

**REFERENCE DOCUMENTS for
PROPOSED LARGER TURBINES AND MET MASTS
AT UPPERCHURCH WINDFARM
for EIAR 2021 and AA 2021**

REFERENCE DOCUMENT 1 of 36

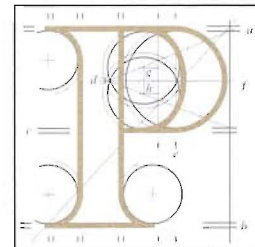
This document contains the following:

Upperchurch Windfarm (LA ref. 13/510003, ABP ref. PL 22.243040)

- **Upperchurch Windfarm Grant of Permission with Conditions 2014**
- **Upperchurch Windfarm An Bord Pleanála Planning Inspector's Report 2014**

Our Ref: PL 22.243040
 P.A.Reg.Ref: 13/510003
 Your Ref:

An Bord Pleanála



Ecopower Developments Limited,
 Sion Road,
 Kilkenny,
 Co. Kilkenny

13 AUG 2014

Appeal **Re:** 10 year permission for 22 wind turbines, 2 no. meteorological masts with wind measuring equipment attached, access roads, electrical substation compound, control buildings and ancillary works. Graniera Shevry, Knockcurraghbola Upperchurch, Co. Tipperary.

Dear Sir/Madam,


An order has been made by An Bord Pleanála determining the above-mentioned appeal under the Planning and Development Acts 2000 to 2014. A copy of the order is enclosed.

In accordance with section 146(5) of the Planning and Development Act 2000, as amended, the Board will make available for inspection and purchase at its offices the documents relating to any matter falling to be determined by it, within 3 days following the making of its decision. The documents referred to shall be made available for a period of 5 years, beginning on the day that they are required to be made available. In addition, the Board will also make available the Inspector's Report, the Board Direction and Board Order in respect of the matter on the Board's website (www.pleanala.ie). This information is normally made available on the list of decided cases on the website on the Wednesday following the week in which the decision is made.

The Public Access Service for the purpose of inspection/purchase of file documentation is available on weekdays from 9.15am to 5.30pm (including lunchtime) except on public holidays and other days on which the office of the Board is closed.

In cases where a grant of (full) planning permission is notified by the Board, it is policy to include a copy of the Department of the Environment and Local Government's Leaflet PL11 - **Guide to the Building Control System** and a copy of the Health and Safety Authority's leaflet **Safety and Health on Construction Projects - The Role of Clients** with the notification. These leaflets are issued at the request of the above bodies.

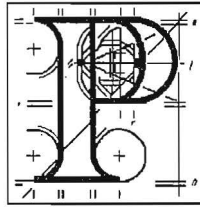
Yours faithfully,


 Rita Donnelly
 Executive Officer

Encl:

BP 100LN.ltr

An Bord Pleanála



PLANNING AND DEVELOPMENT ACTS 2000 TO 2014

Tipperary County

Planning Register Reference Number: 13/510003

An Bord Pleanála Reference Number: PL 22.243040

APPEAL by The Upperchurch Kilcommon Wind Awareness Group of Grousehall, Milestone, Thurles, County Tipperary and by others against the decision made on the 27th day of January, 2014 by North Tipperary County Council to grant subject to conditions a permission to Ecopower Developments Limited of Sion Road, Kilkenny, County Kilkenny in accordance with plans and particulars lodged with the said Council.

PROPOSED DEVELOPMENT: Erection of 22 number wind turbines, overall height of up to 126.6 metres, two number meteorological masts up to 80 metres in height with wind measuring equipment attached, access roads, electrical substation compound and control buildings and ancillary site works at Graniera/Shevry/Knockcurraghbola Commons/Knockmaroe/Grousehall/Cummer/Foilnaman/Gleninchaveigh/Coumnageeha/Coumbeg/Knocknamena Commons/Glenbeg/Seskin, Upperchurch, County Tipperary. The application is for 10 year permission. (As amended by the revised public notice received by the planning authority on the 27th day of November, 2013).

DECISION

GRANT permission for the above proposed development in accordance with the said plans and particulars based on the reasons and considerations under and subject to the conditions set out below.

MATTERS CONSIDERED

In making its decision, the Board had regard to those matters to which, by virtue of the Planning and Development Acts and Regulations made thereunder, it was required to have regard. Such matters included any submissions and observations received by it in accordance with statutory provisions.

REASONS AND CONSIDERATIONS

In coming to its decision, the Board had regard to the following:

- (a) National policy on renewable energy as outlined in the National Climate Change Strategy 2007 – 2012,
- (b) Sustainable Development – A Strategy for Ireland, includes emphasis on the use of renewable resources,
- (c) the National Spatial Strategy 2002 – 2020,
- (d) the Wind Energy Development Guidelines for Planning Authorities published by the Department of the Environment, Heritage and Local Government in June 2006,
- (e) the provisions of the North Tipperary County Development Plan 2010-2016,
- (f) the North Tipperary Landscape Character Assessment 2009 which assesses the area of the proposal as having capacity to accommodate development without undue deterioration of its scenic quality,
- (g) the North Tipperary Wind Capacity Strategy and Outline Landscape Strategy 2009 which identifies the subject site as having adequate wind resources for wind farm development,
- (h) the pattern of existing development and land uses within the vicinity of the site,
- (i) the nature of the proposed development and the current established uses on the site,
- (j) the submissions made in connection with the planning application and the appeal, and
- (k) the report of the Inspector.



The Board completed an Environmental Impact Assessment of the proposed scheme, which considered, inter alia, the Environmental Impact Statement submitted with this application, submissions made in the course of the planning application and the appeal including the further information submitted to the planning authority on the 27th day of November, 2013, and the report, assessment and conclusions of the Inspector in relation to the environmental impacts of the scheme which are noted. The Board considered that, subject to compliance with the mitigation measures set out in the Environmental Impact Statement, the proposed development would not have a significant effect on the environment.

The Board completed an Appropriate Assessment in relation to potential impacts of the proposed development on Natura 2000 Sites and having regard to the Natura Impact Statement submitted, to the further submissions and responses to same submitted during the course of the planning application and the appeal including in particular the further information submitted to the planning authority on the 27th day of November, 2013, and the Inspector's report and submissions on file which are noted, the Board concluded that, on the basis of the information available, the proposed development, either individually or in combination with other plans or projects, would not adversely affect the integrity of the any European site in view of the site's conservation objectives.

The Board considered that, subject to compliance with the conditions set out below, the proposed development would not seriously injure the amenities of the area or of property in the vicinity, would not be prejudicial to public health and would be acceptable in terms of traffic safety and convenience. The Board further considered that, notwithstanding the cumulative visual impact of the proposal that the receiving landscape was such that the proposal would be acceptable. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

CONDITIONS

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, as amended by the further plans and particulars submitted to the planning authority on the 27th day of November, 2013, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of clarity.



2. All environmental mitigation measures set out in the Environmental Impact Statement, Natura Impact Statement and associated documentation submitted by the applicant to the planning authority and An Bord Pleanála, shall be implemented in full, except as may otherwise be required in order to comply with the following conditions.

Reason: In the interest of protection of the environment.

3. The period during which the development hereby permitted may be carried out shall be ten years from the date of this Order.

Reason: Having regard to the nature of the proposed development, the Board considers it appropriate to specify a period of validity of this permission in excess of five years.

4. The permission shall be for a period of 25 years from the date of the commissioning of the wind turbines. The wind turbines and related ancillary structures shall then be decommissioned and removed unless, prior to the end of the period, planning permission shall have been granted for their retention for a further period.

Reason: To ensure satisfactory reinstatement of the site upon cessation of the project.

5. This permission shall not be construed as any form of consent or agreement to a connection to the national grid or to the routing or nature of any such connection.

Reason: In the interest of clarity.

6. Prior to commencement of construction, details of the phasing of the construction works shall be agreed in writing with the planning authority, following consultation with the National Parks and Wildlife Service.

Reason: In the interest of the protection of the environment.

7. (a) The wind turbines including masts and blades, and the wind monitoring mast, shall be finished externally in a light grey colour.
- (b) Cables within the site shall be laid underground.
- (c) The wind turbines shall be geared to ensure that the blades rotate in the same direction.

- (d) No advertising material shall be placed on, or otherwise be affixed to, any structure on the site without a prior grant of planning permission.

Reason: In the interest of visual amenity.

8. Details of the materials, colours and textures of all the external finishes to the proposed building shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

Reason: In the interest of the visual amenities of the area.

9. The proposed wind turbines erected on the site shall not exceed an overall height to 126.6 metres and a hub height of 81.6 metres.

Reason: In the interest of clarity.

10. The proposed construction works on the site shall be carried out in accordance with construction details submitted to the planning authority on the 7th day of January, 2013 and as further amended on the 27th day of November, 2013, including the Construction Management Plan, and the mitigation measures contained therein.

Reason: In the interest of safety and of the prevention of pollution.

11. Wind turbine noise arising from the proposed development, by itself or in combination with other existing or permitted wind energy development in the vicinity, shall not exceed the greater of:-

(a) 5 dB(A) above background noise levels or

(b) 43 dB(A) $L_{90,10min}$ when measured externally at dwellings or other sensitive receptors.

Prior to commencement of development, the developer shall submit to and agree in writing with the planning authority a noise compliance monitoring programme for the subject development. All noise measurements shall be carried out in accordance with ISO Recommendation R 1996 "Assessment of Noise with Respect to Community Response," as amended by ISO Recommendations R 1996-1. The results of the initial noise compliance monitoring shall be submitted to, and agreed in writing with, the planning authority within six months of commissioning of the wind farm.

Reason: In the interest of residential amenity.

12. (a) The proposed development shall be fitted with appropriate equipment and software to suitably control shadow flicker at nearby dwellings, in accordance with details which shall be submitted to, and agreed in writing with, the planning authority prior to the commencement of development.
- (b) Shadow flicker arising from the proposed development, by itself or in combination with other existing or permitted wind energy development in the vicinity, shall not exceed 30 hours per year or 30 minutes per day at dwellings that are existing or permitted or at other sensitive receptors.
- (c) A report shall be prepared by a suitably qualified person in accordance with the requirements of the planning authority, indicating compliance with the above shadow flicker requirements at dwellings.

Within 12 months of commissioning of the proposed wind farm, this report shall be submitted to, and agreed in writing with, the planning authority.

Reason: In the interest of residential amenity.

13. In the event that the proposed development causes interference with telecommunications signals, effective measures shall be introduced to minimise interference with telecommunications signals in the area. Details of these measures, which shall be at the developer's expense, shall be submitted to, and agreed in writing with, the planning authority following consultation with the relevant authorities.

Reason: In the interest of protecting telecommunications signals and of residential amenity.

14. Details of aeronautical requirements shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development, following consultation with the Irish Aviation Authority. Prior to commissioning of the turbines, the developer shall inform the planning authority and the Irish Aviation Authority of the as-constructed tip heights and co-ordinates of the turbines and wind monitoring mast.

Reason: In the interest of air traffic safety.

15. The management of drainage and surface water during the construction stage of the development shall be in accordance with the details submitted in the Construction Management Plan, the Ecological Management Plan and Environmental Management Plan. Furthermore:
- (a) all oils and fuels shall be stored in an area bunded to 110% of the total volume of stored oils and fuels,
 - (b) re-fuelling or machine servicing shall take place only within designated impermeable bunded areas, which shall be drained through an oil interceptor,
 - (c) a wheel wash shall be provided within the site, near the entrance to the public road, and
 - (d) an appropriately sized facility shall be provided on site for concrete washings.

Revised drawings showing compliance with these requirements shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

Reason: In the interest of maintaining water quality.

16. There shall be no new provision for discharge of foul effluent on site without a prior grant of planning permission.

Reason: In the interest of public health.

17. Prior to the carrying out of any construction works between mid-March and mid-August, a survey for breeding hen harriers shall be carried out by a competent, experienced ornithologist. The survey will cover the area within 500 metres of the works to be carried out during the above period. It will be the responsibility of the ornithologist to ensure that the survey methodology is sufficient to ensure that a hen harrier breeding site is not overlooked. Taking into account the results of this survey, no construction works shall be carried out within the above period within 500 metres of a pre nesting breeding site and/or nest, except with the written approval of the National Parks and Wildlife Service.

Reason: In the interest of the protection of the environment and of the habitat of the hen harrier species.

18. (a) The Ecological Management Plan submitted to the planning authority on the 27th day of November, 2013, shall be implemented in full. Details including timescale, and monitoring shall be agreed with the planning authority following consultation with the National parks and Wildlife service.
- (b) A timescale for the provision of the enhanced foraging areas including rush managements, the provision of additional hedgerows enclosures for native scrub and trees and measures by landowners in relation to spreading, burning, interference with drainage, retention of hedgerows, restrictions on use of poisons and new forestry plantation shall be agreed with the planning authority following consultation with the National parks and Wildlife service prior to the commencement of development works on the site.
- (c) A programme of ongoing surveys and monitoring of the species in years 2 and 3 after the commencement of the operation of the turbines shall be submitted to, and agreed in writing with the planning authority, following consultation with the National parks, and prior to the commencement of development works on the site.

Reason: In the interest of the protection of the environment and the protection of the foraging habitat of the hen harrier species.

19. Details relating to the protection of other species including bats and badgers as outlined in the Ecological Management Plan submitted to the planning authority on the 27th day of November, 2013, shall be implemented. A timescale for the implementation of the measures outlined shall be submitted to, and agreed in writing with, the planning authority prior to the commencement of development works on the site and following consultation with the National Parks and Wildlife Service.

Reason: In the interest of the protection of the environment and listed species

20. The developer shall facilitate the archaeological appraisal of the site and shall provide for the preservation, recording and protection of archaeological materials or features which may exist within the site. In this regard, the developer shall:
- (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development, and

- (b) employ a suitably-qualified archaeologist prior to the commencement of development. The archaeologist shall assess the site and monitor all site development works.

The assessment shall address the following issues:

- (i) the nature and location of archaeological material on the site, and
- (ii) the impact of the proposed development on such archaeological material.

A report, containing the results of the assessment, shall be submitted to the planning authority and, arising from this assessment, the developer shall agree in writing with the planning authority details regarding any further archaeological requirements (including, if necessary, archaeological excavation) prior to commencement of construction works.

In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

Reason: In order to conserve the archaeological heritage of the area and to secure the preservation (in-situ or by record) and protection of any archaeological remains that may exist within the site.

- 21. (a) Mitigation measures outlined in the Environmental Impact Statement, Natura Impact Statement and other documentation submitted to the planning authority for the protection of water quality shall be implemented in full and according to best practice guidelines. The works shall be supervised as set out in the Construction Management Plan. In the event of a water pollution incident or damage to a receiving watercourse, the relevant statutory authorities shall be immediately notified and works cease until authorized to continue by the planning authority.
- (b) A programme of hydrographic monitoring after rainfall events shall be carried out at the applicant's expense over a period commencing pre construction and concluding in year 3 of the operational phase of the proposed development. The results of the monitoring and reports arising shall be made available to the planning authority, Fisheries Ireland and the National Parks and wildlife Service.

