

**REPORT TO:** Cabinet

**MEETING DATE:** 12 November 2013

**BY:** Depute Chief Executive (Partnership and Services for Communities)

**SUBJECT:** Application for Offshore Wind Farm at Inch Cape including Export Cable Corridor with Landfall at Cockenzie or Seton Sands

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## **1 PURPOSE**

- 1.1 To advise Cabinet that the Council has been consulted by the Scottish Government, through their agency Marine Scotland, on an application made under Section 36 of the Electricity Act by Inch Cape Offshore Limited (ICOL) to construct and operate an offshore windfarm and to recommend a response to this consultation.

## **2 RECOMMENDATIONS**

- 2.1 It is recommended that the Council does not object to the part of the project which is subject to this Section 36 application but raises with Marine Scotland the issue of the scope of the related Environment Statement.

## **3 BACKGROUND**

### *Procedure*

- 3.1 Consent is being sought under Section 36 of the Electricity Acts for an offshore wind farm (described below) as well as Marine Licences for the wind turbines and other works up to the Mean High Water Springs. Marine Scotland, acting for Scottish Ministers, will determine both the Marine Licences and the Section 36 application. East Lothian Council is a consultee on the application and its views will be given to Marine Scotland. Other representations from consultees and the public are made direct to Marine Scotland, and it is for them to take these into consideration. It is also Marine Scotland that is the authority responsible for monitoring compliance with the terms of any approval and related conditions. As the Section 36 application does not cover the inter-tidal

works, any objection from this Council would not automatically trigger a public inquiry, though Marine Scotland may decide to hold one at their discretion. A further application for planning permission is expected to be made to East Lothian Council for the intertidal and onshore works.

- 3.2 In considering an application for a Marine Licence, Scottish Ministers must take into account the need to protect the environment and human health, prevent interference with legitimate uses of the sea and such other matters as they consider relevant. In considering an application under the Electricity Act 1989, regard must be had to the desirability of preserving natural beauty, of conserving flora, fauna, and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest, and the extent to which the developer has done what they can to mitigate the adverse effect of these.
- 3.3 The application is subject to the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 and the Marine Works (Environmental Impact Assessment Regulations 2007 and is accompanied by an Environment Statement (ES).

*Description of Proposal*

- 3.4 The development is located offshore, 30 kms east of the mouth of the Firth of Tay and some 50 kms from the nearest part of the East Lothian coast at Seacliff.
- 3.5 The parts of the development that are the subject of this application comprise:
- Up to 213 three-bladed wind turbines with a maximum blade tip height of 215m, in a sea area of approximately 150km<sup>2</sup>, coloured and lit as agreed with appropriate navigation and aviation authorities.
  - 5 substation platforms to collect electricity for export
  - Up to 3 meteorological masts
  - Connecting/export cables with landfall in East Lothian, at either **Cockenzie** or **Seton Sands**
  - 2 jointing pits (100m<sup>2</sup> each) (chambers within which cables are joined)

The lifespan of the project has not been fixed but is expected to be at least 25 years. The design of the development has not yet been finalised but would be within the 'design envelope' described. This approach is generally accepted as valid to allow for the Environmental Impact Assessment and consenting process to be carried out while technical and design work are still ongoing. It should show the 'worst case'. The proposal has been offered a grid connection at the existing **Cockenzie** transmission station. The connection will allow the export of up to

1050MW. The Environment Statement (ES) states the project is expected to generate around 3000GW hours of electricity per annum, which is approximately 9% of current (2010) Scottish annual electricity consumption.

3.6 The export cable corridor is 1.4km wide at its widest point, reducing to about 250m in shallower water near East Lothian. Up to 6 export cables will be installed in separate trenches within the Offshore Export Cable Corridor, with each trench being about 1metre wide. Cable separation is generally 4x the water depth with a minimum separation of 50m. There are various techniques which may be used for laying and burial of the cable. Horizontal directional drilling through the intertidal area is one option, which involves drilling a hole from the landward side of the landfall to a point below low tide where the marine equipment can operate. The cable is then fed through this. The other possible methods involve disturbance of the ground. The installation of the intertidal cable is expected to take 6 months, with the export cable installation offshore expected to take 9 months. The route will cross the Firth of Forth SPA/SSSI.

