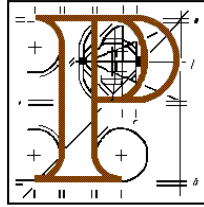


An Bord Pleanála



Inspector's Report

Development:

Ten year permission to construct a windfarm and all associated infrastructure. The proposed windfarm will comprise a) the provision of a total of 4 no wind turbines with a maximum ground to top blade tip height of up to 131m b) upgrading of existing and provision of new internal access roads, c) provision of a wind anemometry mast (up to 90m in height), d) borrow pit, e) an electricity sub-station with control rooms and f) associated equipment, underground electricity connection cabling, temporary construction compound and all ancillary site works, and includes the upgrading of site access junctions. The current proposed development is intended to replace an existing planning permission for a six turbine wind farm permitted under PL Ref 03-2071, as extended by PL Ref 09-267 and PL Ref 13-507 which is valid until 2019.

Location:

Cahermurphy, Kilmihill, Co Clare.

Planning Application

Planning Authority	Clare County Council
Planning Authority Register Ref.	14/551
Applicant	Mid Clare Renewable Energy Limited.
Type of Application	Permission

Planning Authority Decision	Refuse Permission
Planning Appeal	
Appellants	Mid Clare Renewable Energy Limited
Type of Appeals	First Party v Refusal
Prescribed Bodies:	Department of Arts Heritage & The Gaeltacht
Date of site inspection	18 th October 2015 22 nd January 2016
Inspector:	Bríd Maxwell

1.0 INTRODUCTION

- 1.1 This is a first party appeal of a decision by Clare County Council to refuse permission for the development of the proposed Cahermurphy, Windfarm within the townland of Cahermurphy, Co Clare on grounds of potential adverse ecological impact on hen harrier habitat and on grounds of the deficiency of the submitted Natura Impact Statement.

2.0 SITE LOCATION AND DESCRIPTION

- 2.1 The appeal site is located within a rural area of south west County Clare within the townland of Cahermurphy approximately 5 kilometres to the north of Kilmihill village and 23km to the southwest of Ennis. The appeal site (red line boundary) has a stated area of 22.2 hectares, and includes remnants of blanket bog, cutover bog, rough grazing land and predominantly plantation forestry. The site is at the western end of a low range of hills with ground elevations ranging from a minimum elevation of 130 metres OD to a peak of 175mOD. The lands immediately surrounding the site are generally of a similar elevation with lands to the east and north reaching heights of 260metres OD and 390m OD respectively. Lands to the west contain a gradual slope and tend to level off between 50 and 90m OD. The site lies within the Slievecallan Upland Landscape Character Area as identified by the Landscape Character Assessment of County Clare.
- 2.2 The site is rural in character with agriculture and forestry being the main land uses. Access to the site is via local roads off the R484 Regional Road and N68 National Secondary Road to the south of Kilmihill. The N68 which connects Ennis and Kilrush lies approximately 7.2km south of the site at the nearest point. The site is primarily to the east of the Cahermurphy-Drummin local public road. An internal road network has been recently upgraded on site as provided for under previous windfarm permission. Doo Lough is located approximately 2km to the north east. Scropul National School is located approximately 1.2km to the east and there are a number of scattered rural dwellings in the vicinity. (77 within 2.7km). There are two dwellings within 500m of a proposed turbine. The closest dwellings P43 at 450m and P42 at 490m as well as P38 660m are owned by landowners who are participating in the proposed development.
- 2.3 The site is not itself within a designated conservation site, however there are fourteen designated sites within 15km of the appeal site study area and twenty designated nature conservation sites within 15km of the wider

study area incorporating the proposed grid connection route.¹ The closest special area of conservation to the appeal site is the Craghnashingaun Bogs NHA which is 0.9km distant whilst the Carrowmore Point to Spanish Point and Islands SAC and Mid Clare Coast SPC are located 8.2km west of the site.

- 2.4 The site is located in an area of rich archaeological heritage. While there are no known recorded archaeological features present within the site, there are 12 recorded monuments within 2km of the EIS Study Area boundary consisting of three hut sites, two ringforts, two enclosures, a Cashel and ecclesiastical enclosure, a children's burial ground a graveyard and a redundant record.

