

**Aberdeen Offshore Wind Farm also known as the European  
Offshore Wind Deployment Centre**

Golf Course and Offshore Wind Farm Study  
19 July 2012

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*This document has been prepared and checked in accordance with ISO 9001:2000.*



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## **Preface to this Environmental Statement Addendum (June 2012)**

Addenda are commonly submitted as a project evolves through time to clarify issues, or to provide additional baseline data and updated environmental assessment information. This report, the Golf Course and Offshore Wind Farm Study, forms part of the ES Addendum.

The June 2012 Addendum contains the following information:

- Additional bird and marine mammal baseline data.
- An additional visualisation from Girdleness lighthouse.
- Results of a geo-locational study into golf courses and Round 1 offshore wind farms (this report).
- Requested minor adjustments to turbine dimensions which form a part of the project description information, known as the 'Rochdale Envelope'.
- Preliminary landscape and visual design principles for the scheme.
- Supporting statement and representative viewpoints of landscape and visual effects taking account of the adjustments to the Rochdale Envelope and preliminary design principles.
- Updated ornithological collision risk modelling resulting from the updated Rochdale Envelope, updated ornithological impact assessment, and updated Habitats Regulations Assessment.

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**Where to View the Consent Application**

The ES addendum submission may be viewed at the following locations during normal office hours:

Vattenfall Wind Power Ltd 3 <sup>rd</sup> Floor The Tun Holyrood Edinburgh EH8 8AE	Balmedie Library Eigie Rd Balmedie AB23 8YF
Aberdeen Central Library Rosemount Viaduct Aberdeen AB25 1GW	Peterhead Library 51 St Peter Street Peterhead AB42 1QD
Ellon Library Station Road Ellon AB41 9AE	Bridge Of Don Library Scotstown Road Bridge Of Don Aberdeen AB22 8HH

The ES addendum can also be viewed at the Scottish Government Library at Victoria Quay, Edinburgh, EH6 6QQ.

Obtaining Your Own Copy of the ES Addendum

The ES addendum is available on the Vattenfall website: <http://www.vattenfall.co.uk/en/aberdeen-bay.htm>

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## **Aberdeen Offshore Wind Farm also known as the European Offshore Wind Deployment Centre**

### **1.1. Background to the Study**

Given the presence of golf courses in the study area and a number of representations from non-statutory consultees, the project team has produced an evidence base relating to golf courses near offshore wind farms. This study has included the following stages:

- a) GIS mapping of offshore wind farms and golf courses; and
- b) A review of Environmental Statements (ESs) relating to the offshore wind farms to research whether and how golf courses were taken into account with respect to landscape and visual methodologies and effects, including the levels of sensitivity attributed to golfers as a visual receptor group.

This study has been produced following comments from statutory consultees for the EOWDC and discussions with Marine Scotland, following an independent review of the ES.

### **1.2. Methodology**

The scope of this study was restricted to Round 1 offshore wind farms as these are the closest of the three rounds of offshore licensing to the coast and are in locations most similar to the EOWDC. A 25 km study area has been used around each Round 1 offshore to set the scope of the study. A review of ESs for the Round 1 wind farms indicates that beyond 25 km, no significant seascape, landscape or visual effects would normally arise. A detailed methodology for GIS mapping of the Round 1 offshore wind farms and golf courses is contained in Appendix 1.

The GIS mapping was a desk-based mapping exercise. Interpretation of the data should be with reference of the methodology in Appendix 1 and the following caveats:

- No landscape or visual factors have been considered in the mapping exercise. Offshore turbines are not necessarily visible from golf courses shown on the plans or listed in the schedules.
- Factors such as topography, vegetation or the built environment may create areas where the offshore turbines are not visible. Any commentary on the likely visibility of wind farms from golf courses is based solely on desk study and should be considered to have similar weight as a scoping exercise. No assessment fieldwork has been undertaken.
- Golf courses are derived from the Corine database (September 2011), Ordnance Survey MasterMap (December 2011) and Bing Maps aerial photography (2008). All distances are calculated as a straight line from nearest point to nearest point using these sources, the nature of which is such that accuracy levels relating to land uses are variable. Any distances quoted are therefore indicative. Distances quoted are to the nearest turbine.

ESs for the offshore projects were sourced from developers' websites or from developers or project consultants directly. Some ESs were not successfully sourced and so it has not been possible to review all Round 1 ESs.

### **1.3. GIS mapping of offshore wind farms and golf courses**

Mapping is contained in Appendix 2. The following figures have been produced:

- a) 6129-610-PA-020 – Proximity of Golf Courses to Round 1 Wind Farms – Overview

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- b) 6129-610-PA-021 – Proximity of Golf Courses to Round 1 Wind Farms – Inset 1 (European Offshore Wind Deployment Centre)
- c) 6129-610-PA-022 – Proximity of Golf Courses to Round 1 Wind Farms – Inset 2 (Teeside)
- d) 6129-610-PA-023 – Proximity of Golf Courses to Round 1 Wind Farms – Inset 3 (Merseyside and North Wales)
- e) 6129-610-PA-024 – Proximity of Golf Courses to Round 1 Wind Farms – Inset 4 (Lincolnshire and Norfolk)
- f) 6129-610-PA-025 – Proximity of Golf Courses to Round 1 Wind Farms – Inset 5 (Essex and Kent)

The schedules in Appendix 3 summarise the key data from these plans.



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**1.4. Summary of key findings from the GIS mapping exercise:**

- There are 67 golf courses within 25 km of Round 1 offshore wind farms.
- Most Round 1 offshore wind farms were 25 to 30 turbine developments (as opposed to 11 at EOWDC).
- The closest golf course to a Round 1 offshore wind farm is Cleveland Golf Club, which is 1.6 km from Teesside offshore wind farm. The Great Yarmouth and Caister Golf Club is roughly 2.5 km from Scroby Sands.
- There is considerable regional variation relating to golf courses located near to offshore wind farms. Within 25 km of Burbo Bank offshore wind farm are the most golf courses (22); within 25 km of Gunfleet Sands I are the fewest (2); on average there are 8.8 courses within 25 km of each Round 1 offshore wind farm (standard deviation 6.6).
- There are 16 courses within 25 km of the EOWDC. The nearest would be Murcar Links Golf Club (2.9 km). Other nearby courses include the Trump International Golf Links / Menie Estate (3.4 km), the Royal Aberdeen Golf Club (3.5 km) and the East Aberdeenshire Golf Course (3.5 km).
- There are 25 golf courses within 25 km of 2 offshore wind farms. There are 3 golf courses within 25 km of 3 offshore wind farms (Rhyl Golf Club, Prestatyn Golf Club and St. Melyd Golf Club).
- The list of golf courses within 25 km of Round 1 offshore wind farms includes various famous courses:
  - Royal Liverpool at Hoylake is within 25 km of 2 offshore wind farms, including being 9.2 km from Burbo Bank. The Burbo Bank turbines are likely to be visible from this course, which is set in a gently undulating dune system<sup>1</sup>. The club may have views of North Hoyle (15.2 km away). The club is the second oldest seaside links course in England and has hosted the British Open Championship 11 times since 1907 making it the fifth most used Open venue. It most recently hosted the event in 2006 (when Tiger Woods was champion) and it will also host the 2014 Open. In 2012 it will hold the Women's Open.
  - Royal Birkdale is another classic links course set in a dune system. It has hosted the British Open 9 times since 1954 (as well as the Ryder Cup twice in the 1960s) and is 15.5 km from Burbo Bank. The Open was last held at Birkdale in 2008. In 2014 it will hold the Women's Open.
  - Wallasey is a final qualifying club for the Open Championship and is where the Stableford scoring system was invented. It is another classic links course played through sand dunes. Offshore turbines at Burbo Bank (7.4 km away) are clearly visible from certain holes. The course website has an image of the 3<sup>rd</sup> green as a banner across the top of the webpage which introduces the course (<http://www.wallaseygoldclub.com/course/> accessed 11<sup>th</sup> May 2012), which shows the existing Burbo Bank turbine array (in the future if approved the

<sup>1</sup> Any commentary on the likely visibility of windfarms from golf courses is based solely on desk-based research. No fieldwork has been undertaken and there has been no testing through the use of ZTVs. See Methodology Section 1.2.

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Burbo Bank extension site would bring additional turbines within proximity of golf courses in this area).

- West Lancashire golf club is one of the ten oldest in England and will be a final qualifying club for the Open when it is played at Royal Lytham in 2012. It is 6.5 km from Burbo Bank offshore wind farm. The course is set in a dune system and is likely to have intermittent views of Burbo Bank. One of the photos scrolling through the main banner on the course homepage shows the Burbo Bank array (<http://www.westlancashiregolf.co.uk/> accessed 11<sup>th</sup> May 2012). The photo for the 3<sup>rd</sup> hole shows the context of the turbines and the 3<sup>rd</sup> green ([http://www.westlancashiregolf.co.uk/course/holes/hole\\_3](http://www.westlancashiregolf.co.uk/course/holes/hole_3) accessed 11<sup>th</sup> May 2012).
- Other non-championship courses:
  - Cleveland Golf Club is the only true and oldest championship links in Yorkshire. It is 1.6 km from the Teesside offshore wind farm and is likely to have widespread views of the wind farm. In addition, the substation for the onshore connection is located next to the golf course. Seaton Carew is 3.2 km from the Teesside offshore wind farm and while some of the holes are within the dunes, there are likely to be relatively widespread views of the wind farm. Hartlepool Golf Club is 9.6 km from the Teesside offshore wind farm and given its coastal location is likely to have views towards it.
  - Great Yarmouth and Caister Golf Club is the oldest in Norfolk (and the ‘home of the bogey’) and is set on a relatively flat section of coast. Scroby Sands is 2.5 km away and widespread views of the turbines from the golf course are likely. Gorleston Golf Club is 8.7 km from Scroby Sands and as a cliff-top course is likely also to have widespread views of the Scroby Sands offshore wind farm.
  - The Warren Municipal Golf Club (near Wallasey Golf Club – see above) is thought to be one of the oldest municipal links courses in England. It is an open landscape near to the coast and is likely to have widespread views of Burbo Bank (7.7 km away). Leasowe Golf Club is on this stretch of coast, just to the west of Wallasey Golf Club and is likely to have widespread views of Burbo Bank.
  - Prestatyn Golf Club is 7.7 km from North Hoyle offshore wind farm (and 14.6 km from Rhyl Flats and 18.8 km from Burbo Bank). The course is a coastal course and in a dune system without large changes in height, so relatively widespread views of the offshore wind farms are likely. Rhyl Golf Club is also relatively flat and open and is likely to have relatively widespread views of North Hoyle (8.5 km away) and Rhyl Flats (11.1 km). Burbo Bank (23.3 km away) may be seen in clear conditions from Rhyl Golf Club. St. Melyd is a parkland course located some way inland from Prestatyn. The parkland character means that views are more likely to be enclosed, however, where sea views are available, North Hoyle (9.9 km), Rhyl Flats (15.1 km) and Burbo Bank (22.1 km) are likely to be visible.
  - Rhos-on-Sea Golf Club is near to the coast and relatively open and is likely to have views of Rhyl Flats (8.3 km), as well as North Hoyle (21.4 km). Both Abergele Golf Club and Old Colwyn Golf Clubs have settings which are likely to limit views of windfarms at Rhyl Flats (9.2 km or 9.8 km respectively) or North Hoyle (15.5 km and 20.2 km respectively).
  - Furness Golf Club (the 6<sup>th</sup> oldest in England) is 9.3 km from the Ormonde offshore wind farm and 10.7 km from the Barrow offshore wind farm. The course is located on the edge of

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Walney Island and does not appear to have large dune systems. There are likely to be relatively widespread views from many of the holes to the wind farm.

- Seacroft Golf Club is a links course which is 5.9 km from Lynn and 8.3 km from Inner Dowsing. While set in a dune system, it is likely to have views of both wind farms (i.e. 60 turbines). North Shore Golf Club is a links and parkland course and is 5.8 km from Lynn and 6.2 km from Inner Dowsing and is likely to have views of both.
- Clacton-on-Sea Golf Club is 6.5 km from Gunfleet Sands I offshore wind farm. While the course has a parkland character, there are likely to be some opportunities for views of the wind farm. Gunfleet Sands II sits immediately to the east of Gunfleets Sands I. Both schemes total 48 turbines. The Gunfleet Sands demonstration site is approved and will include further taller turbines.

**1.4.I. Round 2 Offshore Wind Farms**

The focus of the GIS mapping exercise was to collate information on Round 1 offshore wind farms, as these are the closest to the coast. Although no mapping has been undertaken, there are notable golf courses which may, by way of a scoping exercise, have views of Round 2 wind farms. For example:

- Royal Liverpool, which is likely to have views of Burbo Bank and may have views of North Hoyle, may also have views of Gwynt-y Môr Round 2 offshore wind farm in the future<sup>2</sup>. There may be views of the Burbo Bank extension site if it is approved.
- Wallasey Golf Club, which has views of Burbo Bank and North Hoyle, may have views of Gwynt-y Môr Round 2 offshore wind farm<sup>2</sup>.
- Seacroft Golf Club, which is likely to have views of Lynn and Inner Dowsing, may have views of Lincolnshire and Docking Shoal Round 2 offshore wind farms.
- Royal West Norfolk, which may have distant views of Lynn and Inner Dowsing, may have views of the Sheringham Shoal or Docking Shoal Round 2 offshore wind farms.
- Prestatyn Golf Club, which already is likely to have views of North Hoyle, Rhyl Flats and Burbo Bank, may have views of Gwynt-y Môr Round 2 offshore wind farm<sup>2</sup>.

