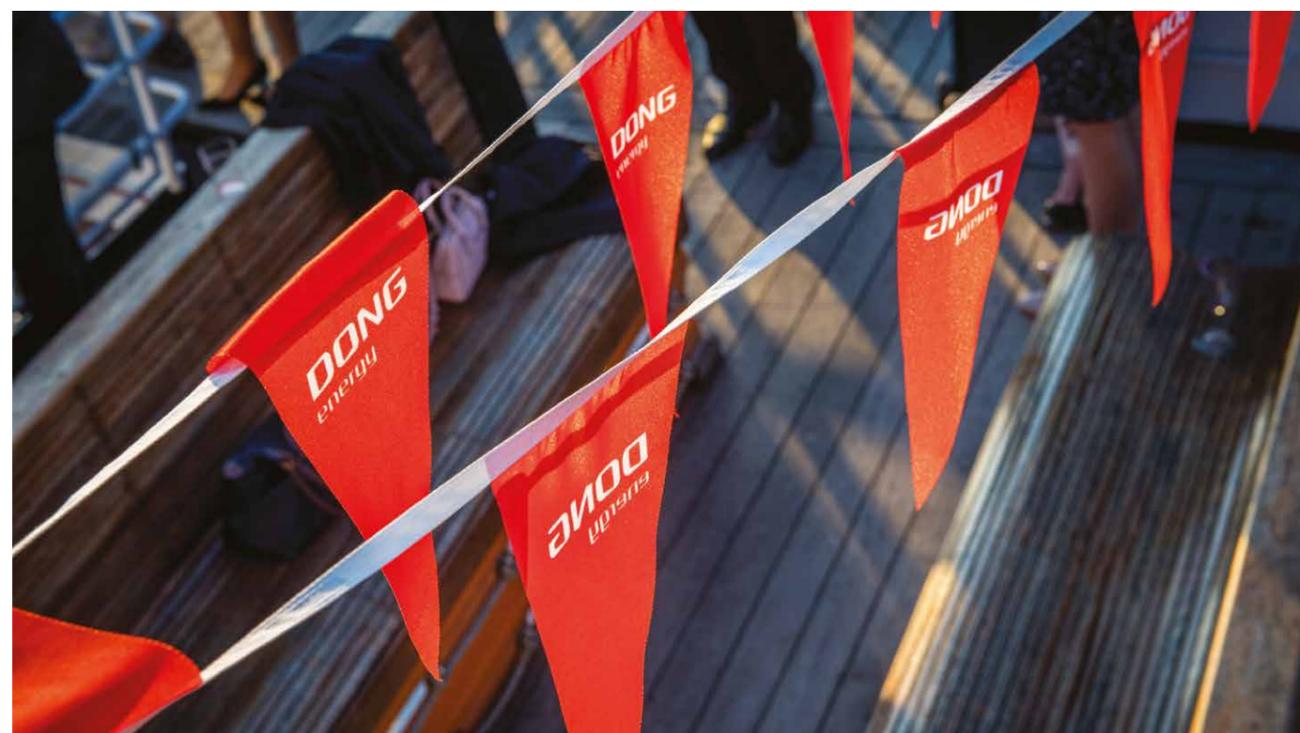
Twitter: [@DONGEnergyUK](https://twitter.com/DONGEnergyUK) [#HornseaProject3](https://twitter.com/HornseaProject3)

We will tweet about Project developments and activities during the consultation period so that you can keep up to date using social media.



Send us a letter:

Hornsea Project Three Offshore Wind Farm,
c/o Emily Woolfenden,
DONG Energy Power (UK) Ltd,
5 Howick Place, Victoria, London, SW1P 1WG



Appendix

Appendix 1: List of Phase 1 Community Consultation Events

Monday 31st October 2016 3pm – 7pm Sheringham Community Centre , Holway Road, Sheringham, NR26 8NP
Wednesday 2nd November 2016 3pm – 7pm Aylsham Town Council , Town Hall, Market Place, Aylsham, Norfolk, NR11 6EL
Thursday 3rd November 2016 3pm – 7pm The Green Britain Centre , Turbine Way, Swaffham, PE37 7HT
Monday 7th November 2016 3pm – 7pm Great Yarmouth Town Hall , Hall Plain, Great Yarmouth, NR30 2QF
Tuesday 8th November 2016 2pm – 5:30pm Harford Community Centre , Harford Park, Peterkin Road, Norwich, NR4 6LQ
Wednesday 9th November 2016 2pm – 6:30pm Blackfriars' Hall , St Andrews St, Norwich, NR3 1AU

Appendix 2: List of Council Offices where the SoCC is available

- **North Norfolk District Council**
Council Offices, Holt Road, Cromer, Norfolk, NR27 9EN
Monday, Tuesday and Thursday: 8:30am-5pm
Wednesday: 10am-5pm
Friday: 8:30am-4:30pm
- **Broadland District Council**
1 Yarmouth Road, Thorpe St Andrew, Norwich, NR7 0DU
Monday-Friday: 8:30am-5pm
- **South Norfolk District Council**
South Norfolk House, Cygnet Court, Long Stratton, Norwich, NR15 2XE
Monday-Friday: 8:15am-5pm
- **Broads Authority**
Yare House, 62-64 Thorpe Road, Norwich, NR1 1RY
Monday-Friday: 9am-5pm
- **Breckland District Council**
Elizabeth House, Walpole Loke, Dereham, NR19 1EE
Monday-Thursday: 8am-6pm
- **Great Yarmouth Borough Council**
Town Hall, Hall Plain, Great Yarmouth, NR30 2QF
Monday-Friday: 9am-5pm
- **Norwich City Council**
City Hall, St Peters Street, Norwich, NR2 1NH
Monday-Friday: 8am-5pm
Customer Centre: Monday, Tuesday, Thursday and Friday: 8:45am-5pm, Wednesday: 1pm-5pm
- **Norfolk County Council**
County Hall, Martineau Lane, Norwich, Norfolk, NR1 2DH
Monday-Friday: 9am-5pm



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www.dongenergy.co.uk