3.0 THE PROPOSED DEVELOPMENT

- 3.1 The application as set out in the public notices describes the proposed development as follows:

- A Ten year permission to construct a windfarm and all associated infrastructure. The proposed windfarm will comprise:
 - a) the provision of a total of 4 no wind turbines with a maximum ground to top blade tip height of up to 131m
 - b) upgrading of existing and provision of new internal access roads,
 - c) provision of a wind anemometry mast (up to 90m in height),
 - d) borrow pit,
 - e) an electricity sub-station with control rooms and
 - f) associated equipment, underground electricity connection cabling, temporary construction compound and all ancillary site works, and includes the upgrading of site access junctions. The current proposed development is intended to replace an existing planning permission for a six turbine wind farm permitted under PL03.205692 Ref 03-2071, as extended by Planning Ref 09-267 and Planning Ref 13-507. The extant permission for a six turbine windfarm is valid until 2019.

- 3.2 The proposal seeks to replace the permitted six turbine development and involves an increase in the height of the wind turbines permitted at the site to maximise the energy yield. The alterations between the permitted and proposed scheme are summarised as follows:

- Increase in the overall turbine height from 82.5m to a maximum of 131 metres.

¹ Proposed grid connection route to the existing Booltiagh substation was revised during the course of the application to Clare County Council. In response to a request for additional information the initial proposal by way of direct route overhead line was amended and revised proposal involves which involves underground cable by way of existing tracks and the public road network. .

- Amendments to the locations of the permitted turbine locations to accommodate the spacing requirements for a larger turbine model.
- Reduction in the number of turbines from six to four.
- Changes to onsite roads layout to accommodate the new turbine spacings and layout.
- Increase the previously permitted anemometry mast from 40 metres to a maximum height of up to 90 metres.
- Relocation of the permitted control compound
- Relocation of the permitted anemometry mast.
- Introduction of a borrow pit to source rock or stone and as the peat / overburden disposal area.
- Introduction of a temporary construction compound
- Increase in dimensions of the previously permitted access junctions.

3.3 The permanent footprint of the proposed development measures approximately 2.99 hectares. The proposed development will allow the wind farm to cater for the applicant's grid connection via the 100kV substation at Booltiagh. As regards the proposed layout three turbines are to the east of the road with one turbine to the west of the local road which traverses the site. Within the further information response on the issue of the proposed grid connection methodology the initial proposal by way of direct route overhead line was amended and it is proposed to utilise an underground cable ducting from the on site substation which will follow the route of the existing roadways to the national grid. The revised grid connection and route will follow the public road corridor 9km with 600m off road along the site access roads. As regards construction timing it is estimated that the construction phase will take approximately 18 months from starting on site to the commissioning of the electrical system.

3.4 It is proposed to upgrade 1.04 kilometres of the existing on site roadways as part of the development and to construct 0.59 kilometres of new roadway. One on-site borrow pit (2.410m²) is proposed towards the centre of the site between proposed turbines No 2 and 3, which will provide the majority of all rock and hardcore material. Extraction is by way of rock breaking and blasting is not envisaged. The borrow pit, on removal of all necessary and useful rock, will be reused as a peat disposal area. It is proposed to construct an Electricity Substation and Control Building to the south of the site. The proposed electricity substation compound will include two windfarm control buildings and the electrical substation components necessary to consolidate the electrical energy generated by each wind turbine and export that electricity from the windfarm site. One permanent anemometry mast is proposed. The mast will be either self-supporting or supported by guyed wires radiating out 60 metres in three directions from the tower. A temporary construction compound is proposed

for the centre of the site, adjacent to the existing access road. Temporary port-a-loo toilets will be provided during the construction phase. Wastewater from staff toilets will be directed to a sealed storage tank with all wastewater being tinkered off site by permitted waste collector to wastewater treatment plants.

- 3.5 A total of 2.26 hectares of forestry will have to be felled within and around the development footprint and an additional 1.7hectares will be felled around proposed turbine locations (turbulence felling). The total amount of tree felling is 3.97hectares.