**1.5. Review of Environmental Statements**

This section summarises the review of the ESs sourced.

Project	MW	No. of turbines	Status	Nearest Golf Course	ES Sourced?	Golf mentioned in ES?
Barrow	90	30	Operational	Furness Golf Club – 10.7 km	Only NTS	No

<sup>2</sup> Gwynt-y Môr is a 576MW 160 turbine consented offshore wind farm, which, along with other existing Round 1 and in planning extension sites, means that cumulative views are likely to be possible of a number of different offshore schemes on the north Wales coast

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Project	MW	No. of turbines	Status	Nearest Golf Course	ES Sourced?	Golf mentioned in ES?
Beatrice Demo	10	2	Operational	N/A	Yes	VP at golf club car park (table 1.2, page 18), golfers mentioned as receptors but no detailed discussion - turbine 46km away.
Blyth	4	2	Operational	N/A	No	n/a
Burbo Bank	90	25	Operational	West Lancashire Golf Club – 6.5 km	Yes	Coastal / links golf courses mentioned as part of seascape units description (e.g. 7.1.3, page 241/2 of main ES and section 1.6 of the LVIA Appendix); but no detailed description of golfers as receptors in LVIA
Gunfleet Sands I	108	30	Operational	Clacton-on-Sea Golf Club – 6.5 km	Yes	Golfers not referred to as a specific user group but treated as part of recreational landscape users receptor group.
Lynn & Inner Dowsing	97 & 97	27 & 27	Operational	North Shore Golf Course 5.8 km (from Lynn) 6.2 km from Inner Dowsing	Yes	<i>Lynn</i> - Golf courses mentioned as recreational assets in landscape or seascape context (e.g. Table 4.2, summary of receptors) and in description of seascape units (e.g. 4.3.6.2, page 57, final paragraph). Receptors at leisure and tourism facilities given generic medium to high sensitivity. No coverage in assessment of effects section. <i>Inner Dowsing</i> - 4.3.2 includes mention of golf courses as part of the recreation and tourism landscape context. 4.4.2 - golf courses included as part of the leisure and tourism receptor group, which universally is given a medium to high sensitivity (i.e. this is not specific to golf but is generic to a range of activities). The baseline description of seascape units includes golf courses.

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Project	MW	No. of turbines	Status	Nearest Golf Course	ES Sourced?	Golf mentioned in ES?
Kentish Flats	90	30	Operational	Herne Bay Golf Course – 10.1 km	Yes	Golf described as an amenity use of coastal landscape (section 7.11.4). 7.11.5.2 describes golf as a significant land use in the Sandwich Bay Seascape Unit. Golfers or golf courses are not mentioned in the assessment of effects sections (section 8.5.10).
North Hoyle	60	30	Operational	Prestatyn Golf Club – 7.7 km	Yes	Golf courses recorded in "Hinterland Recreation", section 4.1.6.4, and in description of seascape units (e.g. Section 4.5.2.3). Also mentioned in passing in evaluation of regional seascape units, Section 5.3.1.3. Golfers not mentioned in "Recreation" visual receptor group.
Rhyl Flats	90	25	Operational	Rhos-on-Sea Golf Club – 8.3 km	Yes <sup>3</sup>	Appendix K2, table K2.1 includes golfers as potential visual receptors. Annex K3: Seascape character assessment – golf courses mentioned in the description of seascape character units. Annex K6 contains a preliminary list of potential viewpoints for the SLVA. 5 potential viewpoints were located near golf courses, but none of these were taken forward to be used in the assessment.
Robin Rigg	180	60	Operational	Southernness Golf Club – 12.6 km	No	n/a
Scroby Sands	60	30	Operational	Great Yarmouth and Caister Golf Club – 2.5 km	No	n/a

<sup>3</sup> Only the technical appendix providing supporting information for the SLVA was obtained, not the full ES

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Project	MW	No. of turbines	Status	Nearest Golf Course	ES Sourced?	Golf mentioned in ES?
Teesside	62	27	Under Construction	Cleveland Golf Club – 1.6 km	Yes	<p>Cleveland Golf Course mentioned in baseline section in terms of landscape / seascape character. The Coatham Golf Course is cited as being one of the reasons VP 4 at Warrenby was selected (Table 16.15). Table 16.16 - for viewpoint 2, the assessment determines a medium sensitivity for "sporting enthusiasts", presumably this refers to golfers on the Coatham Course. For VP4 at Warrenby, the view shows a golf course, but golfers are not mentioned as a receptor. Again, in the ES addendum (which mainly deals with the cable route), golf courses are treated as part of seascape baseline. 9.7.5 treats golfers as a receptor group, specifically golfers on the Warrenby GC, who are given a medium sensitivity.</p> <p>Recreation chapter of the ES (Chapter 20) addresses potential construction phase impacts on golfers and their avoidance relating to the cable route. No indirect impacts during the operational phase discussed. Socio-economic assessment (Chapter 22) does not identify impacts on golf courses.</p>

Discussion

Full Environmental Statements (ESs) for 8 of 12 Round 1 projects were reviewed (these were the Beatrice Demonstration Project; Burbo Bank; Gunfleet Sands I; Lynn; Inner Dowsing; Kentish Flats; North Hoyle; Rhyl Flats; and Teesside). The Non-Technical Summary (NTS) was sourced for Barrow offshore wind farm but this contained no information relating to golfers.

The 8 full ESs reviewed indicate the following patterns:

- Golf courses are sometimes recorded in baseline descriptions of landscape character units or regional seascape units. This means that golf courses are simply recorded as part of the

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landscape context. It does not necessarily follow that golfers are treated as receptors in the visual assessment (e.g. Beatrice Demo, Burbo Bank or North Hoyle).

- Golfers are sometimes specifically identified in a recreational or tourism landscape user group. This is the case with the Lynn and Inner Dowsing ESs, where golfers are considered part of a generalised group of recreational visitors. The assessment differentiates recreational users from those who live in, or are passing through, an area. As set out in many Landscape and Visual Impact Assessment (LVIA) methodologies, this receptor group often has raised sensitivity. The Lynn and Inner Dowsing ESs, for instance, denote a medium to high sensitivity to recreational landscape users. Appreciation of the landscape is an aspect of the behaviour of these receptors and their sensitivity therefore tends to be raised (medium or medium/high).
- Of the ESs reviewed, the Teesside project covers golfers with the highest frequency. This probably reflects that golf courses are an obvious receptor for this project: there is one viewpoint located on a golf course and another located overlooking one. Golfers are not singled out as a specific user group. Instead, the receptor group is described as “sporting enthusiasts”, who are given a medium sensitivity.

#### **1.6. Conclusion and recommendations**

The review of Round 1 ESs indicates that golfers are not given special treatment in the ESs of offshore wind farms and are only considered where they are likely to be receptors, and/or perhaps where it is agreed through consultation that there is a need for a viewpoint from a golf course receptor. This reflects a central tenet of LVIA methodology that assessment is proportionate to the project and its likely effects. For this reason, specific user groups (e.g., golfers, equestrians or windsurfers) are only considered as required by a specific landscape context.

It is generally accepted that recreational users of the landscape tend to have heightened sensitivity to changes in views where appreciation or prolonged viewing of the landscape is part of their recreational pursuit. This would arguably be the case for some golfers on coastal courses in the EOWDC study area. The methodology set out in Appendix 19.1 of the EOWDC ES indicates that high sensitivity visual receptors are “highly attuned to their surroundings, with proprietary interest and prolonged viewing opportunities”. This would indicate a high sensitivity for golfers on the coastal links courses in the study area. It is perhaps worth considering though that for many golfers, concentration will, in the main, presumably be focussed on the terrain of the golf course itself rather than the surrounding landscape or seascape.

The coastal links courses north of Aberdeen do not always offer uninterrupted sea views. The dune systems often have complex local topography with marked changes in elevation. Particularly from low-lying areas behind the first set of dunes behind the beach, the sea may not be visible. This can be appreciated by walking through the dunes at Balmedie Country Park.

Key consultees for the LVIA for the EOWDC included Aberdeenshire Council, Aberdeen City Council and Scottish Natural Heritage. Agreement was gained on the assessment study area, methodology and viewpoints. Many detailed discussions were had in reaching agreement on representative viewpoints. During these consultations (or indeed relating to the scope of the broader ES), golf course receptors were not identified as requiring specific attention. There is nothing unusual in this as LVIA tend to focus on views from publicly accessible areas. Golf courses tend to be private (accepting that there is a right to roam in Scotland) and generally only accessed by their members or paying guests.

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The LVIA for the EOWDC has two viewpoints near the coastal courses, which represent the changes to views which may arise from the coastal golf courses near the EOWDC. At VP1 (Balmedie Beach), the assessment determines **high** sensitivity receptors and a **high** magnitude of change of **major** significance. At VP2 (A90 at Harehill) a **high** magnitude of change is also predicted, although the significance is **major-moderate** to **moderate** due to a **low to medium** sensitivity receptor. Were these viewpoints to be assessed specifically for golfers at the nearby courses with a **high** sensitivity, the magnitude of change would remain **high**, and the significance of impact would be **major**. Despite golfers not being specifically assessed in the LVIA, viewpoints are representative of the magnitude and significance of impacts on views from golf courses, both in terms of their location and the calibration of judgments in relation to significance. For golfers, it would not be possible to determine any higher level of impact than that already assessed for local residents or recreational users of the landscape.

The situation regarding the potential visual effects of the EOWDC on golfers is not unprecedented. Indeed, there are other golf courses which are nearer to offshore turbines than the courses to the north of Aberdeen would be. This research has also demonstrated that some world-famous courses are likely to have views of offshore wind farms. Several of the golf clubs researched in this study have striking images in prominent positions on their websites showing the co-existence of the golf course and the offshore arrays. Some golf courses potentially have views of larger offshore wind farms, or cumulative views of multiple offshore schemes. This is particularly the case on the north Wales coast, where substantially more turbines would be visible than from the Aberdeenshire coast.



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## **Appendix 1. Methodology for GIS Mapping**

### **Non-Technical Methodology:**

Please Note: This is a non-technical methodology, used to calculate the shortest distance from all known golf courses to Round 1 sites and the European Offshore Wind Deployment Centre. For full technical details, please refer to the detailed methodology, below.

- 1) All sports and leisure facilities in the United Kingdom were identified using the Corine Land Cover dataset (June 2011). These facilities were then filtered down so that only those within 25 km of either a Round 1 wind farm, or the European Offshore Wind Deployment Centre were included.
- 2) Each facility was then verified as a golf course using Google Earth. Any sport and leisure facility that was not identified as a golf course was removed from the process. Any golf courses identified in Google Earth, but missing from the Corine data, were manually entered.
- 3) Boundaries for Murcar and Royal Aberdeen golf courses were digitised using Ordnance Survey MasterMap data (Dec 2011). Since MasterMap gives a higher level of accuracy for feature boundaries it was considered appropriate to use this where possible.
- 4) The boundary of Menie Estate was provided taken from the Land Registry boundary; provided by Who Owns Scotland (June 2011)
- 5) Resulting dataset contains boundaries of all known golf courses within 25 km of either a Round 1 wind farm, or the European Offshore Wind Deployment centre.
- 6) Distances were calculated from each golf course to the closest turbine at each wind farm within 25 km. Round 1 as-built turbine locations were provided by The Crown Estate (Feb 2012).

### **Caveats:**

- 1) All distances have been calculated as a straight line, from point to point. Landscape and visual impacts have not been considered.
- 2) No complete dataset of all UK golf courses could be identified for use in this analysis, and as a result the steps detailed above describe the European Offshore Wind Deployment Centre's methodology for manually identifying golf courses. Whilst every attempt has been made to include as many golf courses within 25 km of all specified wind farms as possible, it cannot be guaranteed that all golf courses have been included.

### **Detailed GIS Methodology:**

To identify golf courses:

- 1) Extract from Corine (clcoo\_gb\_eu\_polygon\_OSNGmean):  
WHERE [LC\_Level3] = 'Sport and leisure facilities'

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- 2) Output saved at  
X:\Technical\GIS\GIS\_Files\Heritage\Natural\Derived\GolfCourses\_v03\_1203201m.shp
- 3) Retain only polygons within 25 km of a lease boundary of either a Round 1 site, or Aberdeen Offshore Wind Farm (TCE\_SiBdry\_Rounds1to3\_1202211m\_WGS84, Def qry: [Windfarm\_R] = '1' and ABER\_LeBdry\_v08\_10bo\_OSNG).
- 4) To improve accuracy, add Aberdeen golf courses Murcar and Royal Aberdeen boundaries from Ordnance Survey MasterMap Topographic area for the Aberdeen area (NJ9714\_6x16km\_Aberdeen\_OS\_Mastermap\_140167\_200908\_SHP).
- 5) To improve accuracy, copy Menie boundary from Scottish Land Registries boundary shapefile (data\_supply\_scotland\_20120118.shp)
- 6) Add additional fields "Course" (Golf course name) and "Source" (Source of data).
- 7) Populate "Source" field with data source file name
- 8) Identify course name from Google earth. Search carried out in each area of interest for the term "golf". Any polygons identified as not being a golf course are deleted, and missing golf courses digitised from Bing Maps. Any polygons digitised in this manner were given a source of "Bing Maps Aerial (2010)".

