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1 May 2013

Minister for Energy, Enterprise and Tourism

**APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 FOR THE CONSTRUCTION AND OPERATION OF THE FIFE ENERGY PARK OFFSHORE DEMONSTRATION WIND TURBINE ON THE NORTHERN SHORE OF THE FIRTH OF FORTH AT THE FIFE ENERGY PARK, METHIL.**

**Purpose**

To seek your determination on an application by Scottish Enterprise (“the Company”) for consent under section 36 of the Electricity Act 1989 to construct and operate a 7MW test facility for the demonstration of new designs of offshore wind turbines (“the Development”). Only one turbine will be installed and tested at any one time, approximately 35 metres offshore from Mean High Water Springs (MHWS) at Fife Energy Park in Methil, Fife.

**Priority**

Routine. However, should you determine consent is appropriate in this application, there is a potential opportunity for an announcement on the 7<sup>th</sup> May 2013 when the Cabinet Secretary for Finance, Employment and Sustainable Growth is in South Korea meeting Samsung Heavy Industries.

**Background**

On 30<sup>th</sup> July 2012, Scottish Enterprise submitted an application for consent to construct and operate the Fife Energy Park Offshore Demonstration Wind Turbine approximately 35 metres offshore from MHWS. Consent is sought for a turbine with a generating capacity of up to 7MW. It should be noted that consent is for construction and operation of a turbine for a **maximum of 5 years** following commissioning of the original turbine. If during this timescale testing is completed on the original turbine, it will be removed and replaced with a new turbine (within the same design parameters and all other original section 36 consent conditions) for testing. Only one turbine will ever be installed at any one time. After 5 years it is the intention for the entire deposited infrastructure to be removed by the Company, to be carried out in accordance with the decommissioning programme. This will be undertaken in the reverse of the installation methodology. Should consent be granted in this case, it is the intention of the Company to seek Scottish Ministers’ authorisation for the assignation of the consent, in full, to Samsung Heavy Industries for the construction and operation of the test facility.

In accordance with standard procedure and statutory and regulatory requirements, this application has been subject to wide ranging consultation. We are satisfied that

there are no outstanding issues that should prevent consent being granted if you determine that is appropriate. In tandem with the consultation on this consent, Marine Scotland have consulted upon two Marine Licence applications for the Development (concerning the deposit of the infrastructure and to undertake dredging) and can confirm that there are no outstanding issues preventing the issue of these Marine Licences, if it is determined that they should be approved.

## **Assessment**

As well as delivering renewable energy to the National Grid, this Development is first and foremost a test facility to test new designs and models of offshore wind turbines. The turbines to be tested at the Development will utilise newly developed and improved technologies which have not yet been deployed in the offshore environment.

If consented, the turbine could provide energy equivalent to the needs of approximately 3400 homes. Background and consultation information for the proposal is set out at ANNEX B – BACKGROUND INFORMATION AND SCOTTISH MINISTERS' CONSIDERATIONS.

## **Consultation Summary**

During the section 36 consultation process, no objections were received from either the statutory or non-statutory consultees.

Due to progressions in engineering design, an amendment was required to the pile size and hence the size of the borehole. No additional environmental information was required to assess this as the potential impacts of this increase did not fall outwith the design envelope assessed within the Environmental Statement.

However, the Company placed public advertisements in the local press to notify interested parties of this change, and Addendum letters were issued to all original consultees advising of the changes. Addendum letters were also issued to the five bodies who made representations to the public consultation for the Application and Environmental Statement.

## **Public Representations**

There were five public representations (see ANNEX F – PUBLIC REPRESENTATIONS) received during the course of the public consultation exercise. Three were objections, two from local persons and one from a local Community Council (Largo Area). The fourth was neither an objection nor a message of support. The fifth was a letter from a resident of Cupar concerned about the operational noise of the turbine. Fife Council have approved a condition to monitor the operational noise of the turbine to ensure action is taken by the Company should set limits on noise be exceeded.

## Recommendation

The Development offers an opportunity to test new designs and models of offshore turbines to increase the reliability and efficiency of power generation. Having taken the material issues into account, including the statutory consultation responses, public representations and all other material considerations, and being satisfied that all legislative requirements have been met, we are of the view that you should:

**Determine that it is appropriate not to cause a public local inquiry to be held and to grant consent under section 36 of the Electricity Act 1989;**

**Please note that two applications for Marine Licences under Part 4 of the Marine (Scotland) Act 2010 are being considered alongside this Application. They will be determined and decisions issued in relation to them in due course.**

## Publicity

As above, the Cabinet Secretary for Finance, Employment, and Sustainable Growth will be in South Korea visiting Samsung Heavy Industries on 7<sup>th</sup> May 2013. Part of the reason for this visit will be to re confirm Scotland's commitment to offshore wind and discuss further Samsung's commitment to build a turbine manufacturing plant at the Fife Energy Park, Methil. Should you decide that granting consent is appropriate, Officials consider that this may be a good opportunity for an announcement to be made on the Application.

Communications will submit a draft News Release under separate cover for your approval. The relevant case material will also be made available to the public on the Scottish Government website.

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## Alexander Ford

Marine Scotland Licensing Operations Team,  
Marine Planning and Policy.  
1 May 2013

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
First Minister					X
Cabinet Secretary for Finance, Employment and Sustainable Growth			X		
Cabinet Secretary for Rural Affairs and the Environment					X
Minister for Environment and Climate Change					X
Minister for Transport and Veterans					X
Minister for Local Government & Planning					X

DG Enterprise, Environment & Digital  
 Linda Rosborough – Marine Scotland  
 David Palmer – Marine Scotland  
 Jim McKie – Marine Scotland  
 Phil Gilmour – Marine Scotland  
 Mark Christie – Marine Scotland  
 David Mallon – Marine Scotland  
 David Wilson – Energy & Climate Change  
 Chris Stark – Energy & Climate Change  
 Janine Kellett – Energy & Climate Change  
 Lesley McNeil – Energy & Climate Change  
 David Stevenson – Energy & Climate Change  
 Alan Williams – SGLD  
 Lindsay Anderson – SGLD  
 Ian Vickerstaff - SGLD  
 Graeme Purves – Planning  
 Keith Connal – E&RA  
 Iain Malcolm - Freshwater Fisheries  
 Chris Wilcock – Ports and Harbours  
 John Mason – Enterprise  
 Malcolm Fleming - Advisor  
 Communications - Greener  
 Communications – Wealthier and Fairer

## **ANNEX A – REGULATORY REQUIREMENT: LEGISLATION AND POLICY**

### **APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 FOR THE CONSTRUCTION AND OPERATION OF THE FIFE ENERGY PARK OFFSHORE DEMONSTRATION WIND TURBINE ON THE NORTHERN SHORE OF THE FIRTH OF FORTH AT THE FIFE ENERGY PARK, METHIL.**

#### **LEGISLATION**

##### **The Electricity Act 1989**

1. Any proposal to construct, extend or operate a generating station situated in the territorial sea (out to 12 nautical miles) and wholly driven by water or wind, with a generation capacity in excess of 1 megawatt requires consent under section 36 of the Electricity Act 1989 (as amended) (“the Electricity Act”). This substituted reduced capacity is implemented through the Electricity Act 1989 (Requirement of Consent for Offshore Generating Stations) (Scotland) Order 2002. A consent under section 36 may include such conditions (including conditions as to the ownership or operation of the station) as appear to the Scottish Ministers to be appropriate. The consent shall continue in force for such period as may be specified in or determined by or under the consent.
2. Paragraph 3 of Schedule 9 to the Electricity Act places a duty on operators of generating stations to have regard 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. Operators of generating stations are statutorily obliged to do what they reasonably can to mitigate any effect the proposals may have on these features
3. Paragraph 3 of Schedule 9 to the Electricity Act also provides that the Scottish Ministers must have regard to the desirability of these matters and the extent to which operators of generating stations have complied with their duty to mitigate the effects of the proposals. The Scottish Ministers must also avoid, so far as possible, causing injury to fisheries or to the stock of fish in any waters.
4. Under section 36B of the Electricity Act the Scottish Ministers may not grant a consent in relation to any particular offshore generating station activities if they consider that interference with the use of recognised sea lanes essential to international navigation is likely to be caused by the carrying on of those activities or is likely to result from their having been carried on. The Scottish Ministers, when determining whether to give consent for any particular offshore generating activities, must have regard to the extent and nature of any obstruction or danger to navigation which, without amounting to interference with the use of such sea lanes, is likely to be caused by the carrying on of the activities, or is likely to result from their having been carried on. In determining this issue the Scottish Ministers must have regard to the

likely overall effect of the activities in question and such other offshore generating activities which are either already subject to section 36 consent or activities for which it appears likely that such consents will be granted.

5. The Scottish Ministers are required to obtain the advice of the Scottish Environment Protection Agency (SEPA) on matters relating to the protection of the water environment.
6. Under Schedule 8 to the Electricity Act and the Electricity (Applications for Consent) Regulations 1990, notice of applications for section 36 consent must be published by the applicant in one or more local newspapers, in one or more national newspapers, and in the Edinburgh Gazette to allow representations to be made to the application. Under Schedule 8 the Scottish Ministers must serve notice of any application for consent upon any relevant Planning Authority. Annex 1 to the Scottish Ministers' decision letter sets out the extent of the Development to which the application relates. The inclusion of a personnel bridge connection between Fife Energy Park and the turbine tower means that a part, albeit a very small part, of the Development is onshore. Fife Council is, therefore, a 'relevant Planning Authority' in terms of the Electricity Act.
7. You can be satisfied that all the necessary tests set out within the Electricity Act when assessing the application and all procedural requirements have been complied with.
8. Paragraph 2(2) of Schedule 8 to the Electricity Act provides that where a relevant planning authority notifies the Scottish Ministers that they object to an application for section 36 consent and where they do not withdraw their objection then the Scottish Ministers must cause a public inquiry to be held in respect of the application. In such circumstances before determining whether to give their consent the Scottish Ministers must consider the objections and the report of the person who held the public inquiry.
9. Fife Council have not objected to the Application. The Scottish Ministers are not, therefore, obliged under paragraph 2(2) of Schedule 8 to the Electricity Act to require a public inquiry to be held.
10. The Scottish Ministers are required under paragraph 3(2) of Schedule 8 to the Electricity Act to consider all objections received, together with all other material considerations, with a view to determining whether a public inquiry should be held in respect of the Application. Paragraph 3(2) of Schedule 8 to the Electricity Act provides that if the Scottish Ministers think it appropriate to do so, they shall cause a public inquiry to be held, either in addition to or instead of any other hearing or opportunity of stating objections to the application.

## **Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000**

11. The Environmental Impact Assessment Directive, which is targeted at projects which are likely to have significant effects on the environment, identifies projects which require an Environmental Impact Assessment (EIA) to be undertaken. The Company identified the proposed Development as one requiring an Environmental Statement (ES) in terms of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000.
12. The proposal for the Development has been publicised, to include making the Environmental Statement available to the public, in terms of those regulations. An Environmental Statement has been produced and the applicable procedures regarding publicity and consultation all as laid down in those regulations have been followed.
13. In compliance with those Regulations, consultation with Scottish Natural Heritage (SNH), SEPA, the local Planning Authority, and such other persons likely to be concerned by the proposed development by reason of their specific environmental responsibilities on the terms of the Environmental Statement and Addendum letter in accordance with the regulatory requirements. Scottish Ministers have also consulted a wide range of relevant organisations including colleagues within the Scottish Government on the Application and on the Environmental Statement and as a result of the issues raised, upon the required Addendum letter.
14. Officials consider that you can be satisfied that the regulatory requirements have been met. Officials have taken into consideration the environmental information, including the ES and Addendum letter, and the representations received from the statutory consultative bodies.

## **The Habitats Directive**

15. The Habitats Directive on the conservation of natural habitats and wild fauna and flora has, in relation to the marine environment, been transposed into Scots law by the Conservation (Natural Habitats, & c.) Regulations 1994 ('the 1994 Regulations') and the Offshore Marine Conservation (Natural Habitats, & c.) Regulations 2007.
16. The key mechanism for securing compliance with the Directive is the carrying out of an Article 6(3) Appropriate Assessment under regulation 48 of the 1994 Regulations. Developments in, or adjacent to protected sites, or in locations which have the potential to affect such sites, must undergo what is commonly referred to as a Habitats Regulations Appraisal. The appraisal involves two stages, and if the proposal is likely to have a significant effect on a protected site, then an Appropriate Assessment must be carried out.
17. SNH raised issues in relation to Habitats Regulations as the proposal lies adjacent to Firth of Forth Special Protection Area (SPA) and Forth Islands SPA and within potential foraging range from the Firth of Tay & Eden Estuary Special

Area of Conservation (SAC). In SNH's view, the proposal is likely to have a significant effect on the qualifying interests of each SPA and the SAC. An Appropriate Assessment (at ANNEX E – APPROPRIATE ASSESSMENT) was undertaken by Scottish Ministers which concluded that impacts on the integrity of each site would be avoided. SNH were consulted and approved the final Appropriate Assessment as satisfactory.

### **Marine (Scotland) Act 2010 and the Climate Change (Scotland) Act 2009**

18. The Marine (Scotland) Act 2010 regulates the territorial sea adjacent to Scotland in terms of marine environment issues. Subject to exemptions specified in subordinate legislation, under Part 4 of the Marine (Scotland) Act 2010 licensable marine activities may only be carried out in accordance with a marine licence granted by the Scottish Ministers.
19. Under Part 2 of the Marine (Scotland) Act 2010 the Scottish Ministers have general duties to carry out their functions in a way best calculated to achieve the sustainable development, including the protection and, where appropriate, the enhancement of the health of the area. The Scottish Ministers when exercising any function that affects the Scottish marine area under the Marine (Scotland) Act 2010, the Climate Change (Scotland) Act 2009 or any other enactment must act in a way best calculated to mitigate, and adapt to, climate change.
20. Also of relevance to the Application is that under the Climate Change (Scotland) Act 2009 annual targets have been agreed with relevant advisory bodies for the reduction in carbon emissions.
21. The demonstration turbine will generate electricity during its 5 year operational period. Whilst not its sole purpose, the Development will result in the generation of a renewable source of energy creating a saving in emissions of CO<sub>2</sub>. As the Development is a test facility, it is highly likely that its electricity production will vary significantly over its 5 year operational period. Due to this, and the unknown performance data for the new turbine designs, it is not possible to accurately predict the amount of CO<sub>2</sub> which will be saved. It will however play an important role in the research and development of the offshore renewable industry in the future.
22. You can be satisfied that in assessing the Application you have acted in accordance with your general duties.

### **Water Environment (Controlled Activities) (Scotland) Regulations 2011**

23. Amendments were made to the Electricity Act in light of the Water Environment (Controlled Activities) (Scotland) Regulations 2011 ("CAR") to ensure that legislation pertaining to different aspects of the same operation is consistent and coherent. Accordingly, from 1 April 2006, before granting any section 36 consent under the Electricity Act, the Scottish Ministers are required to:



- (a) obtain the advice of SEPA on matters relating to protection of the water environment; and
  - (b) have regard to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003. The Water Environment (Controlled Activities) (Scotland) Regulations 2005 have been revoked, subject to transitional and savings provisions, on 31<sup>st</sup> March 2011 by the 2011 Regulations.
24. We consider that you are in a position to be satisfied that SEPA's advice has been considered and due regard has been given to the Water Environment and Water Services (Scotland) Act 2003. We have consulted SEPA regarding a CAR licence in respect of the development proposals. SEPA have confirmed that the proposed Development will not compromise the objectives of the Water Framework Directive along the relevant section of the coastline.

