

# Dudgeon Offshore Wind Farm Onshore Electrical Connection Necton Substation and Cable Route Spur

Environmental Statement: Non Technical Summary

June 2012



Dudgeon Offshore Wind Ltd



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# 1 INTRODUCTION

This Non Technical Summary is submitted as part of the planning application for the Necton substation and cable route spur for the Dudgeon Offshore Wind Farm ('Dudgeon') project and provides a summary of the Environmental Statement, avoiding where possible the use of technical language.

The Environmental Statement is the formal report on an Environmental Impact Assessment undertaken by Dudgeon Offshore Wind Limited ('DOW') into the potential impacts of the construction, operation and decommissioning phases of the Necton substation and cable route spur, which form part of the overall Dudgeon project. Details on how to view the Environmental Statement are given at the back of this document.

# 1.1 Dudgeon Offshore Wind Limited (DOW)

DOW is a subsidiary of Warwick Energy Limited and was formed specifically to develop the Dudgeon project. Notably, Warwick Energy Limited was also responsible for the successful development of both the Barrow offshore wind farm, in the Irish Sea, and the Thanet offshore wind farm, off the east coast of Kent.

DOW has been awarded the rights by The Crown Estate to develop an offshore wind farm in the Greater Wash Strategic Environmental Assessment area under Round 2 of the offshore wind licensing arrangements. This award was subject to DOW being successful in gaining the necessary planning permissions, consents and licences for the construction and operation of the Dudgeon project.

# 1.2 Dudgeon Offshore Wind Farm

The Dudgeon wind farm is located approximately 32km offshore of the north Norfolk coast, with the town of Cromer being the closest settlement on land. Depending on the size of wind turbine generators used, the Dudgeon project could have a total installed capacity of up to  $560 MW_e$ .

The application for environmental and other consents required for the offshore elements of the wind farm was submitted in June 2009 and is currently being determined by the Department of Energy and Climate Change and the Marine Management Organisation.

# 1.3 Onshore electrical connection

An onshore electrical connection is required to connect the Dudgeon project to the national electricity transmission system. This will comprise of approximately 46km of buried cable system between the landfall at Weybourne Hope in North Norfolk district and a new substation located in Breckland district.

In December 2009, DOW sought permission from Breckland Council for the construction and operation of a new electricity substation near Little Dunham and the southern section of the buried cable system to the proposed substation at Little Dunham. At the same time, DOW applied to North Norfolk District Council for planning permission for the construction and operation of the northern section of the buried cable system from the landfall at Weybourne Hope to the boundary with Breckland district.



Regarding these three applications:

- The cable route through North Norfolk district has received planning permission;
- The cable route through Breckland district has received planning permission; and
- The permission for the substation at Little Dunham has been refused and is subject to an appeal process.

In order to ensure timely progress of the overall Dudgeon project, and as part of its contingency planning, DOW needed to consider an alternative substation location in parallel with the ongoing Little Dunham application.

The Environmental Statement is submitted in support of a new planning application for an alternative substation site (Necton substation) and an associated section of buried cable system (cable route spur) from the point of deviation from the permitted section of cable route in Breckland district to the proposed Necton substation.

# 1.4 Necton substation and cable route spur project details

#### Substation

The Necton substation will be subdivided into two parts, both of which are considered in the Environmental Statement and planning application:

- National Grid will build and operate a 400kV section of the substation adjacent to the existing 400kV overhead lines together with the necessary line modifications; and
- DOW will build and operate a section of the substation adjacent to the National Grid substation, which will contain the remaining 400kV infrastructure and all associated electrical equipment.



The substation site is 5.9 hectares (14.6 acres) in area and is located within a much larger agricultural field, of 37.2 hectares (92 acres) area. The substation site area is currently bordered by the existing 400kV overhead lines between Norwich and King's Lynn; the A47(T) trunk road; and hedgerows that run along two sides of the site.