Reason: In order to protect and assess the water quality of the receiving watercourses and to ensure that no adverse effect arises to affect the integrity of a Natura 2000 site.

22. On full or partial decommissioning of the wind farm, or if the wind farm ceases operation for a period of more than one year, the wind monitoring mast, the turbines concerned and all decommissioned structures and equipment shall be removed, and foundations removed or covered with soil to facilitate re-vegetation, all to be completed to the written satisfaction of the planning authority within three months of decommissioning or cessation of operation.

Reason: To ensure satisfactory reinstatement of the site upon full or partial cessation of the project.

23. Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the reinstatement of public roads that may be damaged by the transport of materials to the site, coupled with an agreement empowering the planning authority to apply such security or part thereof to the satisfactory reinstatement of the public road. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: In the interest of traffic safety and the proper planning and sustainable development of the area.

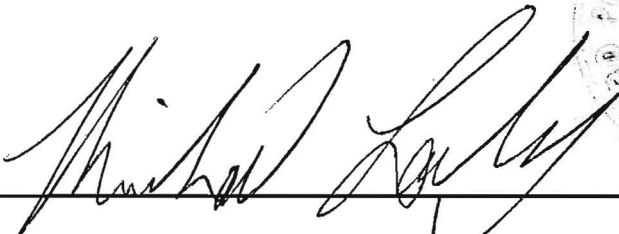
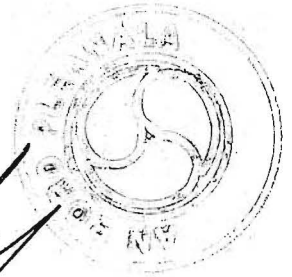
24. Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the satisfactory reinstatement of the site upon cessation of the project, coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: To ensure satisfactory reinstatement of the site.



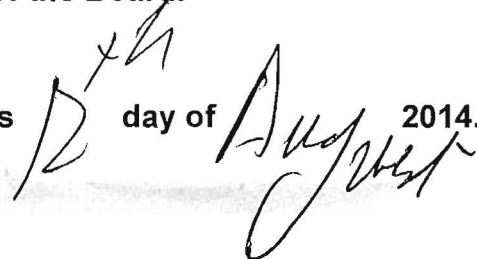
25. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to the commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act, as amended, be applied to the permission.

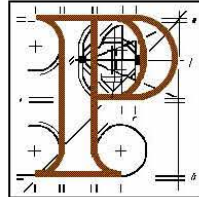



**Member of An Bord Pleanála
duly authorised to authenticate
the seal of the Board.**

Dated this ^{12th} day of August 2014.



An Bord Pleanála



Inspector's Report

PL22.243040

DEVELOPMENT:-

Ten year permission for 22 wind turbines with an overall height to 126.6 metres, 2 meteorological masts with an overall height of up to 80 metres with wind measuring equipment attached, access roads, electrical substation at Graniera, Shevry, Knockcurraghbola Commons, Knockmaroe, Grousehall, Cummer, Foilnaman, Gleninchaveigh, Coumnageeha, Coumbeg, Knocknamena Commons, Glenbeg and Seskin, Upperchurch, Co. Tipperary.

PLANNING APPLICATION

Planning Authority: North Tipperary County Council

Planning Authority Reg. No: 13/5/0003.

Applicant: Ecopower Developments Limited.

Application Type: Permission.

Planning Authority Decision: Grant Permission with conditions.

APPEAL

Appellants:

1. The Upperchurch Kilcommon Wind Awareness Group
2. Sinead and Tom Ryan
3. Paul and Edel Grace
4. Thomas, Bernadette and John O'Connell
5. Catherine and Patrick Maher
6. Pat and Elizabeth Lee
7. Ned and Carmel Buckley
8. Gerard and Mary Ryan Cooney
9. Emer Ó Siochrú and Toal Ó Muire
10. Tanya and James Embleton
11. Peter Sweetman and Associates
12. An Taisce

Observers Una Ryan and Adam Challen

Types of Appeal: Third Party.

DATE OF SITE INSPECTION: 22/04/2014 and 20/05/2014.

Inspector: Derek Daly

1.0 SITE DESCRIPTION.

The site is located in the townlands of Graniera, Shevry, Knockcurraghbola Commons, Knockmaroe, Grousehall, Cummer, Foilnaman, Gleninchaveigh, Coumnageeha, Coumbeg, Knocknamena Commons, Glenbeg and Seskin in a rural upland area of County Tipperary in close proximity to the boundary with County Limerick.

The area relating to the development is approximately 2 kilometres to the west of the village of Upperchurch and 17 kilometres west of the town of Thurles.

The area is an undulating hilly area in the transition zone between lowland areas to the east and southeast and upland areas to the west, namely the Slieve Felim Hills and the Silvermines Mountains to the northwest. Visually the area is very diverse with upland areas and valleys. The area is characterised with areas of active farmland incorporating a mix of field patterns with mature trees and hedgerows. The area is also characterised by areas of open grassland areas and areas of forestry in particular at the upper contours. There are single dwellings and farm buildings primarily fronting onto the local road network of the area. The main traffic arteries of the area are the R503 Limerick Thurles Regional Road and the R497 Nenagh Tipperary Regional Road.

2.0 THE PROPOSED DEVELOPMENT

The proposed development as initially submitted and stated in the public notices to the planning authority on the of 7th of January 2013 was for the following,

- 22 no. wind turbines with an overall height to 126.6 metres and a hub height of 81.6 metres.
- The 22 turbines will produce 150 million kWh.
- The turbines are located four distinct clusters which are not connected, comprising as follows,
- 8 no. turbines in the southwestern cluster located in the townlands of Graniera, Shevry and Knockcurraghbola Commons which I will refer to as cluster no.1. Within this cluster is turbine nos. 1 to 8 inclusive.
- 8 no. turbines in the northeastern cluster located in the townlands of Gleninchaveigh, Coumnageeha, Coumbeg and Knocknamena Commons, Glenbeg and Seskin which I will refer to as cluster no.2. Within this cluster is turbine nos. 9 to 16 inclusive.
- 1 no. turbine in the townland of Knockcurraghbola Commons, which I will refer to as cluster no.3; and located west of cluster no.1. Within this area is turbine no. 22.
- 5 no. turbines in the western cluster in the townlands of Knockmaroe, Grousehall, Cummer, Foilnaman which I will refer to as cluster no. 4. Within cluster are turbines 17, 18, 19, 21 and 22. (Please note. On the location map UWF-PARF1-07 there appears to be an error as there is no

20 indicated and two turbines demarcated as 22. In maps associated with the EIS there is a turbine 20 indicated).

- 2 no. meteorological masts up to 80 metres in height with wind measuring equipment attached one each located within the areas of grouping 2 and 4;
- Access roads including the construction of approximately 8 kilometres of new roads with a width of 5 metres and the widening and upgrading of approximately 3.9 kilometres of existing farm roads;
- 2 no. Site compounds. No.1 is located in close proximity to the R503 at Graniera in cluster 1 and site compound no.2 located within an existing residential and out building complex to the east of turbine no.22 in cluster 3.
- An electrical substation compound and control buildings measuring 59.745 metres by 36.730 metres located in cluster no.3 and enclosed by a 2.5 metres high fence with access gateway;
- The overall site has a stated area of 52.38 hectares but this relates to the built up area within the four groupings referred to including ancillary areas. There is, therefore, a broader and wider area outside of the four clusters which is affected by the development, which is indicated in documentation as 12km². The total overall site footprint for all aspects of the development is indicated as 110,210m².
- The proposal will involve the felling of approximately 4.35 hectares of conifer planting.

The application as submitted was for a ten year permission.

The application was accompanied by associated maps and drawings and Environmental Impact Statement which included a Natura Impact Statement and other reports.

Letters of consent from landowners were also received authorizing the use of lands for the development including infrastructure.

Further information was submitted to the planning authority on the 27th of November 2013 which included public notices.

The further information addressed the following;

- A cumulative impact assessment;
- A revised Natura Impact Statement. Appendix B of response item 1;
- A bat survey;
- A badger sett survey;
- A revised noise and vibration survey;
- An Ecological Management Plan
- An Environmental Management Plan

- A reinstatement programme and decommissioning programme
- Site compound details
- A revised landscape and visual assessment also considering cumulative impact with 12/51/0385
- Relocation of turbine 22 and an reassessment based on this relocation,
- Details of an appraisal of the structural stability of the turbines and the methodology of construction.
- Among the details submitted are references to the creation of new and alternative habitat suitable for foraging hen harrier.

3.0 PLANNING HISTORY.

P.A. Ref. No. 12/51//0385 / ABP PL. 22.242852 Appeal withdrawn

An application by ABO Wind Ireland Ltd for 5 wind turbines with a max height each of 126m, new access and up grading of existing tracks, substation, borrow pit and ancillary works.

Permission granted subject to 18 conditions.

Site is located approximately 6 kilometres east of Newport in the western area of the Slieve Felim Mountains.

It should be noted that the site is within an area where there have been applications for windfarm developments. A number of these developments are in adjoining planning authorities of South Tipperary and Limerick.

4.0 PLANNING AUTHORITY REPORTS AND DECISION.

The environment report dated the 27th of February 2013 recommended further information in relation to,

- A detailed reinstatement/restoration and aftercare programme which should include restoration of hedgerows recycling and reuse of waste materials, top soil planting and screening and general landscaping and restoration of slopes.
- The submission of an environmental management plan.
- The submission of an ecological management plan.
- Details relating to the site compound,
- Details relating to a revised noise and vibration impact statement.
- Further details relating to structural design of turbines in relation to stability.

The planning report dated the 28th of February 2013 refers to,

- The presence and visibility of other windfarms to the south and east, the means of access proposed for the development and nearby designated

sites.

- Provisions of the County Development Plan.
- The absence of an assessment of cumulative impacts in relation to visual impacts and designated sites and species.
- Reference is made to Roads Section recommendations.
- The report recommended further information be submitted in relation to nature conservation, noise and vibration, the submission of a preliminary ecological management plan, the submission of a preliminary environmental management plan, a restoration and aftercare programme, details of the site compound, further information on visual impact assessment, matters relating to the location of turbine 22 and details relating to the stability of the turbines.

The environment report dated the 24th of January 2014 recommends conditions on a range of matters in relation to the development.

The planning report dated the 24th of January 2014 refers to,

- Matters raised in the report dated the 28th of February 2013, the submission of further information based on the planning authority's request of further information, discussions with area engineers relating to construction access traffic, the absence of a response from DAHG in relation to nature conservation, a summary of the EIS, likely significant direct and indirect effects relating to a number of issues, a conclusion in respect of the EIS, Appropriate Assessment, planning appraisal, an overall conclusion and a recommendation to grant planning permission.

5.0 SUBMISSION BY OTHER AGENCIES DURING PLANNING APPLICATION

The **Department of Arts, Heritage and the Gaeltacht** made a submission in relation to **Nature Conservation** dated the 5th of February 2013 and refer to,

- Hen harriers from the adjacent SPA use the site for foraging and there would be a loss of potential foraging habitat,
- The site should be treated as if within the SPA, significant effects cannot be ruled out beyond a reasonable scientific doubt and such effects must be considered under Article 6 of the Habitats Directive.
- Reference is made to the distance travelled by nesting pairs for foraging in the nesting season and this is not taken into account in the submissions.
- A full assessment of the suitable habitat lost within 250 metres of the turbines will be required as this is an identified zone of displacement. The suitable habitat loss should include any conifer plantation that would be suitable for harrier foraging within the life time of the development including planting and felling dates of conifer plantations within the 250 metres radius of the turbines.

- The creation of a new and equivalent alternative habitat should be considered as a mitigation measure for that lost through potential displacement.
- A proper cumulative impact assessment has not been carried out in relation to nearby windfarm projects in relation to qualitative and quantitative assessment on the potential effects on the SPA.
- The bat work is considered incomplete.
- The planning authority will have to assess impact on whether there is the potential for significant negative impact on the water quality of the downstream SACs.
- A full survey of badger setts should be conducted.
- There is no detailed plan of how mitigatory hedgerow planting will be reconnected with existing hedgerows to maintain continuity or an assessment of the removal of mature hedgerows will have for bats or their foraging behaviour or other wildlife.

Mid West Regional Authority in a submission dated the 6th of February 2013 refer to

- The Mid West Regional Planning Guidelines 2010 to 2022 support the principle of renewable energy projects in the region.
- Reference is made to North Tipperary County Council Wind Capacity Study and Outline Landscape Strategy for North Tipperary 2009 and the County Development Plan chapters 5 and 10.
- Section 1.9 of the Wind Capacity Strategy and Outline Landscape Strategy for North Tipperary 2009 and Landscape Character Assessment 2009 has identified the Upperchurch areas as having the capacity to absorb windfarm development.
- The Regional Authority supports the principle of the development which is in keeping with local and regional objectives and policies on renewable energy.

The **HSE** made a submission/report dated the 8th of February 2013 which refers to,

- There is no evidence in the EIS of meaningful public consultation.
- Recommendations are made in relation to noise mitigation measures to be implemented.
- There is no identification or quantification of vibration impacts for the construction phase of the development.
- Recommendations are made in relation to shadow flicker including logging the occurrence at six houses for the first two years of operation.
- There are requirements in relation to water quality audits during the construction phase and the first two years of the operational phase.

Irish Aviation Authority in a submission dated the 24th of January 2013 refer to,

- In the event of permission the applicant is to agree a scheme of aviation warning lights with coordinates and elevational details of the turbines also to be supplied.

Inland Fisheries Ireland in a submission dated the 28th of February 2013 refers to,

- There is no objection in principle to the development but that a number of matters be taken into consideration,
- Pre cast concrete should be used rather than uncured cement,
- Silt deposition in streams should be prevented,
- A series of mitigation measures are outlined to protect the aquatic environment.

The **Department of Arts, Heritage and the Gaeltacht** made a submission in relation to **Archaeology** dated the 16th of December 2013 and refer to,

- The recommendations indicated in the EIS are concurred with.
- Conditions are indicated to be attached to any grant of planning permission.

The **HSE** made a further submission/report dated the 24th of January 2014 which refers to the additional information submitted and recommends,

- The applicant to provide appropriate mitigation measures for the exceedance of noise levels at H7 prior to a decision to grant planning permission.
- The applicant to carry out noise monitoring if permission is granted.
- Details to be submitted in relation to provision of a potable drinking water supply and details relating to the septic tank.

The **Department of Arts, Heritage and the Gaeltacht** in a submission dated the 4th of June 2014 to the Board in response to a section 131 request have made the following observations.

In relation to **Archaeology**,

- That condition no.5 of the P.A. decision be retained.