## **MARINE AND TERRESTRIAL POLICY**

### **The UK Marine Policy Statement 2011**

25. The UK Marine Policy Statement 2011 prepared and adopted in accordance with Chapter 1 of Part 3 of the Marine and Coastal Access Act 2009 requires that when Scottish Ministers take authorisation decisions that affect, or might affect, the marine area they must do so in accordance with the UK Marine Policy Statement 2011.
26. The Statement which was jointly adopted by the UK Administrations sets out the overall objectives for marine decision making. It specifies issues that decision-makers need to consider when examining and determining applications for energy infrastructure at sea, namely – the national level of need for energy infrastructure as set out in the Scottish National Planning Framework; the positive wider environmental, societal and economic benefits of low carbon electricity generation; that renewable energy resources can only be developed where the resource exists and where economically feasible; and the potential impact of inward investment in offshore wind energy related manufacturing and deployment activity. The associated opportunities on the regeneration of local and national economies need also to be considered
27. Chapter 3, paragraphs 3.3.1 to 3.3.6, 3.3.16 to 3.3.19 and 3.3.22 to 3.3.30 of the Statement are relevant and have been considered by the Scottish Ministers as part of the assessment of the Application.
28. Existing terrestrial planning regimes generally extend to mean low water spring tides. The marine plan area boundaries extend up to the level of mean high water spring tides. The UK Marine Policy Statement clearly states that the new system of marine planning introduced across the UK will integrate with terrestrial planning. The Statement also makes it clear that the geographic overlap between the Marine Plan and existing plans will help organisations to work effectively together and to ensure that appropriate harmonisation of plans is achieved. The Scottish Ministers have, accordingly,

had regard to the terms of relevant terrestrial planning policy documents and Plans when assessing the Application.

29. The Scottish Ministers have had full regard to the Statement when assessing the Application. We consider that the Development accords with the Statement.

### **Other Marine Policy**

30. The Development, as a demonstrator, will contribute to Scotland's renewable energy targets via its connection to the National Grid. It will also provide wider benefits to the offshore wind industry which are reflected within Scotland's Offshore Wind Route Map and the National Renewables Infrastructure Plan.
31. The 2020 Renewable Routemap for Scotland – Update, published on 30 October 2012, recognises the importance of availability of offshore renewable energy test sites, particularly in real sea conditions, as an essential and key part of Scotland's strategy for securing investment.
32. Published in September 2010 Scotland's Offshore Wind Route Map sets out the opportunities, challenges and priority recommendations for action for the sector to realise Scotland's full potential for offshore wind. Regarding test and demonstration facilities, this document suggests that fit for purpose test and demonstration facilities are critical to de-risk technology for the offshore market.

### **Terrestrial Policy**

33. Scottish Ministers have had regard to the terms of relevant terrestrial planning policy documents and Plans when assessing this Application.

### **Scottish Planning Policy (SPP)**

34. Scottish Planning Policy sets out the Scottish Government's planning policy on renewable energy development. Whilst it makes clear that the criteria against which applications should be assessed will vary depending upon the scale of the development and its relationship to the characteristics of the surrounding area, it states that these are likely to include impacts on landscapes and the historic environment, ecology (including birds, mammals and fish), biodiversity and nature conservation; the water environment; communities; aviation; telecommunications; noise; shadow flicker and any cumulative impacts that are likely to arise. It also makes clear that the scope for the development to contribute to national or local economic development should be a material consideration when considering an application.
35. You can be satisfied that these matters have been addressed in full both within the Application and within the responses received to the consultation by the closest onshore Planning Authority, SEPA, SNH and other relevant bodies.

## **National Planning Framework 2**

36. Scotland's National Planning Framework 2 (NPF2) sets out strategic development priorities to support the Scottish Government's central purpose, namely sustainable economic growth. Relevant paragraphs to the Application are paragraphs 65, 145, 146, 147 and 148. NPF2 provides strong support for the offshore wind sector in Scotland and specifically identifies the Fife Energy Park at Methil which demonstrates the potential for adapting coastal facilities created to support the oil and gas industry to new uses related to the development of renewable energy.

## **The Development Plan Framework**

37. The development site is primarily located offshore adjacent to land within Fife Council area. The relevant Development Plan document comprises:

The Fife Structure Plan 2006-2026; and  
The Mid Fife Local Plan.

Fife Supplementary Planning Guidance: Wind Energy should also be considered.

## **The Fife Structure Plan 2006-2026**

38. The Fife Structure Plan is the major policy document concerning land use planning across Fife. One of the Plan's development strategies is to grow Fife's economy and its population. We consider that the Development can draw support from the objectives of the plan, and in particular the strategy - growing the energy sector.
39. South Fife is identified as a strategic concentration of business activity. It is envisaged Fife will play a key role in developing the knowledge economy links based on business research, especially in the energy sector. The Plan states that a lead is being established with the pursuit of the Fife Energy Park at Methil with a focus on growth.
40. We consider that the proposal complies with the Structure Plan.

## **The Mid Fife Local Plan**

41. The strategy of the Mid Fife Local Plan is to complement that of the Structure Plan establishing a detailed, site specific framework of policies and proposals for land use and other related matters.
42. The Local Plan recognises the Energy Park at Methil as a major development within the region. It suggests that it will provide a strong sector focused employment site capable of attracting high quality renewable manufacturers from across the world. The Plan suggests the development of environmental

industries and green power technologies will be a major source of new employment in Mid-Fife over the coming years.

43. We consider that the proposal complies with the Local Plan.

### **Fife Supplementary Planning Guidance Wind Energy**

44. Paragraph 10.3 of the Supplementary Planning Guidance on Wind Energy recognises the importance of demonstrator turbines to the offshore wind industry around the United Kingdom. It suggests that locating demonstrator sites in Fife would help promote the offshore wind industry in the area and allow Fife to develop strong relationships with turbine manufacturers to help attract future investment. Proposals for demonstrator turbines would be assessed in the same way as normal wind turbines; against the criteria in Policy R1 and against Fife's other Development Plan policies.
45. Policy R3 of the SPG states that Fife Council will support offshore renewable energy development provided that it does not have a significant adverse effect on local maritime activities, including shipping, fishing, leisure sailing, diving, on the natural environment including marine habitats and birds, on pipelines, on research activities and on the historic marine environment.
46. We consider that the proposal complies with the SPG.

### **Material Considerations**

47. We have carefully considered the issues in connection with the Application and have identified the following matters as material considerations, for the purposes of deciding whether it is appropriate to cause a public inquiry to be held or for making a decision on the Application for consent under section 36 of the Electricity Act:
- The proposed location of the Development
  - Cumulative impacts
  - The visual impacts of the Development
  - Operational Noise
  - Shadow flicker
  - Archaeology and Cultural Heritage
  - Climate change and carbon balance
  - Contribution to local and national economic development
  - Impacts on fishing activity
  - Impacts on birds
  - Impacts on marine mammals
  - Impacts on the environment
  - Impacts on water and coastal hydrology
  - Impacts on recreation and tourism
  - Impacts on shipping and navigational safety
  - Impacts on aviation
  - Impacts on communications

These matters have been addressed in the application and responses to the consultation by the relevant Planning Authority, SEPA, SNH and other relevant bodies.

### **Public Local Inquiry (PLI)**

48. In terms of paragraph 2(2) of Schedule 8 to the Act, if the relevant Planning Authority made a valid objection and did not withdraw it, you must convene a PLI, which must be confined to so much of the application as it relates to land within the area of the authority whom the objection was made (except in so far as you direct otherwise) before you may determine the application, the objection and the report of the inquiry.
49. Fife Council did not object to the proposal.
50. Paragraph 3(2) of Schedule 8 to the Act provides that where objections or copies of objections have been sent to the Scottish Ministers in pursuance of the Electricity (Applications for Consent) Regulations 1990 in those cases where a PLI must not be convened by them in terms of paragraph 2(2) of Schedule 8 (i.e. those cases where the Planning Authority either has not objected or objected and withdrawn their objection or where the “relevant planning authority” is the Scottish Ministers on account of the fact that all of the development being located at sea), then the Scottish Ministers “shall consider those objections together with all other material considerations” with a view to determining whether a PLI should be held with respect to the application and, if they think it appropriate to do so, they shall cause a PLI to be held.

### **Determination on whether to cause a Public local Inquiry to be held**

51. Before you can make a decision on the application for section 36 consent, you must determine whether it is appropriate to cause a PLI to be held. Advice regarding the matters you must consider before you make a decision regarding the holding of a PLI is included in ANNEX B – BACKGROUND INFORMATION AND SCOTTISH MINISTERS’ CONSIDERATIONS. If, following your consideration of that advice, you are content that causing a PLI to be held is not appropriate in terms of the statutory provisions, then, and only then, can you proceed to make a decision on the application for section 36 consent.

### **Decision on the Application for section 36 consent**

52. If, having considered the application and the objections, together with all other material considerations as outlined in ANNEX B - BACKGROUND INFORMATION AND SCOTTISH MINISTERS CONSIDERATIONS, you determine that it would not be appropriate for a PLI to be held, then it remains for you to grant or refuse section 36 consent to the Development having regard to the considerations in Annex B.

**Alexander Ford**

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Marine Planning and Policy

1 May 2013

## **ANNEX B – BACKGROUND INFORMATION AND SCOTTISH MINISTERS’ CONSIDERATIONS**

### **APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 FOR THE CONSTRUCTION AND OPERATION OF THE FIFE ENERGY PARK OFFSHORE DEMONSTRATION WIND TURBINE ON THE NORTHERN SHORE OF THE FIRTH OF FORTH AT THE FIFE ENERGY PARK, METHIL.**

#### **Background**

Scottish Enterprise (“the Company”) has applied for consent to construct and operate the Fife Energy Park Offshore Demonstration Wind Turbine approximately 35 metres offshore from Mean High Water Springs (MHWS) at Fife Energy Park, Methil, Fife. Consent is sought for a turbine with a generating capacity of up to 7MW. It should be noted that consent is for construction and operation and, if appropriate, removal and replacement of turbines for a **maximum of 5 years** following the commissioning of the original turbine. If during this timescale testing is completed on the original turbine, it will be removed and replaced with a new turbine (within the same design parameters and subject to the original section 36 consent, and all of the conditions attached thereon) for testing. Only one turbine will ever be installed at any one time. The section 36 consent will cover the construction, operation and removal of all turbines tested at the site.

The principal components of the Scheme comprise of the following:

- A single, three bladed demonstration wind turbine with an installed capacity of up to 7 MW. The turbine tower is up to 110 metres tall, from Mean Sea Level (MSL) including the base jacket. The turbine has a maximum rotor diameter of 172 metres, giving a maximum level from the MSL to turbine tip of up to 196 metres;
- A personnel bridge connection between the Fife Energy Park (FEP) and turbine tower;
- Construction of an onshore crane pad and Control compound on the FEP (which is subject to Town and Country Planning legislation, application for which has been made to Fife Council and not, therefore, covered by the section 36 consent); and
- Offshore cabling.

#### **Location of Development**

Prototype offshore wind turbines require to be tested to identify early life reliability issues and to provide confidence in overall system performance. Coastal test sites are viewed as providing an optimal balance between ease of access, similarity to offshore wind regimes and exposure to marine air and spray. Coastal locations also provide suitable flat site areas and hard standing to allow temporary heavy crane options as well as heavy quayside against which marine vessel turbine transport can be berthed. Robust grid connection is also a requirement for offshore wind turbines testing locations. The site at Methil was identified by the Company as a suitable location for reasons such as its existing infrastructure, marine environment and meteorological conditions.

Officials recommend that the location of the Development is appropriate having regard to its many advantages.

### **Habitats Regulations Issue**

Owing to the view of Scottish Natural Heritage (SNH) that the proposal is likely to have a significant effect on the qualifying interests of the Firth of Forth SPA, Forth Islands SPA and Firth of Tay & Eden Estuary SAC, Scottish Ministers, as “the competent authority” have carried out an Appropriate Assessment which is included at ANNEX E – APPROPRIATE ASSESSMENT. Having carried out that assessment it can be ascertained with sufficient confidence that the proposal will not have an adverse impact on the integrity of the SPAs or the SAC, therefore it is concluded that impacts on site integrity can be avoided. This is supported by the consultation response from SNH who were consulted and approved the final Appropriate Assessment as satisfactory.

### **CONSULTATION EXERCISE**

#### **Consultation on the Application and Environmental Statement**

Under Schedule 8 to the Electricity Act and Regulations made under that Act, Ministers are required to consult any relevant Planning Authority. In addition, to comply with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (the EIA Regulations), there is a requirement to consult SNH and the Scottish Environment Protection Agency (SEPA) and any other person likely to be concerned by the proposed development by reason of their specific environmental responsibilities.

In complying with the EIA Regulations, the Company identified the proposed development as an EIA development and hence would require an Environmental Statement (ES). This statement should describe the environmental impacts and the proposed mitigation measures associated with the Development.

We consulted a wide range of relevant organisations including colleagues within the Government on the application and the ES. As part of the overall consultation, we sought the advice of SNH, SEPA and the Planning Authority most local to the Development in accordance with the statutory requirements.

#### **Statutory Consultees**

**Fife Council** supports the general principal of the proposal and highlighted to Marine Scotland in their response to the ES consultation that they had a number of areas of concern. These concerns particularly related to factors which could have significant negative effect upon residential amenity and to the visual and landscape impact in the local area. Fife Council’s issues in relation to onshore impacts, namely operational noise, shadow flicker, television reception, and ice build up on the turbine will be addressed in the Project Environmental Monitoring Programme (PEMP).



**The City of Edinburgh Council** raised no objections and agreed with the Environmental Impact Assessment's findings that no significant adverse landscape and visual effects were predicted on Edinburgh City's backdrop of the Firth of Forth, from Calton Hill within the World Heritage Site.

**East Lothian Council (ELC)** have not objected to the proposal, recognising the need for the facility, and the short time period for which consent is sought. ELC recommended that in order to minimise and mitigate the visual impact of the project, expert opinion should be sought to select the most appropriate colouration and lighting of the turbine for the Firth of Forth area. Consequently, the opinion of the Civil Aviation Authority, Defence Infrastructure Organisation and Northern Lighthouse Board has been sought for the marking and lighting of this structure.

**Scottish Natural Heritage (SNH)**, as mentioned above, considers that the deployment and operation of the demonstrator turbine and associated infrastructure, including the periodical replacement of the turbine, can be implemented without serious adverse effects on natural heritage. SNH recommended that in any consent, an appropriate, detailed and agreed PEMP and Construction Method Statement (CMS) be put in place to minimise any potential impacts. SNH consider that if appropriate mitigation measures are undertaken, then the proposal shall not adversely affect the Favourable Conservation Status of qualifying features of the SAC and SPAs relevant to the proposed development.

The hydrological impacts of the development have been assessed by the **Scottish Environment Protection Agency (SEPA)**. SEPA had no objection to the proposed Development. Advice and comments on the protection of the marine environment, surface water management, flood risk and pollution prevention were given.

#### Non Statutory Consultees

The remit of the **Association of Salmon Fishery Boards (ASFB)** mainly falls to alerting the local District Salmon Fishery Board to any proposal. The **Forth District Salmon Fishery Board** was forwarded the ASFB's response to this proposal and did not object to the proposal. The ASFB recommended that their generic guidelines are fully considered throughout the planning, construction and monitoring phases of the proposed development.

**Civil Aviation Authority (CAA)** made no objections but highlighted relevant Policy Statements in relation to aviation warning lighting. The requirement to notify the UK Hydrographic Office for maritime charting and the Defence Geographic Centre for aviation charting of the maximum height of the turbine was also stated.

**Defence Infrastructure Organisation (DIO)** had no objections to the proposal but asked for several conditions which have been implemented. These related to turbine lighting, positioning, height and dates of construction start/end. This information will be plotted on flying charts to ensure that military aircraft avoid the area.