The outskirts of Necton and Little Fransham are approximately 760m and 1,230m from the substation respectively.



#### Cable route spur

The 2.75km long buried cable system has been aligned to avoid close proximity to residential properties, and for the majority of the route, it runs through agricultural land under arable use.

The buried cable system will consist of up to three circuits, operating at 120kV or above. Each circuit will comprise three single phase cables and have an associated fibre optic cable for communication and control purposes.

The proposed construction methodology for the cable installation is mainly by open cut trenching. However, the cable route spur will cross the A47(T) using a technique known as 'horizontal directional drilling' or HDD, which will avoid any to the road surface or motorists.



# Programme

The final programme for the construction of the proposed development is dependent upon the outcome of the planning application. Construction of the substation will take 24 - 30 months and could begin in early 2013 and finish in late 2015. The cable route spur will take 4 - 6 months to construct, and these works may be undertaken at any time within the overall project programme. The substation and cable route spur is expected to operate for up to 50 years, after which time it will be decommissioned.

# 1.5 The need for renewable energy

The UK has committed to securing 15% of its total energy needs from renewable sources by 2020. The Government has also made legally binding commitments through the Climate Change Act (2008). Projections suggest that by 2020 about 30% or more of the UK's electricity might need to come from renewable sources in order to meet this overall obligation. The UK currently produces around 10% of its electricity from renewable sources.

The Government has identified that there will need to be significant changes in the UK's energy infrastructure over the coming years, and in particular a shift in energy production to low carbon sources, including renewable energy. This will be primarily driven by:

- The need to tackle climate change;
- The need to secure energy supply;
- The need for new energy infrastructure; and
- The need to maximise economic opportunities.

Based on a  $560MW_e$  capacity offshore project, Dudgeon, once operational, is expected to save up to 40 million tonnes of carbon dioxide emissions over its expected 50 year life and could provide more than 0.5% of the UK's annual electricity needs.

# 1.6 Regulatory consents and the Environmental Impact Assessment process

The Necton substation and cable route spur is subject to an Environmental Impact Assessment in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations (2011) ('the EIA Regulations'). The resulting Environmental Statement is required to be submitted along with the full planning application to Breckland Council as the local planning authority.

In addition to the requirement for planning permission and an Environmental Impact Assessment, a number of other consents and permissions will be required under relevant legislation at the appropriate time. These will be obtained prior to onshore construction works commencing and include: Temporary Closure Notices for Public Rights of Way; Environment Agency Discharge Consents; Traffic Regulation Orders; protected species licences (e.g. great crested newt); and Land Drainage Consents.

#### 1.7 The Environmental Impact Assessment process

Environmental Impact Assessment is a tool for systematically examining and assessing the effects and impacts of a development on the environment. The resultant Environmental Statement reports on the Environmental Impact Assessment and contains:

- A description of the development, including any alternatives considered;
- A description of the existing environment at the site and surrounding areas;
- A prediction of potential effects on the existing human, physical and natural environment at the site and assessment of subsequent impacts;
- A description of mitigation measures required to avoid or reduce such impacts;
- A description of monitoring requirements where appropriate; and
- A Non Technical Summary.

#### **1.8** Site selection and consideration of alternatives

As required under the EIA Regulations, the environmental, technical and financial constraints and opportunities associated with developing a new electrical substation and buried onshore cable system have been taken into consideration throughout the Environmental Impact Assessment and design process.

The final substation and cable route spur location and design were selected through a rigorous process that focussed on:

- Initial investigations into strategic electrical connection options;
- Key project decisions to install cables underground rather than using any new overhead lines;
- Initial desk based constraints mapping process (identifying technical and environmental constraints) within the wider area;
- Detailed surveys, studies and assessments to gather information in relation to the existing natural, human and physical environment within the area;
- Site visits to confirm technical feasibility of the preferred cable route;
- Use of technical guidance for substation siting;

- Consultation with a range of consultees (through meetings, site visits and correspondence);
- Discussions with landowners and tenants;
- Consultation with a range of consultees (including through public exhibitions); and
- Analysis, assessment and cable route modifications to identify the best fit preferred cable route option, taking into account environmental, technical, financial and risk factors and mitigation or monitoring measures that may be required to reduce any potential impacts to an acceptable level.