In relation to **Nature Conservation**,

- Reference is made to European Sites and the location of the Slieve Felim to Silvermines Mountains SPA (Site Code 4165); the Lower River Shannon cSAC (Site Code 2165) and the Lower River Suir cSAC (Site Code 2137) in the context of the appeal site.
- In relation to effects on the Slieve Felim to Silvermines Mountains SPA it is noted that the site is outside of the SPA.
- Reference is made to habitat coverage of the proposed windfarm and to figure 13-4 of the EIS and page 6 of the Ecological Management Plan; to

the loss of 95ha potential habitat through displacement and the creation of 128ha of suitable habitat as proposed by the applicant.

- The mitigation is considered to be adequate if properly implemented and monitored as proposed.
- It is noted it is unclear how this will be carried out and there is reference to use of section 47 agreement.
- In relation to the further information for AA reference is made to page 71 of the NIS on water quality mitigation measures and that the NIS does not specifically assess the potential in-combination effects of increased drainage rate from the site on stream and river bed and bank erosion, due to greater hydrographic peaks in the cSAC stream and river flows on the conservation objectives of the downstream cSACs.
- It is noted that the issue is addressed in the Sediment and Erosion Plan for a ten year storm event however it is recommended that an assessment be undertaken in the NIS or in AA by An Bord Pleanála of the effects of exceptional magnitude events in the future such as 1 in 50 or 1 in 100 year events and this is also relevant if it proposed to leave the road drainage network in place after decommissioning and if post-decommissioning drainage maintenance is likely.
- Conditions are recommended in the event that the Board decides to grant permission.

The matters raised are considered in the assessment section of this report.

6.0 THE PLANNING AUTHORITY'S DECISION

The planning authority's decision was to grant planning permission subject to 19 conditions. Among the conditions of note,

- Condition no.2 is permission for a period of 10 years.
- Condition no.3 relates to placement, finishes and agreement on the specification of turbines.
- Condition 4 relates to agreement on air navigation warning systems.
-
- Condition no.5 relates to archaeology.
- Condition no.6 relates to the implementation of mitigation measures relating to water quality.
- Condition no.7 relates to a survey of hen harriers prior to carrying out works in the period mid March and mid August of hen harriers/
- Condition no.8 relates to carrying out of a bird copse survey for a period of 3 years.
- Condition no.9 relates to implementation of mitigation areas identified in the course of the application for the hen harrier species.
- Condition no.12 relates to agreement on a traffic management plan.
- Condition no. 14 relates to a waste management plan.

- Condition no.16 relates to noise monitoring.
- Condition no. 18 relates to the provision of sanitary facilities.
- Condition no. 19 relates to the submission of a Section 48 financial contribution.

7.0 APPEAL SUBMISSIONS.

7.1 THIRD PARTY APPEALS.

The Upperchurch Kilcommon Wind Awareness Group in a submission indicate,

- The visual impact for such a development in the area would be immense.
- The development will negatively impact on tourism in the area.
- No assessment on tourism was carried out.
- There is a strategy Fáilte Slieve Felim currently active in bringing increased numbers of tourists into the area and the development is at odds with this.
- The visual impact will be greater than the documentation submitted by the applicant indicates.
- Trees which are indicated as lessening the visual dominance will at some stage in the future be removed.
- Issues arise in relation to noise and shadow flicker.
- Reference is made to section 10.13.6 of the current county development plan.
- The noise estimates are at variance with readings from another wind developer for the same residential properties and also fails to take account of wind direction and topography.
- The effects of infrasound are not taken into account.
- The development will impact on the amenities of properties.
- The development will devalue properties.
- The development will impact on private wells.
- There are health and safety concerns arising from the development.
- The EIS does not address impact on the local infrastructure in particular the road network.
- The development does not meet the legal requirements of the EIA Directive.
- The development cannot be assessed in isolation and cumulative impacts with other windfarm developments require to be assessed.
- The submission also includes a number of other submissions on property valuations, other Board decisions, 213125 and 242364, observations in relation to the EIS from Gerard Kelleher and Helen Leadbeater Kelleher, and a submission from Steven and Anne Popplewell, which include reference to a famine field.

Sinead and Tom Ryan in a submission indicate,

- The development will have a detrimental impact on their property in relation loss of value and also in relation to noise.
- Concerns are raised in relation to the effect of the development on an award winning pedigree herd.
- Concern is expressed in relation to effects on telecommunications.
- The development will impact on road infrastructure.
- There are concerns relating to visual impact and also in relation to health and safety.
- Impact on grouse is also referred to.

Mark Gillard on behalf of **Paul and Edel Grace** in a submission indicates,

- The development will have a detrimental impact on their property due to its scale, location and topography with particular reference to turbine 21.
- The Grace home is highlighted in the EIS as house no's 3 and 10 to the south of turbine 21.
- The relative ground levels increase the level of impact in relation loss of value.
- There will also be impacts in relation to shadow flicker and noise.
- Reference is made to section 10.13.6 of the current county development plan and the actual distance of their home from turbine 21.
- The level of impact is underestimated in the EIS.
- Reference is made to the consultation process for the revisions to the 2006 Wind Energy Development Guidelines.
- Reference is made to the visual impact of the development and that turbine 21 will be visually dominating and there is reference to refusal of turbines on the basis of proximity to dwellings and their visual impact.
- The appellants have concerns in relation to the impact on the stability of their dwelling.
- Issues are raised in relation to the impact on their private well and the local road infrastructure.
- There is an absence of information in relation to the actual make and type of turbine proposed.
- Concerns are raised in relation to the use of the meteorological mast for other purposes.
- There is no evidence that Appropriate Assessment was carried out by the planning Authority.
- Submissions include details of Board decisions.

Thomas, Bernadette and John O'Connell in a submission indicate,

- Concerns are expressed in relation to the impact of the development on their well and also the potential impact of flooding in the area of their house.

BKM Surveying on behalf of **Catherine and Patrick Maher** in a submission indicate,

- There is concern in relation to loss of value to their property and a loss of amenity.
- Reference is made to the impact on the Hen Harrier and other species.
- Reference is made to the impact of noise and also impact on water supplies.
- There is an absence of assessment on cumulative effects.
- The development fails to meet requirements of the EIA Directive.

Pat and Elizabeth Lee in a submission indicate,

- Reference is made to the impact on the landscape and the visual impact.
- Roads in the area are in poor condition and incapable of transporting the turbines.
- The development will be injurious to their residential amenity and impact on the value of their property.
- Reference is made to noise and shadow flicker impact and also to risks arising from ground disturbance.
- Reference is also made to the absence of Appropriate Assessment and the effects on the hen harrier.

Ned and Carmel Buckley in a submission indicate,

- The proposal is contrary to the current Wind Energy Planning Guidelines in respect of visual amenity.
- The proposal fails to respond to the specifics of the landscape context as set out in the Wind Capacity Strategy and Outline Landscape Strategy for North Tipperary 2009 and Landscape Character Assessment 2009.
- Public consultation was minimal and guided by economic motives rather than residential amenity and visual considerations.
- The development is large scale, spread over a large area and the cumulative impact is severe.
- The validity of the application is questioned.
- The development falls short of the draft guidelines in relation to noise and distance from houses.
- There is use of imperial scale on the drawings.
- The proposal will devalue their property.
- Reference is made to the Coillte forestry in the area which is an amenity to be enjoyed by all.
- The EIS is only a tokenistic exercise.

BKM Surveying on behalf of **Gerard and Mary Ryan Cooney** in a submission indicate,

- They cannot live in their home owing to the proximity of the proposed substation and turbines nos. 22, 8, 9, 10, 11 and 12.

- Turbine 22 is within 463.44 metres of their home and the substation 276.3 metres.
- Turbine 8 is directly south of their home and issues of shadow flicker arise.
- There are issues in relation to proximity to their property boundary.
- The proposal will devalue their home.

EOS Future Design on behalf of **Emer Ó Siochrú and Toal Ó Muire** in a submission indicate,

- The submission also includes a report from CHL Consultants on the impact of the proposed development on the ecotourism project on Cournageeha Farm, which refers to impacts in relation shadow flicker, visual impact and noise and concludes that the proposal will completely undermine the farm's potential to be operated as a residential ecotourism centre and should be abandoned if the windfarm proceeds.
- The observations made to the planning authority were largely ignored and in particular matters relating to tourism in the area; the development impact on their organic farm and the devaluing of the farm; the unacceptable noise impacts arising and the methodology used in assessing noise impacts; the unacceptable human health impacts; the impacts of noise and flicker on animals; the negative visual impact and negative impact of turbine siting; the negative impacts of associated works, on drinking water quality and wildlife. The proposal will impact and destroy local employment, is premature and represents speculative development.
- The appellants contend that the development should be refused with reference to unacceptable noise and loss of amenity and that the assessment of predicted noise impacts is not adequately evaluated in particular in relation to sensitive receptors and does not use updated methodology.
- The larger turbines will cause unacceptable health impacts to residents and visitors as they will generate different and more problematic noise impacts. Reference is made specifically to low frequency noise, which is not easily measured or predicted and generally not well perceived by the human ear.
- It is premature to give permission until these matters are reviewed and considered in the proposed revisions to the wind energy guidelines.
- The development is an unacceptable visual intrusion on the landscape and seriously reduces the enjoyment of their property by day and by night.
- There are no viewpoints from the approach roads to the Clodiagh Valley or from Eamonn an Chnoic walk in the EIS or further information.
- The development does not meet the planning authority's guidelines on wind capacity strategy.
- The development will impact on biodiversity and on listed species.
- The development will impact on water quality.

- The development will impact on the appellants' Dexter herd by causing movement of diseased badgers onto their farm and also affect other local farms.
- The development will give rise to unacceptable safety impacts to residents and visitors referring to separation distances from turbines and accidents involving wind turbines.
- There will be an impact on the tourism industry of the area.
- The development undermines the appellants' ecotourism project.
- The planning authority did not consult with Bord Fáilte or any tourism body concerning the impact of this development and the applicant did not consult with the appellants.
- The development will have negative socio-economic impacts on the national and local community referring to devaluing property and the cost of providing energy.
- Drawings are submitted in support of the submission.
- An Oral hearing is requested

Planning-Appeal.ie on behalf of **Tanya and James Embleton** in a submission indicate,

- The proposal is contrary to the current Wind Energy Planning Guidelines in respect of visual impact.
- The proposal fails to respond to the specifics of the landscape context as set out in the Wind Capacity Strategy and Outline Landscape Strategy for North Tipperary 2009 and Landscape Character Assessment 2009.
- Public consultation was minimal and guided by economic motives rather than residential amenity and visual considerations.
- The development is large and of industrial scale, spread over a large area and the cumulative impacts are therefore severe.
- The validity of the application is questioned.
- The development falls short of the draft guidelines in relation to noise and distance from houses.
- The ecological assessment undertaken in the EIS is inadequate.
- Not all objections made were taken into consideration.
- Turbines 14 and 16 will injure the appellants' residential amenities and devalue their property.
- The development will result in a proliferation and saturation of wind turbines in the area exceeding the ability of the landscape to absorb such man made intrusions.
- Reference is made to current guidance at national and regional level and the development is contrary to the landscape character recommendation and will be an intrusion on the landscape.
- Reference is made to the county development plan, to policy SERV 23 and that the development is out of kilter with the tightly packed farmed and fine grain landscape.

- There are shortcomings in the EIS with reference in this regard to noise, shadow flicker and ecological assessment.
- Reference is made to the inadequacy of the local road network.

Peter Sweetman and Associates in a submission indicate,

- Reference is made to granting permission without carrying out an Environmental Impact Assessment and Appropriate Assessment.
- Reference is made to CJEU Judgement in Case 50/09.
- Reference is made to the absence of assessment as required by Section 177V of the Planning and Development Act 2000 as amended.
- There is no information on the compensatory land for the hen harrier.
- There is no evidence of the sustainability of building more turbines.
- Why in the grant of permission is information submitted on certain dates excluded in condition no. 1 of the planning authority's decision to grant permission.
- Reference is also made to condition nos. 3, 4(a), 7, 8 9(a), 12 and 14(a) of the planning authority's decision in the context of the CJEU judgment and EU Directives.

An Taisce in a submission indicate,

- The local authority has breached the provisions of the Environmental Impact Assessment Directive, the Habitats Directive and relevant European Court judgments.
- Reference in this regard is made to Articles 3 and 5 of the EIA Directive and the significant information provision left to be resolved in conditions nos 3(g), 6, 7, 9, 12 and 18.
- Reference is made to the submission of the Department of Arts, Heritage and the Gaeltacht under a series of headings and that these were not adequately addressed.
- Reference is made to CJEU judgment in Case 50/09 and the absence of adequate assessment.
- Reference is made to concerns relating to hen harriers, to the SPA designated for hen harriers code 004156 and to CJEU judgment in Case 183/05 in this regard.

7.2 OBSERVERS

Una Ryan and Adam Challen in a submission indicate,

- They agree with estimates of loss of value to homes.
- Submissions made to the planning authority were ignored and failed to take into consideration valid concerns raised.
- They support the appeals lodged raising issues of noise, impacts on residents and shadow flicker.
- Concern is raised in relation to impact on internet signal.

- Ecological impacts and concerns raised in appeals are supported.

7.3 RESPONSE OF THE PLANNING AUTHORITY

The planning authority in a response to the grounds of appeal refer to,

- The planning authority is satisfied in relation to the methodology applied by the applicant with regard to noise and shadow flicker.
- In relation to visual amenity the approach applied generally adheres to the approach outlined in the guidelines and took account of planning authority guidance.
- The applicant submitted a NIS and further information based on a submission from the NPWS. In the absence of a response from the NPWS the planning authority are satisfied that the applicant's submissions address the issues raised.
- The planning authority does not consider that wind turbines being visible will necessarily result in walkers and other being dissuaded from visiting such areas.
- Issues relating to impacts on water quality are adequately dealt with.

7.4 RESPONSE OF APPELLANTS.

Emer Ó Siochrú and Toal Ó Muire submitted a report from the Mountaineering Council of Scotland in support of submissions made by appellants.

The Upperchurch Kilcommon Wind Awareness Group in a submission indicate,

- The appellant supports the appeal of Peter Sweetman and other appellants that the planning authority failed to carry out Appropriate Assessment.
- In this regard a critical review is submitted by Ecologists Ireland.
- Inadequate information was supplied, the surveys were insufficient in scope, intensity and do not fully comply with recommended best practice methodology.
- Reference is made to four species of concern which may occur in the area.
- Habitat maps are incomplete.
- There is an incomplete mammal survey.
- There is inadequate survey and assessment of birds with reference to collision risk, breeding lowland birds and absence of surveys at particular times of the year.
- There are concerns over the validity and justification for post construction monitoring given the lack of appropriate pre-construction survey and assessment.
- There is inadequate reference to the significance of impact on the SPA.

- There is an inadequate bat survey.
- Mitigation measures in relation water impacts require to be clarified.
- Support of issues raised in other appeals is also referred to in relation to the sustainability of the project, issues arising in relation to impacts, minimum distance from residential properties.
- The initial information submitted was deficient and required submission of substantial further information.