To calculate distances:

- 1) Known golf courses converted to points  
(X:\Technical\GIS\GIS\_Files\Heritage\Natural\Derived\GolfCourses\_v03\_Points.shp) using ET Wizards "Polygon to points" tool (create vertices).
- 2) Create unique value for each record in the "Id" field
- 3) GolfCourses\_v03\_Points.shp converted to .csv (GolfCourses\_v03\_Points.csv). This will be used in step 10.
- 4) TCE's turbines dataset "TCE\_Round1\_1202211m" merged with the planned Aberdeen Offshore Windfarm turbine layout (LABER039) and the Teeside as-built turbine layout (Teeside\_AsBuilt\_1202211m.shp), to produce a single point shapefile containing all Round 1 and Aberdeen turbine locations  
(X:\Technical\GIS\Sites\Aberdeen\_Bay\TECH\layouts\Round1\_ABER\_AsBuilt\_v01\_1203091m.shp)
- 5) Add field "ABER\_ID" Create unique reference for each record in this field
- 6) Round1\_ABER\_AsBuilt\_v01\_1203091m.shp contains met masts, as well as some round 2 turbine locations. Only turbines that fall within either a Round 1 lease boundary, or the Aberdeen.
- 7) Offshore Wind Farm lease boundary (ABER\_LeBdry\_v08\_10bo\_OSNG and TCE\_SiBdry\_Rounds1to3\_1202211m\_WGS84, Def qry: [Windfarm\_R] = '1') are selected.
- 8) Export selection of Round1\_ABER\_AsBuilt\_v01\_1203091m.shp as .csv (Round1\_ABER\_AsBuilt\_v01\_1203091m.csv). This will be used in step 10.
- 9) Use HawthTools "Distance between points (between layers)" tool to calculate distance from every turbine to every gold course node. Parameter settings are:

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- Source: Round1\_ABER\_AsBuilt\_v01\_1203091m (use selected features only)
- Source ID: ABER\_ID
- Target: GolfCourses\_v03\_Points.shp
- Target ID: Id
- Analysis option: Create linear distance matrix file

Output saved as csv in X:\Technical\GIS\Sites\Aberdeen\_Bay\ENV\MISC\GolfCourseDists\AberAndRnd1\_Distance\_TurbinetoGolfCourse\_1203201m.csv

10) Create new Access database "AberAndRnd1\_Distance\_TurbinetoGolfCourse\_1203201m.mdb"

Import data and set up tables as follows:

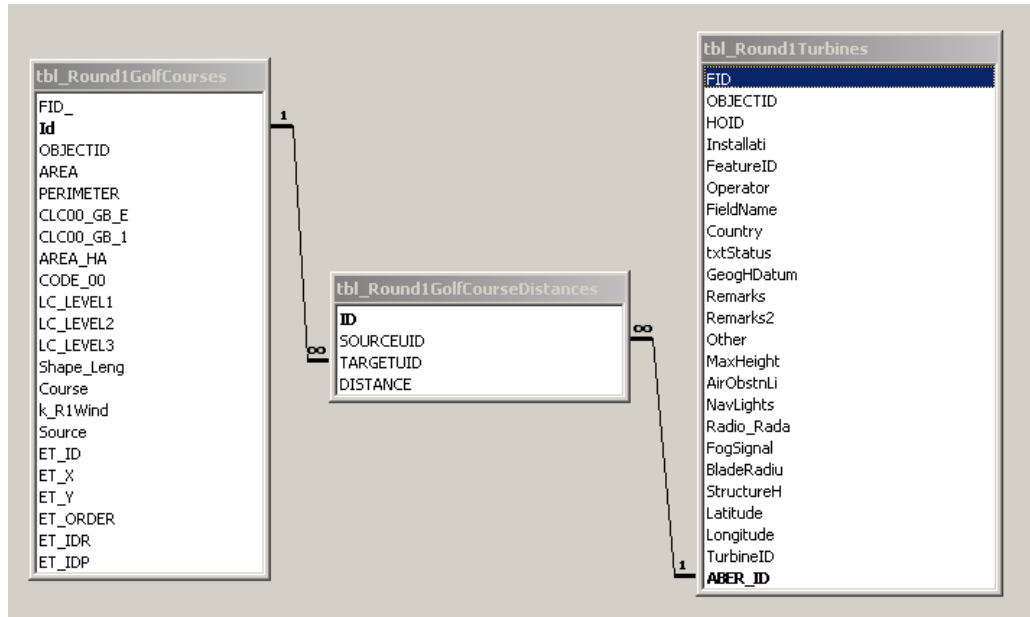
Tables:

<b>Exported .csv file name</b>	<b>MS Access Table Name</b>
GolfCourses_v03_Points.csv	tbl_Round1GolfCourses
Round1_ABER_AsBuilt_v01_1203091m.csv	tbl_Round1Turbines
AberAndRnd1_Distance_TurbinetoGolfCourse_1203201m.csv	tbl_Round1GolfCourseDistances

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Relationships:



- 11) New MS Access query named “qry\_GolfCourse\_WindFarmSite\_Dists”. Enter SQL query:

```

SELECT tbl_Round1GolfCourses.Course, tbl_Round1Turbines.FieldName,
Min([tbl_Round1GolfCourseDistances.DISTANCE]/1000) AS Distance_km
FROM tbl_Round1Turbines INNER JOIN (tbl_Round1GolfCourses INNER JOIN
tbl_Round1GolfCourseDistances ON tbl_Round1GolfCourses.Id =
tbl_Round1GolfCourseDistances.TARGETUID) ON tbl_Round1Turbines.ABER_ID =
tbl_Round1GolfCourseDistances.SOURCEUID
GROUP BY tbl_Round1GolfCourses.Course, tbl_Round1Turbines.FieldName
HAVING (((Min([tbl_Round1GolfCourseDistances.DISTANCE]/1000))<25))
ORDER BY tbl_Round1GolfCourses.Course,
Min([tbl_Round1GolfCourseDistances.DISTANCE]/1000);
    
```

- 12) New MS Access query named “qry\_GolfCourse” to list unique golf course names and IDs. Enter SQL:

```

SELECT tbl_Round1GolfCourses.Course_ID, First(tbl_Round1GolfCourses.Course) AS
FirstOfCourse
FROM tbl_Round1GolfCourses
GROUP BY tbl_Round1GolfCourses.Course_ID
ORDER BY tbl_Round1GolfCourses.Course_ID;
    
```

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13) New MS Access query named “qry\_WindFarm” to list unique wind farms and IDs. Enter SQL:

14) New MS Access query named “qry\_GolfCourse\_NearestTurbine\_Dists\_IDsAdded” to add golf course and wind farm IDs to distance query. Enter SQL:

```
SELECT qry_WindFarm.FieldID, qry_WindFarm.FirstOfFieldName,
qry_GolfCourse.Course_ID, qry_GolfCourse.FirstOfCourse,
qry_GolfCourse_NearestTurbine_Dists.Distance_km
```

```
FROM qry_GolfCourse INNER JOIN (qry_WindFarm INNER JOIN
qry_GolfCourse_NearestTurbine_Dists ON qry_WindFarm.FirstOfFieldName =
qry_GolfCourse_NearestTurbine_Dists.FieldName) ON qry_GolfCourse.FirstOfCourse =
qry_GolfCourse_NearestTurbine_Dists.Course
```

```
ORDER BY qry_WindFarm.FieldID, qry_GolfCourse_NearestTurbine_Dists.Distance_km;
```

15) Export query results as xls

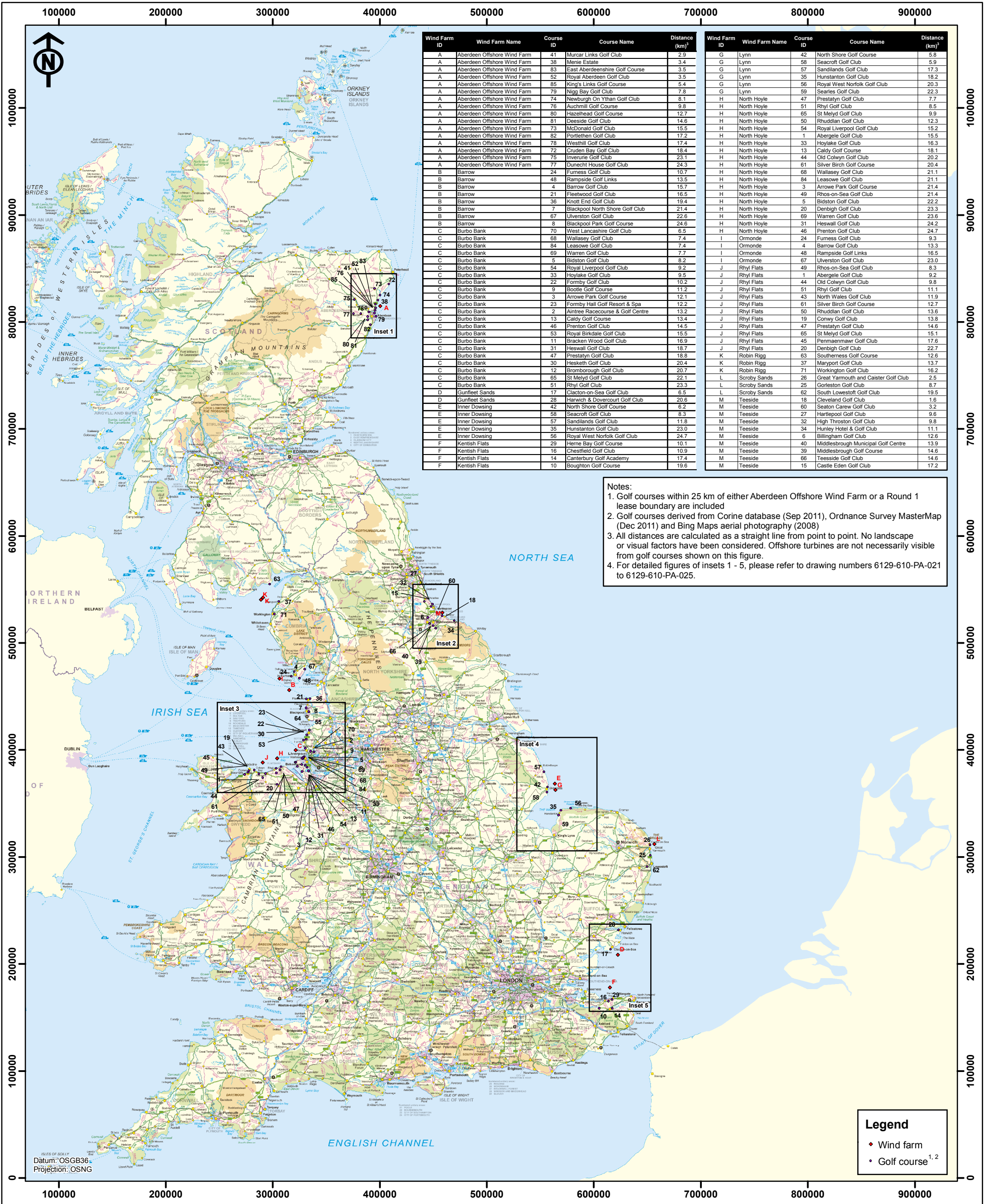
“ABER\_GolfCourse\_WindFarmSite\_Distances\_v02\_1203211m.xls”

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**Appendix 2. GIS Mapping of Golf Courses and Offshore Wind Farms**