The preferred substation site was selected after an appraisal of over 130 potential sites in total, each located adjacent to the 400kV overhead lines between Norwich and King's Lynn. Excluding Little Dunham from consideration, these sites were narrowed down through a sieving process to four potential options, prior to the selection of Necton as the preferred site. This decision was primarily based on:

- The engineering / technical suitability of the site;
- Its potential accessibility from the main highway network;
- Its remoteness from environmentally designated areas;
- An unconstrained and relatively short cable route spur to the site from the permitted cable route in Breckland district;
- The proximity of relatively few dwellings; and
- The availability of substantial additional land, to accommodate significant enhancement of the existing natural screening and biodiversity in the area.

The siting of the required equipment and additional screening has been designed to minimise or remove potential impacts on the environment, for local residents and for users of the A47(T).

It is believed that the detailed and iterative process that has been adopted has successfully taken account of all key environmental and technical considerations, in order to develop a design that has the least impact upon the natural, human and physical environment, and which is deliverable in the necessary timeframes.

# **1.9 Scoping and consultation**

A scoping exercise (a preliminary environmental investigation at the start of the Environmental Impact Assessment process) was carried out to identify the main issues that needed addressing as part of the Environmental Impact Assessment. Consultation was carried out as part of this process with statutory and non statutory bodies, representing key interests and user groups in Breckland and the wider area. Consultation and liaison continued throughout the Environmental Impact Assessment and will be ongoing throughout the lifetime of the project.

DOW has also undertaken public consultation prior to the submission of the planning application. In addition to regular liaison with Necton Parish Council, two public exhibitions were held during April 2012, at Necton Community Centre, to offer more information on the proposals and ensure that local people were aware of and involved in the Environmental Impact Assessment process.

A total of 160 people attended the public exhibitions and a further exhibition is planned for August 2012 in response to a request from some local residents.



# 1.10 Data collection and surveys

Following responses to the scoping exercise and subsequent consultation with consultees, the following surveys, data collection exercises and desk studies were undertaken as part of the Environmental Impact Assessment:

- Ecological survey programme to identify important habitats and any legally protected species; supplemented with ecological data searches to collate any previous records, and a review of any designated nature conservation sites;
- Archaeological assessment, comprising an Archaeological Desk Based Assessment, supported by both geophysical survey and trial trench survey to identify any features of cultural heritage significance such as Scheduled Monuments and Listed Buildings, as well as any archaeological finds or features;

- Landscape and visual impact assessment and identification of landscape designations;
- Calculation of traffic movements and vehicle types during construction and operation;
- Desk based noise and vibration studies in accordance with British Standards and other relevant guidance;
- Desk based assessment in relation to existing air quality and monitoring data held by Breckland Council and the National Air Quality Information Archive;
- Desk based assessments with reference to local maps and data sources to identify features relating to the local land use and local community, as well as any tourism or recreational features, including a review of any Public Rights of Way in the area; and
- Site visits to ground truth the findings of various surveys and studies.

#### 1.11 Impact identification and evaluation

Impact identification and evaluation was carried out via a number of methods and techniques, including reference to guidelines, research, literature review and consultation, as agreed during the scoping exercise.

The level of an impact, whether it is beneficial or adverse, has been determined as a combination of the magnitude of the effect and the sensitivity of the receptor. In this context, magnitude is determined through a combination of the extent, duration, frequency and severity of effect. Sensitivity is defined through a combination of the adaptability, tolerance, recoverability and value of the receptor.