3.7 In addition, but not included in this application, the development will also include onshore transmission works namely:

- Cables from the offshore export cable to a substation
- A substation of two possible sizes, either 195m wide by 105m long and 25m high, or 210m wide by 210m long, by 20m high
- Cables from the substation to the grid connection at Cockenzie

No site has yet been identified for the substation, consequently the route for the onshore section of the cables is not identified either. The substation will clearly be a very substantial structure. The onshore works are briefly described in Section 7.15 of the ES as an underground route for the export cable for which a trench will be dug, requiring a corridor of 40m, and a substation. No location is given for the substation or, consequently, the onshore cable route.

#### *Context and Policy*

3.8 The Scottish Government has strong support for renewable energy which is seen as key in meeting climate change targets. They published '*Blue Seas Green Energy – A Sectoral Plan for Offshore Wind Energy*' covering Scottish Territorial Waters following assessment to determine the best sites for offshore wind energy. This plan identifies Inch Cape as a short term option. The Crown Estate had previously invited developers to submit proposals, and this was one of four submitted in the east region, of which Neart Na Gaoithe is the only other now being taken forward. Further offshore, Firth of Forth windfarm is being taken forward as part of the 'Round 3' process.

3.9 National Planning Framework 2 includes support for all renewable technologies including the encouragement of offshore wind, recognising

the Crown Estates identification of the Firth of Forth as a location with potential. The Major Issues Report for National Planning Framework 3 states an ambition for Scotland to be a world leader in offshore renewable energy. It also recognises the Scottish Territorial Waters sites, though they are subject to marine planning. It notes that NPF3 should identify and support the onshore infrastructure required to realise the opportunities for offshore renewable. It proposes to identify the key onshore infrastructure requirements arising as National Developments, specifically including onshore electricity connections, substations and converter stations. The area shown in the NPF3 MIR for this is a crescent shape with tips around the Arbroath area and broadly from Aberlady to Cockburnspath.

- 3.10 Scottish Planning Policy is in the process of being revised. Both the current and revised policies encourage all forms of renewable energy. SESPlan Policy 10 states that the plan seeks to promote sustainable energy sources.
- 3.11 The East Lothian Local Plan 2008 covers the inter-tidal area (where the options for the export cable corridor are proposed) but is not applicable beyond the low water mark.
- 3.12 For the Cockenzie option, the intertidal area other than the harbour is covered by ELLP Policies NH1a and NH1b which protect the interests of the Special Protection Area and Site of Special Scientific Interest, and Policy C3, which protects the recreational, amenity and landscape interest of an area. The harbour area is covered by Policies ENV2, ENV4, ENV5 and ENV14. Policy ENV2 aims to protect uses appropriate to a town centre, Policies ENV4 and ENV5 control development within Conservation Areas and ENV14 supports the environmental improvement and regeneration of the West Harbour area.
- 3.13 The Seton Sands export corridor option is covered by Policies NH1a, NH1b as above, Policy DC1, which aims to protect the character of the countryside, and partly by Policy NH4 which aims to prevent harm to the Area of Great Landscape Value.

*Visual impact of the windfarm*

- 3.14 The potential effects of the windfarm itself are, at 50km (31 miles) or more from East Lothian, limited by distance and atmospheric conditions (which means that the number of days on which the proposal is visible are predicted to be limited). It will nonetheless be visible from parts of the area, some of the time. There are also limits imposed by the curvature of the earth; the ES states that at sea level the wind turbines will begin to disappear over the horizon. At raised locations, such as North Berwick Law, this effect is lessened.
- 3.15 The Zone of Theoretical Visibility Diagram (ZTV) (ES Fig 16.5d) shows that there is potential visibility to the base of the turbine in some higher north easterly facing locations: North Berwick Law, the ridge behind Whitekirk, Penraig Hill, the Garletons and the Lammermuir foothills and

edge. There is potential visibility to hub height from much of the coast from Gullane round to the boundary with Scottish Borders Council area, as well as further inland south of Dunbar.