**Joint Radio Company (JRC)** considered the project with respect to radio link infrastructure operated by Scottish Power and Scotia Gas Networks. JRC does not

foresee any potential problems based on known interference scenarios from the data provided.

**Marine Coastguard Agency (MCA)** made no objection to the application subject to conditions being applied to maintain navigational safety. The relevant conditions will be included in the Marine Licence for the project.

**National Air Traffic Service (NATS)** confirmed that it has no safeguarding objection to the proposal.

**Northern Lighthouse Board (NLB)** made no objection to the application subject to conditions that a suitable Notice to Mariners is published in appropriate bulletins and the United Kingdom Hydrographic Office is notified of the seabed profile on completion of works. The NLB advised that no marking of the turbine is required. Conditions covering the NLB's concerns will be included in the Marine Licence.

**Royal Yachting Association (RYA)** confirmed that it has no objection to the proposal as there is not expected to be any adverse impacts on navigation.

**Royal Society for the Protection of Birds (RSPB)** had no comments to make given the low collision risk figures calculated, and due to the short time the turbine will be operational (a maximum 5 years).

**Historic Scotland (HS)** made no objection to the application confirming there will be no significant impacts on the historic environment.

#### Other Responses

The following organisations had **no comment** to make on the proposal;

- **Crown Estate**
- **Health and Safety Executive**
- **Ports and Harbours**
- **Transport Scotland**
- **Marine Scotland Science**

**BT Network Radio Protection**, the **Chamber of Shipping** and the **Whale and Dolphin Conservation Society** were consulted and a "nil return" response was received from each.

The **Inshore Fisheries Group**, **Marine Safety Forum**, the **Scottish Canoe Association**, the **Scottish Fishermans Federation**, the **Scottish Fishermans Organisation**, the **Scottish Wildlife Trust** and **Marine Scotland Compliance** were consulted but no responses were received.

#### Public Representations

There were five public representations received during the course of the public consultation exercise. Three were objections, two from local persons and one from a community council. The fourth was neither an objection nor a message of support.

The fifth was a letter from a resident of Cupar concerned about the operational noise of the turbine.

A number of other matters were raised and in no particular order, these related to the following issues:

- (i) Inappropriate siting;
- (ii) Size of the turbine;
- (iii) Operational Noise;
- (iv) Visual impact;
- (v) No identified developer for the demonstrator project;
- (vi) No prospect of employment in the area.

#### Inappropriate Siting

The site at Methil was chosen for this test facility Development for reasons such as its existing infrastructure, marine environment and meteorological conditions. There is also an existing consent granted by the Scottish Ministers for a similar scheme at the site. The test site will provide easy access to the installed turbine to allow it to be monitored for certification, and for improvements to be made in turbine design and reliability. This will, in turn, provide increased certainty in the delivery of the energy generated from these turbines when they are installed in an offshore environment.

Demonstrator turbines sites are vital to the development of the Offshore Wind industry around the United Kingdom. In order for a wind farm developer to secure funding for a site they must be able to prove the reliability and performance of the turbines they may use. Demonstrator sites allow manufacturers to test, optimise and prove the performance of their turbines before large scale production.

Locating the test turbine just offshore from the Fife Energy Park provides a close approximation of the required marine conditions to test the machines whilst allowing the access for testing monitoring and maintenance.

#### Size of the turbine

The turbine to be installed on the site is a single, three bladed demonstration wind turbine with an installed capacity of up to 7 MW. The turbine tower is up to 110 metres tall, from Mean Sea Level (MSL) including the base jacket. The turbine has a maximum rotor diameter of 172 metres, giving a maximum level from the MSL to turbine tip of up to 196 metres. The size and capacity of this turbine is larger than most onshore turbines. However, the size is typical of an offshore turbine.

## Operational Noise

Concerns were raised from four of the five respondents regarding the potential noise from the Development. Fife Council also raised concerns regarding construction and operational noise.

Baseline background noise levels at the nearest noise-sensitive receptors have been established. Based upon the noise limits derived in accordance with ETSU-R-97, maximum permissible turbine noise emission levels which would ensure compliance with the requirements of ETSU-R-97 have been established. Whilst the turbine noise emissions cannot be confirmed at this stage, compliance with the maximum permissible noise emission levels is likely to be achieved with a range of commercially available offshore wind turbines of a scale similar to that proposed.

Conditions to mitigate the impacts from construction and operational noise will be included should you determine consent is appropriate.

## Visual impact

Adverse visual impact of the Development in its proposed location was raised in objection to the Development. The Company have indicated that the turbine will have a significant effect on a number of visual receptors in the area and these effects are considered to be negative, as they will not result in any benefit to the landscape or view.

However, Scottish Natural Heritage (SNH) have stated that as the proposal is for a demonstration turbine, and is operational for five years, its landscape and visual impacts will be more temporary than those of a commercial wind farm. Consequently they do not object to the proposal on landscape and visual grounds.

## No identified developer for the demonstrator project

The Scottish Government, last year, announced that Samsung Heavy Industries chose Methil as the test site for their 7MW turbine. SHI are therefore likely to take forward the construction and operation of the Development should consent be granted.

## No prospect of employment for the area

It is estimated that the Development may directly create job opportunities for 5 local staff in the areas of project management, legal and accountancy services, in addition to generating opportunities for potentially up to 60 local workers to establish site facilities, office, workshop and grid connection cabling and buildings during the estimated four month development and construction period.

For the supply of different components of the turbines, which is a significant part of the project, there may be opportunity for numerous companies to supply parts and materials that will be utilised within the turbine. Owing to the nature of the project requirements, local and regional businesses are also well positioned to be suppliers for the project which will be advantageous to the process of tendering for

contractors. Examples of direct opportunities for local and regional contractors and companies include supplying various building materials (e.g. fencing, concrete, cement, stone, etc.) and mechanical, electrical and supervisory services.

Further details regarding these representations are in ANNEX F – PUBLIC REPRESENTATIONS.

### **Consultation on the Addendum letter**

We consulted on the Addendum letter with all original consultees and those five bodies who responded to the public consultation.

**Fife Council** added that they would like to see a Construction Management Plan be put in place that covers noise and light pollution. This will be covered by the inclusion of a condition of the consent.

**SNH** agreed with the information submitted within the Addendum letter that the actual method of construction has not changed from that assessed within the ES. Any operations surrounding the drilling and grouting of the foundation piles should commence and finish in daylight hours and with good visibility. This will be addressed in the Construction Method Statement.

**The City of Edinburgh Council, East Lothian Council and SEPA** had either no further or additional comments on the Addendum letter.

No further or additional comments were received from the remaining consultees on the Addendum letter.

No further representations were received from those five bodies who submitted an original representation to the public consultation.

No additional representations were received from members of the public.

### **Other Material Issues**

#### **Environmental Benefits**

If consented, the proposed project has the potential to increase the amount of renewable energy produced in Scotland (up to 7MW for a period of 5 years following commissioning of the turbine) and is consistent with the Government's policy on the promotion of renewable energy. The electricity generated by this development has the potential to provide energy equivalent to the needs of approximately 3400 homes.

#### **Economic Benefits**

Scottish Planning Policy (SPP) advises that economic benefits are material issues which must be taken into account as part of the determination process.

SPP also confirms Scottish Ministers aim to achieve a thriving renewables industry in Scotland. The focus being to enhance Scotland's manufacturing capacity, to develop new indigenous industries, particularly in rural areas, and to provide significant export opportunities. The planning system has a key role in supporting this aim and Scottish Ministers should consider material details of how the proposal can contribute to local or national economic development priorities as stated in SPP.

It is estimated that the Development may directly create job opportunities for five local staff in the areas of project management, legal and accountancy services, in addition to generating opportunities for up to 60 local workers to establish site facilities, office, workshop and grid connection cabling and buildings during the 4 month development and construction period. This represents short term, minor effect at a local level.

For the supply of different components of the turbines, which is a significant part of the project, there may be opportunity for numerous companies to supply parts and materials that will be utilised within the turbine. Owing to the nature of the project requirements, local and regional businesses are also well positioned which will be advantageous to the process of tendering for contractors. Examples of direct opportunities for local and regional contractors and companies include supplying various building materials (e.g. fencing, concrete, cement, stone, etc.) and mechanical, electrical and supervisory services.

**Alexander Ford**

Marine Scotland Licensing Operations Team

Marine Planning and Policy

1 May 2013

## **ANNEX C – ADVICE TO MINISTERS AND RECOMMENDATION**

### **APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 FOR THE CONSTRUCTION AND OPERATION OF THE FIFE ENERGY PARK OFFSHORE DEMONSTRATION WIND TURBINE ON THE NORTHERN SHORE OF THE FIRTH OF FORTH AT THE FIFE ENERGY PARK, METHIL.**

#### **Advice to Ministers in relation to public local inquiry**

A key issue is whether it is appropriate to cause a public inquiry to be held and whether the Scottish Ministers are capable of weighing up the various competing considerations and of properly taking account of the representations the various parties have made without an inquiry.

Having had regard to the considerations set out in Annex B, our advice is that Ministers are able to identify the material considerations without the need for an inquiry.

We consider Scottish Ministers are able to take into account the characteristics of the development, the location of the development and the characteristics of the potential impact as set out in Schedule 3 to the EIA Regulations.

In making this decision Ministers must also have regard to the desirability of the matters set out in Schedule 9, paragraph 3(1)(a) of the Electricity Act 1989 (preserving natural beauty, conservation etc.) and the extent to which the Applicant has mitigated the effect of the proposals thereon.

In the circumstances, the Scottish Ministers can be satisfied that they possess sufficient information upon the Development in order to determine the Application and, accordingly, may conclude that it is not appropriate to cause an inquiry to be held. **We recommend that you determine that it is not appropriate to cause a PLI to be held.**

#### **Advice to Ministers in relation to the decision whether to grant consent under section 36 of the Electricity Act 1989**

Officials consider that you have sufficient information to weigh the issues and that adequate opportunity was afforded for public representation.

We are of the view that in considering the characteristics and location of the Development and the potential impacts, you may be satisfied that this proposal has had regard to the preservation of the environment and ecology and are of the view that you will have discharged your responsibilities in terms of Schedule 9 to the Electricity Act 1989 in this respect, if you decide to grant consent. We are also satisfied that whilst the Development would have an impact on the amenity of local residents this is outweighed by economic benefits and the benefits of renewable energy generation.

We consider that where any adverse environmental impacts cannot be prevented, adequate mitigation or compensation measures can be put in place. An obligation

has been placed on the Company to give effect to all the mitigation and compensatory measures through the attachment of conditions to the consent.

You can be satisfied that this proposal has had regard to the interference of recognised sea lanes essential to international navigation. None of the stakeholders responsible for navigational issues object to the application or raise any concerns regarding the Development's impact upon recognised sea lanes essential to international navigation. We are therefore of the view that you have discharged your responsibilities in terms of Section 36B to the Electricity Act.

The Company did not make any application for a declaration under Section 36A of the Electricity Act and therefore you can be satisfied that you have discharged your responsibilities in terms of rights of navigation.

Applications for two Marine Licences under Part 4 of the Marine (Scotland) Act 2010 are being considered alongside this Application. They will be determined and a decision issued on them in due course.

### **Recommendation**

We recommend that you determine to **grant consent under section 36 of the Electricity Act to this application subject to the imposition of conditions.** The decision letter with conditions is enclosed at Annex D – DECISION LETTER AND CONDITIONS.

**Alexander Ford**

Marine Scotland Licensing Operations Team,  
Marine Planning and Policy.

1 May 2013



## ANNEX D – DECISION LETTER AND CONDITIONS

**APPLICATION FOR CONSENT UNDER S36 OF THE ELECTRICITY ACT 1989 FOR THE CONSTRUCTION AND OPERATION OF THE FIFE ENERGY PARK OFFSHORE DEMONSTRATION WIND TURBINE ON THE NORTHERN SHORE OF THE FIRTH OF FORTH AT THE FIFE ENERGY PARK, METHIL.**

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Mr David Garry  
Project Manager – Business Infrastructure  
Scottish Enterprise  
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Bellshill  
ML4 3AD



**Date**

Dear Mr Garry

**CONSENT FOR THE CONSTRUCTION AND OPERATION OF THE FIFE ENERGY PARK OFFSHORE DEMONSTRATION WIND TURBINE ON THE NORTHERN SHORE OF THE FIRTH OF FORTH AT THE FIFE ENERGY PARK, METHIL.**

### **The Application**

I refer to the application made by Scottish Enterprise (“the Company”), received 30<sup>th</sup> July 2012 for:

consent under Section 36 of the Electricity Act 1989 (“the Electricity Act”) for the construction and operation of a demonstrator wind turbine on the northern shore of the Firth of Forth at Methil in Fife, with a generation capacity of up to 7 MW. The consent is for construction, operation and testing of turbines for a **maximum of 5 years** following commissioning of the original turbine.

At this time, the Company also applied for two Marine Licences under Part 4 of the Marine (Scotland) Act 2010. These applications are being considered and determinations will be issued in due course.

In this letter, “the Development” means the proposed wind turbine demonstrator for which the Application is made and is described in Annex 1 to this letter.

## **STATUTORY AND REGULATORY FRAMEWORK**

### **The Electricity Act 1989**

Consent under section 36 of the Electricity Act is required for any proposal to construct, extend or operate a generating station situated in the territorial sea with a permitted generation capacity in excess of 1 megawatt. A section 36 consent may such include conditions as appearing to the Scottish Ministers to be appropriate.

Paragraph 3 of Schedule 9 to the Electricity Act places a duty on operators of generating stations to have regard 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. Operators of generating stations are statutorily obliged to do what they reasonably can to mitigate any effect the proposals may have on these features.

Paragraph 3 of Schedule 9 to the Electricity Act also provides that the Scottish Ministers must have regard to the desirability of these matters and the extent to which operators of generating stations have complied with their duty to mitigate the effects of the proposals. The Scottish Ministers must also avoid, so far as possible, causing injury to fisheries or to the stock of fish in any waters.

Under section 36B of the Electricity Act the Scottish Ministers may not grant a consent in relation to any particular offshore generating station activities if they consider that interference with the use of recognised sea lanes essential to international navigation is likely to be caused by the carrying on of those activities or is likely to result from their having been carried on. The Scottish Ministers, when determining whether to give consent for any particular offshore generating activities, must have regard to the extent and nature of any obstruction or danger to navigation which, without amounting to interference with the use of such sea lanes, is likely to be caused by the carrying on of the activities, or is likely to result from their having been carried on. In determining this issue the Scottish Ministers must have regard to the likely overall effect of the activities in question and such other offshore generating activities which are either already subject to section 36 consent or activities for which it appears likely that such consents will be granted.

The Scottish Ministers are required to obtain the advice of the Scottish Environment Protection Agency (SEPA) on matters relating to the protection of the water environment. SEPA's advice has been considered by the Scottish Ministers and due regard has been given to the Water Environment and Water Services (Scotland) Act 2003 and to the Water Environment (Controlled Activities) (Scotland) Regulations 2011.

Under Schedule 8 to the Electricity Act and the Electricity (Applications for Consent) Regulations 1990, notice of applications for section 36 consent must be published by the applicant in one or more local newspapers and in the Edinburgh Gazette to allow representations to be made to the application. Under Schedule 8 the Scottish Ministers must serve notice of application for consent upon any relevant Planning

Authority. Fife Council is the 'relevant Planning Authority' in terms of the Electricity Act.

The Scottish Ministers are satisfied that they have considered all the necessary tests set out within the Electricity Act when assessing the application and that all procedural requirements have been complied with.