**Table 1** sets out the impact matrix which identifies the interaction of magnitude of effect and the sensitivity of receptor to indicate the potential level of impact.

Receptor sensitivity	Magnitude of effect				
	Very high	High	Medium	Low	Negligible
Very high	Major	Major	Moderate	Minor	Negligible
High	Major	Moderate	Minor	Minor	Negligible
Medium	Moderate	Minor	Minor	Negligible	Negligible
Low	Minor	Minor	Negligible	Negligible	Negligible
Negligible	Minor	Negligible	Negligible	Negligible	Negligible

Table 1 Impact matrix

Impact statements carry a degree of subjectivity, as they are based on professional judgement and must take into account the likelihood of an impact occurring, the level of certainty in the prediction, as well as being reliant on the quality, and availability, of data on which to make the assessment.

# 2 SUMMARY OF ENVIRONMENTAL IMPACTS

#### 2.1 Introduction

The following sections summarise the potential environmental impacts associated with the construction, operation and decommissioning of the Necton substation and cable route spur for the Dudgeon project. The following environmental parameters have been assessed during the Environmental Impact Assessment:

- Nature conservation and ecology;
- Heritage;
- Land quality and water resources;
- Landscape and visual impact;
- Traffic and access;
- Noise and vibration;
- Dust and air quality; and
- Local community, land use, tourism and recreation.

#### 2.2 Nature conservation and ecology

The cable route and substation site have been planned to ensure that there is no impact on any international, European or nationally designated conservation sites. Local Nature Reserves, County Wildlife Sites and sites listed under Natural England's Ancient Woodland Inventory and the Forestry Commission's National Inventory of Woodland and trees with Tree Preservation Orders have also been avoided through careful siting and design.



A total of 97m of hedgerow will be removed for construction, but the **minor adverse** impact this creates is offset by 850m of new hedgerow and 1,500m of hedgerow reinforcement, resulting in a **moderate beneficial** impact overall. Minimal levels of tree removal will be required for construction, and 4.0 hectares (9.9 acres) of new woodland will be planted as part of the screening proposals, resulting in a **moderate beneficial** impact.

There will be a loss of 29.6 hectares (73.2 acres) of arable land during construction, reducing to 17.0 hectares (43.2 acres) during operation; this includes up to 11.1 hectares (27.4 acres) of the proposed screening and biodiversity enhancements. Taken in the context of the agricultural output of the wider region, this loss is **negligible**.

Grassland and field margins disturbed during construction will be replaced in full with a local seed mix, and 5.5 hectares (13.6 acres) of biodiversity enhancement measures, including headland and species rich grassland, will be planted to increase the local habitat mosaic and provide a **moderate beneficial** impact.

Water courses near the proposed works will be protected by adhering to pollution mitigation guidelines. An additional 0.77 hectares (1.9 acres) of aquatic habitat will be created on site as part of the environmental enhancement works, resulting in a **moderate beneficial** impact.

Targeted protected species surveys found no presence of great crested newt in the area of either the substation or the cable route spur. There is a risk of the proposed works presenting a barrier to great crested newt transit, hence full precautions will be taken to survey for great crested newt pre-construction, resulting in a residual **minor adverse** impact during the construction phase.

The loss of hedgerows during construction will initially result in a **minor adverse** impact to breeding birds. However, the proposed 4.0 hectares (9.9 acres) of new woodland planting and 5.5 hectares (13.6 acres) of habitat creation included in the screening and biodiversity enhancement proposals will subsequently result in a **minor beneficial** impact for great crested newt, breeding birds and bats during operation.

There is a **negligible** impact anticipated for water voles and otters, as no evidence of presence or habitat suitability was found within the proposed development area.

# 2.3 Heritage

An Archaeological Desk Based Assessment revealed 450 features listed on the Norfolk Historical Environment Records database are located within the area around the proposed development, although the vast majority of these records comprised low value findspots of single pieces of worked flint and sherds of pottery that were observed during fieldwalking as part of a research project. These include 11 listed buildings, a Conservation Area in Necton village and a series of 19 key *in situ* archaeological sites that were at potential risk from the development.