- 3.16 One viewpoint in East Lothian has been supplied - Number 25 at Dunbar Esplanade on the John Muir Way, to the north of Winterfield Pavilion - which is 50.33 km from the windfarm. This visualisation shows the turbines as visible to the hub, with a pattern that is discernibly a grid layout to the western end, but less noticeably so at the other end due to the angle at which the layout is viewed across the proposal. The height of the Inch Cape turbines will appear similar to the height of the Isle of May, although they are well over twice the distance away. The ES states that lighting is unlikely to be visible at this distance.
- 3.17 The ES states the magnitude of change from this viewpoint is 'negligible' or, in the case of the impact on the seascape, minor. This is not agreed as there will be a permanent, moving man-made structure in an area that does not have this at present. The magnitude of change should therefore be judged as 'moderate' as a partial loss or alteration of a key feature or characteristic of the seascape. The open, undeveloped nature of the view to sea will be altered. The seascape is considered moderately sensitive, which would give a moderate significance. It is likely that this is repeated around the coastal areas at a similar distance to Dunbar, with significance increasing with the sensitivity of the view.
- 3.18 Discussions were had with representatives of all the Firth of Forth offshore windfarm developers on viewpoints for cumulative issues, although specific viewpoints were not agreed with this Council for this scheme in particular. A viewpoint from North Berwick Law, a well used viewpoint close to the 50km study area and substantially higher than the Dunbar one chosen, could have been usefully included (as suggested by officers through consultation on cumulative issues), as could Tantallon Castle, a property in the care of Historic Scotland and Scheduled Monument.
- 3.19 The cumulative visualisations in the ES for Neart na Gaoithe (NnG) show that the cumulative view of the proposal from North Berwick Law would have the effect of the Inch Cape turbines appearing behind and on both sides of the May Island. This would be in addition to those at NnG, which appear between the May Island and the Bass Rock, although the Inch Cape turbines will appear smaller due to distance. From Tantallon, the NnG ES shows the Inch Cape turbines removing the separation between NnG and the May Island, and so removing the open sea setting of this island from this point. As the Inch Cape proposal has not submitted visual information for these viewpoints it is not clear what the effect would be; however, given the information shown in the NnG ES, it cannot be assumed there would be no effect.
- 3.20 The proposal is likely to be visible in context with the Forth Islands from other coastal locations, though from lower lying land the turbines will be less visible due to the curvature of the earth.

- 3.21 Cabinet has previously considered (January 15, 2013) the report for 'Neart na Gaoithe' and agreed that no objection should be raised on this windfarm, though representation was made about some aspects of the ES. That proposal consisted of 75-125 turbines with a maximum tip height of 197m and, at 28km from North Berwick, was closer to East Lothian than the current proposal. Marine Scotland has yet to decide on that proposal.

#### *Ornithology*

- 3.22 For ornithology, there is some potential for direct habitat loss on the birds of the Firth of Forth SPA, as well as impacts from disturbance and indirect impacts on bird communities due to impacts on benthic (sea bottom dwellers such as lobsters and clams) and natural fish species both there and in the Forth Islands SPA. Minor residual impacts were reported on gannet, puffin, razorbill, guillemot, and kittiwake, rising to minor/moderate for common and arctic tern, and for cumulative impact on puffin, razorbill, guillemot; to 'moderate' for cumulative impact on common and arctic tern, and to 'major' cumulatively for kittiwake. SNH have not yet commented on this application, but will address the interests of these areas.