*See separate figures*



Wind Farm ID	Wind Farm Name	Course ID	Course Name	Distance (km) <sup>1</sup>
A	Aberdeen Offshore Wind Farm	41	Murcar Links Golf Club	2.9
A	Aberdeen Offshore Wind Farm	38	Menie Estate	3.4
A	Aberdeen Offshore Wind Farm	83	East Aberdeenshire Golf Course	3.5
A	Aberdeen Offshore Wind Farm	52	Royal Aberdeenshire Golf Club	3.5
A	Aberdeen Offshore Wind Farm	85	King's Links Golf Course	5.4
A	Aberdeen Offshore Wind Farm	79	Nigg Bay Golf Club	7.8
A	Aberdeen Offshore Wind Farm	74	Newburgh On Ythan Golf Club	8.1
A	Aberdeen Offshore Wind Farm	76	Auchmill Golf Course	9.8
A	Aberdeen Offshore Wind Farm	80	Hazelhead Golf Course	12.7
A	Aberdeen Offshore Wind Farm	81	Deeside Golf Club	14.6
A	Aberdeen Offshore Wind Farm	73	McDonald Golf Club	15.5
A	Aberdeen Offshore Wind Farm	82	Portlethen Golf Club	17.2
A	Aberdeen Offshore Wind Farm	78	Westhill Golf Club	17.4
A	Aberdeen Offshore Wind Farm	72	Cruden Bay Golf Club	18.4
A	Aberdeen Offshore Wind Farm	75	Inverurie Golf Club	23.1
A	Aberdeen Offshore Wind Farm	77	Dun Echt House Golf Club	24.3
B	Barrow	24	Furness Golf Club	10.7
B	Barrow	48	Rampside Golf Links	13.5
B	Barrow	4	Barrow Golf Club	15.7
B	Barrow	21	Fleethwood Golf Club	16.5
B	Barrow	36	Knott End Golf Club	19.4
B	Barrow	7	Blackpool North Shore Golf Club	21.4
B	Barrow	67	Liverston Golf Club	22.6
B	Barrow	8	Blackpool Park Golf Course	24.6
C	Burbo Bank	70	West Lancashire Golf Club	6.5
C	Burbo Bank	68	Wallasey Golf Club	7.4
C	Burbo Bank	84	Leasowe Golf Club	7.4
C	Burbo Bank	69	Warren Golf Club	7.7
C	Burbo Bank	5	Bidston Golf Club	8.2
C	Burbo Bank	54	Royal Liverpool Golf Club	9.2
C	Burbo Bank	33	Hoylake Golf Club	9.5
C	Burbo Bank	22	Formby Golf Club	10.2
C	Burbo Bank	9	Boole Golf Course	11.2
C	Burbo Bank	3	Arrow Park Golf Course	12.1
C	Burbo Bank	23	Formby Hall Golf Resort & Spa	12.2
C	Burbo Bank	2	Aintree Racecourse & Golf Centre	13.2
C	Burbo Bank	13	Caldy Golf Course	13.4
C	Burbo Bank	46	Frenton Golf Club	14.5
C	Burbo Bank	53	Royal Birkenhead Golf Club	15.5
C	Burbo Bank	11	Bracken Wood Golf Club	16.9
C	Burbo Bank	31	Heswall Golf Club	18.7
C	Burbo Bank	47	Prestatyn Golf Club	18.8
C	Burbo Bank	30	Hesketh Golf Club	20.4
C	Burbo Bank	12	Bromborough Golf Club	20.7
C	Burbo Bank	65	St Meryd Golf Club	22.1
C	Burbo Bank	51	Rhyl Golf Club	23.3
D	Gunfleet Sands	17	Clacton-on-Sea Golf Club	6.5
D	Gunfleet Sands	28	Harwich & Dovercourt Golf Club	20.6
E	Inner Dowsing	42	North Shore Golf Course	6.2
E	Inner Dowsing	58	Seacroft Golf Club	8.3
E	Inner Dowsing	57	Sandilands Golf Club	11.8
E	Inner Dowsing	35	Hunstanton Golf Club	23.0
E	Inner Dowsing	56	Royal West Norfolk Golf Club	24.7
F	Kentish Flats	29	Herne Bay Golf Course	10.1
F	Kentish Flats	16	Cheffield Golf Club	10.9
F	Kentish Flats	14	Canterbury Golf Academy	17.4
F	Kentish Flats	10	Boughton Golf Course	19.6
G	Lynn	42	North Shore Golf Course	5.8
G	Lynn	58	Seacroft Golf Club	5.9
G	Lynn	57	Sandilands Golf Club	17.3
G	Lynn	35	Hunstanton Golf Club	18.2
G	Lynn	56	Royal West Norfolk Golf Club	20.3
G	Lynn	59	Searles Golf Club	22.3
H	North Hoyle	47	Prestatyn Golf Club	7.7
H	North Hoyle	51	Rhyl Golf Club	8.5
H	North Hoyle	65	St Meryd Golf Club	9.9
H	North Hoyle	50	Rhuiddan Golf Club	12.3
H	North Hoyle	54	Royal Liverpool Golf Club	15.2
H	North Hoyle	1	Abergele Golf Club	15.5
H	North Hoyle	33	Hoylake Golf Club	16.3
H	North Hoyle	13	Caldy Golf Course	18.1
H	North Hoyle	44	Old Colwyn Golf Club	20.2
H	North Hoyle	61	Silver Birch Golf Course	20.4
H	North Hoyle	68	Wallasey Golf Club	21.1
H	North Hoyle	84	Leasowe Golf Club	21.1
H	North Hoyle	3	Arrow Park Golf Course	21.4
H	North Hoyle	49	Rhos-on-Sea Golf Club	21.4
H	North Hoyle	5	Bidston Golf Club	22.2
H	North Hoyle	20	Dentliff Golf Club	23.3
H	North Hoyle	69	Warren Golf Club	23.6
H	North Hoyle	31	Heswall Golf Club	24.2
H	North Hoyle	46	Prenton Golf Club	24.7
I	Ormonde	24	Furness Golf Club	9.3
I	Ormonde	4	Barrow Golf Club	13.3
I	Ormonde	48	Rampside Golf Links	16.5
I	Ormonde	67	Liverston Golf Club	23.0
J	Rhyl Flats	49	Rhos-on-Sea Golf Club	8.3
J	Rhyl Flats	1	Abergele Golf Club	9.2
J	Rhyl Flats	44	Old Colwyn Golf Club	9.8
J	Rhyl Flats	51	Rhyl Golf Club	11.1
J	Rhyl Flats	43	North Wales Golf Club	11.9
J	Rhyl Flats	61	Silver Birch Golf Course	12.7
J	Rhyl Flats	50	Rhuiddan Golf Club	13.6
J	Rhyl Flats	19	Conwy Golf Club	13.8
J	Rhyl Flats	47	Prestatyn Golf Club	14.6
J	Rhyl Flats	65	St Meryd Golf Club	15.1
J	Rhyl Flats	45	Penmaenmawr Golf Club	17.6
J	Rhyl Flats	20	Dentliff Golf Club	22.7
K	Robin Rigg	63	Southern Golf Course	12.6
K	Robin Rigg	37	Maryport Golf Club	13.7
K	Robin Rigg	71	Workington Golf Club	16.2
L	Scroby Sands	26	Great Yarmouth and Caister Golf Club	2.5
L	Scroby Sands	25	Gorleston Golf Club	8.7
L	Scroby Sands	62	South Lowestoft Golf Club	19.5
M	Teesside	18	Cleveland Golf Club	1.6
M	Teesside	60	Seaton Carew Golf Club	3.2
M	Teesside	27	Hartlepool Golf Club	9.6
M	Teesside	32	High Throston Golf Club	9.8
M	Teesside	34	Hunley Hotel & Golf Club	11.1
M	Teesside	6	Billingham Golf Club	12.6
M	Teesside	40	Middlesbrough Municipal Golf Centre	13.9
M	Teesside	39	Middlesbrough Golf Course	14.6
M	Teesside	66	Teesside Golf Club	14.6
M	Teesside	15	Castle Eden Golf Club	17.2

Notes:  
 1. Golf courses within 25 km of either Aberdeen Offshore Wind Farm or a Round 1 lease boundary are included  
 2. Golf courses derived from Corine database (Sep 2011), Ordnance Survey MasterMap (Dec 2011) and Bing Maps aerial photography (2008)  
 3. All distances are calculated as a straight line from point to point. No landscape or visual factors have been considered. Offshore turbines are not necessarily visible from golf courses shown on this figure.  
 4. For detailed figures of insets 1 - 5, please refer to drawing numbers 6129-610-PA-021 to 6129-610-PA-025.

**Legend**

- ◆ Wind farm
- Golf course<sup>1,2</sup>

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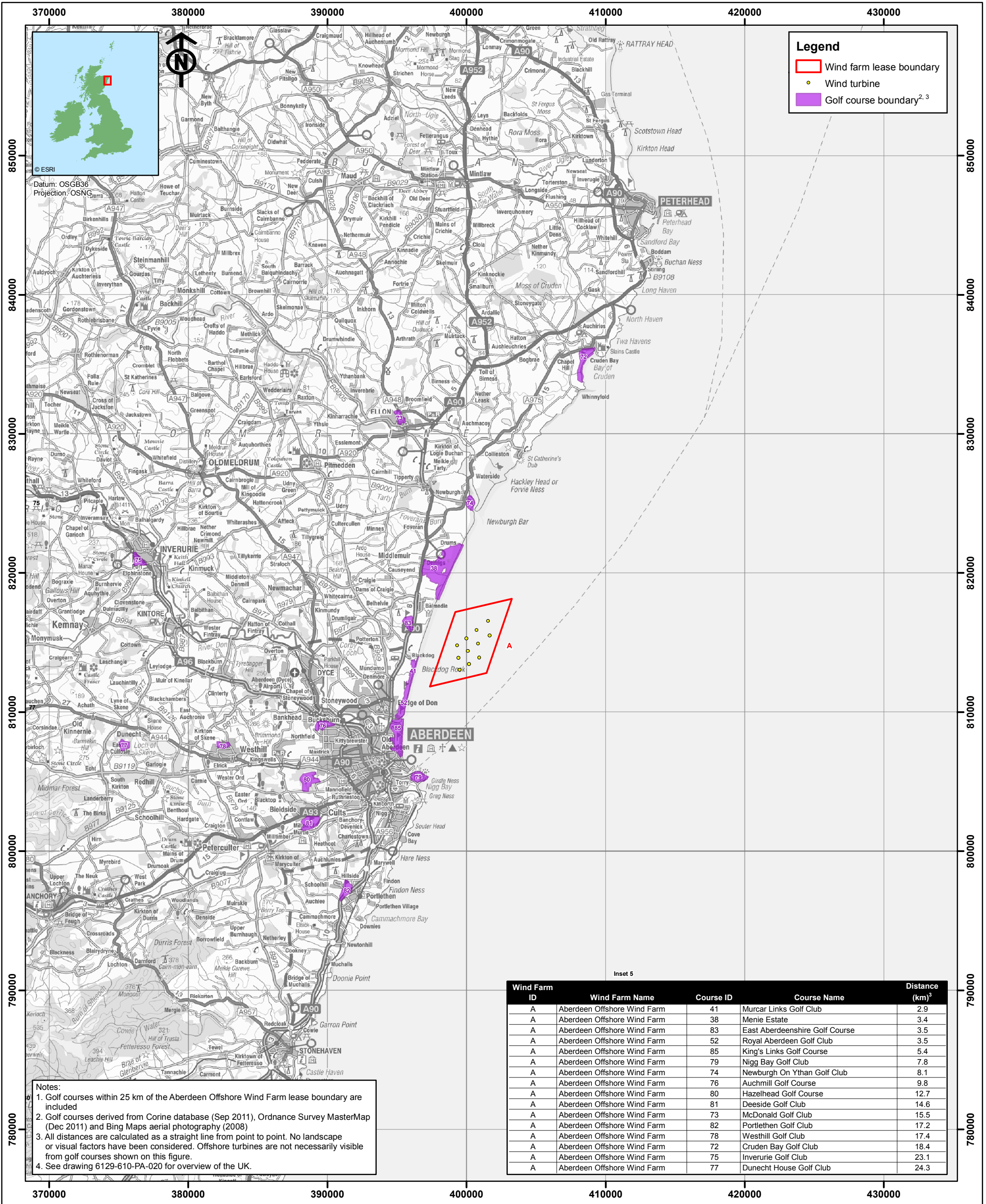
**ABERDEEN OFFSHORE WIND FARM**  
 Proximity of Golf Courses  
 to Round 1 Wind Farms: Overview

Original A3 plot Scale 0 25 50 km 0 25 50 miles  
 1:3,250,000

Rev	Date	By	Comment
C	17/07/12	LM	Added King's Links Golf Course
B	19/06/12	LM	Revised golf course dataset.
A	27/03/12	LM	First Issue

Layout	Date	Rev	Dwg No.
N/A	19/06/2012	C	6129-610-PA-020

Ref: GolfCourses\_v05\_CIPoints, TCE\_Sibdy\_Rounds1to3\_120221m\_CIP, ABER\_LeBdry\_v08\_CIPt



**VATTENFALL**



**Technip**

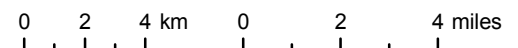


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**ABERDEEN OFFSHORE WIND FARM**