4.0 PLANNING POLICY

4.1 National Policy and Guidelines

4.1.1 *Delivering a Sustainable Energy Future for Ireland – The Energy Policy Framework 2007-2020*

This is a Government White Paper. The overriding objective is to ensure that energy is consistently available at competitive prices, with minimal risk of supply disruption. It is an objective to achieve 15% of electricity consumption, on a national basis, from renewable energy sources by 2010, and 33% by 2020 (target increased to 40% in Government budget speech of 2009).

4.1.2 *National Renewable Energy Action Plan 2010*

This Plan implements EU Directive 2009/28/EC on the promotion of the use of energy from renewable sources, which sets out agreed new climate and energy targets- 20-20-20 by 2020 – 20% reduction in greenhouse gas emissions; 20% energy efficiency, and 20% of the EU's energy consumption to be from renewable sources. In relation to the electricity sector, the plan has set a target of 40% electricity consumption from renewable sources by 2020.

4.1.3 *Strategy for Renewable Energy, 2012–2020*

The Strategy for Renewable Energy, 2012–2020 is the most recent policy statement on renewable energy. It reiterates the Government's view that the development of sources of renewable energy is critical to reducing dependency on fossil fuel imports, securing sustainable and competitive energy supplies and underpinning the move towards a low-carbon economy. The Strategy sets out specific actions the Government will take to accelerate the development of wind, ocean and bio-energy, R&D, sustainable transport energy, and supporting energy infrastructure. Strategic Goal 1 aims to achieve progressively more renewable electricity from onshore and offshore wind power for the domestic and export markets.

4.1.4 *Ireland's Second National Energy Efficiency Action Plan to 2020 (March 2013)*

This Plan sets out strategy to reduce Ireland's dependence on imported fossil fuels, improve energy efficiency across a number of sectors and ensure a sustainable energy future.

4.1.5 *Guidelines for Planning Authorities on Wind Farm Development and Wind Energy Development 2006*

The Guidelines offer advice on planning for wind energy through the Development Plan process, and in determining applications for planning permission, and are intended to ensure consistency of approach in the identification of suitable locations for wind energy developments, and acknowledge that locational considerations are important. These considerations include ease of vehicular access and connection to the electricity grid. It is acknowledged that visual impact is amongst the more important issues when deciding a particular application. Whilst there is no set-back distance specified, it is indicated at section 5.6 that noise is likely to a problem at less than 500m. In relation to shadow flicker, section 5.12 states that impact at neighbouring offices and dwellings within 500m should not exceed 30 hours per year or 30 minutes per day. It goes on to state that at distances greater than 10 rotor diameters, the potential for shadow flicker is very low. Section 5.13, dealing with 'windtake', states that distances between turbines will generally be 3 rotor diameters in the crosswind direction and 7 rotor diameters in the prevailing downwind direction. This section goes on to state- 'Bearing in mind the requirements for optimal performance, a distance of not less than two rotor blades from adjoining property boundaries will generally be acceptable, unless by written agreement of adjoining landowners to a lesser distance. However, where permission for wind energy development has been granted on an adjacent site, the principle of the minimum separation distances between turbines in crosswind and downwind directions indicated above should be respected'.

4.1.6 *Proposed Revisions to Wind Energy Development Guidelines 2006*

These Draft Guidelines were introduced by the Department of Environment, Community and Local Government, in December 2013, to deal with limited aspects of wind farm developments. A consultation period was allowed – up to 21st February 2014. The revisions proposed are-

- A more stringent absolute outdoor noise limit (day and night) of 40 dB for future wind energy developments.
- A mandatory setback of 500m between a wind turbine and the curtilage of the nearest dwelling, for amenity considerations.
- A condition to be attached to all future planning permissions for wind farms to ensure that there will be no shadow flicker at any dwelling within 10 rotor diameters of a wind turbine. If shadow flicker does occur, the wind energy developer/operator should be

required to take necessary measures, such as turbine shutdown for the period necessary to eliminate the shadow flicker. There is no indication to date as to proposed changes, if any, to the 2006 Guidelines.