7.5 RESPONSE OF THE APPLICANT.

In a response to the grounds of appeal the applicant refers to the various appeal submissions and responded to the various submissions made,

In response to the appeal of the Upperchurch Kilcommon Wind Awareness Group,

- The applicant did consider the visual impact on tourism in the area and refers to section 9.2.6 of the EIS.
- The relevant loop walk to the proposal is Slí Éamoin an Cnoic which traverses the northeastern boundary of the proposal at turbine 15. The windfarm will not impede the walk and could provide linkage through the use of windfarm walks to other walks which might be planned in the future.
- Visual impact is considered in chapter 11 of the EIS and the significance of the development is outlined and complies with all of the relevant policies and guidelines for the receiving landscape in relation to wind energy developments.
- In relation to noise impact on property within 500 metres reference is made to section 10.13.6 of the county development plan.
- There is one sensitive receptor location within 500 metres identified as H3 and H10 on figure appendix 10.1 of the EIS and the sound predicted is within the guidelines parameters.
- Noise levels were predicted using the appropriate methodology.
- The type of turbine is as yet not selected but will have to operate within noise limits.
- The estimates of loss of land value are not based on verifiable sales prices.
- Potential for groundwater contamination is addressed in chapter 15 of the EIS; the Hydrological Impact Assessment and in the revised NIS. Measures are indicated as mitigation including the provision of a Sediment and Erosion Control Plan and other measures during the construction phase.
- There is also provision for an Environmental Management Plan.
- Construction access proposals are outlined in section 7.1.1 of the EIS.
- Habitats, flora and fauna were assessed and potential impacts were assessed.

- A winter and summer hen harrier study was conducted along with a bat survey and mammal survey. Field studies were undertaken with an overall assessment concluded.
- A cumulative visual effect and impact in the context of existing turbines was undertaken in section 11.3.3.3 of the EIS and a conclusion drawn in 11.3.3.4.
- The area was identified as suitable for windfarms based on local authority strategies carried out independent of the applicant.

In relation to enclosed submissions of Helen and Gerard Kelleher, Steven and Anne Popplewell

- They were not misled by the applicant,
- Their house is H47 and is expected to experience 8 hours of shadow flicker per annum
- There will be a buffer zone around the famine field as per chapter 12 of the EIS with reference to area BH-3.
- The construction of borrow pits is addressed in the EIS.
- The grid connection is not part of the application.

In relation to the appeal of Paul and Edel Grace,

- Their property is identified as H3 and H10 and noise and shadow flicker impacts are assessed in the EIS. Blocks of conifers will reduce the impact of shadow flicker.
- Turbine 21 will be fitted with a shadow flicker protection system to shut down the turbine until the shadow has passed.
- Visual impact is assessed in the EIS and reference to an omission of a turbine in PL23.225618 on residential amenity grounds is incorrect.
- A geotechnical report was prepared in relation to ground stability.
- The meteorological mast will not be used for telecommunications.

In relation to the appeal of Tanya and James Embleton,

- Their property is identified as H(B) and is located 973 metres from T14 and 913 metres from T16.
- Many of the responses are similar to previous responses.
- The development involved consultations with 40 landowners and with other local interests.

In relation to the appeal of Ned and Carmel Buckley,

- Their property is identified as H88 and is located 869 metres from T15.
- Employment and other economic benefits are outlined in the EIS.

In relation to the appeal of the O'Connell family,

- Their property is identified as H71 and is located 784 metres from T1.

- The developer will address the drain to stop run off of water and reference is made to drawing no.1 proposed flood mitigation method at H71 in this regard.

In relation to the appeal of Emer Ó Siochrú and Toal Ó Muire,

- Their property is identified as H28 and is located 581 metres from T9.
- The summary survey results of three studies quoted acknowledge that tourism and windfarms are compatible. The reference to a caravan park in Yorkshire is not a valid comparison to their appellants' enterprise.
- Visitors to an ecotourism farm are more likely to be interested in environmental issues.
- The windfarm nearest turbine to the east is T11 at 911 metres, to the south T8 at 1,306 metres and to the west T21 at 1,908 metres which is a distance way.
- Noise and shadow flicker are within limits for H28.
- The assertion on the impact on animals is not credible.
- There are proposals to address effects of works on stone walls, banks, hedges and trees.
- The draft guidelines are not relevant to this application.
- Reports of agencies around the world refute claims of negative health impacts.
- Visual impacts are addressed.
- Not all turbines will be lit at night ,it is not stated how the windfarm will destroy tourism in the area and the applicant was aware of the walks in the area

In relation to the appeal of Pat and Elizabeth Lee,

- Their property is identified as H23 and located 560 metres from T9 and many of the issues raised have already been commented upon.

In relation to the appeal of Sinead and Tom Ryan,

- Their property is identified as H(A) and is located 1,410 metres from T21 and 1,657 metres from T20 and many of the issues raised have already been commented upon.
- The turbine layout takes into account the signals that are transmitted from all telecommunication masts.
- Requirements in relation to health and safety will comply with all standards.

In relation to the appeal of Gerard and Mary Ryan Cooney,

- Their property is identified as H54 and is located 382 metres from the substation and 698 metres from T8
- All turbines are set back 189 metres from all third party boundaries.

In relation to the appeal of Catherine and Patrick Maher,

- Their property is identified as H73 and is located 622 metres from T22 and 520 metres from the substation.
- All turbines are set back 189 metres from all third party boundaries.

In relation to the appeal by An Taisce Articles 3 and 5 of the EIA Directive have been complied with.

- The applicant initially comments in relation to the requiring the submission of further drawings and other documentations in the decision to grant permission which the appellant infers as indicating a lack of information submitted.
- In relation to condition no. 3 the make of turbine will not exceed the dimensions in the final grant of permission.
- In relation to condition no.6 mitigation measures on water quality recommended in the EIS shall be implemented in full and the condition is a procedural matter and not a post consent agreement.
- Condition no. 7 arises only if a location of a hen harrier nest is found within 500 metres of a turbine or if the applicant wishes to continue works during the breeding season.
- In relation to condition 9(a) there is no post consent agreement with the planning authority required and 9(b) is a further protection to an agreement and mitigation already outlined.
- In relation to condition no. 12 this relates to a traffic management plan and there was a construction environment management plan submitted and until appointment of the contractor aspects of the plan cannot be put in place as this information will not be available until then.
- In relation to condition no. 18 details of sanitary arrangements were submitted during the application.
- The information requested by the NPWS was submitted by way of further information and no observations were submitted by the NPWS in relation to the further information.
- Consents were submitted by landowners in relation to the mitigation areas for the hen harrier.
- Surveys were carried out of the hen harrier in the winter and during the breeding season and a further survey will occur at pre construction stage to identify if any nests have occurred within 500 metres of a proposed turbine.
- In relation to the appeal by Peter Sweetman and Associates the issues raised have already been commented upon.

8.0 POLICY.

NATIONAL POLICY.

National policy on renewable energy has arisen primarily in response to international agreements, most particularly the UN Framework Convention on Climate Change and the Kyoto Protocol.

Current government policy in relation to renewables is outlined in the National Climate Change Strategy 2007 – 2012 which highlights the need for a radical strategy to meet the climate change commitments made under Kyoto.

Sustainable Development – A Strategy for Ireland, includes an emphasis on the use of renewable resources.

The National Spatial Strategy 2002 – 2020, states, “in economic development the environment provides a resource base that supports a wide range of activities that include agriculture, forestry, fishing, aqua-culture, mineral use, energy use, industry, services and tourism. For these activities, the aim should be to ensure that the resources are used in sustainable ways that put as much emphasis as possible on their renewability” (page 114).

National Biodiversity Plan 2002, was prepared in response to Article 6 of the Convention on Biological Diversity and ‘pays special attention to the need for the integration of the conservation and sustainable use of biological diversity into all relevant sectors.’

National planning guidance is provided in the Wind Energy Development - Planning Guidelines published by the Department of the Environment Heritage and Local Government in June 2006, which emphasise the importance of wind energy as a renewable energy resource and also where there is a presumption in favour of wind farm development in suitable circumstances.

The Guidelines state in Chapter 3 that the development plan must achieve a reasonable balance between responding to overall Government Policy on renewable energy and enabling the wind energy resources of the planning authority’s area to be harnessed in a manner that is consistent with proper planning and sustainable development. The assessment of individual wind energy development proposals requires to be conducted within the context of a ‘plan led’ approach.

Consideration of any wind energy development in or near designated areas of natural heritage must be subject to Ireland’s obligations under the Habitats Directive and the EU (Birds) Directive. The visibility of a proposed wind energy development from designated views or prospects would not automatically preclude an area from future wind energy development but the inclusion of such objectives in a development plan is a material factor that will be taken into consideration in the assessment of the planning application.

The environmental implications of wind farm developments are referred to in Chapter 5. It is recognised that natural heritage may be impacted by wind energy development but in coming to a decision, the planning authority should also consider the importance of the development of wind energy projects including those proposed on designated sites, in view of their strategic importance in contributing significantly to the achievement of the targets by decreasing dependence on fossil fuels, with subsequent reductions in greenhouse gas emissions.

Birds may be impacted by wind energy arising from disturbance, collision, mortality, barrier to movement and direct loss or degradation of habitats for breeding, feeding and or roosting purposes.

Noise impacts are discussed in Section 5.6 and it is stated that noise impact should be assessed by reference to the nature and character of noise sensitive locations i.e. any occupied house, hostel, health building or place of worship and may include areas of particular scenic quality or special recreational importance. In general noise is unlikely to be a significant problem where the distance from the nearest noise sensitive property is more than 500m.

Careful site selection, design and planning and good use of relevant software can help to reduce the possibility of shadow flicker in the first instance (Section 5.12). It is recommended in that shadow flicker at neighbouring offices and dwellings within 500 m should not exceed 30 hours per year.

Aesthetic considerations and the siting and design of wind farm developments are discussed in Chapter 6. Considerations are also given to landscape character types as a basis for practical application of siting and design guidelines.

COUNTY POLICY.

The operative plan is the North Tipperary County Development Plan 2010-2016.

In relation to zoning the site is located within an area defined A1 Landscape Area.

Relevant provisions include,

- SERV 22 is to facilitate continual development of renewable energy sources.
- SERV 23 is to facilitate the exploitation of the natural wind energy resource available subject to being in accordance with the guidelines set out in the County Landscape Character Area and other development plan policies in respect of the protection of the environment and complies with Wind Energy Development Guidelines 2006.

- ENV 2 is to assess applications for development of wind farms in accordance with the Landscape Character Assessment 2009.
- ENV 3 is to restrict development that would materially interfere with vulnerable landscapes.
- HERT 29 is to maintain the quality and conservation values of European Sites and other sites.
- HERT 29a is to restrict any development which would be harmful to or result in significant deterioration of habitats or species in European Sites and other sites.

Section 10.13 sets out standards in respect of proposed wind farm development.

North Tipperary Landscape Character Assessment 2009.

The map relating to landscape character types indicates that the appeal site is covered by Landscape Character Type 6 Farmed Foothills. Commercial coniferous forestry, potential for development of windfarms, Government Renewable Energy policy and development of visibly obtrusive single dwellings in the countryside are identified as a force for change in the Landscape Character Area.

The area is referred to in more detail as Landscape Character Area 7; Upperchurch-Kilcommon Hills and indicated in figure 8. The Key Characteristics are indicated as highly scenic pastoral landscape with rolling hills and valleys; sparsely populated particularly in central area with remote character and extensive views eastwards from elevated points across to Kilkenny and South Tipperary.

It is indicated that “this is a working landscape featuring pasture as the dominant landuse. It is in very good condition and indeed is highly scenic owing to the varied and interesting topography of rolling hills and valleys with vantage points that afford views. This high scenic quality renders this a significantly sensitive landscape. However, the nature of the varying topography is such that there is a capacity to accommodate development without undue deterioration in the scenic quality”.

In relation to principles for landscape management design guidance in respect of commercial forestry in upland areas should be provided in order to integrate this landuse into the landscape and criteria for the wind energy development and layout should be provided. No principles are outlined in relation to wind farms.

North Tipperary Wind Capacity Strategy and Outline Landscape Strategy 2009.

This strategy notes that subject area has suitable wind speeds for wind energy. The study rates landscapes based on their potential to accommodate wind farms having regard to landscape and visual criteria such as scale, openness, landform, landcover, complexity and pattern, settlement and infrastructure, perception of wilderness, perception of change, movement prominence, settings backdrops and horizons and Important skylines from main transport corridors. Figure A1 identifies areas in the county which have adequate wind resources for wind farm development which includes the current planning application site.

Other Designations.

The site is in close proximity to the Slieve Felim to Silvermines Mountains Special Protection Area Site Code 004165. At its nearest point it is to the northwest of Knockmaroe Hill. The qualifying interest for the SPA is Hen Harrier and the conservation objective is to maintain or restore the favourable conservation condition of the Hen Harrier. The site also supports Merlin and Peregrine both Annex I species. Details relating to the conservation objectives and site synopsis of this SPA are included as appendices to the report. A map indicating the location of the SPA and the appeal site is also included as an appendix to the report. Turbine 21 is the nearest turbine approximately 500 metres distant from the SPA.

The site is also within the drainage catchment of the River Suir and also the River Shannon as watercourses on or in proximity to the site drain into these river catchments. The Lower River Suir cSAC Site Code 002137 and the Lower River Shannon cSAC Site Code 002165 are very large river based sites and are designated arising from having within them a large number of conservation interests both habitats and species. The appeal site is not within the boundary of either site. Please note figure 13-II-1 of NIS which outlines the Natura sites within 15 kilometres of the appeal site.

9.0 ASSESSMENT.

9.1 INTRODUCTION.

The proposed development was initially submitted to the planning authority on the 7th of January 2013. Substantial further information in response to a planning authority request for further information was submitted on the 27th of November 2013. Many aspects of the further information addressed matters relating to cumulative effects and impacts.

The development as applied for includes the following,

- 22 no. wind turbines with an overall height to 126.6 metres located in four distinct clusters which are not directly connected,

- 2 no. meteorological masts up to 60 metres in height with wind measuring equipment attached,
- Access roads, two site compounds an electrical substation compound and control buildings and ancillary works,
- The application as submitted was for a ten year permission.
- The application was accompanied by associated maps and drawings an Environmental Impact Statement which included a Natura Impact Statement as appendix 13-II of the original submission and a revised NIS as Appendix B in the submission of further information.

Having inspected the site and examined the associated documentation, the following are the relevant issues.

- Principle of development in a policy context.
- Environmental Impact Statement.
- Environment Impact Assessment.
- Appropriate Assessment

9.2 Principle of Development / Policy.

In section 7 of this I have outlined the policy context at national and county level relating to renewable energy with specific regard to wind energy. I have also outlined the provisions relating to landscape character with regard to the current North Tipperary County Development Plan.

At national level current planning guidance as provided in the Planning Guidelines for wind farm development emphasises the importance of wind energy as a renewable energy resource and in general there is a presumption in favour of wind farm development in suitable circumstances.