**Proximity of Golf Courses to Aberdeen Offshore Wind Farm (Inset 1)**

Original A3 plot Scale 1:250,000

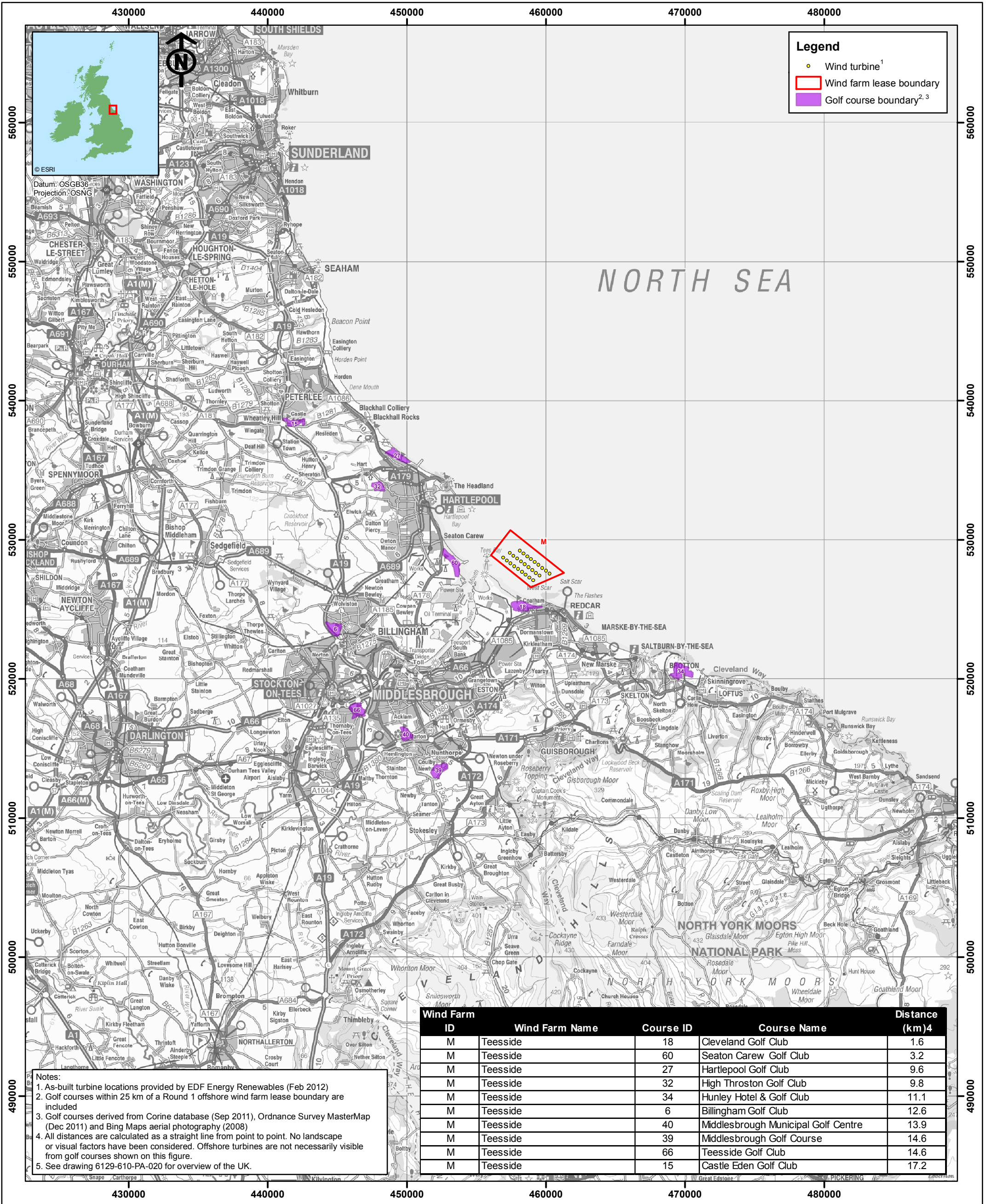


Rev	Date	By	Comment
B	17/07/12	LM	Added King's Links Golf Course
A	19/06/12	LM	First Issue

Layout	Date	Rev	Dwg No.
LABER039	19/06/2012	B	6129-610-PA-021

Ref: GolfCourses\_v05\_120717im.ABER\_LeBdry\_v08\_10bo.OSNG





**Legend**

- Wind turbine<sup>1</sup>
- Wind farm lease boundary
- Golf course boundary<sup>2,3</sup>

**Notes:**

1. As-built turbine locations provided by EDF Energy Renewables (Feb 2012)
2. Golf courses within 25 km of a Round 1 offshore wind farm lease boundary are included
3. Golf courses derived from Corine database (Sep 2011), Ordnance Survey MasterMap (Dec 2011) and Bing Maps aerial photography (2008)
4. All distances are calculated as a straight line from point to point. No landscape or visual factors have been considered. Offshore turbines are not necessarily visible from golf courses shown on this figure.
5. See drawing 6129-610-PA-020 for overview of the UK.

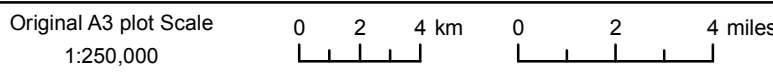
Wind Farm				Distance
ID	Wind Farm Name	Course ID	Course Name	(km) <sup>4</sup>
M	Teesside	18	Cleveland Golf Club	1.6
M	Teesside	60	Seaton Carew Golf Club	3.2
M	Teesside	27	Hartlepool Golf Club	9.6
M	Teesside	32	High Throston Golf Club	9.8
M	Teesside	34	Hunley Hotel & Golf Club	11.1
M	Teesside	6	Billingham Golf Club	12.6
M	Teesside	40	Middlesbrough Municipal Golf Centre	13.9
M	Teesside	39	Middlesbrough Golf Course	14.6
M	Teesside	66	Teesside Golf Club	14.6
M	Teesside	15	Castle Eden Golf Club	17.2

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**ABERDEEN OFFSHORE WIND FARM**  
Proximity of Golf Courses  
to Round 1 Wind Farms: Teesside (Inset 2)



Rev	Date	By	Comment
A	19/06/12	LM	First Issue

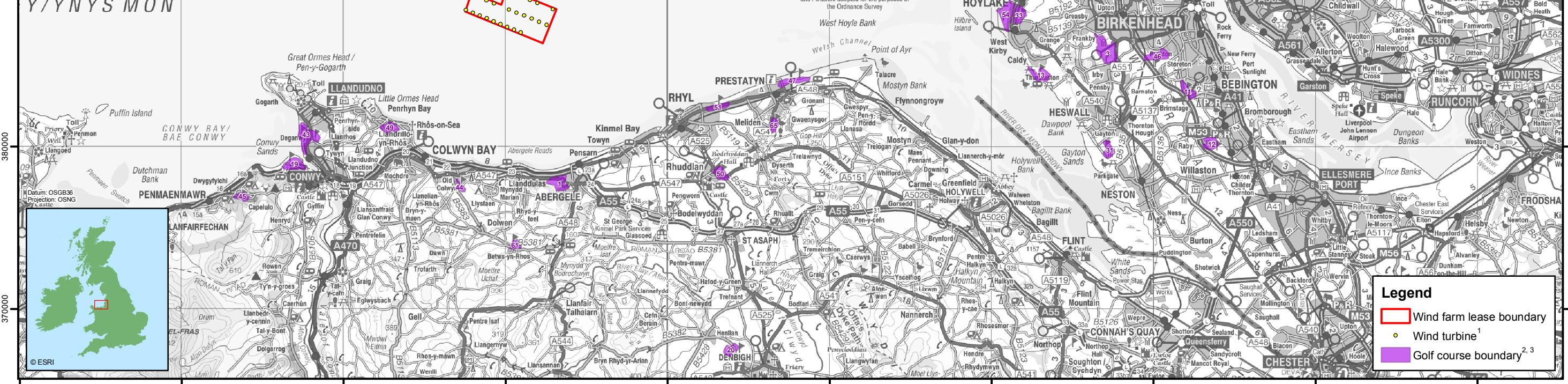
Layout	Date	Rev	Dwg No.
N/A	19/06/2012	A	6129-610-PA-022

Ref: GolfCourses\_v03\_1203201m, TCE\_SBdry\_Rounds1b3\_120221m\_WGS84, TCE\_Round1\_120221m, [Round] = "1" AND [Install] IN ("Moored Floating Turbine", "Turbine", "Turbine with safety zone")

260000 270000 280000 290000 300000 310000 320000 330000 340000 350000

Wind Farm ID	Wind Farm Name	Course ID	Course Name	Distance (km) <sup>2</sup>
C	Burbo Bank	70	West Lancashire Golf Club	6.5
C	Burbo Bank	68	Wallasey Golf Club	7.4
C	Burbo Bank	84	Leasow e Golf Club	7.4
C	Burbo Bank	69	Warren Golf Club	7.7
C	Burbo Bank	5	Bidston Golf Club	8.2
C	Burbo Bank	54	Royal Liverpool Golf Club	9.2
C	Burbo Bank	33	Hoylake Golf Club	9.5
C	Burbo Bank	22	Formby Golf Club	10.2
C	Burbo Bank	9	Bootle Golf Course	11.2
C	Burbo Bank	3	Arrow e Park Golf Course	12.1
C	Burbo Bank	23	Formby Hall Golf Resort & Spa	12.2
C	Burbo Bank	2	Aintree Racecourse & Golf Centre	13.2
C	Burbo Bank	13	Caldy Golf Course	13.4
C	Burbo Bank	46	Prenton Golf Club	14.5
C	Burbo Bank	53	Royal Birkdale Golf Club	15.5
C	Burbo Bank	11	Bracken Wood Golf Club	16.9
C	Burbo Bank	31	Hesw all Golf Club	18.7
C	Burbo Bank	47	Prestatyn Golf Club	18.8
C	Burbo Bank	30	Hesketh Golf Club	20.4
C	Burbo Bank	12	Bromborough Golf Club	20.7
C	Burbo Bank	65	St Melyd Golf Club	22.1
C	Burbo Bank	51	Rhyl Golf Club	23.3
H	North Hoyle	47	Prestatyn Golf Club	7.7
H	North Hoyle	51	Rhyl Golf Club	8.5
H	North Hoyle	65	St Melyd Golf Club	9.9
H	North Hoyle	50	Rhuddlan Golf Club	12.3
H	North Hoyle	54	Royal Liverpool Golf Club	15.2
H	North Hoyle	1	Abergele Golf Club	15.5
H	North Hoyle	33	Hoylake Golf Club	16.3
H	North Hoyle	13	Caldy Golf Course	18.1
H	North Hoyle	44	Old Colwyn Golf Club	20.2
H	North Hoyle	61	Silver Birch Golf Course	20.4
H	North Hoyle	68	Wallasey Golf Club	21.1
H	North Hoyle	84	Leasow e Golf Club	21.1
H	North Hoyle	3	Arrow e Park Golf Course	21.4
H	North Hoyle	49	Rhos-on-Sea Golf Club	21.4
H	North Hoyle	5	Bidston Golf Club	22.2
H	North Hoyle	20	Denbigh Golf Club	23.3
H	North Hoyle	69	Warren Golf Club	23.6
H	North Hoyle	31	Hesw all Golf Club	24.2
H	North Hoyle	46	Prenton Golf Club	24.7
J	Rhyl Flats	49	Rhos-on-Sea Golf Club	8.3
J	Rhyl Flats	1	Abergele Golf Club	9.2
J	Rhyl Flats	44	Old Colwyn Golf Club	9.8
J	Rhyl Flats	51	Rhyl Golf Club	11.1
J	Rhyl Flats	43	North Wales Golf Club	11.9
J	Rhyl Flats	61	Silver Birch Golf Course	12.7
J	Rhyl Flats	50	Rhuddlan Golf Club	13.6
J	Rhyl Flats	19	Conwy Golf Club	13.8
J	Rhyl Flats	47	Prestatyn Golf Club	14.6
J	Rhyl Flats	65	St Melyd Golf Club	15.1
J	Rhyl Flats	45	Penmaenmawr Golf Club	17.6
J	Rhyl Flats	20	Denbigh Golf Club	22.7

Notes:  
 1. As-built turbine locations provided by The Crown Estate (Feb 2012)  
 2. Golf courses within 25 km of a Round 1 offshore wind farm lease boundary are included  
 3. Golf courses derived from Corine database (Sep 2011), Ordnance Survey MasterMap (Dec 2011) and Bing Maps aerial photography (2008)  
 4. All distances are calculated as a straight line from point to point. No landscape or visual factors have been considered. Offshore turbines are not necessarily visible from golf courses shown on this figure.  
 5. See drawing 6129-610-PA-020 for overview of the UK.