4.2 Clare County Development Plan 2011-2017

- 4.2.1 CDP 10.2 Development Objective: Renewable Energy – “to encourage and favourably consider proposals for renewable energy developments and ancillary facilities in order to meet national, regional and local renewable energy targets.
- 4.2.2 Development Plan Objective 10.3 Wind Energy Development and Residential Amenity: seeks to:
- (a) Promote and facilitate wind energy production in the County. Proposals for the development of infrastructure for the production and distribution of electricity through the harnessing of wind energy will be determined by reference to the County Wind Energy Strategy and the associated SEA and HAD.
 - (b) To strike an appropriate balance between facilitating wind energy development and protecting the residential amenity of neighbouring property in respect of noise proliferation and visual impact”
 - (c) Ensure that all proposals for wind energy development in the County are fully compliant with the Habitats Directive.
- 4.2.3 CDP Objective 17.3 Natura 2000 sites. CDP 17.4 Requirements for Habitats Directive Assessment under the Habitats Directive 1992
- 4.2.4 The Clare Renewable Energy Strategy (RES) 2014-2020 was adopted into the county development plan on 12th May 2014 (Variation No 1 & Volume 8). The strategy outlines the renewable energy resource that is deliverable in County Clare. Its vision is to position the County as the national leader in renewable energy generation, supporting energy efficiency and conservation, with an accessible modern telecommunications infrastructure, achieving balanced social and economic development and assisting Ireland’s Green Energy target. The Wind Energy Strategy has an overall target of 550MW of electricity to be generated from wind energy by 2017.
- 4.2.5 Within the Wind Energy Strategy (Volume 5) the greater extent of the site is located within an area designated as a Strategic Area for wind energy development while the southeast of the site is classified as “Acceptable in Principle”. The objective for the Strategic Areas (WES8) states that these areas are eminently suitable for wind farm development and notes their good / excellent wind resource, access to grid, distance from properties

and location outside designated sites. A target of 400MW from these areas is identified. Projects within these areas must:

- Demonstrate conformity with existing and approved wind farms to avoid visual clutter,
- Be designed and developed in line with the wind energy development guidelines for planning authorities DoEHLG 2006 in terms of siting layout and environmental studies,
- Provide a habitats directive assessment under the Habitats Regulations if the site is located in close proximity to a SAC or SPA.
- Be developed in a comprehensive manner avoiding the piecemeal development of the areas designated as strategic.

4.2.6 The site is also within the functional area of the West Clare Local Area Plan 2012-2018.

(Relevant Extracts from the County Development Plan are attached in appendices to this report.)

5.0 PLANNING HISTORY

ON THE APPEAL SITE

- **PL03.205692** (03-2071) An Bord Pleanála overturned the decision of the Council (refusal on basis of visual impact and potential adverse impact on hen harrier) and granted permission to Michael Murphy and Michael Egan for erection of 6 no 1MW wind turbines, 1 no 40m wind monitoring mast (Temporary) Service Roadways and control house. The Inspector's report explored the main issues arising relating to visual impact, nature conservation and issues of possible landslides. The issue of the value of the site as a habitat for Annex I species the Hen harrier was examined. . The Inspector noted location outside the primary breeding range of the hen harrier, the inevitable changes to the habitat on a large part of the site resulting from maturing forestry that would render the site unsuitable for hen harrier and the lack of clear evidence that windfarms pose a threat to hen harrier and indeed indications to the contrary. Permission was recommended subject to ongoing monitoring and management aimed at minimising any possible negative impacts that might arise to the local hen harrier population.
- 95-514 Permission granted to ESB for Erection of anemometer.
- 09-267 Permission for extension of duration in respect of planning ref P03/2071, 205692 collection and analysis of on-site wind farm, application for grid connection made and secured and construction of c 960m site access roads. Extension of duration granted up to May 2014.
- 13-507 Permission to extend the appropriate period of permission P09/267 and P03/2071, 205692 for a 6MW wind farm and associated facilities. Extension of duration granted up to **20th July 2019**.

I note that the applications for extension of duration noted substantial works carried out on and off site in terms of collection and analysis of site specific data, site clearance work and provision of internal road network. Explanation in relation to delay encountered related to delay in connection to the grid / ESB network.

SITES IN THE VICINITY.

Within the wider area there have been a significant number of applications lodged for wind farm developments which include the following :

Kiltumper

- **PL03.234010 09/358** Permission granted to construct a windfarm **Kiltumper** approximately 1.8km southeast of the appeal site. The development to consist of 2 turbines site tracks and hard standing areas, an anemometry mast a small control building and compound, underground cabling, site signage, temporary site works and all ancillary works.