In relation to the county the current plan is the North Tipperary County Development Plan 2010-2016 and specifically in relation to the stated provisions and zoning the site is located within an area defined A1 Landscape Area which does not preclude windfarm development.

There are specific provisions in the plan in relation to renewable energy including SERV 22 and SERV 23 which facilitates continual development of renewable energy sources and also facilitate the exploitation of the natural wind energy resource available subject to being in accordance with the guidelines set out in the County Landscape Character Area and other development plan policies in respect of the protection of the environment and complies with Wind Energy Development Guidelines 2006.

There are also further policies ENV 2 which provides for the assessment of applications for development of wind farms in accordance with the Landscape

Character Assessment 2009 and ENV 3 to restrict development that would materially interfere with vulnerable landscapes.

The 2009 Landscape Character Assessment has identified landscape character types which identifies that the appeal site is within Landscape Character Type 6 Farmed Foothills. As part of the assessment, commercial coniferous forestry, the potential for development of windfarms and development of visibly obtrusive single dwellings in the countryside are identified as a force for change within the Landscape Character Area.

The appeal site and surrounding area is referred to in more detail as Landscape Character Area 7; Upperchurch-Kilcommon Hills and indicated in figure 8 of the assessment. I would largely agree with the overall assessment relating to the area as a highly scenic pastoral landscape with rolling hills and valleys which renders the area as a significantly sensitive landscape.

I would also note the comment in relation to the area that the nature of the varying topography is such that there is a capacity to accommodate development without undue deterioration in the scenic quality. This I believe would allow for consideration of the proposed development subject to assessing the impact on the receiving landscape. In overall terms I would consider that the landscape character assessment as applied to the appeal site and the wider area is reasonable.

In addition to the Landscape Character Assessment North Tipperary has also prepared a wind capacity strategy and an outline landscape strategy. The strategy uses a range of criteria as a basis for rating landscapes based on their potential to accommodate wind farms having regard to landscape and visual criteria. On the basis of these criteria figure A1 of the assessment has identified areas in the county which have adequate wind resources for wind farm development which includes the current planning application site.

In relation to the overall adoption of a plan led approach to identifying areas suitable for windfarm energy sources and development there is, I consider, a structured basis set out in the strategies as prepared and the process as followed is reasonable and complies with national guidance. The identification of the site as potentially suitable for windfarm development is reasonable but the strategies also it is noted do identify the appeal site as a sensitive landscape.

In overall terms the principle of locating windfarm development in the area which is the subject of this appeal is reasonable.

9.3 Environmental Impact Statement.

The application is accompanied by a Environmental Impact Statement.

In relation to the adequacy of the EIS, I consider that it contains the information specified in Schedule 6 of the Planning and Development Regulations 2001, as amended and can be considered as a contribution towards the process of assisting the relevant decision maker and the competent authority, in this case the Board, to enable a decision to be made.

The EIS has set out impacts and identified these under a series of headings and chapters including

- construction impacts and employment
- air and climate assessment
- socio economic assessment
- residential amenity
- landscape and visual assessment
- cultural heritage
- ecology
- geotechnical assessment
- hydrological impact.

The EIS and the further information have identified potential impacts in the absence of mitigation and also cumulative impacts in particular in relation to other windfarms.

9.4 Environmental Impact Assessment.

In accordance with the requirements of the European Directive 2011/92/EU and Section 171A of the Planning & Development Act 2000-2010, this process requires the Board, as the competent authority, to identify, describe and assess in an appropriate manner, in light of each individual case and in accordance with Articles 4 to 11 of the Environmental Impact Assessment Directive, the direct and indirect effects of the proposed development on the four indents listed in Article 3 of that Directive as set out below:

- a) Human beings, flora and fauna,
- b) Soil, water, air, climate and the landscape,
- c) Material assets and the cultural heritage, and
- d) The interaction between the factors mentioned in paragraphs (a), (b) and (c).

I would note that many of the appellants' submissions raise concerns and objections which would arise within the four indents (a) to (d) referred to above.

9.4.1 Impacts on human beings.

In relation to the impact on human beings the site is located within a landscape which is largely a farmed and living landscape with isolated farms and housing in

the countryside. As a consequence wind turbines will have an impact on the receiving landscape and the people who reside in the immediate area. There will also be effects in the wider context as there are two villages Upperchurch and Kilcommon in relative close proximity which will also be impacted by the development.

The appeal submissions of residents from the area have focused on a range of perceived impacts, some specific to individual houses and the location of individual turbines but there are objections which also raise matters relating to broader matters relating to impacts on local economy and on tourism.

I propose to consider impacts under a series of headings.

9.4.1.1 Employment

The impact of the development on employment chapter 7 and socio-economic impacts chapter 9 are assessed in the EIS wherein it is concluded that the development will give rise to substantial short-term employment creation in the construction phase and that it will not negatively impact on other employment in the area.

The third party appeals have focused on the overall impact of the development on initiatives to develop tourism in the area in particular hill walking and in some situations on farm operations. There is also reference to windfarm development inhibiting the growth of farm/rural based eco-tourism. I would note that there are a number of local initiatives individual and community based to promote tourism in the area and also development of viewing points along walking routes.

The presence of wind turbines in an area may or may not have a detrimental impact on visitors to an area and that is a matter of opinion as the applicant and appellants disagree on whether there is an adverse or positive impact. The proposals and layout presented does not interfere with any walkways developed in the area.

There is nothing to suggest that the presence of wind turbines has a detrimental impact on employment in an area or impacts on farm management and practice. In relation to tourism while the presence of turbines on the landscape does alter the visual appearance of the landscape there is nothing to suggest that their presence hinders the use of walking routes and tourism initiatives in rural areas.

9.4.1.2 Noise

Appendix 10-1 of the EIS relates to noise impact assessment and a revised noise and vibration assessment was also submitted by way of further

information. The documentation submitted outlines surveys and methodology applied and a model produced. In preparing an assessment of impact as no turbine make is specifically determined as the likely turbine to be erected on the site, a Vestas 90 was used to determine likely noise values. The modelling predicts impacts in both the construction and operational phases of the development which are outlined in tables 4 and 5.

A total of 93 dwellings are identified within 900m of the proposed windfarm (figure 1) and 10 noise monitoring points identified and modelling was then applied. Table 6 outlines identification of impacts based on predicted modelling.

Exceedance of permitted levels will occur during the construction phase based on the contours outlined on figure 2 of the EIS but I note that there is no house within 200 metres of the construction works.

Based on worst case scenario which includes adverse down wind direction houses located at H2, H5, H7 and H9 are the most impacted by the proposed development with levels above the planning guideline night limit of 43dBA during the operational phase of the development. In relation to these four houses, H2 is to be used as a site office, H5 is currently unoccupied and H7 and H9 are owned by landowners. The level of exceeding the guide limit is in the order of 2dBA.

The further information, which considers cumulative effects with other windfarm development, does not significantly affect the case presented and does not add additional impact.

What can be concluded from the noise assessment is that the development will impact in relation to noise as there will be a rise in noise levels from the current ambient noise levels associated with a rural area for many of the houses and sensitive receptors in the general and study area. The level of increase will however be within permitted levels for the most part even in a worst case scenario. There will also be impacts arising in the construction phase but they will be short term in duration.

9.4.1.3 Traffic

Traffic is largely assessed in the context of construction impacts outlined in chapter 7 of the EIS as it is during the construction phase that the impacts will occur on the road network. I would also refer to item 6, the submission of an Environmental Management Plan, and item 8 of the further information submitted relating to site compounds.

The details outlined indicate that materials relating to the development will be brought to the site via the regional road network to the site compound no.1 located off the R503 at Graneira.

The development will involve the use of existing farm roads, the upgrading of existing farm roads and the construction of new roads. In principal I would have no objection to the works as proposed provided appropriate roadside drainage is provided for. Roadside drainage and possible interference with existing drainage was raised in a number of appeal submissions. It is therefore of importance that existing roadside drainage is maintained and repaired if interfered with by any aspect of the development. I would in this regard note the submitted details provides for an overall drainage layout for the area addressing flow rates and includes measures for break of flow and attenuation.

The proposal will also involve movement of material along the existing local road network. The network varies greatly in road width and in alignment both horizontal and vertical. I would however note that the design provides for the minimum impact on the road network but construction traffic will traverse sections of narrow roads in particular for travelling to the locations of turbines 9 to 16 but also at a number of other points. During the construction phase this will have an impact leading to obstruction of these roads to road users. The impact will be short term in duration and can be managed through the application of appropriate construction management practice.

I would therefore agree that the development will impact on the road network and cause disruption to road users but the overall impact will be confined to the time span of the construction period. Impacts can I consider be addressed and mitigated by the implementation of the construction management plan.

9.4.1.4 Shadow Flicker.

Shadow flicker is referred to in chapter 10 of the EIS

Shadow flicker was raised in many submissions from appellants as a concern of adversely impacting on residential amenity. Table 1 indicates the predicted levels for the 93 dwellings within 900 metres of a turbine. 6 properties are identified as potentially having in excess of 30 hours per annum the standard as outlined in the guidelines based on modelling. These houses are assessed in table 2 where mitigation factors are outlined.

The potential for the greatest shadow flicker impact is house no. 33. According to the calculations and modelling undertaken by the applicant house no.33 could be affected for 52 hours per annum from 3 turbines. Means of mitigation are set out by the applicant and in relation to the six properties identified in table 2 it is indicated that a two year programme will be undertaken to establish actual levels of shadow flicker. On the basis of the programme measures will be put in place and the technology is available to reduce the level of exceedance if this is

identified as indicated in section 10.2.3 of the EIS. This is a matter I consider that can be addressed by condition in a grant of planning permission.

On the basis of information submitted I consider having regard to the separation distances to houses, which are considered to be acceptable. I am satisfied on the basis of the information on noise and shadow flicker submitted in connection with the planning application and the appeal; that any residual concerns and possible impacts likely to arise from shadow flicker can be addressed. I also consider that if exceedance arises after monitoring is carried out as proposed in the EIS it can be appropriately addressed by means of condition. The proposed development I consider would be capable of operating within the limits set out in the "Wind Energy Development Guidelines for Planning Authorities" issued by the Department of the Environment, Heritage and Local Government in June, 2006.

9.4.1.5 Other issues

A number of appellants have raised impacts in a general sense on their properties including reduction in property value.

There are divergent views expressed in relation to the development of a wind farm and that the scale of potential impact on the amenities of residential properties in the area. The nature and scale of potential impact will vary for any property depending on the relative distance, relative visual sight of turbines and other local factors. It can also be considered that with an increasing number of turbines on the landscape has led to some degree of acceptance that they are increasingly part of rural landscape. In a general sense the turbines are generally located in excess of 500 metres from residential properties. In relation impact on value this matter is difficult to fully assess and is largely a matter of personal perception largely relating to visual matters.

In a more general sense given the separation distance from houses no direct hazardous threat arises to these properties. I note that related concerns were raised in submissions in relation to damage to adjoining properties. In this regard I would refer to the details of an appraisal of the structural stability of the turbines and the methodology of construction included in the submission of further information. I would also note that the separation distances of turbines to adjoining properties comply and exceed current standards.

Overall in relation to impacts on human beings the impacts will vary in overall impacts and significance. The construction phase will be significant as there will be some level of disturbance arising in particular in relation to increased noise, air emissions and traffic but the overall range of impacts in the construction phase will be of a short term duration.

The implementation of the measures as outlined in the construction management plan will mitigate these impacts. In the operational phase many of the impacts arising in the construction state will decline and the impacts will largely relate to the incidence of shadow flicker and a different form and type of noise source. There will also be a visual change to the landscape. Visual impacts in this regard will be considered in section 9.5.5 of this report.

9.4.2 Flora and Fauna.

9.4.2.1 General.

In relation to flora and fauna there is an Ecological Impact Report (EclA) in chapter 13 of the EIS. Other chapters of the EIS also indirectly consider potential effects and impacts on flora and fauna. It is also important to take into the documentation details relating to the submission of substantial further information submitted to the planning authority on the 27th of November 2013 which largely relates to a cumulative impact assessment in particular in relation to other windfarms, proposed and permitted and includes additional material to the original EIS. The further information also responds to matters raised in submissions to the planning authority in particular the submission of the Department of Arts, Heritage and the Gaeltacht.

Among the details submitted are references to the creation of new and alternative habitat suitable for foraging hen harrier. There is also a revised Natura Impact Statement which is Appendix B of response item 1; a bat survey; a badger sett survey; an Ecological Management Plan; an Environmental Management Plan; further details relating to the reinstatement programme and decommissioning programme.

In relation to the proposed development the overall area in which the four turbine clusters are located is a very diverse area with a range of habitats, including farmland which has open areas and relatively enclosed areas, commercial forestry in varying levels of maturity, upland areas and valleys and also river and watercourse channels. The mix of habitats is reflected in the survey of habitats in section 13.2.4 of the EIS. 13 habitats are identified with improved agricultural grassland being the predominant type of habitat. 4 pockets of upland blanket bog were also identified. In general it is largely a man-made habitat which is continuously altering as instanced by the relatively recent areas of commercial conifer planting.

The area is at the watershed of two significant river systems, the Lower River Shannon and the River Suir, both cSACs. The area is also a transition area between upland areas to the west and lowlands to the east with the area to the west part of a Special Protection Area covering the upland area.

The EclA outlines the surveys carried out and evaluates both habitats and species focusing largely on those which have designation status. Potential impacts are outlined and addressed in tables 13-24 to 13-27 of the EIS in the absence of mitigation in the construction phase and in tables 13-31 to 13-32 in the operational phase. Cumulative impact is also addressed in the initial EIS and in greater detail in the further information submitted. Mitigation measures are also addressed with an emphasis on management and prevention in particular during the construction phase.

The EclA as presented, I consider, has followed a methodology which is a reasonable approach in relation to survey, identification of impact, assessment of impact, mitigation and overall appraisal.

In relation to matters raised in submissions made in the course of the application and appeal. Other appeal submissions also raise matters in relation to the assessment of habitats and species. These matters will be addressed in the following sections of the report relating to impacts on habitats and species.

9.4.2.2 Impacts on habitats.

In relation to the current proposal there are no designated Natura 2000 sites located within the proposed site boundary.

There are a number of designated sites, however, identified in the EIS and the AA screening within 15km of the proposed development site. The Slieve Felim to Silvermines Mountains SPA site code 004165 is in close proximity to the northwestern boundary of the site and the primary conservation interest is identified as the hen harrier species.

Watercourses on the site form part of the river catchments of the Lower River Shannon cSAC site code 002165 which at its nearest point is approximately 2.7 km to the west of the appeal site and the River Suir cSAC site code 002137 which is 2.8 km to the east of the appeal site. In relation to these cSACs they are of significance for containing a large and diverse number of species and habitats. They are of interest and significance to the current appeal site as watercourses from the appeal site flow into these Natura sites and there are aquatic based conservation interests.