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 areg

Rev	Date	By	Comment
B	19/06/12	LM	Updated golf courses dataset
A	27/03/12	LM	First issue

Original A3 Plot Scale 1:250,000

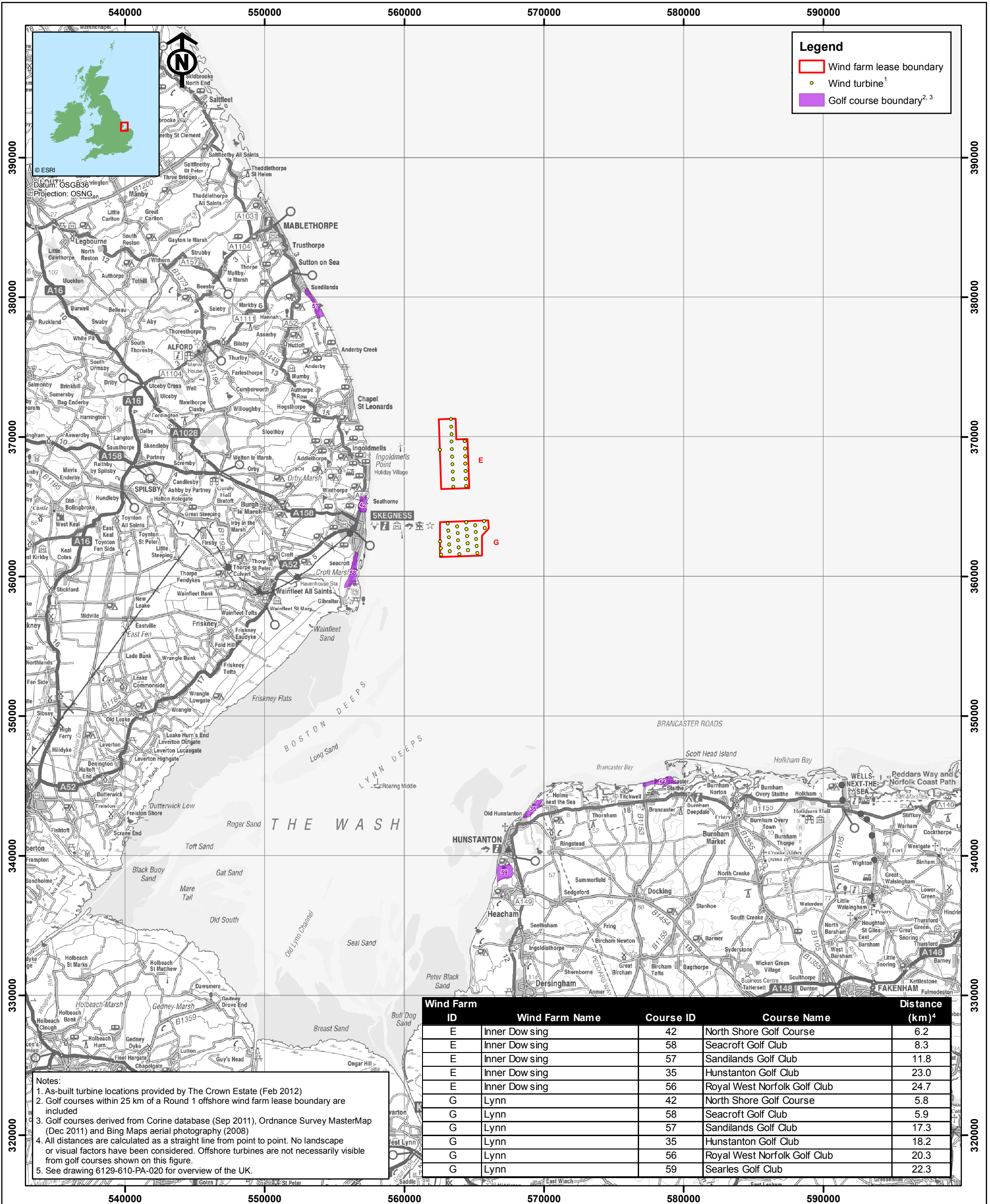
0 2 4 km 0 1 2 miles

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**ABERDEEN OFFSHORE WIND FARM**  
 Proximity of Golf Courses to Round 1 Wind Farms:  
 Merseyside and North Wales (Inset 3)

Drg No	6129-610-PA-023
Rev	B
Date	19/06/2012
Layout	N/A

Ref: GolfCourses\_v04\_120528m.TCE\_SiBdry\_Rounds1to3\_120221m\_WGS84\_TCE\_Round1\_120221m.[Round] = "1" AND (Installat) IN ("Moored Floating Turbine", "Turbine", "Turbine with safety zone")



**Legend**

- Wind farm lease boundary
- Wind turbine<sup>1</sup>
- Golf course boundary<sup>2,3</sup>

**Notes:**

1. As-built turbine locations provided by The Crown Estate (Feb 2012)
2. Golf courses within 25 km of a Round 1 offshore wind farm lease boundary are included
3. Golf courses derived from Corine database (Sep 2011), Ordnance Survey MasterMap (Dec 2011) and Bing Maps aerial photography (2008)
4. All distances are calculated as a straight line from point to point. No landscape or visual factors have been considered. Offshore turbines are not necessarily visible from golf courses shown on this figure.
5. See drawing 6129-610-PA-020 for overview of the UK.

Wind Farm ID	Wind Farm Name	Course ID	Course Name	Distance (km) <sup>4</sup>
E	Inner Dow sing	42	North Shore Golf Course	6.2
E	Inner Dow sing	58	Seacroft Golf Club	8.3
E	Inner Dow sing	57	Sandilands Golf Club	11.8
E	Inner Dow sing	35	Hunstanton Golf Club	23.0
E	Inner Dow sing	56	Royal West Norfolk Golf Club	24.7
G	Lynn	42	North Shore Golf Course	5.8
G	Lynn	58	Seacroft Golf Club	5.9
G	Lynn	57	Sandilands Golf Club	17.3
G	Lynn	35	Hunstanton Golf Club	18.2
G	Lynn	56	Royal West Norfolk Golf Club	20.3
G	Lynn	59	Searles Golf Club	22.3

**VATTENFALL** **Technip**

**areg**

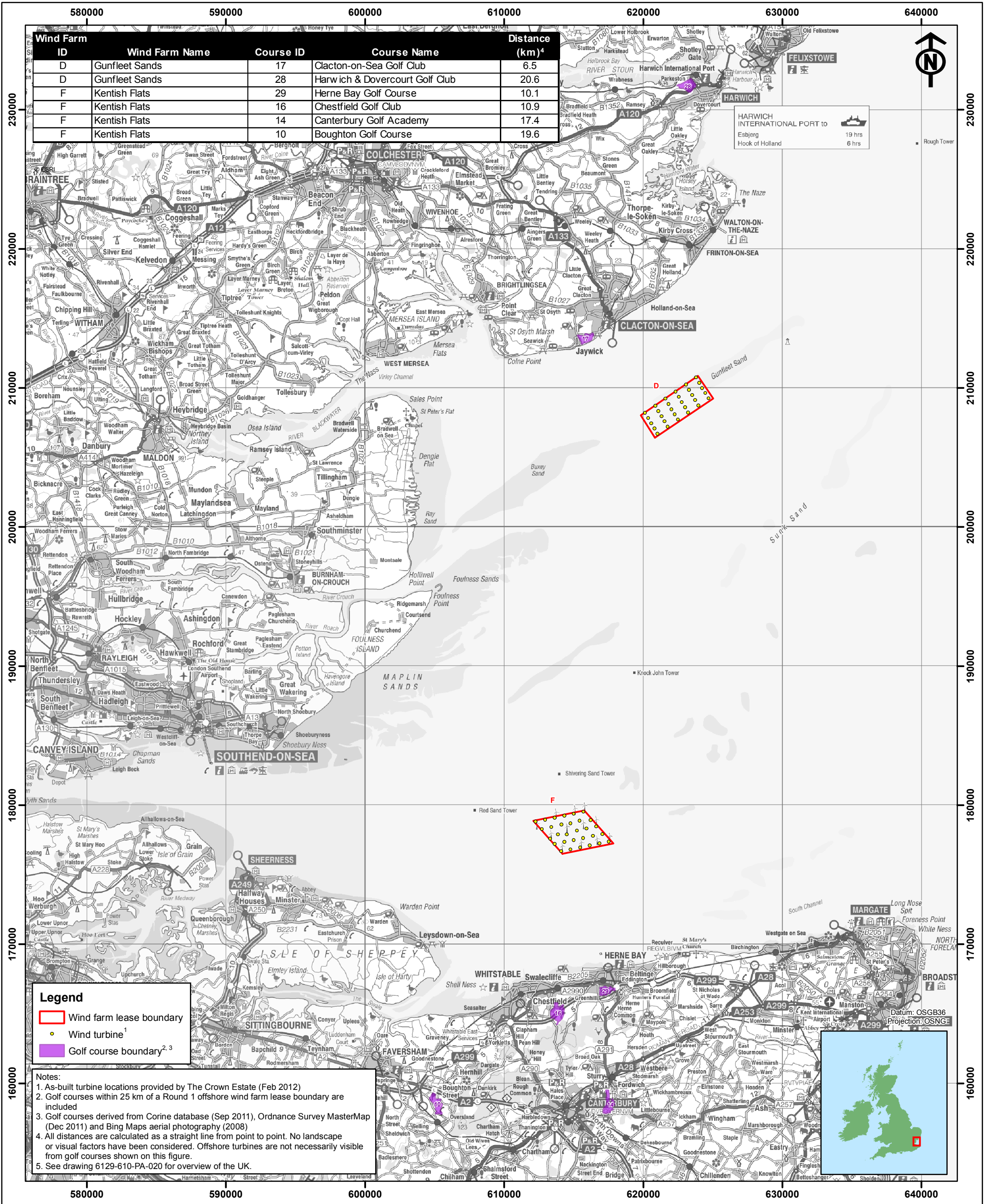
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**ABERDEEN OFFSHORE WIND FARM**

Proximity of Golf Courses to Round 1  
Wind Farms: Lincolnshire and Norfolk (Inset 4)

Original A3 plot Scale				0 2 4 km				0 2 4 miles			
1:250,000											
Rev	Date	By	Comment	Layout	Date	Rev	Dwg No.				
A	19/06/12	LM	First Issue	N/A	19/06/2012	A	6129-610-PA-024				

Ref: GolfCourses\_v03\_1203201m, TCE\_SBDry\_Rounds1to3\_120221m\_WGS84, TCE\_Round1\_120221m, [Round] = '1' AND [install] IN ('Moored Floating Turbine', 'Turbine', 'Turbine with safety zone')



**Legend**

- Wind farm lease boundary
- Wind turbine<sup>1</sup>
- Golf course boundary<sup>2,3</sup>

**Notes:**

- As-built turbine locations provided by The Crown Estate (Feb 2012)
- Golf courses within 25 km of a Round 1 offshore wind farm lease boundary are included
- Golf courses derived from Corine database (Sep 2011), Ordnance Survey MasterMap (Dec 2011) and Bing Maps aerial photography (2008)
- All distances are calculated as a straight line from point to point. No landscape or visual factors have been considered. Offshore turbines are not necessarily visible from golf courses shown on this figure.
- See drawing 6129-610-PA-020 for overview of the UK.

				Contains Ordnance Survey data © Crown Copyright and database right 2012 © Aberdeen Offshore Wind Farm Limited 2012																	
<b>VATTENFALL</b>				<b>ABERDEEN OFFSHORE WIND FARM</b>																	
Vattenfall Wind Power Ltd Bridge End, Hexham, Northumberland, NE46 4NU Tel: 01434 611300 Fax: 01434 611301				<b>Proximity of Golf Courses to Round 1          Wind Farms: Essex and Kent (Inset 5)</b>																	
Original A3 plot Scale 1:250,000																					
<table border="1"> <tr> <th>Rev</th> <th>Date</th> <th>By</th> <th>Comment</th> </tr> <tr> <td>A</td> <td>19/06/12</td> <td>LM</td> <td>First Issue</td> </tr> </table>		Rev	Date	By	Comment	A	19/06/12	LM	First Issue	<table border="1"> <tr> <th>Layout</th> <th>Date</th> <th>Rev</th> <th>Dwg No.</th> </tr> <tr> <td>N/A</td> <td>19/06/2012</td> <td>A</td> <td>6129-610-PA-025</td> </tr> </table>				Layout	Date	Rev	Dwg No.	N/A	19/06/2012	A	6129-610-PA-025
Rev	Date	By	Comment																		
A	19/06/12	LM	First Issue																		
Layout	Date	Rev	Dwg No.																		
N/A	19/06/2012	A	6129-610-PA-025																		

Ref: GolfCourses\_v03\_1203201m, TCE\_SbDry\_Rounds1b3\_120221m\_WGS84, TCE\_Round1\_120221m\_[Round] = "1" AND [install] IN ("Moored Floating Turbine", "Turbine", "Turbine with safety zone")

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**Appendix 3. Data Schedules from GIS Mapping Exercise**

Table A3.1: Data schedule sorted by wind farm then golf course distance from wind farm

<b>Wind Farm ID</b>	<b>Wind Farm Name</b>	<b>Course ID</b>	<b>Course Name</b>	<b>Distance (km)</b>
A	Aberdeen Offshore Wind Farm	41	Murcar Links Golf Club	2.9
A	Aberdeen Offshore Wind Farm	38	Menie Estate	3.4
A	Aberdeen Offshore Wind Farm	83	East Aberdeenshire Golf Course	3.5
A	Aberdeen Offshore Wind Farm	52	Royal Aberdeen Golf Club	3.5
A	Aberdeen Offshore Wind Farm	85	King's Links Golf Course	5.4
A	Aberdeen Offshore Wind Farm	79	Nigg Bay Golf Club	7.8
A	Aberdeen Offshore Wind Farm	74	Newburgh On Ythan Golf Club	8.1
A	Aberdeen Offshore Wind Farm	76	Auchmill Golf Course	9.8
A	Aberdeen Offshore Wind Farm	80	Hazelhead Golf Course	12.7
A	Aberdeen Offshore Wind Farm	81	Deeside Golf Club	14.6
A	Aberdeen Offshore Wind Farm	73	McDonald Golf Club	15.5
A	Aberdeen Offshore Wind Farm	82	Portlethen Golf Club	17.2
A	Aberdeen Offshore Wind Farm	78	Westhill Golf Club	17.4
A	Aberdeen Offshore Wind Farm	72	Cruden Bay Golf Club	18.4
A	Aberdeen Offshore Wind Farm	75	Inverurie Golf Club	23.1
A	Aberdeen Offshore Wind Farm	77	Dunecht House Golf Club	24.3
B	Barrow	24	Furness Golf Club	10.7
B	Barrow	48	Rampside Golf Links	13.5