Paragraph 2(2) of Schedule 8 to the Electricity Act provides that where a relevant planning authority notifies the Scottish Ministers that they object to an application for section 36 consent and where they do not withdraw their objection then the Scottish Ministers must cause a public inquiry to be held in respect of the application. In such circumstances before determining whether to give their consent the Scottish Ministers must consider the objections and the report of the person who held the public inquiry.

A portion of the foundations of the proposed Development would be above the Mean Low Water Mark of ordinary spring tides, therefore the statutory control of this part of the project would be under the Town and Country Planning (Scotland) Act 1997. Fife Council, as the relevant Planning Authority, have not objected to the Application. The Scottish Ministers are not, therefore, obliged under paragraph 2(2) of Schedule 8 to the Electricity Act to require a public inquiry to be held.

The Scottish Ministers are, however, required under paragraph 3(2) of Schedule 8 to the Electricity Act to consider all objections received, together with all other material considerations, with a view to determining whether a public inquiry should be held in respect of the application. Paragraph 3(2) of Schedule 8 to the Electricity Act provides that if the Scottish Ministers think it appropriate to do so they shall cause a public inquiry to be held either in addition to, or instead of, any other hearing or opportunity of stating objections to the Application.

### **Marine (Scotland) Act 2010 and the Climate Change (Scotland) Act 2009**

The Marine (Scotland) Act 2010 regulates the territorial sea adjacent to Scotland for marine environment issues.

Subject to exemptions specified in subordinate legislation, under Part 4 of the Marine (Scotland) Act 2010 licensable marine activities may only be carried out in accordance with a marine licence granted by the Scottish Ministers.

Under Part 2 of the Marine (Scotland) Act 2010 the Scottish Ministers have general duties to carry out their functions in a way best calculated to achieve the sustainable development, including the protection and, where appropriate, the enhancement of the health of the area. The Scottish Ministers when exercising any function that affects the Scottish marine area under the Marine (Scotland) Act 2010, the Climate Change (Scotland) Act 2009 or any other enactment must act in a way best calculated to mitigate, and adapt to, climate change.

Also of relevance to the Application is that under the Climate Change (Scotland) Act 2009 annual targets have been agreed with relevant advisory bodies for the reduction in carbon emissions.

The Scottish Ministers are satisfied that in assessing the Application they have acted in accordance with their general duties.

### **Environmental Impact Assessment Directive and the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000**

The Environmental Impact Assessment Directive, which is targeted at projects which are likely to have significant effects on the environment, identifies projects which require an environmental impact assessment (EIA) to be undertaken. The Company identified the proposed development as one requiring an Environmental Statement in terms of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000.

The proposal for the Development has been publicised, to include making the environmental statement available to the public, in terms of those regulations. The Scottish Ministers are satisfied that an Environmental Statement has been produced and the applicable procedures regarding publicity and consultation all as laid down in those regulations have been followed.

The Scottish Ministers have, in compliance with those regulations consulted with Scottish Natural Heritage (SNH), SEPA, the Planning Authority most local to the Development, and such other persons likely to be concerned by the proposed Development by reason of their specific environmental responsibilities on the terms of the Environmental Statement in accordance with the regulatory requirements. Marine Scotland has also consulted a wide range of relevant organisations including colleagues within the Scottish Government on the Application and on the Environmental Statement.

The Scottish Ministers are satisfied that the regulatory requirements have been met.

They have taken into consideration the environmental information, including the Environmental Statement, and the representations received from the statutory consultative bodies.

### **The Habitats Directive**

The Habitats Directive on the conservation of natural habitats and wild fauna and flora has, in relation to the marine environment, been transposed into Scots law by the Conservation (Natural Habitats, & c.) Regulations 1994 ('the 1994 Regulations') and the Offshore Marine Conservation (Natural Habitats, & c.) Regulations 2007.

The key mechanism for securing compliance with the Directive is the carrying out of an Article 6(3) Appropriate Assessment under regulation 48 of the 1994 Regulations. Developments in, or adjacent to protected sites, or in a location which has the potential to affect such a site, must undergo what is commonly referred to as a Habitats Regulations Appraisal. The appraisal involves two stages, and if the proposal is likely to have a significant effect on a protected site, then an Appropriate Assessment must be carried out.

The Scottish Ministers, as a competent authority under the Habitats Directive, have complied with their EU obligations in relation to the Development. They have, following the undertaking of an Appropriate Assessment, ascertained that the Development will not adversely affect the integrity of any European protected sites and have imposed conditions on the grant of the consent ensuring that this is the case. This is confirmed by the consultation response received from SNH. The Appropriate Assessment will be published and available on the Marine Scotland's Licensing Operations Team website.

## **Applicable Policies and Guidance**

### **Marine Area**

#### ***The UK Marine Policy Statement 2011***

The UK Marine Policy Statement 2011 prepared and adopted in accordance with Chapter 1 of Part 3 of the Marine and Coastal Access Act 2009 requires that when Scottish Ministers take authorisation decisions that affect, or might affect, the marine area they must do so in accordance with the UK Marine Policy Statement 2011.

The Statement which was jointly adopted by the UK Administrations sets out the overall objectives for marine decision making. It specifies issues that decision-makers need to consider when examining and determining applications for energy infrastructure at sea, namely– the national level of need for energy infrastructure as set out in the Scottish National Planning Framework; the positive wider environmental, societal and economic benefits of low carbon electricity generation; that renewable energy resources can only be developed where the resource exists and where economically feasible; and the potential impact of inward investment in offshore wind energy related manufacturing and deployment activity. The associated opportunities on the regeneration of local and national economies need also to be considered.

Chapter 3, paragraphs 3.3.1 to 3.3.6, 3.3.16 to 3.3.19 and 3.3.22 to 3.3.30, of the Statement are relevant and have been considered by the Scottish Ministers as part of the assessment of the Application.

The Scottish Ministers have had full regard to the Statement when assessing the Application. It is considered that the Development accords with the Statement.

### **Terrestrial Area**

Existing terrestrial planning regimes generally extend to mean low water spring tides. The marine plan area boundaries extend up to the level of mean high water spring tides. The UK Marine Policy Statement clearly states that the new system of marine planning introduced across the UK will integrate with terrestrial planning. The Statement also makes it clear that the geographic overlap between the Marine Plan and existing plans will help organisations to work effectively together and to ensure that appropriate harmonisation of plans is achieved. The Scottish Ministers have, accordingly, had regard to the terms of relevant terrestrial planning policy documents and Plans when assessing the Application. In addition to high level policy documents

regarding the Scottish Government's policy on renewables (2020 Renewable Route Map for Scotland - Update (published 30 Oct 2012) and Scotland's Offshore Wind Route Map 2010), the Scottish Ministers have had regard to the following documents.

### Scottish Planning Policy

Scottish Planning Policy sets out the Scottish Government's planning policy on renewable energy development. Whilst it makes clear that the criteria against which applications should be assessed will vary depending upon the scale of the development and its relationship to the characteristics of the surrounding area, it states that these are likely to include impacts on landscapes and the historic environment, ecology (including birds, mammals and fish), biodiversity and nature conservation; the water environment; communities; aviation; telecommunications; noise; shadow flicker and any cumulative impacts that are likely to arise. It also makes clear that the scope for the development to contribute to national or local economic development should be a material consideration when considering an application.

The Scottish Ministers are satisfied that these matters have been addressed in full both within the Application and within the responses received to the consultation by the closest onshore Planning Authority, SEPA, SNH and other relevant bodies.

### National Planning Framework 2

Scotland's National Planning Framework 2 (NPF2) sets out strategic development priorities to support the Scottish Government's central purpose, namely sustainable economic growth. Relevant paragraphs to the Application are paragraphs 65, 145, 146, 147 and 148. NPF2 provides strong support for the offshore wind sector in Scotland and specifically identifies the Fife Energy Park at Methil which demonstrates the potential for adapting coastal facilities created to support the oil and gas industry to new uses related to the development of renewable energy.

### The Fife Structure Plan 2006-2026

The Fife Structure Plan is the major policy document concerning land use planning across Fife. One of the Plan's development strategies is growing Fife's economy and its population. South Fife is identified as a strategic concentration of business activity. It is envisaged that Fife will play a key role in developing the knowledge economy links based upon business research, especially in the energy sector. The Plan states that a lead is being established with the pursuit of the Fife Energy Park at Methil with a focus on growth. Scottish Ministers consider that the Development would be in accordance with the Structure Plan and its policies on growing the economy.

### The Mid Fife Local Plan

The strategy of the Mid Fife Local Plan is to complement that of the Structure Plan establishing a detailed, site specific framework of policies and proposals for land use and other related matters.

The Local Plan recognises the Energy Park at Methil as a major development within the region. It suggests that it will provide a strong sector focused employment site capable of attracting high quality renewable manufacturers from across the world. The Plan suggests the development of environmental industries and green power technologies will be a major source of new employment in Mid-Fife over the coming years. As such, Scottish Ministers consider that the proposal complies with the Local Plan.

### *Fife Supplementary Planning Guidance Wind Energy*

Scottish Ministers have considered the terms of Fife Council's Supplementary Planning Guidance (SPG) on wind energy.

The SPG recognises the importance of demonstrator turbines to the offshore wind industry around the United Kingdom. It suggests that locating demonstrator sites in Fife would help promote the offshore wind industry in the area and allow Fife to develop strong relationships with turbine manufacturers to help attract future investment. Proposals for demonstrator turbines would be assessed in the same way as normal wind turbines; against the criteria in Fife's other Development Plan policies.

Policy R3 of the SPG states that Fife Council will support offshore renewable energy development provided that it does not have a significant adverse effect on local maritime activities, including shipping, fishing, leisure sailing, diving, on the natural environment including marine habitats and birds, on pipelines, on research activities and on the historic marine environment.

Scottish Ministers consider that the Development complies with the SPG.

### **Consultation**

In accordance with statutory requirements, advertisements of the Application had to be placed in the local and national press. The Scottish Ministers note that these requirements have been met. Notice of the Application for section 36 consent is required to be served on any relevant planning authority under Schedule 8 to the Electricity Act.

Notifications were sent to Fife Council as the nearest onshore Planning Authority, as well as to the City of Edinburgh Council and East Lothian Council. Notifications were also sent to Scottish Natural Heritage and the Scottish Environment Protection Agency.

The Company notified the Scottish Ministers that due to progressions in engineering design, they were amending the pile size and hence the size of the borehole. This increased the size of the boreholes to up to 3 metres in diameter and up to 37 metres in depth to allow for the installation of a pile of up to 2.7 metres in diameter and 37 metres in depth. There was no change to the installation method or construction timescale as stated within the Company's Environmental Statement. As this increase in size was within the Environmental Statement's design envelope,

Scottish Ministers did not request a Supplementary Environmental Statement from the Company, however they notified all of the Consultees to the changes and instructed the Company to place advertisements in the local press to notify the public.

### **Representations and Objections**

A formal consultation process was undertaken by the Scottish Ministers. The consultation upon the section 36 application and Environmental Statement, along with the Marine Licence applications was conducted in August/September 2012, and a second consultation, which related to a minor amendment to the Application was conducted in March/April 2013.

The public consultation generated five valid responses in total with three objecting to the Development and two not providing a definitive view. One of the objections was received from Largo Area Community Council.

The main views contained within the representations related to the potential noise and visual impact of the Development. Beyond these, issues such as the suitability of the location of the site and the cost of construction were raised.

### **Material Considerations**

In light of all the representations received by the Scottish Ministers in connection with the Application, they have carefully considered the issues and identified the following matters as material considerations, for the purposes of deciding whether it is appropriate to cause a public inquiry to be held or for making a decision on the Application for consent under section 36 of the Electricity Act:

- The proposed location of the Development
- Cumulative impacts
- The visual impacts of the Development
- Operational Noise
- Shadow flicker
- Archaeology and Cultural Heritage
- Climate change and carbon balance
- Contribution to local and national economic development
- Impacts on fishing activity
- Impacts on birds
- Impacts on marine mammals
- Impacts on the environment
- Impacts on water and coastal hydrology
- Impacts on recreation and tourism
- Impacts on shipping and navigational safety
- Impacts on aviation
- Impacts on communications



## **Public Local Inquiry**

Paragraph 2(2) of Schedule 8 to the Electricity Act provides that where a relevant planning authority notifies the Scottish Ministers that they object to an application for section 36 consent and where they do not withdraw their objection then the Scottish Ministers must cause a public inquiry to be held in respect of the application. In such circumstances before determining whether to give their consent the Scottish Ministers must consider the objections and the report of the person who held the public inquiry.

Fife Council, as the relevant planning authority did not object to the Application.

The Scottish Ministers are, however, required under paragraph 3(2) of Schedule 8 to the Electricity Act to consider all objections received, together with all other material considerations, with a view to determining whether a public inquiry should be held with respect to the Application. If the Scottish Ministers think it appropriate to do so, they shall cause a public inquiry to be held, either in addition to or instead of any other hearing or opportunity of stating objections to the Application.

The Scottish Ministers have received objections to the Development as outlined above. In addition, a number of other matters were raised which constitute material considerations the context of considering whether they should decide to hold a public inquiry into this case. In summary, and in no particular order, these objections related to the following issues:

- (i) Inappropriate siting;
- (ii) Size of the turbine;
- (iii) Operational Noise;
- (iv) Visual impact;
- (v) No identified developer for the demonstrator project;
- (vi) No prospect of employment in the area.

### **Inappropriate Siting**

The site at Methil was chosen for this test facility Development for reasons such as its existing infrastructure, marine environment and meteorological conditions. There is also an existing consent granted by the Scottish Ministers for a similar scheme at the site. The test site will provide easy access to the installed turbine to allow it to be monitored for certification, and for improvements to be made in turbine design and reliability. This will, in turn, provide increased certainty in the delivery of the energy generated from these turbines when they are installed in an offshore environment.

Demonstrator turbines sites are vital to the development of the Offshore Wind industry around the United Kingdom. In order for a wind farm developer to secure

funding for a site they must be able to prove the reliability and performance of the turbines they may use. Demonstrator sites allow manufacturers to test, optimise and prove the performance of their turbines before large scale production.

Locating the test turbine just offshore from the Fife Energy Park provides a close approximation of the required marine conditions to test the machines whilst allowing the access for testing monitoring and maintenance.

The Scottish Ministers consider that they have sufficient information available on the siting of the development to reach a conclusion on the matter, and do not consider that it is appropriate to cause a public inquiry to be held to further investigate this.

### Size of the turbine

The turbine to be installed on the site is a single, three bladed demonstration wind turbine with an installed capacity of up to 7 MW. The turbine tower is up to 110 metres tall, from Mean Sea Level (MSL) including the base jacket. The turbine has a maximum rotor diameter of 172 metres, giving a maximum level from the MSL to turbine tip of up to 196 metres. The size and capacity of this turbine is larger than most onshore turbines. However, the size is typical of an offshore turbine.

The Scottish Ministers consider that they have enough information on the size of the turbine, and its potential impacts to make a decision on this matter and do not consider it appropriate to cause a public inquiry to be held to further investigate this.

### Operational Noise

Concerns were raised from four of the five respondents regarding the potential noise from the Development. Fife Council also raised concerns regarding construction and operational noise.

Scottish Ministers have considered the Application and accompanying documents and all relevant responses from Consultees. Scottish Ministers consider they have enough information to make an informed decision on the Application without the need for a public inquiry.

### Visual impact

Adverse visual impact of the Development in its proposed location was raised in the outstanding objections to the Development. The Company have indicated that the turbine will have a significant effect on a number of visual receptors in the area. These effects are considered to be negative, as they will not result in any benefit to the landscape or view.

Scottish Natural Heritage have stated that as the proposal is for a demonstration turbine, and is operational for five years, its landscape and visual impacts will be more temporary than those of a commercial wind farm. Consequently they do not object to the proposal on landscape and visual grounds.