Additionally, a site visit, geophysical survey and trial trench survey were conducted within the new substation area to further inform the heritage assessment and these revealed that the only buried features within the development area comprised post-medieval infilled ponds, ditches and field boundaries of low importance.



Listed Buildings and Scheduled Monuments have been avoided by the cable route and no direct impacts are anticipated during construction. In addition, impacts to the visual setting and cultural heritage of Necton Conservation Area and Listed Buildings from the substation are expected to be short term and are considered **minor adverse**.

In some locations, it has not been feasible to avoid areas of known archaeological finds or features. In order to minimise the potential impact to these sites, a suitable mitigation strategy and recording programme has been proposed, which will be agreed with the regulatory authorities and implemented. The residual impact of the construction of the cable system and substation on these affected archaeological sites is likely to be **negligible / minor adverse**.

No further ground disturbance will occur during the operation of the onshore electrical connection, therefore, a **negligible** impact to archaeology and cultural heritage is anticipated during operation.

# 2.4 Land quality and water resources

The cable spur route crosses a single, unnamed surface water drain and additional field drains are anticipated along the route. No surface water flooding issues have been identified along either the cable route spur or at the substation site. A risk of contamination of surface water supplies resulting from construction activities always exists. The lack of surface water resources in the area, and adhering to pollution prevention guidance will reduce any risk to a **negligible** level.

There are several groundwater abstractions (licensed, private and deregulated) within the immediate vicinity of the cable route spur. Groundwater supplies are unlikely to be impacted by construction activities. Cable trench excavation to a depth of 1.5m for the cable route spur will involve some contact with groundwater, but the aquifer is not anticipated to be reached and so the impact is considered to be **negligible**.

Waste arisings from construction will be managed by effective implementation of a Site Waste Management Plan and strict adherence to the waste duty of care and legislation in force. In the event that some materials are not able to be reused on site, there may be the need to send some waste materials to landfill, resulting in a **minor adverse** impact.

A risk of soil compaction as a result of machinery, excavation and stockpiling exists within the proposed works, presenting a **minor adverse** impact. The Defra 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites' will be followed when dealing with soils excavation in the cable trench.

# 2.5 Landscape and visual impact assessment

#### Landscape character

There will be short term impacts on landscape character as a result of the 40m wide cable route working corridor (narrowing to 20m at hedge crossings) for the cable route spur, however this will be localised (only affecting an area up to one or two fields from the route). During operation the only visible above ground features will be cross bonding pits and / or pillars which will have a **negligible** visual impact.

The presence of the substation will result in some longer term impacts on landscape character (**moderate adverse** in Year 1 in winter reducing to **minor / moderate adverse** in Year 10 in summer). However, these changes will only affect a small area around the substation (between 500m – 1km from the substation development) which constitutes a small part of the North Pickenham Plateau landscape character area.



The proposed development will result in **minor beneficial** impact on the landscape as a result of 4.0 hectares (9.9 acres) of new woodland planting and 850m of new hedgerows, as well as improvements to 1,500m of existing hedgerows around the site through the addition of locally native species.

In addition, 5.5 hectares (13.6 acres) of species rich grassland corridors have been proposed along a tributary of the River Wissey and around the substation to enhance landscape character, biodiversity, and improve ecological connectivity.



# Visual impact

Assessment was made using a range of data including but not limited to use of representative assessment viewpoints. There were a total of 19 viewpoints assessed for the substation and cable route spur. After ten years, there will be a **negligible** impact from 14 of the 19 viewpoints.

The principal longer term effects on visual receptors will be on users of the A47(T) including users of the bus stop on the A47(T) outside Necton (**minor / moderate adverse** impact). However, it should be noted that with the proposed offsite planting the views from the visual setting of the A47(T) at this location will be greatly improved.