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<b>Wind Farm ID</b>	<b>Wind Farm Name</b>	<b>Course ID</b>	<b>Course Name</b>	<b>Distance (km)</b>
B	Barrow	4	Barrow Golf Club	15.7
B	Barrow	21	Fleetwood Golf Club	16.5
B	Barrow	36	Knott End Golf Club	19.4
B	Barrow	7	Blackpool North Shore Golf Club	21.4
B	Barrow	67	Ulverston Golf Club	22.6
B	Barrow	8	Blackpool Park Golf Course	24.6
C	Burbo Bank	70	West Lancashire Golf Club	6.5
C	Burbo Bank	68	Wallasey Golf Club	7.4
C	Burbo Bank	84	Leasowe Golf Club	7.4
C	Burbo Bank	69	Warren Golf Club	7.7
C	Burbo Bank	5	Bidston Golf Club	8.2
C	Burbo Bank	54	Royal Liverpool Golf Club	9.2
C	Burbo Bank	33	Hoylake Golf Club	9.5
C	Burbo Bank	22	Formby Golf Club	10.2
C	Burbo Bank	9	Bootle Golf Course	11.2
C	Burbo Bank	3	Arrowe Park Golf Course	12.1
C	Burbo Bank	23	Formby Hall Golf Resort & Spa	12.2
C	Burbo Bank	2	Aintree Racecourse & Golf Centre	13.2
C	Burbo Bank	13	Caldy Golf Course	13.4
C	Burbo Bank	46	Prenton Golf Club	14.5
C	Burbo Bank	53	Royal Birkdale Golf Club	15.5
C	Burbo Bank	11	Bracken Wood Golf Club	16.9
C	Burbo Bank	31	Heswall Golf Club	18.7
C	Burbo Bank	47	Prestatyn Golf Club	18.8
C	Burbo Bank	30	Hesketh Golf Club	20.4
C	Burbo Bank	12	Bromborough Golf Club	20.7
C	Burbo Bank	65	St Melyd Golf Club	22.1
C	Burbo Bank	51	Rhyl Golf Club	23.3
D	Gunfleet Sands	17	Clacton-on-Sea Golf Club	6.5
D	Gunfleet Sands	28	Harwich & Dovercourt Golf Club	20.6

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<b>Wind Farm ID</b>	<b>Wind Farm Name</b>	<b>Course ID</b>	<b>Course Name</b>	<b>Distance (km)</b>
E	Inner Dowsing	42	North Shore Golf Course	6.2
E	Inner Dowsing	58	Seacroft Golf Club	8.3
E	Inner Dowsing	57	Sandilands Golf Club	11.8
E	Inner Dowsing	35	Hunstanton Golf Club	23.0
E	Inner Dowsing	56	Royal West Norfolk Golf Club	24.7
F	Kentish Flats	29	Herne Bay Golf Course	10.1
F	Kentish Flats	16	Chestfield Golf Club	10.9
F	Kentish Flats	14	Canterbury Golf Academy	17.4
F	Kentish Flats	10	Boughton Golf Course	19.6
G	Lynn	42	North Shore Golf Course	5.8
G	Lynn	58	Seacroft Golf Club	5.9
G	Lynn	57	Sandilands Golf Club	17.3
G	Lynn	35	Hunstanton Golf Club	18.2
G	Lynn	56	Royal West Norfolk Golf Club	20.3
G	Lynn	59	Searles Golf Club	22.3
H	North Hoyle	47	Prestatyn Golf Club	7.7
H	North Hoyle	51	Rhyl Golf Club	8.5
H	North Hoyle	65	St Melyd Golf Club	9.9
H	North Hoyle	50	Rhuddlan Golf Club	12.3
H	North Hoyle	54	Royal Liverpool Golf Club	15.2
H	North Hoyle	1	Abergele Golf Club	15.5
H	North Hoyle	33	Hoylelake Golf Club	16.3
H	North Hoyle	13	Caldy Golf Course	18.1
H	North Hoyle	44	Old Colwyn Golf Club	20.2
H	North Hoyle	61	Silver Birch Golf Course	20.4
H	North Hoyle	68	Wallasey Golf Club	21.1
H	North Hoyle	84	Leasowe Golf Club	21.1
H	North Hoyle	3	Arrowe Park Golf Course	21.4
H	North Hoyle	49	Rhos-on-Sea Golf Club	21.4
H	North Hoyle	5	Bidston Golf Club	22.2
H	North Hoyle	20	Denbigh Golf Club	23.3
H	North Hoyle	69	Warren Golf Club	23.6
H	North Hoyle	31	Heswall Golf Club	24.2

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<b>Wind Farm ID</b>	<b>Wind Farm Name</b>	<b>Course ID</b>	<b>Course Name</b>	<b>Distance (km)</b>
H	North Hoyle	46	Prenton Golf Club	24.7
I	Ormonde	24	Furness Golf Club	9.3
I	Ormonde	4	Barrow Golf Club	13.3
I	Ormonde	48	Rampside Golf Links	16.5
I	Ormonde	67	Ulverston Golf Club	23.0
J	Rhyl Flats	49	Rhos-on-Sea Golf Club	8.3
J	Rhyl Flats	1	Abergele Golf Club	9.2
J	Rhyl Flats	44	Old Colwyn Golf Club	9.8
J	Rhyl Flats	51	Rhyl Golf Club	11.1
J	Rhyl Flats	43	North Wales Golf Club	11.9
J	Rhyl Flats	61	Silver Birch Golf Course	12.7
J	Rhyl Flats	50	Rhuddlan Golf Club	13.6
J	Rhyl Flats	19	Conwy Golf Club	13.8
J	Rhyl Flats	47	Prestatyn Golf Club	14.6
J	Rhyl Flats	65	St Melyd Golf Club	15.1
J	Rhyl Flats	45	Penmaenmawr Golf Club	17.6
J	Rhyl Flats	20	Denbigh Golf Club	22.7
K	Robin Rigg	63	Southernness Golf Course	12.6
K	Robin Rigg	37	Maryport Golf Club	13.7
K	Robin Rigg	71	Workington Golf Club	16.2
L	Scroby Sands	26	Great Yarmouth and Caister Golf Club	2.5
L	Scroby Sands	25	Gorleston Golf Club	8.7
L	Scroby Sands	62	South Lowestoft Golf Club	19.5
M	Teesside	18	Cleveland Golf Club	1.6
M	Teesside	60	Seaton Carew Golf Club	3.2
M	Teesside	27	Hartlepool Golf Club	9.6
M	Teesside	32	High Throston Golf Club	9.8
M	Teesside	34	Hunley Hotel & Golf Club	11.1
M	Teesside	6	Billingham Golf Club	12.6
M	Teesside	40	Middlesbrough Municipal Golf Centre	13.9
M	Teesside	39	Middlesbrough Golf Course	14.6



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**Aberdeen Offshore Wind Farm also known as the European Offshore Wind Deployment Centre**

<b>Wind Farm ID</b>	<b>Wind Farm Name</b>	<b>Course ID</b>	<b>Course Name</b>	<b>Distance (km)</b>
M	Teesside	66	Teesside Golf Club	14.6
M	Teesside	15	Castle Eden Golf Club	17.2

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**Aberdeen Offshore Wind Farm also known as the European Offshore Wind Deployment Centre**

Table A3.2: Data schedule sorted by proximity of golf course to offshore wind farm

<b>Wind Farm ID</b>	<b>Wind Farm Name</b>	<b>Course ID</b>	<b>Course Name</b>	<b>Distance (km)</b>
M	Teesside	18	Cleveland Golf Club	1.6
L	Scroby Sands	26	Great Yarmouth and Caister Golf Club	2.5
A	Aberdeen Offshore Wind Farm	41	Murcar Links Golf Club	2.9
M	Teesside	60	Seaton Carew Golf Club	3.2
A	Aberdeen Offshore Wind Farm	38	Menie Estate	3.4
A	Aberdeen Offshore Wind Farm	83	East Aberdeenshire Golf Course	3.5
A	Aberdeen Offshore Wind Farm	52	Royal Aberdeen Golf Club	3.5
A	Aberdeen Offshore Wind Farm	85	King's Links Golf Course	5.4
G	Lynn	42	North Shore Golf Course	5.8
G	Lynn	58	Seacroft Golf Club	5.9
E	Inner Dowsing	42	North Shore Golf Course	6.2
D	Gunfleet Sands	17	Clacton-on-Sea Golf Club	6.5
C	Burbo Bank	70	West Lancashire Golf Club	6.5
C	Burbo Bank	68	Wallasey Golf Club	7.4
C	Burbo Bank	84	Leasowe Golf Club	7.4
H	North Hoyle	47	Prestatyn Golf Club	7.7
C	Burbo Bank	69	Warren Golf Club	7.7
A	Aberdeen Offshore Wind Farm	79	Nigg Bay Golf Club	7.8
A	Aberdeen Offshore Wind Farm	74	Newburgh On Ythan Golf Club	8.1
C	Burbo Bank	5	Bidston Golf Club	8.2
J	Rhyl Flats	49	Rhos-on-Sea Golf Club	8.3
E	Inner Dowsing	58	Seacroft Golf Club	8.3
H	North Hoyle	51	Rhyl Golf Club	8.5
L	Scroby Sands	25	Gorleston Golf Club	8.7
J	Rhyl Flats	1	Abergele Golf Club	9.2
C	Burbo Bank	54	Royal Liverpool Golf Club	9.2
I	Ormonde	24	Furness Golf Club	9.3
C	Burbo Bank	33	Hoylelake Golf Club	9.5
M	Teesside	27	Hartlepool Golf Club	9.6

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**Aberdeen Offshore Wind Farm also known as the European Offshore Wind Deployment Centre**

<b>Wind Farm ID</b>	<b>Wind Farm Name</b>	<b>Course ID</b>	<b>Course Name</b>	<b>Distance (km)</b>
A	Aberdeen Offshore Wind Farm	76	Auchmill Golf Course	9.8
M	Teesside	32	High Throston Golf Club	9.8
J	Rhyl Flats	44	Old Colwyn Golf Club	9.8
H	North Hoyle	65	St Melyd Golf Club	9.9
F	Kentish Flats	29	Herne Bay Golf Course	10.1
C	Burbo Bank	22	Formby Golf Club	10.2
B	Barrow	24	Furness Golf Club	10.7
F	Kentish Flats	16	Chestfield Golf Club	10.9
M	Teesside	34	Hunley Hotel & Golf Club	11.1
J	Rhyl Flats	51	Rhyl Golf Club	11.1
C	Burbo Bank	9	Bootle Golf Course	11.2
E	Inner Dowsing	57	Sandilands Golf Club	11.8
J	Rhyl Flats	43	North Wales Golf Club	11.9
C	Burbo Bank	3	Arrowe Park Golf Course	12.1
C	Burbo Bank	23	Formby Hall Golf Resort & Spa	12.2
H	North Hoyle	50	Rhuddlan Golf Club	12.3
M	Teesside	6	Billingham Golf Club	12.6
K	Robin Rigg	63	Southernness Golf Course	12.6
A	Aberdeen Offshore Wind Farm	80	Hazelhead Golf Course	12.7
J	Rhyl Flats	61	Silver Birch Golf Course	12.7
C	Burbo Bank	2	Aintree Racecourse & Golf Centre	13.2
I	Ormonde	4	Barrow Golf Club	13.3
C	Burbo Bank	13	Caldy Golf Course	13.4
B	Barrow	48	Rampside Golf Links	13.5
J	Rhyl Flats	50	Rhuddlan Golf Club	13.6
K	Robin Rigg	37	Maryport Golf Club	13.7
J	Rhyl Flats	19	Conwy Golf Club	13.8
M	Teesside	40	Middlesbrough Municipal Golf Centre	13.9
C	Burbo Bank	46	Prenton Golf Club	14.5
M	Teesside	39	Middlesbrough Golf Course	14.6
J	Rhyl Flats	47	Prestatyn Golf Club	14.6

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**Aberdeen Offshore Wind Farm also known as the European Offshore Wind Deployment Centre**

<b>Wind Farm ID</b>	<b>Wind Farm Name</b>	<b>Course ID</b>	<b>Course Name</b>	<b>Distance (km)</b>
A	Aberdeen Offshore Wind Farm	81	Deeside Golf Club	14.6
M	Teesside	66	Teesside Golf Club	14.6
J	Rhyl Flats	65	St Melyd Golf Club	15.1
H	North Hoyle	54	Royal Liverpool Golf Club	15.2
A	Aberdeen Offshore Wind Farm	73	McDonald Golf Club	15.5
H	North Hoyle	1	Abergele Golf Club	15.5
C	Burbo Bank	53	Royal Birkdale Golf Club	15.5
B	Barrow	4	Barrow Golf Club	15.7
K	Robin Rigg	71	Workington Golf Club	16.2
H	North Hoyle	33	Hoylake Golf Club	16.3
B	Barrow	21	Fleetwood Golf Club	16.5
I	Ormonde	48	Rampside Golf Links	16.5
C	Burbo Bank	11	Bracken Wood Golf Club	16.9
A	Aberdeen Offshore Wind Farm	82	Portlethen Golf Club	17.2
M	Teesside	15	Castle Eden Golf Club	17.2
G	Lynn	57	Sandilands Golf Club	17.3
A	Aberdeen Offshore Wind Farm	78	Westhill Golf Club	17.4
F	Kentish Flats	14	Canterbury Golf Academy	17.4
J	Rhyl Flats	45	Penmaenmawr Golf Club	17.6
H	North Hoyle	13	Caldy Golf Course	18.1
G	Lynn	35	Hunstanton Golf Club	18.2
A	Aberdeen Offshore Wind Farm	72	Cruden Bay Golf Club	18.4
C	Burbo Bank	31	Heswall Golf Club	18.7
C	Burbo Bank	47	Prestatyn Golf Club	18.8
B	Barrow	36	Knott End Golf Club	19.4
L	Scroby Sands	62	South Lowestoft Golf Club	19.5
F	Kentish Flats	10	Boughton Golf Course	19.6
H	North Hoyle	44	Old Colwyn Golf Club	20.2
G	Lynn	56	Royal West Norfolk Golf Club	20.3
C	Burbo Bank	30	Hesketh Golf Club	20.4
H	North Hoyle	61	Silver Birch Golf Course	20.4
D	Gunfleet Sands	28	Harwich & Dovercourt Golf Club	20.6