The Scottish Ministers agree with this and consider they have enough information to make an informed decision on the Application without the need for a public inquiry.

#### No identified developer for the demonstrator project

The Scottish Government, last year, announced that Samsung Heavy Industries chose Methil as the test site for their 7MW turbine.

The Scottish Ministers consider they have enough information to make an informed decision on the Application without the need for a public inquiry.

#### No prospect of employment for the area

It is estimated that the Development may directly create a small number of job opportunities in the areas of project management, legal and accountancy services, in addition to generating opportunities for potentially up to 60 local workers to establish site facilities, office, workshop and grid connection cabling and buildings during the estimated four month development and construction period.

For the supply of different components of the turbines, which is a significant part of the project, there may be opportunity for numerous companies to supply parts and materials that will be utilised within the turbine. Owing to the nature of the project requirements, local and regional businesses are also well positioned to be suppliers for the project which will be advantageous to the process of tendering for contractors. Examples of direct opportunities for local and regional contractors and companies include supplying various building materials (e.g. fencing, concrete, cement, stone, etc.) and mechanical, electrical and supervisory services.

The Scottish Ministers consider that they have enough information to make an informed decision on the Application without the need for a public inquiry.

#### **Determination**

In the circumstances, the Scottish Ministers are satisfied that-

- (1) they possess sufficient information upon which to determine the Application; and
- (2) an inquiry into the issues raised by the objectors would not be likely to provide any further factual information to assist Ministers in determining the Application; and
- (3) the objectors have been afforded every opportunity to provide information and to make representations.

Accordingly, having regard to all material considerations in this Application and the nature of the outstanding objections, the Scottish Ministers have decided that it is not appropriate to cause a public inquiry to be held.

#### **The Scottish Ministers' consideration of the environmental information**

The Scottish Ministers are satisfied that an Environmental Statement has been produced in accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (“the 2000 Regulations”) and the applicable procedures regarding publicity and consultation laid down in the 2000 Regulations have been followed.

The Scottish Ministers have taken into consideration the environmental information, including the Environmental Statement, Addendum letter, and the representations received from the consultative bodies, namely SNH and SEPA, and from Fife Council.

In terms of paragraph 3(1)(a) of Schedule 9 to the Electricity Act, the Company, when formulating a proposal to construct the generating station, must have regard to the desirability of preserving natural beauty, of conserving flora, fauna, and geological or physiological features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest. Paragraph 3(1)(b) of Schedule 9 to the Electricity Act requires the Company, when formulating such proposal, to do what it reasonably can to mitigate the effects that the generating station would have on these features.

In considering the Application, the Scottish Ministers have had regard to the desirability of the matters mentioned in paragraph 3(1)(a) and the extent to which the Company has complied with the duty under paragraph 3(1)(b). The Scottish Ministers consider that the Company has fulfilled the requirements of Schedule 9 to the Electricity Act and, by virtue of the Scottish Ministers undertaking an appropriate assessment in terms of the Habitats Directive based on the evidence, the requirements of Schedule 9 to the Electricity Act are capable of being met.

### **The Scottish Ministers’ consideration of the possible effects on a European Site**

When considering an application for section 36 consent under the Electricity Act which might affect a European protected site, the competent authority must first determine whether the Development is directly connected with or necessary for the beneficial conservation management of the site. If this is not the case, the competent authority must decide whether the Development is likely to have a significant effect on the site. Under the Habitats Directive, if it is considered that the proposal is likely to have a significant effect on the site, then the competent authority must undertake an Appropriate Assessment (AA) of its implications for the site in view of the site’s conservation objectives.

With regards to the Development, SNH advise that the turbine could have a significant effect upon the qualifying interests of two Special Protection Areas (SPAs) and one Special Areas of Conservation (SAC). As the recognised competent authority under European legislation, Scottish Ministers have considered the relevant information and undertaken an AA. The AA concluded that the Development would not adversely affect the integrity of any of the designated sites if the mitigation measures outlined were implemented by means of enforceable conditions attached

to any consent. The changes to the Development brought about by the Addendum did not necessitate a revision to the Appropriate Assessment.

### **The Scottish Ministers' consideration of the Application**

The Scottish Ministers' consideration of the Application and the material considerations mentioned above is set out below.

#### **Location of Development**

The site at Methil was chosen for this test facility Development for reasons such as its existing infrastructure, marine environment and meteorological conditions. The test site will provide easy access to the installed turbine to allow it to be monitored for certification, and for improvements to be made in turbine design and reliability. This will, in turn, provide increased certainty in the delivery of the energy generated from these turbines when they are installed in an offshore environment.

Locating the test turbine just offshore from the Fife Energy Park provides a close approximation of the required marine conditions to test the machines whilst allowing the access for testing monitoring and maintenance.

#### **Landscape and Visual**

Scottish Natural Heritage (Scottish Ministers statutory advisors on visual impacts on designated landscape features) was consulted and did not object to the proposed Development on the grounds of visual impacts. This conclusion was reached due to the fact that the proposal is for a demonstration turbine and only operational for up to five years, therefore its landscape and visual impact will be temporary in comparison to a commercial wind farm. SNH were also satisfied that the Company had extended the Zone of Theoretical Visibility (ZTV) in the Seascape, Landscape and Visual Impact Assessment to include visuals from the Lothian coastline.

Fife Council supports the general principal of the proposal and highlighted to Marine Scotland in their response to the Environmental Statement consultation that they had a number of areas of concern. These related to factors which could have significant negative effect upon residential amenity and to the visual and landscape impact in the local area. Fife Council's Supplementary Planning Guidance on Wind Energy concludes there is some capacity for single turbines of 100+ metres in height to be built in the Fife landscape. This turbine is new technology which is planned to be utilised for the emerging offshore wind farm developments. Testing and proving of innovative technologies such as larger capacity (7MW) turbines will result in fewer turbines being installed in larger wind farm developments.

Edinburgh City Council was consulted and raised no objections and agreed with the Environmental Impact Assessment's findings that no significant adverse landscape and visual effects were predicted on Edinburgh City's backdrop of the Firth of Forth, from Calton Hill within the World Heritage Site.

East Lothian Council was consulted and did not object to the proposal, recognising the need for the facility and the short time period for which consent is sought. The

Council recommended that in order to minimise and mitigate the visual impact of the project, expert opinion should be sought to select the most appropriate colouration and lighting of the turbine for the Firth of Forth area. Consequently the opinion of the Civil Aviation Authority, Defence Infrastructure Organisation and Northern Lighthouse Board has been sought for the marking and lighting of the turbine.

### Ecology and Ornithology

SNH was consulted and considered that the deployment and operation of the demonstrator turbine and associated infrastructure, including the periodical replacement of the turbine, can be implemented without serious adverse effects on natural heritage. SNH recommended that in any consent, an appropriate, detailed and agreed Project Environmental Monitoring Programme and Construction Method Statement be put in place to minimise any potential impacts.

Otters are not known to inhabit the site of the proposed Development. To be certain a condition of consent will be imposed on the Company to carry out a pre-construction otter survey to confirm no otters use the site.

SNH advised the nearest known seal haul-out site is sufficiently far away from the proposed development for disturbance impacts at the haul-out site to not be of any concern.

Considering the proposed small-scale and limited duration of the Development and the chosen option to drill and grout the pile foundations, SNH advised that there would be no significant disturbance to cetaceans provided mitigation measures were followed. Use of a Marine Mammal Observer (MMO) prior to and during noisy activities will be enforced through the inclusion of appropriate conditions. If adopted, an application for a European Protected Species Licence will not be required.

SNH consider that if appropriate mitigation measures are undertaken then the proposal shall not adversely affect the Favourable Conservation Status of qualifying features of the one SAC and two SPAs relevant to the proposed development. Owing to the view of SNH that the proposal is likely to have a significant effect on the qualifying interests of the Firth of Forth SPA, Forth Islands SPA, and Firth of Tay & Eden Estuary SAC, the Scottish Ministers, as “the competent authority” in terms of the Habitats Directive and Habitats Regulations carried out an Appropriate Assessment. The Scottish Ministers ascertained with sufficient confidence that the proposed Development will not have an adverse impact on the integrity of these SPAs and SAC, therefore it was concluded that impacts on site integrity could be avoided.

RSPB Scotland was consulted and had no comments to make given the low collision risk figures they calculated and the relatively short period of time that the turbine will be operational for (a maximum of 5 years after commissioning). The low collision risk figures calculated for breeding populations of fulmar, shag, cormorant, kittiwake, sandwich tern and common tern equates to negligible change when applied to the Forth Islands SPA populations.

SNH was consulted on Benthic ecology and consider that the proposed site of the Development is unlikely to host any benthic features that are of particular value or

aren't widely available in surrounding areas. SNH advised that none of the habitats notified as part of the Firth of Forth SSSI are present at the Development site. This was confirmed by a pre-construction benthic survey carried out for the construction of the Development's associated offshore Met Mast under a separate Marine Licence application.

Marine Scotland Science was consulted and had no comments to make on Benthic Ecology. Marine Scotland Science agreed with the findings of the associated Met Mast pre-construction benthic survey, that there are no species or habitats to be found that have any value in the area of the proposed Development.

### Cumulative Impact

#### *Landscape and Visual*

As the turbine is a demonstration turbine, only operational for a maximum of five years, any potential cumulative impact will be temporary in nature. The Development will have limited capacity for additional cumulative effects as the addition of this single turbine Development will not significantly increase the local wind farm influence.

#### *Ecology and Ornithology*

The Scottish Ministers are in agreement with SNH that any potential cumulative, and in combination, effects will not adversely effect the integrity of the one SAC and two SPAs relevant to the proposed development. This is due to the localised, modest and time-limited nature of potential impacts associated with this proposal and current knowledge of other developments likely to occur during the life-time of the Development.

### Water Resources and Coastal Hydrology

The Scottish Environment Protection Agency (SEPA) was consulted and raised no objection to the proposed Development.

Marine Scotland Science had no comments to make on coastal processes associated with the proposed Development.

SNH concluded that any impacts upon Coastal Processes would be highly localised, time-limited and unimportant considering the site is already a highly altered area of coastline.

### Archaeology and Cultural Heritage

Historic Scotland was consulted and raised no objection to the proposed Development.

### Operational Noise

Through a condition imposed by Scottish Ministers in the consent, the Company must monitor the operational noise of the turbine. If the operational noise should exceed the acceptable levels set by Fife Council, the operator of the turbine must cease its operation until such time as adequate mitigation measures have been put in place. Fife Council will use ETSU-R-97 standards on noise levels until such time a new updated standard is available.

#### Shadow Flicker

Through the inclusion of a condition within the consent, the Company will require to monitor and respond to incidents of unacceptable levels of shadow flicker by use of appropriate mitigation.

#### Aviation and Telecommunications

The Civil Aviation Authority (CAA) was consulted and the Company and operator of the turbine must adhere to aviation industry standards and procedures by the inclusion of conditions to the consent.

The National Air Traffic Service (NATS) was consulted and raised no safeguarding objection to the Development.

The Defence Infrastructure Organisation was consulted and raised no objection to the proposed Development. Requests for appropriate lighting of the structure and notices to update flying charts will be met by conditions included in the consent.

BT Network Radio Protection was consulted but submitted a nil return.

The Joint Radio Company considered the Application with respect to radio link infrastructure operated by Scottish Power and Scotia Gas Networks. No problems are foreseen by it based upon known interference scenarios on the data provided in the Environmental Statement.

#### Navigation

The Maritime and Coastguard Agency (MCA) was consulted and raised no significant concerns as the Development is unlikely to have an adverse impact on safety of navigation. Standard consent conditions provided by the MCA will form part of the consent for the Development.

The Northern Lighthouse Board (NLB) was consulted and requested that standard conditions form part of the consent for the Development.

Royal Yachting Association (Scotland) was consulted and raised no objection to the proposed Development as there is not expected to be any adverse impacts upon navigation.

#### Socio-economics, Recreation & Tourism, Land-Use and Commercial Fishing



Due to the relatively short term lifespan of the project the Socio-economics and Land Use factors whilst important were not raised as particular concerns. The potential of the project in terms of inward investment and also the relatively short time period for which consent is sought is considered to outweigh any negative impacts on these considerations. Locating this demonstrator facility in Fife will help to promote the offshore wind industry in the area. It will allow Fife to develop strong relationships with turbine manufacturers and help attract future investment.

The surrounding land is brownfield, and as such, is part of Fife Council's regeneration objectives. Fife Council endorses the regeneration of the area, calling it the 'Fife Energy Park'. The park includes the Fife Renewables Innovation Centre which has exceeded its occupancy targets by 18% with 38% of units leased against a target of 20% by March 2013.

Royal Yachting Association (Scotland) was consulted for recreational sailing purposes and raised no objection to the proposed Development.

The Scottish Canoe Association was consulted but no response was received.

The Scottish Ministers note that attitudes of tourists towards wind farms have been assessed in many studies. The results of stated preference studies have found that generally the majority of tourists were positive towards wind farms. Omnibus Research, commissioned by Visit Scotland in 2011, found that 80% of the survey respondents stated that a wind farm would not affect their decision to visit an area.

Marine Scotland Science was consulted on commercial fisheries and they had no comments to make on the proposed development due to the low fishing effort in the area. Marine Scotland Compliance was also consulted and no response was received.

The Scottish Fishermans Federation and the Scottish Fisherman's Organisation were also consulted and no responses received.

#### Climate and Carbon Balance, Healthy and Safety and Traffic Management

Due to the nature of the test facility, and the unknown performance data for the new turbine designs it is not possible to predict the exact amount of energy which will be produced by the Development over its lifespan and therefore a calculation of the displacement of CO<sub>2</sub> cannot be made. It can, however, be stated that any energy generated from the site will result in the displacement of CO<sub>2</sub> generated from non-renewable sources and that the aim of the project, to further the development of the UK offshore wind industry, will contribute to the reduction of CO<sub>2</sub> emissions from UK power generation in the long term.

The Health and Safety Executive was consulted and had no comments on the Environmental Statement. The Health and Safety Executive's principle concerns are the health and safety of people affected by work activities. The Company will be responsible for managing the site in compliance with all relevant Health and Safety Regulations.

Transport Scotland was consulted and had no comment to make as the proposed Development is likely to cause minimal environmental impact upon the trunk road network. JMP Consultants Ltd shared the views of Transport Scotland that the information provided within the Environmental Statement on the traffic associated with the proposed development will have no significant impact on the trunk road network and its adjacent receptors in terms of Noise and Air Quality.

#### Consideration of other material issues

The Scottish Ministers consider the following issues material to the merits of the section 36 consent application made under the Electricity Act.

The Company has provided adequate environmental information for the Scottish Ministers to judge the impacts of the Development.

The Company has identified what can be done to mitigate the impact of the Development.

The matters specified in paragraph 3(2) of Schedule 9 to the Electricity Act have been adequately addressed by means of the Environmental Statement and the Scottish Ministers have judged that the likely environmental impacts of the Development are acceptable.

The Scottish Ministers are satisfied that the Development can be satisfactorily decommissioned and will take steps to ensure that any decommissioning programme required under the Energy Act 2004 is prepared in a timely fashion by imposing a condition requiring the submission of a draft decommissioning plan before construction of works can take place.

The Scottish Ministers have considered fully and carefully the Application and accompanying documents and all relevant responses from consultees and the five public representations received.