#### *Fisheries*

The main commercial fisheries near the windfarm area are scallop dredging, squid trawling and creeling for crab and lobster. Within the export cable corridor there are important crab and lobster fisheries inshore, in addition to prawn and squid trawling and scallop dredging. During construction and operation fishing activity is expected to be excluded from certain areas, or access restricted. As a result significant impacts on scallop fisheries could occur. There are potential safety risks if fishing vessels interact with cables and potential navigational conflict with Inch Cape structures.

#### *Commercial vessels*

- 3.23 For commercial vessels, the busiest route passing the windfarm is from Firth of Forth to northern Scotland, used by an average of 2.5 vessels per day. All commercial vessels travelling between ports in the Firth of Forth to European ports intersect the export cable corridor. There will inevitably be some disruption to specific vessel transits due to the proposal. However, taking account of mitigation measures to maintain navigational safety, the proposal is considered in the ES to be within acceptable limits.

#### *Recreation*

- 3.24 For marine recreation, the coast areas in East Lothian are heavily used for a number of different activities. During the installation of the export cables, recreational sailors and other users of inshore waters will experience localised disruption. Cable laying works at the chosen landfall location will temporarily preclude recreation and access to the

affected part of the coast/beach. SNH have yet to comment on the application but it may be that impacts on birds if the work were to be carried out in winter means that the work will have to be done in the summer, when it is most likely to affect recreational users. None of the leisure beaches are predicted to experience meaningful change in sediment due to the export cable construction.

#### *Planning assessment*

- 3.25 National and local policy is strongly in favour of the development of renewable energy where any environmental constraints can be satisfactorily addressed. The impacts of the windfarm itself on visual amenity and seascape, including cumulatively, as detailed above, are likely to be less in East Lothian than the impacts of the Neart na Gaoithe scheme to which this Council did not object. There are some impacts on the birds which are an interest of the Firth of Forth and Forth Islands SPA. An impact on the objectives of the designation and overall integrity of the sites would be contrary to ELLP Policy NH1a. SNH have yet to comment, and the Council does not contain the expertise to judge this. Thirdly, there is likely to be some short term disruption of recreation and local landscape in the intertidal area during construction, and possibly also at decommissioning, as well as some short term disruption of offshore recreation.
- 3.26 It is considered that the impacts of this Section 36 application on interests in East Lothian, as described in this ES (which it is emphasised do not cover the whole project), are outweighed by the contribution of this development to renewable energy generation, subject to the views of SNH on impacts on the bird species of the SPA.

#### *Environmental Impact Assessment (EIA) Issues*

- 3.27 The onshore works, while not included as part of these proposals, are nonetheless considered an integral part of the project. It is possible that if consent is given for this windfarm and export route then this will constrain options for the location of onshore export cables within East Lothian and the very substantial substation that will be required. At this stage it is uncertain that a suitable site could be identified for the substation which would not have significant environmental or other effects.
- 3.28 EIA legislation states that consent should not be given for a project until an assessment of the likely significant environmental impacts of the project has been carried out. It is the view of Council officers, expressed previously to the applicant, that the ES should cover the whole project, including the onshore works. However, it is for Marine Scotland as the decision maker to determine whether or not the ES is adequate.

#### **4 POLICY IMPLICATIONS**

4.1 None

#### **5 EQUALITIES IMPACT ASSESSMENT**

5.1 This report is not applicable to the well being of equalities groups and an Equality Impact Assessment is not required.

#### **6 RESOURCE IMPLICATIONS**

6.1 Financial – none

6.2 Personnel - none

6.3 Other – none

#### **7 BACKGROUND PAPERS**

7.1 Inch Cape Environment Statement

7.2 Blue Seas Green Energy – A Sectoral Marine Plan for Offshore Wind Energy in Scottish Territorial Waters

7.3 Draft National Planning Framework 3

7.4 Scottish Planning Policy

7.5 SESplan

7.6 The East Lothian Local Plan 2008

7.7 SNH ‘Visual Assessment of Windfarms – Best Practice’

7.8 Neart Na Gaoithe Environment Statement

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<b>DATE</b>	28 October 2013