Coor West

- **239378 (11/360) Coor West** circa 4.8km north of the site Permission granted by the Board February 2014 on appeal for 4 wind turbines.

Booltiagh

- **07-2900** Permission for erection of six wind turbines at Booltiagh circa 6.2km east of the site with towers up to 80metres in height and total tip height up to 120m with ancillary equipment for generation of electricity and two borrow pits.
- **PL03.120616 P00-567** Permission granted in 2001 for a 15 turbine development at Booltiagh approximately 6 kilometres to the east of the site.
- **08/1678** Permission *granted* for modification of Condition 2 of permitted development P07/2900, to extend the permitted lifetime to twenty years from the date of commissioning.
- **PL03.236950 09/0828.:** Booltiagh southern extension. Permission *refused* under for a two-turbine extension to an existing windfarm at Booltiagh. Two reasons for refusal related to significant adverse impact on hen harrier and inadequate EIS.

Boolynageleragh

- **03/79** Permission for erection of 19 turbines at Lissycasey approximately 12km east of the site. Expired.
- **PL03.236376 (PL09/479)** Hibernian Wind Power Limited. Application for permission for development consisting of wind energy project 11 turbines at **Boolnageragh**. Nine turbines permitted by the Board.

- **PL03.12326 (Reg. Ref. 99/2384):** Permission *refused* on appeal under for a 17 turbines windfarm at Letteragh and Boolynagleragh for one reason related to visual impact on the skyline along the Ben Dash Ridge, particularly from the north and from Scenic Route number 17.
- **PL03.244095** 10 year permission for extension to Boolynagleragh Windfarm to include 7 turbines and all ancillary works. **Concurrent application currently before the Board.**

Kilmaley

- **PL03.239933 (P11/301)** Permission for wind energy development consisting the erection of six wind turbines (maximum hub height 90m, maximum blade diameter 93m), one permanent meteorological mast, access road and internal site tracks electricity substation underground cabling and all associated site works. Kilmaley Co Clare, approximately 7.6km east of the site. Permission expires 20/2/2023

Glemore

- **PL03.245392 Concurrent application before the Board** at Glenmore approximately 5km to the east of the appeal site. The proposal will comprise the provision of up to 12 no wind turbines with a maximum overall blade tip height of up to 136.5m. This application is intended to supersede the wind farm development previously permitted on part of this site under Planning Ref P02/2228 for 11 turbines as extended by PI Ref P09/438 and P14/309

Glenmore, Boolynamweel and Sorrel Island

- **Reg. Ref. 13/0122:** Permission *refused* for 13 turbine windfarm at **Glenmore, Boolynamweel and Sorrel Island** c.7km to the W of the appeal site to supersede Reg. Ref. 02/2228 and Reg. Ref. 09/438 and 14/309 above. Permission refused for 2 reasons related to adverse impacts on freshwater pearl mussel and birds.

High Street

- **Reg. Ref. 03/80:** Permission *granted* under **PL03.204911** for a 10 turbine windfarm at Fruar North and **High Street, Lissycasey.** **Reg. Ref. 09/248:** Permission *granted* for extension of duration of permission for a windfarm at Fruar North/High Street, Lissycasey.

- **Reg. Ref. 03/1559:** Permission **granted** for erection of Wind Monitoring Mast at Moyglass.

Letteragh

- **PL03.239933 Reg. Ref.11/361:** Permission **granted** ref. for a 6 turbine windfarm at **Letteragh** .

Slieve Callan

- **PL03.237524 Reg. Ref.10/0009:** Permission *granted* for a 29 turbine windfarm *Slieve Callan*.
- **Reg. Ref.13/0558:** Permission **granted** for changes to substation and borrow pits permitted under **03.237524** Reg. Ref.10/0009 above.

Crossmore

- **Reg. Ref.09/0123:** Permission *granted* for a 7 turbine windfarm at Crossmore.

Shragh

- **PA0025** SID application for construction of 45 no wind turbines close to the village of Doonbeg approximately 11km southwest of the appeal site. Refused by the Board based on the scale of the development being contrary to the provisions of the Clare Wind Energy Strategy, visual impact and potential impact on *Margaritifera margaritifera* Freshwater Pearl Mussel.