Artist's impression of viewpoint from the bus stop on the A47(T) (VP03) 10 years after construction.

There will be a higher level of visual impact from a range of viewpoints during the construction and early years of establishment of the screening measures.

Viewpoint 3 to Viewpoint 7 on the A47(T) will experience the greatest impact due to their proximity to the site, and are assessed as being a **moderate adverse** impact at Year 1. These views are visible to motorists as they pass relatively close to the substation site itself and will reduce over time as the proposed planting matures to **minor / moderate adverse** at Year 10.



Artist's impression of viewpoint from the lay-by on the A47(T) (VP10) 10 years after construction.

There will be **negligible** impact on views of recognised importance (e.g. those recognised through planning designation or appearance in guidebooks or on tourist maps) and no views of construction or operation of the development from any Conservation Area.



Artist's impression of viewpoint from A47(T) entrance to site (VP04) 10 years after construction.

Two properties lie relatively close to the substation site, but are already well screened in the direction of the substation. The proposed 30m wide woodland planting alongside the A47(T) corridor will further screen views as it matures.

The impact in Year 1 is considered to be **moderate adverse** for approximately ten properties (eastern edge) along St Andrews Lane with a **negligible** impact on the rest of Necton village. At Year 10 there is considered to be a **negligible** impact on the whole of Necton village. The impact on all other villages is also considered to be **negligible**.

# 2.6 Traffic and access

During construction, a temporary access off the A47(T) will be required via an existing farm access; no construction traffic will be routed through Necton. This access arrangement has been agreed in principle with the Highways Agency. Access for maintenance vehicles during the operational phase will be via an existing farm access off the Ivy Todd Road.



Consultation has been undertaken throughout the design process with Norfolk County Council and the Highways Agency. A Transport Assessment has been submitted as part of the planning application and has informed the Environmental Impact Assessment.

Construction traffic is expected to account for a maximum increase of 0.62% in traffic volume during the construction period, which is well within the local network's tolerance and recommended thresholds below which environmental effects are considered to be imperceptible. The impact is therefore expected to be **negligible**.

A Traffic Management Plan will be prepared with the focus on minimising any nuisance that could potentially arise from construction traffic. A number of mitigation measures have been proposed including timing of heavy goods vehicle deliveries to avoid network peak periods, signage and marshalling.

During operation, traffic will be limited to occasional maintenance and inspection visits, as the substation will operate as an unmanned facility, and can be considered to have **negligible** impact on the local area in terms of traffic and access.

# 2.7 Noise and vibration

The assessment examined the potential noise and vibration impacts associated with the construction, operation and decommissioning of the Necton substation and cable route spur. Noise from construction works within the cable route spur working area, the horizontal directional drilling compound and the substation area were assessed, as were noise impacts associated with additional construction vehicles on the A47(T).

The results of the assessment showed that construction noise levels will be below the World Health Organisation guidelines, with limited exceptions, representing a short term **negligible** impact. At receptors where the predicted construction noise exceeded the guidelines, it was still below the existing ambient noise level at that receptor and therefore was still considered to be a **negligible** impact. Peak construction traffic flows were shown to increase the daily average traffic noise level by an imperceptible 0.1dB, which is a **negligible** impact.

Vibration impacts were deemed to be **negligible** because of the large distances between construction works and residential properties.

The predicted operational noise levels, at receptors surrounding the substation, were assessed in the context of fixed noise limits previously proposed by an independent acoustic consultant in conjunction with Breckland Council.

The assessment showed that the broadband levels were below the limit at all receptors, however, without further mitigation, the 100Hz noise levels could exceed the limit by up to 16dB. Mitigation measures are therefore proposed through a combination of design and the use of acoustic enclosures or screens to reduce noise levels from the substation to below the limits at all receptors, resulting in a **negligible** impact.