In relation to the habitats within the appeal site impacts were also assessed for the 13 identified habitats. In terms of habitat loss arising from the construction of roads, foundations and hardstandings, this was determined as 9.65ha primarily in the improved agricultural grass land and conifer plantations (tables 13-22 and 13-23). The significance of loss with and without mitigation is also evaluated and assessed.

In terms of identified impacts the primary issue which emerges relates to indirect impacts arising from the loss of drainage ditches and which in the absence of mitigation has potential to impact on aquatic species in receiving waters. In this regard the maintenance of water quality in both the construction and operational phases are of importance.

In this regard having identified the potential impacts which can arise the EIS outlines a series of mitigation measures primarily in the construction phase and also for the operation phase

Section 13.4 of the EclA and the details submitted by further information in particular outline measures in relation to the replacement of habitats displaced but also measures primarily aimed at avoidance of impact by in relation to the aquatic environment and habitats controls of runoff and control of sediment, controls on accidental discharges. The measures also include the implementation of an ecological management plan details of which were submitted by way of further information prior to the decision to grant planning permission.

On the basis of the information submitted the development will have impacts on the receiving habitats where the development works will occur. Many of the impacts will be localised and may involve some irreversible loss of current habitat. In general I am satisfied that the loss is not significant having regard to the prevalence of improved agricultural grassland and commercial forestry as the areas of habitat loss.

I note that the construction proposals will not involve works which directly or indirectly impact in the small pockets of blanket bog identified.

In relation to the details submitted, I consider that the potential impact on habitats on the site is not therefore significant. The impacts largely occur on areas with a long history of human intervention through farming and forestry cultivation. I also consider that subject to the mitigation measures as outlined that the proposed development is not likely to result in significant impacts and effects on any designated sites.

I would note that enhancement of habitats will occur largely arising from mitigation measures to provide for new hedgerows to replace and renew displaced hedgerows which in turn will address potential impacts to identified species.

9.4.2.3 Impacts on species.

The EIS presents details of survey in relation flora and fauna species within the study area and detailed studies in particular in relation to land based mammals and birds and also aquatic species.

9.4.2.4 Birds.

Hen harrier.

A number of the submissions received refer to the impact of the development on the habitat of the hen harrier, to the loss of habitat and foraging areas arising from displacement and also to the increased risk of collisions. These matters are of importance and require consideration. Although the site is not within the Slieve Felim to Silvermines Mountains SPA site code 004165 it is in close proximity to the northwestern boundary of the appeal site and the hen harrier is the primary conservation interest.

Surveys were carried out and the results of these surveys are outlined in the EIS. Following a request of further information further surveys and evaluation was submitted in particular in relation to the hen harrier species. As a consequence the appeal site has been identified as having the potential to be part of the foraging habitat of these species and potentially a nesting area.

The matter therefore to be considered is potential loss and displacement of potential foraging habitat arising from the development. This is also of significance as the current proposal should not be considered in isolation from other permitted and existing development which could affect habitat loss and displacement.

The applicant by way of further information has indicated that further surveys were conducted and the surveys indicate no evidence of hen harriers at the subject site. It was acknowledged that the site could form part of the foraging area; there is reference to the 250 metres buffer zone around individual turbines and also identification of habitats in the area which favour foraging activity.

In this regard, I would draw the Board's attention to the Ecological Management Plan (item 5 of f/i), which provides for the creation of an area of new and alternative habitat suitable for foraging hen harrier based on measures set down in the NPWS Hen Harrier Scheme for farmers.

These measures include,

- 123 hectares which will be managed to increase area of foraging habitat including rush management; 2,085 metres of hedgerows enclosures for native scrub and trees; inclusion of plastic fliers on electrical lines and enhancement of riparian corridors.

- Measures by landowners in relation to spreading, burning interference with drainage, retention of hedgerows, restrictions on use of poisons and new forestry plantation.
- Details are submitted identifying the areas to be developed in this regard.

In relation to cumulative impacts there is an assessment of 45 turbines in the wider area. These are outlined in table 1 page 9 of item 5 of the f/l and are considered in this cumulative assessment. It is indicated that the current proposal does not involve any loss of habitat or displacement within the SPA as the site is not within the SPA. In relation to foraging habitats for the hen harrier it is indicated that marginal or semi natural habitats which are permanently open are considered better habitats for hen harriers to conifer plantation which close in after 10 years.

To that end in the overall wider context of cumulative effects and examining a wider area through the application of an examination of Corine mapping, the applicant has indicated that there is an estimated total of 22,000ha of potential foraging habitat within the overall assessment area in which all the windfarms are located. The area of displacement arising from the proposed development is estimated as 95ha, which represents 0.5% of the overall area. The applicant contends any habitat displacement arising in the SPA will not arise from the development and any foraging loss arising within the proposed development will be offset by the mitigation measures proposed within the study area. The overall effect on the SPA will be neutral and not contribute to a significant effect on the SPA.

In this regard I would note that it is important to consider that hen harriers when foraging may travel outside of the boundary of the SPA site. It is important to state, however, as there is no loss of designated habitat arising, the question of providing or requiring to provide, for any loss of habitat does not arise in relation to this development.

Therefore although the appeal site is not within the SPA and there is no loss of habitat, the mitigation measures, are, I consider, reasonable in providing additional favourable foraging areas and will address any potential loss and displacement of foraging habitat arising from the proposed development within the appeal site. There have also been surveys carried out at different periods of the year, potential effects and risks were identified and mitigation measures are identified based on these studies and surveys. I would also note that pre construction further studies are proposed as it recognised that changing patterns of behaviour of the species can occur and this is proposed as part of overall mitigation and monitoring.

With the implementation of the Ecological Management Plan and other mitigation measures outlined including provision for ongoing monitoring I am satisfied that

potential effects are identified and addressed in relation to the species and the mitigation measures as detailed are reasonable and appropriate. Should the Board be minded to grant planning permission in this instance, it is recommended that these mitigation measures are conditioned.

I would note that the Department of Arts, Heritage and the Gaeltacht submission dated the 4th of June 2014 to the Board in relation to the loss through displacement of habitat coverage of 95ha and the creation by way of mitigation of 128ha of suitable habitat consider the mitigation to be adequate if properly implemented and monitored as proposed.

I would also note the Department of Arts, Heritage and the Gaeltacht submission dated the 4th of June 2014 to the Board has outlined conditions for the Board to consider if permission is granted including requiring the mitigation measures be implemented in full (condition no.1); a survey prior to the commencement of construction works for breeding hen harriers (condition no.2) and monitoring of hen harrier use of the site in years 2 and 3 after the commencement of operation of the wind turbines (condition no.3). These measures largely restate those outlined in documentation by the applicant and I would have no objections to the inclusion of these conditions in any grant of planning permission.

Other birds

The process as adopted by the EIS provides for survey by desk study and field study in relation to listed species and also for other studies. I would refer to table 13-20 in relation to the results of the surveys.

There is an identification of risks and impacts arising from the development in the construction phase arising mainly from disturbance and displacement without mitigation and in the operational phase without mitigation with the addition of potential collision considered.

I am satisfied that potential effects are identified and addressed in relation to bird species, the mitigation measures proposed including development of new hedgerows are reasonable and appropriate.

9.4.2.5 Mammals

Bats.

A bat survey and assessment was carried out in the initial EIS and in the further information further surveys were carried out at five locations. The documentation outlines the risks to the species including collision risk. It is indicated that the design of the site and management proposals which include the ecological management plan address the potential risk. Mitigation measures are indicated to

provide for safe pathways during flight and the provision of the new hedgerows as compensatory features are an integral part of the mitigation measures.

Based on the information submitted I consider that the proposed development has the potential to impact upon the bat population of the area. The potential threats and impacts are I consider identified, assessed and mitigation measures are outlined to mitigate against the risks and impacts identified. The mitigation measures as detailed are considered both reasonable and appropriate. Should the Board be minded to grant planning permission in this instance, it is recommended that these mitigation measures are conditioned.

Other mammals.

Surveys were carried out for protected terrestrial mammals as listed in table 13-10 of the EIS including badger, otter, Irish hare and red fox with no recorded listing of fallow deer, hedgehog and Irish stoat. Further details were submitted in relation to badger setts by way of further information.

Potential impacts are outlined in section 13.3 of the EIS and I would refer the Board to table 13-26 on assessment of impact in the absence of mitigation during the construction phase and table 13-31 during the operational phase without mitigation. Cumulative impacts are also assessed. Mitigation measures are outlined which include measures to be implemented during the construction phase and operation phase. It is also important to note that an Ecological Management Plan (EcMP) was produced which provides for ecological management and enhancement and as a vehicle to implement mitigation measures and provide for ongoing monitoring.

I am satisfied that in relation to mammals the process as outlined, survey, assessment and identification of mitigation measures is a reasonable approach. I consider the mitigation measures as detailed are considered reasonable and appropriate.

9.4.2.6 Aquatic species.

The methodology applied to other species is also applied in relation to aquatic species in particular species listed as conservation interest in the Lower Shannon River and Lower River Suir cSACs which have an identifiable pathway to the appeal site. In relation to the River Suir, the Turaheen, Owenbeg and Clodiagh Rivers are identified as potential pathways. In relation to the River Shannon, the Aughvana River a tributary of the Mulkear River, which joins the River Shannon upstream of Limerick City is identified. I would note that crossing of watercourses has been limited in the overall development which has reduced the potential risk of direct engagement of the development in both the construction and operational

phase. The appeal site is in excess of 2.5 kilometres upstream of the nearest point of any watercourse within the cSACs.

There is, in the absence of properly designed construction management programme, a risk of deterioration to the water quality of receiving surface watercourses and this is recognised in the submissions of the applicant. Mitigation measures and monitoring are outlined in the Ecological Management Plan (EcMP) and in item 6 submission of the further information details are submitted relating to an Environmental Management Plan, which provides a programme of works in the construction and operational phases. The Environmental Management Plan also identifies areas of responsibilities, details relating to individual components of the construction and measures to be implemented during the operational phase (section 4.4) and section 4.5 outlines an environmental monitoring schedule.

In addition to the measures already outlined there is also a sediment and erosion control plan to prevent sediment and potential pollution run off. The measures outlined include interception and diversion of clean water away from construction areas; attenuation measures in relation to sediment control; minimisation of removal of vegetation and the avoidance of working near watercourses during and after prolonged rainfall of an intense rainfall event; installation of silt control measures and other run off measures to prevent merging of clean and dirty water.

In this context I am satisfied that risks and impacts arising from the development to aquatic species have been identified and assessed and measures for mitigation and monitoring have also been identified. I am satisfied that the mitigation measures as detailed outlined in the assessment are reasonable and appropriate. Should the Board be minded to grant planning permission in this instance, it is recommended that these mitigation measures are conditioned.

In relation to flora and fauna the documentation as submitted has followed a methodology of identifying potential impacts having carried out survey work. The evaluation of risk has been carried out in the context of an absence of mitigation and in the context of mitigation measures including provision for ongoing monitoring in the context of an Environmental Management Plan. Cumulative impacts have also been considered and assessed. In overall terms I consider that subject to appropriate conditions that the development can be permitted.

9.5.1 Soil, water, air, climate and the landscape.

9.5.2 Soils and geology.

The issue of soils is considered in chapter 14 of the EIS: Geotechnical Impact Assessment and also in the wider context of geology and site drainage.

The site is an undulating topography located within a group of small hills peaking at between 363m OD and 411m OD and intervening valleys. The soil structure of the area reflects the variation of topography with a range of soil types and depth. Peat occurs in some of the upland area but has largely been removed through reclamation of land for agriculture and where it occurs is of a shallow depth.

I note that concern is expressed in submissions to potential risk of instability arising from the construction of the turbines and related infrastructure. In the EIS there is an assessment of potential impacts which largely arise from the construction activities associated with the erection of the turbines and the associated infrastructure chiefly the construction of internal access roads; the excavation of material from six burrow pits which will be used for the construction of these roads and the provision of a drainage network.

Given the nature of the soil composition based on the depth and nature of the soil and the underlying geology and based on information and site investigations submitted the sub surface conditions would appear to be stable. It is noted that excavation works proposed are not proposed in any peat area. I would in this regard also refer to item 11 of the further information submission which is a report on the stability of structures and also to mitigation measure as outlined in section 14.4 of the EIS.

9.5.3 Water

The issue of water, surface water and hydrology is considered in chapter 15 of the EIS: Hydrological Impact Assessment and also in the wider context of site drainage.

The site is located at the watershed of two major river catchments the River Suir draining to the east and the River Shannon to the west. The site in effect covers a wide area as it encompasses four distinct clusters of turbines. There are a number of minor watercourses within the wider area which join larger watercourses the Turaheen, Owenbeg and Clodiagh Rivers, which in turn are tributaries of the River Suir and are part of the South Eastern River Basin District and the Aughvana River, which is a tributary of the Mulkear River, which joins the Shannon upstream of Limerick City and which forms part of the Shannon River Basin District. Overall current water quality is surveyed and assessed in the EIS indicating good quality.

In relation to potential risks, given the nature and extent of construction works, in the absence of a coordinated construction management plan and the implementation of mitigation measure there are, I consider, risks to the water environment as new drainage patterns will occur arising from the construction of new internal roads and tree and vegetation felling with the consequent risk of

release of suspended solids to watercourses and a change in the rate of discharge. There are also risks from accidental discharge of construction material and hydrocarbons.

Section 15.4 of the EIS outlines mitigation measures in relation to the construction and operational phases emphasising the principle of mitigation by avoidance. Measures are in particular indicated for the construction phase in relation to surface water flow with the application of a sediment and erosion control plan (appendix 15-1), controls on cement and concrete spillage, procedures to address accidental spillage and the application of the working practices as proscribed by the Forest Service (page 710 of EIS). Measures in relation to groundwater flows are also indicated.

I note the reference in the Department of Arts, Heritage and the Gaeltacht submission dated the 4th of June 2014 to the Board. Specifically in relation to page 71 of the NIS on water quality mitigation measures there is reference that the NIS does not specifically assess the potential in-combination effects of increased drainage rate from the site on stream and river bed and bank erosion, due to greater hydrographic peaks in the cSAC stream and river flows on the conservation objectives of the downstream cSACs.

The DAHG submission does, however, note that the NIS does include as mitigation measures, the measures identified in the sediment and erosion control plan. The measures as outlined both in the NIS and erosion and sediment control plan does I note provide for measures including interception and diversion of clean water away from construction areas and also for attenuation measures in relation to sediment control prevention of stream and river bed and bank erosion.

I would refer to drawing no. 14708-5005 which relates to the construction of the proposed internal roads and which provides for separation of clean and dirty water side channels. There is an overall drainage layout for the site and within that layout provision of dirty water sediment ponds and weirs; minimisation of removal of vegetation and the installation of silt control measures. There is also, I would note, provision for the placement of check dams based on slope gradient along drains to slow down and attenuate run off and therefore to reduce scouring of ditches which in turn reduces risk of ditch erosion.