The 7 MW Development 35 metres off the coast of Fife has the potential to annually generate renewable electricity equivalent to the demand from approximately 3,400 homes. This increase in the amount of renewable energy produced in Scotland is entirely consistent with the Scottish Government's policy on the promotion of renewable energy and its target for renewable sources to generate the equivalent of 100% of Scotland's annual electricity demand by 2020. Scotland requires a mix of energy infrastructure in order to achieve energy security at the same time as moving towards a low carbon economy. Due to the intermittent nature in the generation of electricity in many types of renewables, a balanced electricity mix is required to support the security of supply requirements. Scotland has the capability and the opportunity to generate a level of electricity from renewables by 2020 that would be the equivalent of 100% of Scotland's gross electricity consumption. This does not mean an energy mix where Scotland will be 100% reliable on renewables generation by 2020; but it supports Scotland's plan to remain a net exporter of electricity.

The Scottish Ministers aim to achieve a thriving renewables industry in Scotland, the focus being to enhance Scotland's manufacturing capacity, to develop new

indigenous industries, and to provide significant export opportunities. The Scottish Ministers have considered material details of how this proposal can contribute to local and national economic development priorities.

### **The Scottish Ministers' Determination**

Subject to the conditions set out in **ANNEX 2** to this Decision, the Scottish Ministers **GRANT CONSENT** under section 36 of the Electricity Act for the construction and operation of the Development, consisting of 1 turbine with a permitted capacity of up to 7 megawatts (as described in **ANNEX 1**).

The Scottish Ministers direct that this consent is to lapse on the expiry of a period of 2 years from the date of this direction if Commencement of the Development has not taken place within that period.

The Scottish Ministers direct that within 2 months of the date of this consent (and within 2 months of the final commissioning if there has been any variation on the original approved plan), the Company must provide a detailed plan showing the site boundary and all turbines in a format compatible with the Scottish Government's Spatial Data Management Environment (SDME), along with appropriate metadata to the Scottish Ministers.

The SDME is based around Oracle RDBMS and ESRI ArcSDE and all incoming data must be supplied in ESRI shapefile format. The SDME also contains a metadata recording system based on the ISO template within ESRI ArcCatalog (agreed standard used by the Scottish Government); all metadata should be provided in this format.

In accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (as amended), the Company must publicise this determination for two successive weeks in the Edinburgh Gazette and one or more newspapers circulating in the locality of the Development.

In reaching their Decision they have had regard to all objections and relevant considerations and, subject to the conditions included in this consent, are satisfied that it is appropriate for the Company to construct and operate the generating station in the manner as set out in the Application.

Copies of this letter and the consent have been sent to Fife Council. This letter has also been published on the Marine Scotland website.

The Scottish Ministers' decision is final, subject to the right of any aggrieved person to apply to the Court of Session for judicial review. Judicial review is the mechanism by which the Court of Session supervises the exercise of administrative functions, including how the Scottish Ministers exercise their statutory function to determine Applications for consent. The rules relating to the judicial review process can be found at Chapter 58 of the Court of Session rules on the website of the Scottish Courts –

<http://scotcourts.gov.uk/rules-and-practice/rules-of-court/court-of-session-rules>

Your local Citizens' Advice Bureau or your solicitor will be able to advise you about the applicable procedures.

Yours sincerely

**JAMES MCKIE**

Leader, Marine Scotland Licensing Operations Team

A member of the staff of the Scottish Ministers

XX Date

## Annex 1

### DESCRIPTION OF THE DEVELOPMENT

The consent covers the construction and operation of the Fife Energy Park Offshore Demonstration Wind Turbine situated approximately 35 metres offshore from Mean High Water Springs (MHWS). It should be noted that consent is for the construction and operation and, if appropriate, removal and replacement of the turbine for a **maximum of 5 years** after commissioning of the original turbine. If during this timescale testing is completed on the original turbine, it will be removed and replaced with a new turbine (within the same design parameters and subject to the original section 36 consent, and all of the conditions attached thereon) for testing. Only one turbine will ever be installed at any one time. The section 36 consent will cover the construction, operation and removal of all turbines tested at the site.

The principal components of the Scheme comprise of the following:

- A single, three bladed demonstration wind turbine with an installed capacity of up to 7 MW. The turbine tower is up to 110 m tall, from Mean Sea Level (MSL) including the base jacket. The turbine has a maximum rotor diameter of 172 m, giving a maximum level from the MSL to turbine tip of up to 196 m;
- A personnel bridge connection between the Fife Energy Park (FEP) and turbine tower;
- Construction of an onshore crane pad and Control compound on the FEP (which is subject to Town and Country Planning legislation, application for which has been made to Fife Council and not, therefore, covered by the section 36 consent); and
- Offshore cabling.

## Annex 2

### CONDITIONS OF THE SECTION 36 CONSENT

#### Part 1

#### Conditions of Section 36 Consent

The consent granted in accordance with section 36 of the Electricity Act 1989 is subject to the following conditions:

1. The consent is for a period from the date the consent is granted until the date occurring 5 years after the Final Commissioning of the turbine. Written confirmation of the date of the Final Commissioning of the turbine must be provided by the Company to the Scottish Ministers, the Planning Authority and Scottish Natural Heritage no later than one calendar month after the Final Commissioning of the Development.

**Reason:** *To define the duration of the consent.*

2. The Commencement of the Development must be a date no later than 2 years from the date the consent is granted, or such other date from the date of the granting of the consent as the Scottish Ministers may hereafter direct in writing.

**Reason:** *To ensure the Commencement of the Development is undertaken within a reasonable timescale after consent is granted.*

3. Commencement of the Development must not proceed until after the Company has submitted to the Secretary of State a decommissioning programme in compliance with a notice served upon the Company by the Secretary of State following consultation with the Scottish Ministers, pursuant to Sections 105(2) and (5) of the Energy Act 2004.

**Reason:** *To ensure that a decommissioning plan is submitted to the Secretary of State following consultation with the Scottish Ministers before any construction commences.*

4. In the event that for a continuous period of 12 months or more the wind turbine installed fails to produce electricity on a commercial basis to the National Grid, then unless otherwise agreed in writing by the Scottish Ministers and after consultation with any advisors as required at the discretion of the Scottish Ministers, the wind turbine, associated foundations and fitments shall be deemed by the Scottish Ministers to cease to be required. If so deemed, the wind turbine and its ancillary equipment must be dismantled and removed from the Site by the Company within the period of 12 months from the date of the decision to deem the wind turbine as ceasing to be

required and the Site must be fully reinstated by the Company to the specification and satisfaction of the Scottish Ministers after consultation with any advisors as may be required at the discretion of Scottish Ministers.

**Reason:** *To ensure that a redundant wind turbine and ancillary equipment is removed from the Site in the interests of safety, amenity and environmental protection.*

5. The Company is not permitted to assign the consent without the prior written authorisation of the Scottish Ministers. The Scottish Ministers may grant consent (with or without conditions) or refuse such authorisation as they may, in their own discretion, see fit. The consent is not capable of being assigned, alienated or transferred otherwise than in accordance with the foregoing procedure.

**Reason:** *To safeguard the obligations of the consent if assigned to another company.*

6. If any serious health and safety incident occurs on the Site requiring the Company to report it to the Health and Safety Executive then the Company must also notify the Scottish Ministers of the incident within 24 hours of the incident occurring.

**Reason:** *To inform the Scottish Ministers of any serious health and safety incident occurring on the Site.*

7. The Development must be constructed and operated in accordance with the terms of the Application, the accompanying Environmental Statement and Addendum letter, except in so far as amended by the terms of the Section 36 consent and any direction made by the Scottish Ministers.

**Reason:** *To ensure that the Development is carried out in accordance with the application documentation.*

8. Prior to the Commencement of Development a Construction Method Statement (CMS) must be submitted by the Company to the Scottish Ministers and approved, in writing by the Scottish Ministers, following consultation with the Planning Authority, Scottish Natural Heritage, the Scottish Environment Protection Agency, and any such other advisors as may be required at the discretion of the Scottish Ministers. Unless otherwise agreed in writing by the Scottish Ministers, construction of the Development must proceed in accordance with the approved CMS. The CMS must include, but not be limited to, information on the following matters:

- a. Commencement dates;

- b. Working methods including the scope, frequency and hours of operations;
- c. Methods of installation;
- d. Pollution prevention measures including contingency plans; and

The Scottish Ministers must be notified of any proposed turbine exchange three months prior to the commencement of such works. This notification must include a revised CMS detailing methods for the exchange of turbines.

**Reason:** *To ensure the appropriate construction management of the Development, taking into account mitigation measures to protect the environment and other users of the marine area.*

9. No work shall commence on the Development until the Scottish Ministers, following consultation with the Maritime and Coastguard Agency (MCA), has specified in writing that they are satisfied that the Company has taken into account and adequately addressed all of the MCA recommendations in the current Marine Guidance Note "Offshore Renewable Energy Installations - Guidance on UK Navigational Practice Safety and Emergency Response Issues" and annexes that may be appropriate to the Development, or any other relevant equivalent document which may, from time to time, supersede said Guidance.

**Reason:** *To minimise the impact of the development on navigational interests.*

10. The turbine must be fitted with a 2000 candela omni-directional red light at the highest practicable point and the turbine must be painted yellow up to 15 metres above the highest astronomical tide. The remaining parts of the structure above this point (rotor blades, nacelle and supporting mast) are to be painted entirely white, unless otherwise agreed in writing by the Scottish Ministers

**Reason:** *To minimise risk to marine and air traffic by ensuring high visibility of turbine.*

11. No later than three months prior to the Commencement of Development an appropriately targeted Project Environmental Monitoring Programme (PEMP) must be submitted to, and approved by, the Scottish Ministers in consultation with the Planning Authority, SNH, and any other ecological advisors, or such other advisors as required at the discretion of the Scottish Ministers. The PEMP must set out the specific monitoring and mitigation measures required to be undertaken by the Company associated with construction and operational noise, marine mammals, birds, basking sharks, migratory fish, shellfish and seals. The PEMP must also set out the requirements for monitoring and, where appropriate, the agreed mitigation of the potential impacts of the turbine onshore, namely – construction and operational noise, shadow flicker, television reception and ice build up. The Company must,



when directed by the Scottish Ministers, provide the data received, and information regarding mitigation measures, under the PEMP to the Scottish Ministers.

**Reason:** *To ensure that appropriate and effective monitoring of the impacts of the Development is undertaken.*

12. The Project Environmental Monitoring Programme (PEMP) is a living document that is reviewed and updated by the Company as and when data from the demonstrator turbine is analysed. A copy of the updated PEMP must be submitted to, and approved by, the Scottish Ministers, with the first copy being submitted to the Scottish Ministers for approval no later than one year after the final commissioning of the turbine and thereafter on an annual basis, until the Development is decommissioned.

**Reason:** *To ensure that appropriate and effective monitoring of the impacts of the Development is undertaken.*

13. The operational noise of the turbine must not exceed the limits set out in the first table in Annex 3 to this consent at the stated times, wind speeds and locations. If the monitoring of the operational noise through the Project Environmental Monitoring Programme (PEMP) shows that the noise of the turbine exceeds those limits, at those times, wind speeds and locations, then the operation of the turbine must cease immediately until such time as the Company has satisfied the Scottish Ministers, in consultation with Fife Council, that adequate mitigation measures have been put in place.

**Reason:** *To minimise the impact of the Development.*

14. Prior to the Commencement of the Development, a Construction Noise Management Plan must be submitted to, and approved by, the Scottish Ministers, in consultation with any such advisors from Fife Council, as identified at the discretion of the Scottish Ministers.

The Company must implement the approved Construction Noise Management Plan in full, unless otherwise agreed in writing by the Scottish Ministers.

**Reason:** *To ensure the proper environmental control in respect of noise, and to safeguard the amenities of the nearest residential properties.*

15. Within 12 months of the Final Commissioning of the turbine, any claim by any individual person regarding television picture loss or interference at their house, business premises or other building, which they claim is attributable to the operation of the turbine must be investigated by a qualified engineer appointed by the Scottish Ministers in consultation with the Planning Authority. The Company is liable for any reasonable expenses incurred by any

investigation. The results of the investigation must be submitted to the Scottish Ministers. Should any impairment to the television signal be attributable to the Development, the Company must remedy such impairment as soon as practicable to provide that the standard of reception at the affected property is equivalent to the baseline TV reception.

**Reason: For the protection of the local amenity.**

16. Three months prior to the Commencement of the Development a pre-construction otter survey must be undertaken by a suitably qualified ecologist. The survey must include the Development footprint (i.e. access roads, turbine location, temporary construction areas etc.) and an appropriate buffer (maximum 500 metres) around each of these. In the event that an otter is (or otters are) observed or signs of breeding or resting otter (or otters) be discovered during construction works then works within 100 metres radius of the site of the observation or signs must cease until a survey determines whether there is a holt. If a holt is discovered, construction cannot resume unless suitable mitigation measures have been agreed by SNH and carried out by the Company.

**Reason: In the interest of the protection of species of European importance.**

17. The works must be maintained by the Company at all times in good repair.

**Reason: To ensure the works do not become a risk to Navigation.**

18. At a time to be agreed by the Scottish Ministers, in consultation with the Civil Aviation Authority (CAA), the following information must be provided by the Company to the CAA for aviation charting purposes:

- a. Precise location of the turbine;
- b. Maximum blade tip height;
- c. Construction start and end dates;
- d. Confirmation the turbine is lit in accordance with Article 220; and
- e. Confirmation that the colour of the turbine is as directed.

**Reason: In the interests of aviation safety.**

## Definitions

In this consent:

“the Application” means the Application and Environmental Statement submitted to the Scottish Ministers by the Company on 30 July 2012.

“Article 220” means Article 220 of The Air Navigation Order 2009.

“the Company” means Scottish Enterprise, New Lanarkshire House, Strathclyde Business Park, ML4 3AD.

“the Development” means the Fife Energy Park Offshore Demonstration Wind Turbine (FEPODWT), Methil, Fife.

“Commencement of the Development” means the date on which the first construction activity occurs in accordance with the Environmental Statement submitted by the Company on 30 July 2012.

“Environmental Statement” means the Environmental Statement submitted to the Scottish Ministers by the Company on 30 July 2012 as part of the Application as defined above.

“Final Commissioning of the turbine” means the date on which the first wind turbine generator constructed forming the Development has supplied electricity on a commercial basis to the National Grid, or such earlier date as the Scottish Ministers deem the Development to be complete.

“Habitats Directive” means Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora as amended.

“Planning Authority” means Fife Council.

“SEPA” means the Scottish Environment Protection Agency.

“Site” means the area of land outlined in red on Figure 1.2, attached to this consent.

“SNH” means Scottish Natural Heritage.

### **Annex 3**

## **FIFE COUNCIL RECOMMENDED CONDITION ON NOISE LEVELS**

## Recommended Condition on Noise Levels

The rating level of noise emissions from the wind turbine generator, when measured and calculated in accordance with the Guidance Notes below shall not exceed the following levels at the stated wind speed at the named dwellings in Methil and Buckhaven (All measurements are  $L_{A90,10min}$ ):

	<b>Wind Speed at 10m Height (mps)</b>								
	4	5	6	7	8	9	10	11	12
<b>Rear Boundary of 20 Wellesley Road</b>									
Night-Time Noise Limit	43	43	43	44.5	47.2	49.9	51.6	51.2	51.2
Day-Time Noise Limit	44	44.1	44.8	46.3	48.8	48.8	48.8	48.8	48.8
<b>Rear boundary of 94 Wellesley Road</b>									
Night-Time Noise Limit	43	43	43	43	43.4	46.7	49.1	49.9	49.9
Day-Time Noise Limit	41.3	41.5	42.7	45.1	47.9	47.9	47.9	47.9	47.9
<b>Rear garden of 12 Erskine Street</b>									
Night-Time Noise Limit	43	43	43	43	43	44.2	46	46	46
Day-Time Noise Limit	38.9	38.9	38.9	41.2	44.1	44.1	44.1	44.1	44.1

## THE GUIDANCE NOTES

The following paragraphs are based upon steps 2-6 specified in Section 2 of the Supplementary Guidance Notes to the Planning Obligation contained within pages 102 et seq of "The Assessment and Rating of Noise from Wind Farms, ETSU-R-97" published by ETSU for the Department of Trade and Industry. It has been adapted in the light of experience of actual compliance measurements.