It is predicted that the application of the above mitigation measures will result in a **negligible** adverse noise and vibration impact for potentially sensitive receptors adjacent to the substation and cable route spur.



# 2.8 Dust and air quality

The air quality assessment has indicated that construction phase traffic emissions are predicted to have a **negligible** impact on sensitive receptors within 300m of construction activities.

Emissions of dust during the construction phase were predicted to have, at worst, a moderate adverse impact on air quality. It was concluded that, with the implementation of appropriate dust mitigation measures throughout the construction phase, the potential air quality impact is predicted to be **negligible**. Following completion of the cable route spur and substation construction works there will be a **negligible** impact on local air quality during operation.

# 2.9 Local community, land use, tourism and recreation

The assessment of impacts on the local community, land use, tourism and recreation has involved consultation with the local community at various levels, including two public exhibitions, and the collation of information and data on features and activities within and around the study area.

The cable route spur runs almost entirely through agricultural land. Exceptions to this include the crossing of the A47(T) between Redgates and The Grove, two bridleway crossings at Fransham and the small number of hedgerows that are crossed.

It is anticipated that there will be a **minor adverse** impact upon a small number of farm holdings and landowners during the project construction phase, as access routes will be disrupted and there will be some disturbance from construction traffic. Agricultural quality will be diminished during construction, as soil structural damage and crop loss will take place, including damage to land covered by environmental stewardship schemes. In terms of the region, this loss of agricultural land is **negligible**, and local landowners will be compensated for financial losses until land is reinstated to its previous condition.

During the project's operational phase, the environmental enhancements made around the substation to the area will make a significant contribution to the substantive objectives of the environmental stewardship schemes in a **moderate beneficial** fashion.

It is expected that the project will engage local businesses for the supply of materials, fencing, site establishment, maintenance, machinery hire as well as employing local contracting companies, resulting in a **minor beneficial** impact for the local economy.

Some public rights of way through the construction area will be closed and diverted during construction. This **minor adverse** impact upon recreation public right of way users will be reduced to a **negligible** one post construction, when public rights of way are reinstated. The impact on tourism from this temporary closure and from the increase in construction traffic is considered to be **negligible**.

# 2.10 Decommissioning

The decommissioning plan for the project will require approval from Breckland Council and will be subject to an additional Environmental Impact Assessment prior to any works commencing. It is anticipated that the impacts from decommissioning will be comparable to, but lower than, those identified for construction.

# 2.11 Conclusion

In order to identify a suitable cable route and substation site, DOW has undertaken a detailed programme of surveys, studies and assessments. These studies have taken into account environmental, technical, financial and risk considerations. DOW is confident that the proposed development will have minimal impact on the environment and represents the best overall solution.

The residual environmental impacts of the proposed development must also be viewed in the context of the major contribution to European and national renewable energy targets required under the Climate Change Act (2008), and reduced  $CO_2$  emissions that would result from the Dudgeon project.

# 3 FURTHER INFORMATION

The Environmental Statement can be viewed during the statutory consultation period at the following location:

• Breckland Council, Elizabeth House, Walpole Loke, Dereham NR19 1EE.

Copies of the Environmental Statement have been provided to Necton, Bradenham and Fransham Parish Councils.

Copies of the Environmental Statement are priced at £30 on CD-ROM and at £300 for paper copies. Requests for copies can be made in writing to:

The Project Manager Dudgeon Offshore Wind Limited c/o Warwick Energy Limited Wellesbourne House Wellesbourne Warwickshire CV35 9JB

Additional copies of this Non Technical Summary can be obtained from the above address. The full Environmental Statement and the Non Technical Summary can be viewed at the consultation website at <u>www.dudgeonoffshorewindfarmconsultation.co.uk</u>. Further information on the Dudgeon Offshore Wind Farm and a downloadable version of the Non Technical Summary is also available on Warwick Energy's website at <u>www.warwickenergy.com</u>.



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