In relation to assessment of the effects of exceptional magnitude events in the future such as 1 in 50 or 1 in 100 year events rather than the ten year event carried out in the applicant's documentation any requirement of such assessment must be considered in the context of the nature of the works proposed.

The overall site has four sub clusters of development. Within each cluster the level of site works is largely limited to the access roads and the pads on which the turbines are constructed. In the context of this site the total overall site

footprint for all aspects of the development is indicated as 110,210m² (11.201 ha) and this is within a wider and broader area outside of the four clusters which is affected by the development, which is indicated in documentation as approximately 12km². This constitutes less than 0.01% of the overall land cover and includes existing roads and farm tracks which will form part of the development. The level and scale of runoff arising from the nature of the development proposed in this wider area will therefore I consider be very low.

There is provision in any event for attenuation and checking of flow rates even in exceptional events. Exceptional events were I am of the view considered by the applicant in the submissions made to minimise potential erosion of banks along watercourses.

I therefore consider that the measures outlined in the NIS and also in the sediment and erosion plan have adequately considered and assessed the matters of exceptional rainfall events raised in the DAHG submission.

In general I consider that the measures outlined are satisfactory in addressing the potential risks identified and are of importance in the general sense of protection of water quality. In overall terms I consider that subject to appropriate conditions that the development will not adversely impact on the aquatic environment.

9.5.4 Air and Climate

The issue of air and climate is considered in chapter 8 of the EIS.

In the construction phase the excavation of ground and removal of earth and soil and the haulage of material to the site and within the site have the potential to give rise to fugitive emissions and particulate matter and this is recognised in the EIS. Increased traffic will also generate increased emissions from the vehicles. Any impact I consider will be temporary in nature and confined to the immediate area. Mitigation measures are outlined to address impacts arising.

I do not consider that outside of the construction phase that residual impacts arise and the generation of renewable energy will if the development is constructed contribute to limiting CO₂ emissions.

9.5.5 Landscape

Chapter 11 of the EIS considers landscape and visual impact. I would also refer to item 9 of the further information submitted which is a revised landscape and visual assessment considering cumulative impact with 12/51/0385. Item 10 is also of material consideration where the relocation of T22 is further assessed.

In relation to the current proposal the development of 22 no. wind turbines with an overall height to 126.6 metres and a hub height of 81.6 metres represents a significant alteration in the landscape in particular as the turbines are located on hills and ridgelines. The appeal site forms part of a landscape where there are many houses and farms and in this respect the alteration of the landscape will therefore have an impact. This impact and concerns relating to this impact is reflected in many of the third party appeal submissions.

From the initial inspection of the site and wider area a number of considerations in relation to the landscape emerge.

- The site is located to the east of higher terrain consisting of uplands and ridgelines formed by the Slieve Felim Mountains / Keeper Hill and Silvermines Mountains running southwest to northeast which reduce visual impact.
- The site is located to the west of lowlands stretching to the east and southeast and the range of visibility in that direction of the appeal site is more evident.
- Within the immediate area of the site and the four clusters in which the turbines are located there is a diverse undulating topography. The level of visual impact will vary greatly but within this area one and/or more cluster will be clearly visible at any point within the immediate area.
- The area has a number of permitted and constructed windfarms and there is an overall cumulative impact to be considered.

The EIS presents a landscape and visual impact assessment report, in accordance with the various guidelines, in support of the proposed development. The assessment was carried out using both a desk top study as well as site surveys and includes a number of photomontages.

Reference is made in the EIS to the receiving landscape, to provisions of the county development plan, to the Wind Capacity Strategy and the Outline Landscape Strategy and the broad acceptance in these strategies to the favourable status of the area for the nature of the development proposed. There is also reference to LCA7 of the Outline Landscape Strategy.

In relation to the baseline studies based on modelling a Zone of Theoretical Visibility (ZTV) was produced (figure 10.1) which is produced as a worst case scenario in the absence of localised screening or local contour factors and has identified a theoretical visual impact which would broadly agree with my initial observations based on the site inspections and referred to above.

Further baseline studies assess impact based on a range of receptor types and a series of viewshed reference points (VRP) are outlined in table 9-1 of the EIS and also in table 9-1 of the further information. These are further assessed in the

context of impact using the criteria of visual receptor sensitivity and magnitude of visual impact.

An examination of the findings would confirm that the level of impact varies but the magnitude and significance of impact increases the nearer the receptor is to the proposed development. For example there will be a higher level of impact in the nearest villages of Upperchurch and Kilcommon than centres of population greater distant.

There will also be increased visual impact within the area and at points along developed walkways such as Slí Éamoin a Cnoic (VRP AV1).

In relation to impacts on visual matters, appellants Paul and Edel Grace; Tanya and James Embleton; Catherine and Patrick Maher; Pat and Elizabeth Lee; Ned and Carmel Buckley; Emer Ó Siochrú and Toal Ó Muire make reference to visual impact on their properties and the general area in their grounds of appeal and submissions to the planning authority and these submissions have been considered. Many of the properties in question are within 550 and 1,200 metres of a turbine or group of turbines.

In a general sense, within the general area of the four clusters, there will be varying levels of visual impact arising from the development. As already indicated the undulating nature of the landscape and the placement of the turbines in clusters does not provide for a uniform level of impact within the area. For example in the townland of Coumbeg to the south of the site of Garrunakilla School the nearest cluster of turbines nos. 9 to 16 although nearest in proximity will not be as readily visible as the other clusters in particular the cluster incorporating turbine nos. 17 to 2. This position is replicated throughout the area.

I would also note in support of this position that existing windfarm developments to the south are visible in some locations to a varying degree and not as readily visible from other locations within the appeal site area.

In relation to design and layout I consider that the development has followed the general guidance in relation to placement, separation and location on ridgelines.

Having considered the matter it is difficult to identify or come to a conclusion that removal of an individual turbine will to any degree affect the overall visual impact of the development or in any significant level an individual property or the wider area. Any omission would, I consider, be on the basis of omission of clusters rather than individual turbines.

In relation to impact from R503 and R497 the major traffic routes in the area and protected routes as identified in the county development plan my observation

would be that in some locations some or all of the turbines will be visible but not to a scale which, I consider, would be significant.

In overall terms, therefore, the principal impact will be the change of character of the area from what currently exists. The turbines by reason of their height will be visible and their placement on the higher elevations and ridges will accentuate this. There will be a distinct sense of visual impact from the village of Upperchurch. The matter however to consider is whether the level of impact is such as to detract significantly from the relatively rural character of the area.

In considering this it is noted that the area is acceptable within current county policy for consideration of wind turbines. The undulating and rolling nature of the landscape coupled with the diverse vegetation does provide for a level of absorption capacity for the nature and scale of the proposed development. Therefore accepting that the development will impact visually on the area it will not be to a significant degree, I consider, to adversely impact on the area. I also consider that, cumulatively when considered with existing and permitted wind energy developments the development will change the visual character of the area but in overall visual terms it will not be to a significant degree as to be considered to adversely impact on the area.

9.6.1 Material Assets.

The transportation of materials will have certain impacts on the structure and carrying capacity of the existing road network and in particular sections of the local road network in particular for the transportation of turbines and materials for three of the clusters during the construction phase and this I consider, is addressed in the relevant section of the EIS.

Electromagnetic interference with telecommunications signals may occur but there are mitigation measures to address this issue should it arise.

9.6.2 Cultural Heritage.

Cultural heritage is addressed in chapter 12 of the EIS.

The methodology applied in relation to cultural heritage is similar to that followed in other chapters of the EIS including field and desk studies to establish monuments and built heritage within a 4 kilometre radius of the area and these are indicated on maps within the EIS. No direct impacts are identified but it is acknowledged that previously unknown archaeological / cultural may be present. By way of mitigation ground works associated with the development will be monitored under licence.

In this regard I note the submission of Department of Arts, Heritage and the Gaeltacht in relation to Archaeology dated the 16th of December 2013 refers to recommendations indicated in the EIS should be concurred with and that conditions are indicated to be attached to any grant of planning permission.

I would agree that in the event of permission being granted conditions should be included in this regard.

9.7.1 Interactions and Cumulative Effects.

In the EIS and other documentation in particular the further information submitted the impacts are generally addressed under different headings. There are references throughout the document to interaction of potential different effects and also recognition of the potential of different impacts to potentially effect directly and indirectly matters such as ecology. Cumulative effects although addressed in the EIS are more specifically addressed in the further information submitted. With regard to the inter-relationships between matters referred in the assessment I am satisfied that these interactions have been satisfactorily addressed.

9.8 Other matters in relation to Environmental Impact Assessment.

There is reference in many appeal submissions to granting permission without carrying out an Environmental Impact Assessment and Appropriate Assessment. In relation to these matters many of the matters raised are addressed in other sections of this report. The application as submitted was accompanied by an EIS and NIS and further information was submitted arising from a request by the planning authority having considered the submitted documentation and submissions from other parties including prescribed bodies.

In relation to conditions included in the decision of the planning authority to grant planning permission there are a number of conditions stated requiring further agreement. Condition no. 3(g) requires agreement on the specification of the turbines which in the context that there is no definitive specification in relation to the exact manufacture of turbine which may be erected is I consider reasonable. Condition 4 relating to agreement on air navigation warning systems is also reasonable in the context of condition no. 3(g) and that the exact location would also be important for the IAA to be informed of.

Condition no.7 relates to a survey of hen harriers in advance of construction works is part of the mitigation measures outlined in the documentation and given that the species alters nesting sites it would be appropriate that a survey in advance of construction works were to occur. This condition is also supported in the DAHG submission of the 4th of June 2014. A similar position arises in relation

to condition no.8 relating to carrying out of a bird copse survey for a period of 3 years.

Condition no.9 relates to implementation of mitigation areas identified in the course of the application for the hen harrier species which I consider reasonable.

Condition no.12 relates to agreement on a traffic management plan. There is a construction management plan outlined in the documentation and an ongoing agreement and flexibility is reasonable as it would take into account any change in circumstances which may emerge.

10.0 APPROPRIATE ASSESSMENT.

The application also includes a Natura Impact Statement (NIS) appendix 13-11 of EIS and also a revised NIS (appendix B of response item 1 in submission of further information) in support of Appropriate Assessment (AA).

I would note that activities, plans and projects can only be permitted where it has been ascertained that there would be no adverse effect on the integrity of a Natura 2000 site, apart from in exceptional circumstances.

The primary issue to consider is whether the development individually and in combination with other plans or projects adversely affects the integrity of the European site concerned having regard to its conservation objectives.

The NIS in the screening process identifies designated sites within a 15 kilometre radius of the development (section 2.3.2) noting the appeal site is not located within a Natura site.

The drainage characteristics of the site are outlined based on surveys carried out which established that the site drains into two river catchment systems which have designated sites, the River Suir and the River Shannon within their catchments.

The identification of potential impacts, direct, indirect and secondary was considered in the NIS (section 2.3.5).

Having identified potential impacts and considered the significance of the potential impacts through the process screening six Natura sites are excluded and the assessment of potential focused on 3 Natura sites, the Lower River Shannon cSAC site code 002165, the Lower River Suir cSAC site code 002165 and the Slievefelim to Silvermines Mountains SPA site code 004165.

The NIS notes that the development will not result in direct habitat loss of a designated site or fragmentation of habitats.

Assessment was carried out in relation to disturbance and or displacement of species having regard to the conservation objects of the designated sites under the categories of aquatic, terrestrial, riparian and avian. Based on initial assessment stage 2 assessment was recommended.

In the stage 2 assessment, surveys were carried out to ascertain the existing environment and given the nature of the Lower River Shannon cSAC and the Lower River Suir cSAC, which cover large areas with diverse conservation objectives and a number of ecological features were screened and excluded. The process and methodology followed I consider was reasonable. The assessment I consider focused on habitats and species related to the aquatic and riparian environment which had a potential pathway link from the appeal site.

Potential impacts are assessed in the context of the location of conservation species relative to the subject site and also the issue of water quality given that watercourses form the pathway. Table 16 of the NIS outlines in summary the potential significance of impacts in the absence of mitigation measures. Having identified the potential impacts the mitigation measures are outlined many of which are outlined in sections of the EIS, which largely relate to construction management and the control of sediment runoff largely by the implementation of a sediment / runoff plan.

In overall terms the NIS concludes no impact on habitat and key species and also no fragmentation of habitats arising from the development in construction and operational phases

In relation to potential impacts the primary impact, direct and indirect, arising from the proposed development is, I consider, via watercourses as the site is within the catchment of two river catchments which downstream have conservation interests.

Direct potential impacts from surface water runoff are addressed by a series of mitigation measures to control runoff and sediment and these are outlined in detail in the submitted documentation.

I note the reference in the Department of Arts, Heritage and the Gaeltacht submission dated the 4th of June 2014 to the Board. Specifically in relation to page 71 of the NIS on water quality mitigation measures there is reference that the NIS does not specifically assess the potential in-combination effects of increased drainage rate from the site on stream and river bed and bank erosion, due to greater hydrographic peaks in the cSAC stream and river flows on the conservation objectives of the downstream cSACs.

There will be, I consider, should the proposed development proceed an overall management system in place in relation to the control of silt and particulate matter entering the watercourse should that event arise. Measures are proposed to control flow rates to and within drainage ditches prior to discharge to watercourses.

The other identifiable risks relate to seepage to water from accidental spillage of oils and hydrocarbons from the vehicles in the construction phase discharge to water is, I consider, low.

Specifically in relation to the assessment of the potential in-combination effects of increased drainage rate from the site the DAHG submission focuses on stream and river bed and bank erosion rather than the wider drainage areas. The DAHG submission does, however, notes that the NIS does include as mitigation measures, the measures identified in the sediment and erosion control plan being based on a 10 year storm event.

I would also note the mitigation proposals as outlined both in the NIS and erosion and sediment control plan does provide for measures including interception and diversion of clean water away from construction areas and also for attenuation measures in relation to sediment control prevention of stream and river bed and bank erosion. There is also, I would note, provision for the placement of check dams based on slope gradient along drains to slow down and attenuate run off and therefore to reduce scouring of ditches which in turn reduces risk of ditch erosion.

There is also an overall drainage layout for the site and within that layout provision of dirty water sediment ponds and weirs; minimisation of removal of vegetation and the installation of silt control measures.

In relation to assessment of the effects of exceptional magnitude events in the future such as 1 in 50 or 1 in 100 year events rather than the ten year event carried out in the applicant's documentation any requirement of such assessment must be considered in the context of the nature of the works proposed.

The overall site has four sub clusters of development. Within each cluster the level of site works is largely limited to the access roads and the pads on which the turbines are constructed. In the context of this site the total overall site footprint for all aspects of the development is indicated as 110,210m² (11.201 ha) and this is within a wider and broader area outside of the four clusters which is affected by the development, which is indicated in documentation as approximately 12km².

This constitutes less than 0.01% of the overall land cover and includes existing roads and farm tracks which will form part of the development with no attenuation

measures for any extreme storm events. The level and scale of runoff arising from the nature of the development proposed in this wider area will therefore I consider be very low.