### NOTE 1

Values of the  $L_{A90,10min}$  noise statistic should be measured at the affected property using a sound level meter of at least IEC 651 Type 1 quality. This should be fitted with a ½" diameter microphone and calibrated in accordance with the procedure specified in BS 4142: 1990. The microphone should be mounted on a tripod at 1.2 - 1.5 m above ground level, fitted with a two layer windshield wind shield or suitable equivalent, and placed in the vicinity of, and external to, the property. The intention is that, as far as possible, the measurements should be made in "free-field" conditions. To achieve this, the microphone should be placed at least 3.5m away from the building facade or any reflecting surface except the ground.

The  $L_{A90,10min}$  measurements should be synchronised with measurements of the 10-minute average wind speed and with operational data from the turbine control systems of the wind farm or farms.

The wind speed and wind direction and a note of all 10 minute periods when one or more of the turbines was not operating normally should be provided to the consultant to enable an analysis to take place.

The precise definition of "normal operation" should be agreed in writing with the local authority prior to the commencement of the development on the basis of data available



but should generally be taken to mean when the turbine power output is not significantly different from the reference power curve using the nacelle anemometer.

In the interests of commercial confidentiality no information is required to be provided for individual turbines or on the nature of any abnormality or for any period during which noise monitoring is not taking place.

#### NOTE 2

The noise measurements should be made over a period of time sufficient to provide not less than 100 valid data points. Measurements should also be made over a sufficient period to provide valid data points throughout the range of wind speeds considered by the local authority to be most critical. Valid data points are those that remain after the following data have been excluded:

- All periods during rainfall
- All periods during which wind direction is more than 45 degrees from every line from each of the turbines and the measurement position.
- All periods during which turbine operation was not normal.

A least squares, "best fit" curve should be fitted to the data points.

#### NOTE 3

Where, in the opinion of the Local Authority, the noise immission contains a tonal component, the following rating procedure should be used. This is based on the repeated application of a tonal assessment methodology.

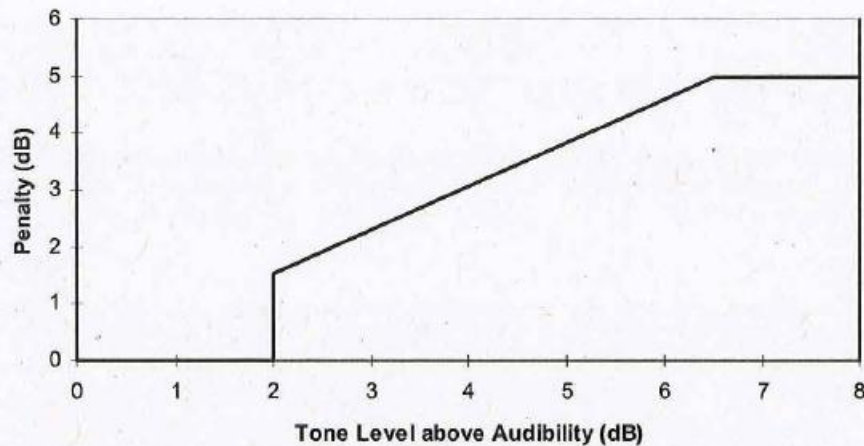
For each 10-minute interval for which  $L_{A90,10min}$  data have been obtained, a tonal assessment is performed on noise immission during 2-minutes of the 10-minute period. The 2-minute periods should be regularly spaced at 10-minute intervals provided that uninterrupted clean data are obtained.

For each of the 2-minute samples the margin above or below the audibility criterion of the tone level difference,  $\Delta L_{tm}$ , is calculated by comparison with the audibility criterion given in Section 2.1 on page 104 et seq of ETSU-R-97.

The margin above audibility is plotted against wind speed for each of the 2-minute samples. For samples for which the tones were inaudible or no tone was identified, substitute a value of zero audibility.

A linear regression is then performed to establish the margin above audibility at the assessed wind speed. If there is no apparent trend with wind speed then a simple arithmetic average will suffice.

The tonal penalty is derived from the margin above audibility of the tone according to the figure below.



The rating level at each wind speed is the arithmetic sum of the wind farm noise level, as determined from the best fit curve described in Note 2, and the penalty for tonal noise.

The rating level shall be determined for each wind speed. If the values lie below the maximum values of turbine noise indicated by the tables in the conditions then no further action is required.

#### NOTE 4

If the rating level is above the limit, a correction for the influence of background noise should be made. This may be achieved by repeating the steps in Note 2, with the wind farm switched off, and determining the background noise at the assessed wind speed,  $L_b$ . The wind farm noise at this speed,  $L_w$ , is then calculated as follows where  $L_a$  is the measured level with turbines running but without the addition of any tonal penalty:

$$L_w = 10 \log \left( 10^{\frac{L_a}{10}} - 10^{\frac{L_b}{10}} \right)$$

The Rating level is re-calculated by adding the tonal penalty (if any) to the wind farm noise. If the rating level lies below the values indicated from the tables in the conditions then no further action is required.

If the rating level exceeds any of the turbine noise levels in the tables then the development fails to comply with the conditions

**JAMES MCKIE**

Leader, Marine Scotland Licensing Operations Team

A member of the staff of the Scottish Ministers

XX April 2013

## ANNEX E – APPROPRIATE ASSESSMENT

### APPLICATION FOR CONSENT UNDER S36 OF THE ELECTRICITY ACT 1989 FOR THE CONSTRUCTION AND OPERATION OF THE FIFE ENERGY PARK OFFSHORE DEMONSTRATION WIND TURBINE ON THE NORTHERN SHORE OF THE FIRTH OF FORTH AT THE FIFE ENERGY PARK, METHIL.

Appraisal of the Implications of the proposed THE FIFE ENERGY PARK OFFSHORE DEMONSTRATION WIND TURBINE, on the Firth of Forth, Forth Islands and Loch Leven Special Protection Areas, and the Isle of May and Firth of Tay & Eden Estuary Special Areas of Conservation.

18 December 2012

The following appraisal has been prepared by the Scottish Ministers as the Competent Authority for the above proposal. The frameworks are based on those provided in the European Commission's guidance document "Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC".

**APPROPRIATE ASSESSMENT CONCLUSION:** Marine Scotland Licensing Operations Team (MS-LOT) is in agreement with the findings of Scottish Natural Heritage (SNH) that the proposed Fife Energy Park Offshore Demonstration Wind Turbine (FEPODWT) will not adversely affect the integrity of the Firth of Forth SPA, SSSI and Ramsar Site, Forth Islands SPA, Loch Leven SPA, SSSI and Ramsar Site and the Firth of Tay & Eden Estuary SAC.

#### 1a. Name of Natura site affected & current status available from:

1. Firth of Forth SPA & Ramsar <a href="http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8499">http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8499</a> <a href="http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8424">http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8424</a>
2. Forth Islands SPA <a href="http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8500">http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8500</a>
3. Isle of May SAC <a href="http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8278">http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8278</a>
4. Firth of Tay & Eden Estuary SAC <a href="http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8257">http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8257</a>
5. Loch Leven SPA & Ramsar <a href="http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8530">http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8530</a> <a href="http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8436">http://gateway.snh.gov.uk/sitelink/siteinfo.jsp?pa_code=8436</a>

#### 1b. Name of component SSSI if relevant

1. Firth of Forth SSSI	2. Forth Islands SSSI
3. Isle of May SSSI	4. Eden Estuary SSSI
5. Loch Leven SSSI	



### 1c. European qualifying interests & whether priority/non-priority:

<p><b>1. Firth of Forth SPA</b></p> <ul style="list-style-type: none"> <li>▪ Bar-tailed godwit (non-breeding)</li> <li>▪ Common scoter (non-breeding)*</li> <li>▪ Cormorant (non-breeding)*</li> <li>▪ Curlew (non-breeding)*</li> <li>▪ Dunlin (non-breeding)*</li> <li>▪ <b>Eider</b> (non-breeding)*</li> <li>▪ Golden plover (non-breeding)</li> <li>▪ Goldeneye (non-breeding)*</li> <li>▪ Great crested grebe (non-breeding)*</li> <li>▪ Grey plover (non-breeding)*</li> <li>▪ Knot (non-breeding)</li> <li>▪ Lapwing (non-breeding)*</li> <li>▪ Long-tailed duck (non-breeding)*</li> <li>▪ Mallard (non-breeding)*</li> <li>▪ Oystercatcher (non-breeding)*</li> <li>▪ Pink-footed goose (non-breeding)*</li> <li>▪ Red-breasted merganser (non-breeding)*</li> <li>▪ Redshank (non-breeding)</li> <li>▪ Red-throated diver (non-breeding)</li> <li>▪ <b>Ringed plover</b> (non-breeding)*</li> <li>▪ Sandwich tern (passage)</li> <li>▪ Scaup (non-breeding)*</li> <li>▪ <b>Shelduck</b> (non-breeding)</li> <li>▪ Slavonian grebe (non-breeding)</li> <li>▪ Turnstone (non-breeding)</li> <li>▪ Velvet scoter (non-breeding)*</li> <li>▪ Wigeon (non-breeding)</li> <li>▪ Waterfowl assemblage (non-breeding)</li> </ul> <p>* = assemblage qualifier only  <b>BOLD</b> = listed as breeding in SSSI</p>	<p><b>2. Forth Islands SPA</b></p> <ul style="list-style-type: none"> <li>▪ Arctic tern (breeding)</li> <li>▪ Common tern (breeding)</li> <li>▪ Cormorant (breeding)*</li> <li>▪ Fulmar (breeding)*</li> <li>▪ Gannet (breeding)</li> <li>▪ Guillemot (breeding)*</li> <li>▪ Herring gull (breeding)*</li> <li>▪ Kittiwake (breeding)*</li> <li>▪ Lesser black-backed gull (breeding)</li> <li>▪ Puffin (breeding)</li> <li>▪ Razorbill (breeding)*</li> <li>▪ Roseate tern (breeding)</li> <li>▪ Sandwich tern (breeding)</li> <li>▪ Shag (breeding)</li> <li>▪ Seabird assemblage (breeding)</li> </ul> <p>* = assemblage qualifier only</p>
<p><b>3. Isle of May SAC</b></p> <ul style="list-style-type: none"> <li>▪ Grey Seal</li> </ul>	<p><b>4. Firth of Tay &amp; Eden Estuary SAC</b></p> <ul style="list-style-type: none"> <li>▪ Common (harbour) seal</li> </ul>
<p><b>5. Loch Leven SPA</b></p> <ul style="list-style-type: none"> <li>▪ Teal (non-breeding)</li> <li>▪ Cormorant (non-breeding)</li> <li>▪ Gadwall (non-breeding)</li> <li>▪ Goldeneye (non-breeding)</li> <li>▪ Pink-footed goose (non-breeding)</li> <li>▪ Pochard (non-breeding)</li> <li>▪ Shoveler (non-breeding)</li> <li>▪ Tufted duck (non-breeding)</li> <li>▪ Whooper swan (non-breeding)</li> <li>▪ Waterfowl assemblage (non-breeding)</li> </ul>	

**1d. Conservation objectives for qualifying interests:**

To avoid deterioration of the habitats of the qualifying species (detailed in section 1c) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and

To ensure for the qualifying species that the following are maintained in the long term:

- Population of the species as a viable component of the site
- Distribution of the species within site
- Distribution and extent of habitats supporting the species
- Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species

## PROPOSAL DETAILS

### 2a. Proposal title & name of consultee (i.e. applicant or competent authority)

Fife Energy Park Offshore Demonstration Wind Turbine. Scottish Enterprise
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### 2b. Date of Consultation:

SNH response to S36 and Marine Licence consultation received 01 October 2012

### 2c. Type of Case:

Appropriate Assessment (AA) of the proposed Offshore Demonstration Wind Turbine at the Fife Energy Park, Methil, Fife.

### 2d. Details of proposed operation (inc. location, timing, methods):

<p>The proposal is to construct, operate and decommission a site for the testing of new designs of offshore wind turbines with a capacity of up to 7 MW at the Fife Energy Park, Methil. The Development would be operational for 5 years. Timing of the works is proposed to be August 2012 – June 2018. During this timescale there is potential for more than one turbine model to be tested at the site. Once one turbine had been tested it would be removed from the site and replaced with a new turbine which would fall within the same design parameters (maximum hub height of 110 m, rotor diameter of 172 m, and maximum height to turbine tip from MSL of 196 m). Only one turbine would ever be installed at any one time. The base would remain in place throughout the Development. All turbines will be removed after 5 years from the operation of the first turbine.</p>
--

The Development will comprise:

- A single, three bladed demonstration wind turbine with an installed capacity of up to 7 MW. The turbine tower is up to 110 m tall, from Mean Sea Level (MSL) including the base jacket. The turbine has a maximum rotor diameter of 172 m, giving a maximum level from the MSL to turbine tip of up to 196 m;
- A personnel bridge connection between the Fife Energy Park (FEP) and turbine tower;
- Construction of an onshore crane pad on the FEP; and
- Construction of an onshore Control compound

## ASSESSMENT IN RELATION TO REGULATION 20 or 48

### 3a. Is the operation directly connected with or necessary to conservation management of the site? YES/NO If YES give details:

The operation is not connected with or necessary to conservation management of the site
---

If yes and it can be demonstrated that the tests in 3b have been applied to all the interest features in a fully assessed and agreed management plan then consent can be issued but rationale must be provided, including reference to management objectives. If no, or if site has several European qualifying interests and operation is not directly connected with or necessary to the management of all of these then proceed to 3b

### 3b. Is the operation likely to have a significant effect on the qualifying interest? Repeat for each interest on the site.

During the consultation phase of the S36 and Marine Licence process, SNH concluded that the proposed turbine is:

- **Likely** to have a significant effect on harbour seals as the qualifying feature for Firth of Tay and Eden Estuary SAC if vessels with ducted propellers are used.
- **Likely** to have a significant effect on any qualifying features of the Firth of Forth SPA due to collision risk, loss of or damage to foraging habitat and from disturbance and displacement impacts.
- **Likely** to have a significant effect on any qualifying features of the Forth Islands SPA due to collision risk.
- **Likely** to have a significant effect on the qualifying interest of non-breeding cormorants in the Loch Leven SPA due to collision risk.

The following are not considered further in this assessment as SNH concluded that the proposed turbine is:

- **Not likely** to have a significant effect on grey seals as the qualifying feature of the Isle of May SAC

The potential impacts to consider for birds are collision risk with turbine blades, disturbance and displacement due to the construction and decommissioning activities and loss of or damage to foraging habitat.

The potential impacts to consider for seals are disturbance due to the construction and decommissioning activities and physical interaction with ducted propellers of work vessels, if vessels with ducted propellers are used.