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**Aberdeen Offshore Wind Farm also known as the European Offshore Wind Deployment Centre**

<b>Wind Farm ID</b>	<b>Wind Farm Name</b>	<b>Course ID</b>	<b>Course Name</b>	<b>Distance (km)</b>
C	Burbo Bank	12	Bromborough Golf Club	20.7
H	North Hoyle	68	Wallasey Golf Club	21.1
H	North Hoyle	84	Leasowe Golf Club	21.1
B	Barrow	7	Blackpool North Shore Golf Club	21.4
H	North Hoyle	3	Arrowe Park Golf Course	21.4
H	North Hoyle	49	Rhos-on-Sea Golf Club	21.4
C	Burbo Bank	65	St Melyd Golf Club	22.1
H	North Hoyle	5	Bidston Golf Club	22.2
G	Lynn	59	Searles Golf Club	22.3
B	Barrow	67	Ulverston Golf Club	22.6
J	Rhyl Flats	20	Denbigh Golf Club	22.7
I	Ormonde	67	Ulverston Golf Club	23.0
E	Inner Dowsing	35	Hunstanton Golf Club	23.0
A	Aberdeen Offshore Wind Farm	75	Inverurie Golf Club	23.1
H	North Hoyle	20	Denbigh Golf Club	23.3
C	Burbo Bank	51	Rhyl Golf Club	23.3
H	North Hoyle	69	Warren Golf Club	23.6
H	North Hoyle	31	Heswall Golf Club	24.2
A	Aberdeen Offshore Wind Farm	77	Dunecht House Golf Club	24.3
B	Barrow	8	Blackpool Park Golf Course	24.6
H	North Hoyle	46	Prenton Golf Club	24.7
E	Inner Dowsing	56	Royal West Norfolk Golf Club	24.7

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**Aberdeen Offshore Wind Farm also known as the European Offshore Wind Deployment Centre**

Table A3.3: Data schedule sorted by golf course and proximity to offshore wind farm

Course ID	Course Name	Wind Farm ID	Wind Farm Name	Distance (km)
1	Abergele Golf Club	J	Rhyl Flats	9.2
1	Abergele Golf Club	H	North Hoyle	15.5
2	Aintree Racecourse & Golf Centre	C	Burbo Bank	13.2
3	Arrowe Park Golf Course	C	Burbo Bank	12.1
3	Arrowe Park Golf Course	H	North Hoyle	21.4
76	Auchmill Golf Course	A	Aberdeen Offshore Wind Farm	9.8
4	Barrow Golf Club	I	Ormonde	13.3
4	Barrow Golf Club	B	Barrow	15.7
5	Bidston Golf Club	C	Burbo Bank	8.2
5	Bidston Golf Club	H	North Hoyle	22.2
6	Billingham Golf Club	M	Teesside	12.6
7	Blackpool North Shore Golf Club	B	Barrow	21.4
8	Blackpool Park Golf Course	B	Barrow	24.6
9	Bootle Golf Course	C	Burbo Bank	11.2
10	Boughton Golf Course	F	Kentish Flats	19.6
11	Bracken Wood Golf Club	C	Burbo Bank	16.9
12	Bromborough Golf Club	C	Burbo Bank	20.7
13	Caldy Golf Course	C	Burbo Bank	13.4
13	Caldy Golf Course	H	North Hoyle	18.1
14	Canterbury Golf Academy	F	Kentish Flats	17.4
15	Castle Eden Golf Club	M	Teesside	17.2
16	Chestfield Golf Club	F	Kentish Flats	10.9
17	Clacton-on-Sea Golf Club	D	Gunfleet Sands	6.5
18	Cleveland Golf Club	M	Teesside	1.6
19	Conwy Golf Club	J	Rhyl Flats	13.8
72	Cruden Bay Golf Club	A	Aberdeen Offshore Wind Farm	18.4
81	Deeside Golf Club	A	Aberdeen Offshore Wind Farm	14.6
20	Denbigh Golf Club	J	Rhyl Flats	22.7

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Course ID	Course Name	Wind Farm ID	Wind Farm Name	Distance (km)
20	Denbigh Golf Club	H	North Hoyle	23.3
77	Dunecht House Golf Club	A	Aberdeen Offshore Wind Farm	24.3
83	East Aberdeenshire Golf Course	A	Aberdeen Offshore Wind Farm	3.5
21	Fleetwood Golf Club	B	Barrow	16.5
22	Formby Golf Club	C	Burbo Bank	10.2
23	Formby Hall Golf Resort & Spa	C	Burbo Bank	12.2
24	Furness Golf Club	I	Ormonde	9.3
24	Furness Golf Club	B	Barrow	10.7
25	Gorleston Golf Club	L	Scroby Sands	8.7
26	Great Yarmouth and Caister Golf Club	L	Scroby Sands	2.5
27	Hartlepool Golf Club	M	Teesside	9.6
28	Harwich & Dovercourt Golf Club	D	Gunfleet Sands	20.6
80	Hazelhead Golf Course	A	Aberdeen Offshore Wind Farm	12.7
29	Herne Bay Golf Course	F	Kentish Flats	10.1
30	Hesketh Golf Club	C	Burbo Bank	20.4
31	Heswall Golf Club	C	Burbo Bank	18.7
31	Heswall Golf Club	H	North Hoyle	24.2
32	High Throston Golf Club	M	Teesside	9.8
33	Hoylake Golf Club	C	Burbo Bank	9.5
33	Hoylake Golf Club	H	North Hoyle	16.3
34	Hunley Hotel & Golf Club	M	Teesside	11.1
35	Hunstanton Golf Club	G	Lynn	18.2
35	Hunstanton Golf Club	E	Inner Dowsing	23.0
75	Inverurie Golf Club	A	Aberdeen Offshore Wind Farm	23.1
85	King's Links Golf Course	A	Aberdeen Offshore Wind Farm	5.4
36	Knott End Golf Club	B	Barrow	19.4
84	Leasowe Golf Club	C	Burbo Bank	7.4
84	Leasowe Golf Club	H	North Hoyle	21.1

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**Aberdeen Offshore Wind Farm also known as the European Offshore Wind Deployment Centre**

Course ID	Course Name	Wind Farm ID	Wind Farm Name	Distance (km)
37	Maryport Golf Club	K	Robin Rigg	13.7
73	McDonald Golf Club	A	Aberdeen Offshore Wind Farm	15.5
38	Menie Estate	A	Aberdeen Offshore Wind Farm	3.4
39	Middlesbrough Golf Course	M	Teesside	14.6
40	Middlesbrough Municipal Golf Centre	M	Teesside	13.9
41	Murcar Links Golf Club	A	Aberdeen Offshore Wind Farm	2.9
74	Newburgh On Ythan Golf Club	A	Aberdeen Offshore Wind Farm	8.1
79	Nigg Bay Golf Club	A	Aberdeen Offshore Wind Farm	7.8
42	North Shore Golf Course	G	Lynn	5.8
42	North Shore Golf Course	E	Inner Dowsing	6.2
43	North Wales Golf Club	J	Rhyl Flats	11.9
44	Old Colwyn Golf Club	J	Rhyl Flats	9.8
44	Old Colwyn Golf Club	H	North Hoyle	20.2
45	Penmaenmawr Golf Club	J	Rhyl Flats	17.6
82	Portlethen Golf Club	A	Aberdeen Offshore Wind Farm	17.2
46	Prenton Golf Club	C	Burbo Bank	14.5
46	Prenton Golf Club	H	North Hoyle	24.7
47	Prestatyn Golf Club	H	North Hoyle	7.7
47	Prestatyn Golf Club	J	Rhyl Flats	14.6
47	Prestatyn Golf Club	C	Burbo Bank	18.8
48	Rampside Golf Links	B	Barrow	13.5
48	Rampside Golf Links	I	Ormonde	16.5
49	Rhos-on-Sea Golf Club	J	Rhyl Flats	8.3
49	Rhos-on-Sea Golf Club	H	North Hoyle	21.4
50	Rhuddlan Golf Club	H	North Hoyle	12.3
50	Rhuddlan Golf Club	J	Rhyl Flats	13.6
51	Rhyl Golf Club	H	North Hoyle	8.5
51	Rhyl Golf Club	J	Rhyl Flats	11.1



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**Aberdeen Offshore Wind Farm also known as the European Offshore Wind Deployment Centre**

Course ID	Course Name	Wind Farm ID	Wind Farm Name	Distance (km)
51	Rhyl Golf Club	C	Burbo Bank	23.3
52	Royal Aberdeen Golf Club	A	Aberdeen Offshore Wind Farm	3.5
53	Royal Birkdale Golf Club	C	Burbo Bank	15.5
54	Royal Liverpool Golf Club	C	Burbo Bank	9.2
54	Royal Liverpool Golf Club	H	North Hoyle	15.2
56	Royal West Norfolk Golf Club	G	Lynn	20.3
56	Royal West Norfolk Golf Club	E	Inner Dowsing	24.7
57	Sandilands Golf Club	E	Inner Dowsing	11.8
57	Sandilands Golf Club	G	Lynn	17.3
58	Seacroft Golf Club	G	Lynn	5.9
58	Seacroft Golf Club	E	Inner Dowsing	8.3
59	Searles Golf Club	G	Lynn	22.3
60	Seaton Carew Golf Club	M	Teesside	3.2
61	Silver Birch Golf Course	J	Rhyl Flats	12.7
61	Silver Birch Golf Course	H	North Hoyle	20.4
62	South Lowestoft Golf Club	L	Scroby Sands	19.5
63	Southerness Golf Course	K	Robin Rigg	12.6
65	St Melyd Golf Club	H	North Hoyle	9.9
65	St Melyd Golf Club	J	Rhyl Flats	15.1
65	St Melyd Golf Club	C	Burbo Bank	22.1
66	Teesside Golf Club	M	Teesside	14.6
67	Ulverston Golf Club	B	Barrow	22.6
67	Ulverston Golf Club	I	Ormonde	23.0
68	Wallasey Golf Club	C	Burbo Bank	7.4
68	Wallasey Golf Club	H	North Hoyle	21.1
69	Warren Golf Club	C	Burbo Bank	7.7
69	Warren Golf Club	H	North Hoyle	23.6
70	West Lancashire Golf Club	C	Burbo Bank	6.5
78	Westhill Golf Club	A	Aberdeen Offshore Wind Farm	17.4
71	Workington Golf Club	K	Robin Rigg	16.2

19 July 2012

**Aberdeen Offshore Wind Farm also known as the European Offshore Wind Deployment Centre**

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#### **Appendix 4. Golf Courses**

The following is a list of the golf courses discussed in the text (sourced April/May 2012):

Abergele Golf Club: <http://www.abergelegolfclub.co.uk/>

Clacton-on-Sea Golf Club: <http://www.clactongolfclub.com/>

Cleveland Golf Club: <http://www.clevelandgolfclub.co.uk/>

Furness Golf Club: <http://www.furnessgolfclub.co.uk/>

Gorleston Golf Club: <http://www.gorlestongolfclub.co.uk/pages.php/index.html>

Great Yarmouth and Caister Golf Club: <http://www.club-noticeboard.co.uk/greatyarmouth/>

Hartlepool Golf Club: <http://www.hartlepoolgolfclub.co.uk/pages.php/index.html>

Murcar Links: <http://www.murcarlinks.com/>

Old Colwyn Golf Club: <http://www.welshgolfcourses.com/north/oldcolwyn.php>

Prestatyn Golf Club: <http://www.prestatyn-golfclub.co.uk/>

Rhos-on-Sea Golf Club: <http://www.rhosgolf.co.uk/>

Rhyl Golf Club: <http://www.rhylgolfclub.co.uk/>

Royal Aberdeen Golf Club: <http://royalaberdeengolf.com/Intro.aspx>

Royal Birkdale Golf Club: <http://www.royalbirkdale.com/>

Royal Liverpool Golf Club: <http://www.royal-liverpool-golf.com/>

Royal West Norfolk Golf Club: <http://www.rwngc.org/>

Seacroft Golf Club: <http://www.seacroft-golfclub.co.uk/>

Seaton Carew Golf Club: <http://www.seatoncarewgolfclub.co.uk/pages.php/index.html>

St. Melyd Golf Club: <http://www.stmelydgolf.co.uk/>

Trump International Golf Links: <http://www.trumpgolfscotland.com/>

Wallasey Golf Club: <http://www.wallaseygolfclub.com/>

West Lancashire Golf Club: <http://www.westlancashiregolf.co.uk/>