There is provision in any event for attenuation and checking of flow rates even in exceptional events. Exceptional events were I am of the view considered by the applicant in the submissions made to minimise potential erosion of banks along watercourses.

I therefore consider that the measures outlined in the NIS and also in the sediment and erosion plan have adequately considered and assessed the matters of exceptional rainfall events raised in the DAHG submission.

In relation to avian interests the hen harrier which is the main conservation interest of the Slievefelim to Silvermines Mountains SPA site was also assessed. The appeal site is not within the boundaries of the SPA and it is important therefore to state that there is no loss of habitat within the SPA arising from the development. Surveys have indicated that no nesting of the species occur within the appeal site. It is also important to consider that hen harriers when foraging may travel outside of the boundary of the SPA site. In this regard however as there is no loss of designated habitat arising the question of providing or requiring to provide for any loss of habitat does not arise.

It is noted that the documentation submitted provides for a series of mitigation measures including the provision of alternative foraging areas to replace potential/possible foraging areas displaced as a result of the siting of turbines on the site. It is however important to state that irrespective of whether these alternative foraging areas offered by way of mitigation, are or are not provided, I am satisfied that no adverse effects arise from the development in relation to the Natura Site and any qualifying interest or objectives. It is not unreasonable to consider that if additional suitable lands for foraging are made available as a mitigation measure the provision of these additional foraging lands will actively assist the hen harrier species.

An issue to consider is whether the proposed development individually and in combination with other plans or projects would or would not adversely affect the integrity of a European site concerned having regard to its conservation objectives.

The NIS, I consider, has examined the issue of cumulative impacts in particular in relation to the hen harrier species where displacement and disturbance of foraging habitat can potentially arise. The current proposal as already stated is not within the SAC and therefore no loss of habitat arises. I am satisfied that no adverse effects arise from the development in relation to the Natura Site and any

qualifying interest or objectives arising from the proposed development individually and in combination with other plans or projects.

On this basis and having considered the matter I do not consider on the basis of the information presented that the development would adversely affect the integrity of any European site concerned having regard to conservation objectives.

There is I consider based on the information submitted nothing to suggest significant effects or any loss of a protected habitat or in the fragmentation of habitat and any qualifying interest.

In relation to the impact on qualifying species the NIS did, I consider, examine potential impacts. The NIS also did assess impacts in relation to identified potential impacts on the receiving environment in the context of source, pathway and receptor identifying a hydrological link between the site and the rivers Shannon and Suir in relation to water flows and the proximity between the source and receptor. I consider on the basis of the information presented that mitigation measures and site operational management procedures as outlined address potential impacts and effects identified.

On the basis of the information submitted and consideration and assessment of same, I do not consider that the development will adversely affect the conservation of a number of water dependent Annex II species or conservation objectives.

I therefore consider it reasonable to conclude on the basis of the information available that the proposed development, individually and in combination with other plans or projects would not adversely affect the integrity of any Natura site in view of those sites' conservation objectives or directly or indirectly any European site.

11.0 DEVELOPMENT CONTRIBUTION.

The local authority has in condition no. 15 included a contribution condition for €154,000 in accordance with the Development Contribution scheme. I consider that the requirement of payment of general financial contributions is reasonable.

12.0 OTHER MATTERS.

This is an application for a duration of ten years. I have no objection in principle to granting permission for ten years.

13.0 CONCLUSION AND RECOMMENDATION.

The development is for twenty two turbines located in four clusters. The rationale as set out for the development in the context of national and local policy is I consider reasonable.

Arising from my assessment above and based on the information available therefore I conclude that the proposed development will not give rise to significant adverse effects on the environment and that ongoing impacts are limited in terms of scale and significance and can be remediated.

I consider it important given the nature of the proposed development that mitigation measures outlined in the EIS and NIS and in particular the proposals outlined in relation to construction and ecological management are appropriately conditioned and implemented.

I also consider that the subject development, either individually or in combination with other plans or projects, will not adversely affect the integrity of a European site.

I therefore recommend that planning permission for a duration of ten years be granted in this instance based on the reasons and considerations and subject to the conditions set out below.

REASONS AND CONSIDERATIONS

Having regard to

- National policy on renewable energy as outlined in the *National Climate Change Strategy 2007 – 2012*; *Sustainable Development – A Strategy for Ireland*, includes emphasis on the use of renewable resources; *The National Spatial Strategy 2002 – 2020*; and national planning guidance is provided in the *Planning Guidelines-Wind Farm Development published by the Department of the Environment Heritage and Local Government in June 2006*,
- the provisions of the North Tipperary County Development Plan 2010-2016;
- The North Tipperary Landscape Character Assessment 2009;
- The North Tipperary Wind Capacity Strategy and Outline Landscape Strategy 2009
- The pattern of existing development and land uses within the vicinity of the site;
- the nature of the proposed development and the current established uses on the site,

- the submissions made in connection with the planning application and the appeal,

it is considered that, subject to compliance with the conditions set out below, the proposed development would not seriously injure the amenities of the area or of property in the vicinity, and would be acceptable in terms of traffic safety and convenience.

The Board completed an environmental impact assessment of the proposed scheme, which considered, inter alia, the environmental impact statement submitted with this application, submissions made in the course of the planning application and the appeal, and the report, assessment and conclusions of the Inspector in relation to the environmental impacts of the scheme. The Board considered that the environmental impacts of the proposed development are acceptable and, subject to compliance with the mitigation measures set out in the Environmental Impact Statement, and further conditions included by the Board in this order, the proposed development would not have unacceptable adverse effects on the environment.

The Board completed an Appropriate Assessment in relation to potential impacts of the proposed development on Natura 2000 Sites and having regard to the Natura Impact Statement submitted and the Inspector's report and submissions on file, the Board concluded that, on the basis of the information available, the proposed development, either individually or in combination with other plans or projects, would not adversely affect the integrity of the any European site in view of the site's conservation objectives.

The proposed development would, therefore, be acceptable in terms of the proper planning and sustainable development of the area.

CONDITIONS

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, as amended by the plans and particulars submitted to the planning authority on 7th January 2013, and as further amended by the plans and particulars submitted on the 27th November 2013, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of

development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of clarity.

2. All environmental mitigation measures set out in the Environmental Impact Statement and associated documentation submitted by the applicant to the planning authority and An Bord Pleanála, shall be implemented in full, except as may otherwise be required in order to comply with the following conditions.

Reason: In the interest of protection of the environment.

3. The period during which the development hereby permitted may be carried out shall be ten years from the date of this Order.

Reason: Having regard to the nature of the proposed development, the Board considers it appropriate to specify a period of validity of this permission in excess of five years.

4. The permission shall be for a period of 25 years from the date of the commissioning of the wind turbines. The wind turbines and related ancillary structures shall then be decommissioned and removed unless, prior to the end of the period, planning permission shall have been granted for their retention for a further period.

Reason: To ensure satisfactory reinstatement of the site upon cessation of the project.

5. (a) No micro-siting is hereby permitted. The location of any turbine shall not be altered without a prior grant of planning permission.
(b) This permission shall not be construed as any form of consent or agreement to a connection to the national grid or to the routing or nature of any such connection.

Reason: In the interest of clarity.

6. Prior to commencement of construction, details of the phasing of the construction works shall be agreed in writing with the planning authority, following consultation with the National Parks and Wildlife Service.

Reason: In the interest of the protection of the environment.

7. (a) The wind turbines including masts and blades, and the wind monitoring mast, shall be finished externally in a light grey colour.

- (b) Cables within the site shall be laid underground.
- (c) The wind turbines shall be geared to ensure that the blades rotate in the same direction.
- (d) No advertising material shall be placed on, or otherwise be affixed to, any structure on the site without a prior grant of planning permission.

Reason: In the interest of visual amenity.

8. Details of the materials, colours and textures of all the external finishes to the proposed building shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

Reason: In the interest of the visual amenities of the area.

9. The proposed wind turbines erected on the site shall not exceed an overall height to 126.6 metres and a hub height of 81.6 metres.

Reason: In the interest of clarity.

10. The proposed construction works on the site shall be carried out in accordance with construction details submitted by the applicant on the 7th January 2013 and as further amended on the 27th of November 2013, including the Construction Management Plan, and the mitigation measures contained within. The proposed construction methodology and excavations works shall be certified by a suitably qualified geotechnical engineer.

Reason: In the interest of safety and of the prevention of pollution.

11. Wind turbine noise arising from the proposed development, by itself or in combination with other existing or permitted wind energy development in the vicinity, shall not exceed the greater of:-
- (a) 5 dB(A) above background noise levels or
 - (b) 43 dB(A) L90,10min
- when measured externally at dwellings or other sensitive receptors.

Prior to commencement of development, the developer shall submit to and agree in writing with the planning authority a noise compliance monitoring programme for the subject development. All noise measurements shall be carried out in accordance with ISO Recommendation R 1996 "Assessment of Noise with Respect to Community Response," as amended by ISO Recommendations R 1996-1. The results of the initial noise compliance monitoring shall be submitted to, and agreed in writing with, the planning authority within six months of commissioning of the wind farm.

Reason: In the interest of residential amenity.

- 12.(a) The proposed development shall be fitted with appropriate equipment and software to suitably control shadow flicker at nearby dwellings, in accordance with details which shall be submitted to, and agreed in writing with, the planning authority prior to the commencement of development.
- (b) Shadow flicker arising from the proposed development, by itself or in combination with other existing or permitted wind energy development in the vicinity, shall not exceed 30 hours per year or 30 minutes per day at existing or permitted dwellings or other sensitive receptors.
- (c) A report shall be prepared by a suitably qualified person in accordance with the requirements of the planning authority, indicating compliance with the above shadow flicker requirements at dwellings.

Within 12 months of commissioning of the proposed wind farm, this report shall be submitted to, and agreed in writing with, the planning authority.

Reason: In the interest of residential amenity.

13. In the event that the proposed development causes interference with telecommunications signals, effective measures shall be introduced to minimise interference with telecommunications signals in the area. Details of these measures, which shall be at the developer's expense, shall be submitted to, and agreed in writing with, the planning authority following consultation with the relevant authorities.

Reason: In the interest of protecting telecommunications signals and of residential amenity.

14. Details of aeronautical requirements shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development, following consultation with the Irish Aviation Authority. Prior to commissioning of the turbines, the developer shall inform the planning authority and the Irish Aviation Authority of the as-constructed tip heights and co-ordinates of the turbines and wind monitoring mast.

Reason: In the interest of air traffic safety.

15. The management of drainage and surface water during the construction stage of the development shall be in accordance with the details submitted in the Construction Management Plan, the Ecological Management Plan and Environmental Management Plan.

Furthermore:

- (a) All oils and fuels shall be stored in an area bunded to 110% of the total volume of stored oils and fuels.

(b) Re-fuelling or machine servicing shall take place only within designated impermeable bunded areas, which shall be drained through an oil interceptor.

(c) A wheel wash shall be provided within the site, near the entrance to the public road.

(d) An appropriately sized facility shall be provided on site for concrete washings.

Revised drawings showing compliance with these requirements shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

Reason: In the interest of maintaining water quality.

16. Details relating to the disposal of foul effluent shall be in accordance with the details submitted to the planning authority on the 27th of November 2013.

Reason: In the interest of clarity and of public health.

17. Prior to the carrying out of any construction works between mid March and mid August, a survey for breeding hen harriers shall be carried out by a competent, experienced ornithologist. The survey will cover the area within 500 metres of the works to be carried out during the above period. It will be the responsibility of the ornithologist to ensure that the survey methodology is sufficient to ensure that a hen harrier breeding site is not overlooked. Taking into account the results of this survey no construction works shall be carried out within the above period within 500 metres of a pre nesting breeding site and/or nest, except with the written approval of the National Parks and Wildlife Service.

Reason: In the interest of the protection of the environment and the protection of the habitat of the hen harrier species.

18. Mitigation measures in relation to the hen harrier species shall be provided in accordance with the details indicated in the Ecological Management Plan submitted to the planning authority on the 27th of November 2013.

A timescale for the provision of the enhanced foraging areas including rush management; the provision of additional hedgerows; enclosures for native scrub and trees and measures by landowners in relation to spreading, burning, interference with drainage, retention of hedgerows, restrictions on use of poisons and new forestry plantation shall be agreed in consultation with the National Parks and Wildlife Service prior to the commencement of development works on the site.

A programme of ongoing surveys and monitoring of the species in years 2 and 3 after the commencement of the operation of the turbines shall also be agreed in consultation with the National Parks and Wildlife Service prior to the commencement of development works on the site.

Reason: In the interest of the protection of the environment and the protection of the foraging habitat of the hen harrier species.

19. Details relating to the protection of other species including bats and badgers as outlined in the Ecological Management Plan submitted to the planning authority on the 27th of November 2013 shall be implemented by the applicant.

A timescale for the implementation of the measures outlined shall be agreed in consultation with the National Parks and Wildlife Service prior to the commencement of development works on the site.

Reason: In the interest of the protection of the environment and listed species

- 20 The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the developer shall:-
- (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operations (including geotechnical investigations) relating to the proposed development,
 - (b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works, and
 - (c) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers it appropriate to remove.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

- 21 (a) Mitigation measures outlined in the EIS, NIS and other documentation submitted by the applicant for the protection of water quality shall be implemented in full and according to best practice guidelines. The works shall be supervised as set out in the construction management plan. In the event of a water pollution incident or damage to a receiving watercourse the relevant statutory authorities shall be immediately notified and works cease until authorised to continue by the planning authority.

(b) A programme of hydrographic monitoring after rainfall events shall be carried out at the applicant's expense over a period commencing pre construction and concluding in year 3 of the operational phase of the proposed development. The results of the monitoring and reports arising shall be made available to the planning authority, Fisheries Ireland and the National Parks and wildlife Service.

Reason: In order to protect and assess the water quality of the receiving watercourses and to ensure that no adverse effect arises to affect the integrity of a Natura 2000 site.

- 22 On full or partial decommissioning of the wind farm, or if the wind farm ceases operation for a period of more than one year, the wind monitoring mast, the turbines concerned and all decommissioned structures and equipment shall be removed, and foundations removed or covered with soil to facilitate re-vegetation, all to be completed to the written satisfaction of the planning authority within three months of decommissioning or cessation of operation.

Reason: To ensure satisfactory reinstatement of the site upon full or partial cessation of the project.

- 23 Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the reinstatement of public roads that may be damaged by the transport of materials to the site, coupled with an agreement empowering the planning authority to apply such security or part thereof to the satisfactory reinstatement of the public road. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: In the interest of traffic safety and the proper planning and sustainable development of the area.

- 24 Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the satisfactory reinstatement of the site upon cessation of the project, coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement.

The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: To ensure satisfactory reinstatement of the site.

- 25 The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended.

The contribution shall be paid prior to the commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to the Board to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000 that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

Derek Daly,

Senior Planning Inspector.

16th June 2014.