- i) Indicate which feature of interest could be affected by the proposed operation and briefly in what way; if none proceed to v), otherwise continue;*
- ii) Refer to other plans/projects with similar effects/other relevant evidence;*
- iii) Consider scale, longevity, reversibility of effects;*
- iv) Consider whether proposal contributes to cumulative or incremental impacts with other projects completed, underway or proposed;*
- v) Give Yes/No conclusion for each interest.*

YES
-----

**If no for all features, a consent or non-objection response can be given and recorded under 4 (although if there are other features of national interest only, the effect on these should be considered separately). If potential significant effects can easily be avoided, record modifications required under 3d.**

**If yes, or in cases of doubt, proceed to 3c.**

### **3c. Appropriate Assessment of the implications for the site in view of the site's conservation objectives.**

- i) Describe for each European qualifying interest the potential impacts of the proposed operation detailing which aspects of the proposal could impact upon them.*
- ii) Evaluate the significance of the potential impacts, e.g. whether short/long term, reversible or irreversible, and in relation to the proportion/importance of the interest affected, and the overall effect on the site's conservation objectives. Record if additional survey information or specialist advice has been obtained.*

**SPA** - Based on appraisals carried out, SNH concluded the Turbine will have no adverse effect on the integrity of the Firth of Forth SPA, Forth Islands SPA and Loch Leven SPA.

#### Disturbance and Displacement

No likely significant effect (LSE) to qualifying interests of the Forth Islands SPA in relation to disturbance impacts. The appraisal considered the construction methods, the scale of the site, the distance from the SPA and the limited importance of the immediate area for species from the SPA.

The appraisal for the Firth of Forth SPA considered the bird species which may be disturbed are those which use the intertidal area:

- Bar-tailed godwit (*Limosa lapponica*)
- Curlew (*Numenius arquata*)
- Dunlin (*Calidris alpina alpina*)
- Golden plover (*Pluvialis apricaria*)
- Grey plover (*Pluvialis squatarola*)
- Knot (*Calidris canutus*)
- Oystercatcher (*Haematopus ostralegus*)
- Redshank (*Tringa totanus*)
- Ringed plover (*Charadrius hiaticula*)
- Turnstone (*Arenaria interpres*)

The conclusion was reached through consideration of the following factors:

- the area immediately adjacent to the development site does not appear to be a particularly high-value foraging habitat and;
- by using drilling and grouting (rather than pile-driving) for installation of the turbine and bridge foundation, this also limits the extent of potential disturbance impacts.

#### Loss of or Damage to Available Foraging Habitat

No LSE to qualifying interests of the Forth Islands SPA in relation to impacts on foraging habitat. This conclusion was reached due to the limited value of the development site for foraging by species from the SPA.

The appraisal considered that the potential foraging areas for the qualifying species of the Firth of Forth SPA (and SSSI) that may be affected by the seabed preparations and the development footprint extending into the intertidal area.

The conclusion was reached through consideration of the following factors:

- the relatively poor quality of the habitat at this location and;
- the small scale of the area impacted relative to availability of similar and higher quality habitat in other parts of the SPA.

#### Collision Risk with Turbine Blades

Predicted annual mortality (see table below) is not expected to give rise to any detectable population-level effects upon any of the SPAs qualifying species. The relatively short operating period of 5 years gives additional comfort that collision mortality is unlikely to be of concern for this proposal. It is noted that there is an interchange between cormorant breeding in the Forth Islands SPA and those wintering in Loch Leven SPA (which MS-LOT has taken into account in this assessment).

Receptor	Cormorant	Shag	Oystercatcher	Kittiwake	Sandwich Tern	Common Tern
Collision Risk (birds/year)	0.83	0.64	1.16	1.34	3.89	1.43

Based on an appraisal of the proposed Turbine and knowledge of other developments or activities in the Forth and Tay region, any potential cumulative and in combination effects will not adversely effect the integrity of any SPA. This appraisal considered the following factors:

- consideration of proposals and activities we are aware of occurring over the duration of the proposed project and;
- the localised, modest and time-limited nature of potential impacts associated with this proposal.

**SAC** - Based on appraisals carried out, SNH concluded the Turbine will have no adverse effect on the integrity of the Firth of Tay & Eden Estuary SAC.

The appraisal considered the localised, modest and time-limited nature of the potential impacts and through the applicants' commitment to use a Marine Mammal Observer (MMO) during all construction operations. Further to these considerations, where possible, alternatives to ducted propellers (if proposed to be used) should be considered and development activity during harbour seal breeding season (~1st June to 31st August) should be avoided. Mitigation of impacts through use of an MMO is essential and a protocol should be approved through agreement of the Construction Method Statement (CMS) with Marine Scotland.

Based on an appraisal of the proposed Turbine and knowledge of other developments or activities in the Forth and Tay region, any potential cumulative and in combination effects will not adversely effect the integrity of any SAC. This appraisal considered the following factors:

- consideration of proposals and activities we are aware of occurring over the duration of the proposed project and;
- the localised, modest and time-limited nature of potential impacts associated with this proposal.

Impacts upon harbour seals are of particular concern due to population declines on the east coast, including an 'unfavourable declining' status of the Firth of Tay and Eden Estuary population. The harbour seal Potential Biological Removal (PBR) for the Scottish East Coast Seal Management Area was last updated on the 31<sup>st</sup> May 2012 to just 2 individuals.

In conclusion, MS-LOT is in agreement with the findings of SNH (as above) that the development will not adversely affect the integrity of the SPAs or SAC assessed.

*iii) In the light of the assessment, ascertain whether the proposal will not adversely affect the integrity of the site for the European interests. If SAC and/or SPA and/or Ramsar site, give separate conclusions. If conditions required, proceed to 3d.*

The proposed Fife Energy Park Offshore Demonstration Wind Turbine will not adversely affect the integrity of the Firth of Forth SPA, SSSI and Ramsar Site, Forth Islands SPA, Loch Leven SPA and the Firth of Tay & Eden Estuary SAC.

### 3d. Conditions proposed.

*Indicate conditions/modifications required to ensure adverse effects are avoided, & reasons for these.*

<i>Condition:</i>	<i>Reason:</i>
1. No pile-driving for installation of device and bridge foundations (drilling and grouting only).	1&2. To avoid the need for further assessment of noise to take into account disturbance to cetaceans.
2. The Licensee shall ensure that a Marine Mammal Observer (MMO) is in place on the installation vessel prior to, and during, noisy activities to remove any risk of injury or disturbance to any cetaceans and seals.	1,2&3. To ensure that there is no significant injury or disturbance to marine mammals, including those which are European Protected Species (EPS) i.e. cetaceans. If the applicant adopts the appropriate mitigation then they do not also need to make an application for an EPS licence under The Conservation (Natural Habitats, &c.) Regulations 1994 (the Habitats Regulations). Any person employed as an MMO needs to have the relevant training from JNCC as well as relevant work experience
3. The Licensee shall reduce usage of vessels with ducted propellers where possible (if proposed to be used), and will not conduct works with ducted propellers during harbour seal breeding season (~1st June to 31st August), without written consent from Marine Scotland Licensing Operations Team (MS-LOT).	
4. A Construction Methods Statement (CMS), and an Environmental Monitoring and Mitigation Plan (EMMP) (previously known as a Post-Construction Monitoring Plan (P-CMP)) are to be put in place and agreed with Scottish Natural Heritage (SNH) and Marine Scotland Licensing Operations Team (MS-LOT) one month prior to the commencement of the works.	4. To allow a better understanding of possible impacts on marine wildlife.
5. As part of the Construction Method Statement (CMS) a Marine Mammal Observer (MMO) Protocol is to be agreed with Marine Scotland Licensing Operations Team (MS-LOT) prior to the commencement of the works.	5. To represent good practice and further reduce any residual effects. In combination with adherence to SMWWC guidelines to help minimise the risk of seal injury from vessel thrusters.
6. The Construction Method Statement (CMS) shall detail methods proposed for the exchange of turbines to be tested at the site. Notification to Marine Scotland Licensing Operations Team (MS-LOT) of a proposed turbine exchange is required three months prior to the commencement of the works.	6. To allow a better understanding of possible impacts on marine wildlife.
7. Carry out a further pre-construction otter survey.	7. To ensure the proposed development has remained holt and resting place free, thereby verifying that an EPS Licence or mitigation are not required.

#### 4. RESPONSE

##### a) Marine Scotland's Comments

For Marine Scotland advice to other authorities:

Will not adversely affect integrity of the sites
--

For Marine Scotland response to request for opinion on effects of permitted development:

Will not adversely affect integrity of the sites
--

For Marine Scotland response to application:

Licence process will continue
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<b>Name of assessor</b>	Alexander Ford
<b>Date</b>	18 December 2012
<b>Name of approver</b>	Gayle Holland
<b>Date</b>	17 January 2013



## **ANNEX F – PUBLIC REPRESENTATIONS**

### **APPLICATION FOR CONSENT UNDER S36 OF THE ELECTRICITY ACT 1989 FOR THE CONSTRUCTION AND OPERATION OF THE FIFE ENERGY PARK OFFSHORE DEMONSTRATION WIND TURBINE ON THE NORTHERN SHORE OF THE FIRTH OF FORTH AT THE FIFE ENERGY PARK, METHIL.**

There were five public representations received during the course of the public consultation exercise. Three were objections, two from local persons and one from a community council. The fourth was neither an objection nor a message of support. The fifth was a letter from a resident of Cupar concerned about the operational noise of the turbine.

#### **1. Received from an individual with an address in Leven. The representation was as follows:**

“I wish to register my objection to the proposed siting of a test offshore wind turbine in or around Methil Fife. My ground for my objections are

1. The Scottish Enterprise by their own admission have no client for this site therefore they cannot make any accurate plans to develop the site as no Engineering data for this turbine exists.
2. The environmental impact to the residents within the Methil and Leven Area. Health and Safety
3. No prospect of jobs for this area from this project.
- 4 The Levenmouth council had this area zoned for regeneration
5. Visual impact to the area
6. Sound impact to the area.
7. The vast majority of the residents of Levenmouth do not support this application”

#### **2. Received from an individual with no address given, but has same surname as representation 1. The representation was as follows:**

“I am writing to object to the erection of the proposed wind turbine in Methil for the following reasons.

- 1 – This wind turbine is meant for offshore. Offshore turbines are normally deployed 12 kms from land and it should therefore not be sited a mere 48 metres from the Methil sea wall.
- 2 -The proposed wind turbine is 85m higher than the biggest turbines that might be considered appropriate on land as recommended in Fife’s planning guidance.
- 3 – This proposed turbine also has more than twice the installed capacity of land based turbines
- 4 – This wind turbine will be sited far too close to residential properties, schools, shops etc.
- 4 – Local residents will be subjected to a high level of noise 24 hours a day. This will have serious health & safety issues.
- 5 – It will have a very negative visual impact on the landscape and the environment.
- 6 – More CO2 emissions in its construction stage than will be saved.
- 7 – The Scottish enterprise do not have a client for this turbine, therefore all the costs of construction etc. will have to be met by the taxpayer.

8 – No justification for having to build it at all. If it is just for a test period any testing could and should be carried out in a safer factory environment.  
9 - No guarantees of any jobs for Methil and the local community as a whole.  
10 – Scottish Ministers should not be allowed to approve this turbine.  
Fife Council & Fife Planning department in full consultation with all the people of Fife should ultimately make any decision based on Fife's current planning guidelines."

**3. Received from Largo Area Community Council. The representation was as follows:**

"The Community Council submits this objection with respect to this application.

This proposal is for a demonstration wind turbine to test prototype technology. Its location site appears to be purely for the convenience of easy access on a daily basis. The CC questions the validity of results gained from this site so close to the shoreline when final wind turbine destination is to be the open sea. The results gathered should not therefore be assumed to be transferrable; it suggests that this site is not appropriate.

The fact this wind turbine is a demonstration model to test prototype technology must allow for the element of unpredictability. Because of its size and proposed location this unpredictable element could result in issues that threaten the safety not only of the residents living close by, but also include those living both to the east and west of the site.

We request further consideration be given to the location of this proposal that would reflect the concerns of communities its impact will affect."

**4. Received from an individual with no address given. The representation was as follows:**

"Fife Council require assurances over particular noise levels, as well as the visual and landscape impact of the new prototype wind turbine 48m off the Methil sea wall.

According to our local newspaper these matters must be considered in full prior to any decision being taken on the proposed installation. Will those affected by these wind turbine installations be given full information as regards noise levels and all other pertinent facts?

As you are aware, in all other industrial complexes there are laid down limits for noise pollution and other factors which may affect the local population. Is this the case with these units? If so what are these limits and do these wind turbine meet these limits?

It is my considered opinion that this installation will reduce the market value of all properties in the immediate vicinity and this should be addressed in the final analysis. Will The Scottish Government inform fully all those 60 homes which will be affected by the wind turbines?"

**5. Received from an individual with an address in Cupar. The letter reads as follows:**

**“Application for Consent for Marine Wind Turbine under Section 36 of the Electricity Act (1989) at Methil in Fife Scottish Enterprise/Samsung**

I refer to your letter of 4<sup>th</sup> December 2012 under the above heading.

While our correspondence has been about the 2B Energy Consent and the absence of a noise condition the focus of my concern is the new application for the Scottish Enterprise/Samsung three bladed turbine on the same site as the earlier consent.

I do not believe it would be acceptable or in the public interest to consent the Samsung proposal without an enforceable noise condition and to do otherwise may be unlawful.

I am not an expert on noise. I have informally consulted an acoustic consultant with great experience in assessing noise assessments for wind farms and individual turbines across a wide range of installed capacity and draw on his comments, in blue, for the following.

The Environmental Statement for the Samsung proposal has used information on noise from the 2B application and drawn conclusions for the proposed demonstration turbine.

In Table 6.5. the consultant says “If we are to comply with ETSU this is the maximum sound power level that the turbine can be” –

A good argument for a condition restricting noise levels to comply with ETSU

The background noise information is sketchy to say the least. There is nothing to show where the locations of the measurements are, no graphs and so on. I could not see a reference to the application number of the original survey.

There may have been scatter graphs in the 2B papers and locational information on residential properties.

As an ES the document comes under the EU Environmental Assessment Directive 99/337/EEC and incorporated into Scots Law by means of the EIA (Scotland) Regulations 1999 (as amended). Article 3 of the directive says

*The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 11, the direct and indirect effects of a project on . . . human beings. Annexe IV requires that an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed project is made. It also requires A description of the likely significant effects of the proposed project on the environment resulting from . . . . - the emission of pollutants.*

In 6.2.3 it describes the assessment procedure used which is strictly in compliance with ETSU-R-97. Yet in 6.2.1.10 it says that ETSU-R-97 does not measure significance.

Therefore the EU directive is not complied with

In 6.7 there is a statement of significance simply saying that because it meets ETSU-R-97 the noise is not significant. Yet the noise level could be 43dB at night when background noise is about 31dB which by any other measure would be highly significant. But we can't be certain of this because they have not told us where the nearest residential locations are nor what the turbine noise level will actually be – only the maximum.

A noise condition, properly drafted, may answer these concerns.

I think that the noise section is inadequate for a development of this scale. The applicants do not know what the noise levels will be – merely that they will cap them at the absolute maximum permissible under guidance. We do not know whether that means they are going to turn them up at night and down in the morning. It is a demonstration turbine. How are they going to operate it? Are they going to experiment with different noise modes for example, meaning that the noise may change all the time, go on and off and so on.

And of course only the operator knows what its mode of operation may be, and so to be sure of reasonable protection of residents without being too restrictive on the developer a condition that the operation of the demonstration turbine conforms to ETSU-97-R should be applied to any consent. We point out though that ETSU-R-97 was developed more than 15 years ago for land based turbines about one third the size of that which is proposed here. You may wish to consider its appropriateness in these circumstances.

These considerations are not only in the interest of residents but also of employees working in future industrial developments at the Fife Energy Park such as the proposed foundry and Bi-Fab.

For such a condition to be effective there first has to be accurate measurement of background noise over a sustained period. Without that, any predictions and allegations of compliance are meaningless.

Methil is one of the most deprived areas in Scotland and the proposed turbine with its devastating visual impact and certain noise nuisance would do nothing to change that

As I say this is in the public interest and I would welcome your confirmation that my concern will be addressed.”

## ANNEX G – TURBINE LOCATION