Booltiagh Substation

- **PL03.245273 (P14/761)**
The Board upheld the decision of Clare County Council to grant permission for alterations and extensions to the existing Bootliagh 110kV Station. December 2015.

- **Slaghbooly**

14/860 Application presently before Clare County council by Brookfield Renewable Ireland Ltd. Slaghbooly Windfarm. 11 turbines with a tip height up to 131m. Townlands of Doolough, Bootliagh, Shanavough.

The extensive planning history of wind energy and associated infrastructure development proposals and permissions in the area is notable, and I highlight in particular concurrent proposals before the local authority 14/860 Slaghbooly, and the Board PL03.244095 Boolynageleragh, and PL03.245392 Glenmore.

6.0 PLANNING AUTHORITY'S DELIBERATIONS AND DECISION

6.1 Submissions

- 6.1.1 Irish Aviation Authority submission requests that in the event of permission, the applicants be required to provide an agreed scheme of aviation obstacle warning lighting for the wind turbines and coordinates and elevation details of the built turbines for charting purposes. IAA to be notified at least 30 days prior to the erection of the development.
- 6.1.2 Department of Arts Heritage and the Gaeltacht submissions in relation to Archaeology – concurs with the findings of the EIS in relation to archaeological mitigation. Archaeological impact assessment to be carried out.
- 6.1.3 Department of Arts, Heritage and the Gaeltacht initial submission in relation to Nature Conservation. EIS Section 3,3,10.2 outlines that clearfelling of forestry will be required over an area of 2.26ha and that this will be replaced by 2.42ha of forestry. As this forms part of the application the location of replacement or compensatory planting should be identified and impacts assessed as part of the EIA. Impact of grid connection to be assessed. The nearby Cragnashingaun Bogs NHA Site (Site code 002400) and other nature conservation sites should be avoided by powerline. Assessment of the likely significant effects and cumulative effects of windfarm developments in west Clare uplands on the Hen Harrier Annex I species and its habitat is lacking. An assessment of the likely direct, indirect and cumulative effects on Hen Harrier including as a result of collision, disturbance, habitat loss and displacement is required. It is noted that bird surveys were carried out during the breeding season, none during wintering and spring and autumn migratory periods. On a point of clarification the department has no records of the globally threatened Annex II (Habitats Directive) species, Freshwater Pearl Mussel (*Margaritifera margaritifera*) from the Annageeragh catchment. This is not confirmation of the absence of the species from the catchment. The Council should be mindful of obligations to carry out screening for Appropriate Assessment.
- 6.1.4 Following submission of additional information the submission from the Department of Arts Heritage and the Gaeltacht – whilst acknowledging extant permission a windfarm on the site from 2003, the EIA and screening for appropriate assessment for the current proposed development must reflect current environmental baseline and standards of best practice and assess the proposed development in the context of current cumulative or in combination effects.

- 6.1.5 On the basis of the NIS it is unclear to the Department if it has been determined that the project on its own or in combination with other plans or projects has potential to have significant effects on a European site in view of its conservation objectives. It is also unclear what the potential significant effects are and what conservation objectives are at risk. Site specific conservation objectives are not used or referenced in the NIS.
- 6.1.6 The 9km grid connection and associated works including eight culvert replacements and directional drilling at three locations in Cahermurphy, Glenmore and Booltiagh, forms part of the current proposed development and planning application and require EIA and Appropriate assessment. The grid connection brings the proposed development closer to nature conservation sites than currently stated with separation distances reduced from the figure of 0.9km in the EIS and further information response to less than 200m. (Craghnashingaun bogs NHA Site Code 002400). Excavations and disturbed ground on road verges will be prone to colonisation by invasive non-native plant species such as Japanese / Himalayan Knotweed or Himalayan Balsam. No mitigation measures are specified to ensure that dispersal of such species is prevented or monitored and controlled. Causing the spread of such species is an offence under Regulation 49 of the European Communities (Birds and Natural Habitats) Regulations 2011.
- 6.1.7 Lands proposed for replacement forestry planting are all currently hen harrier foraging habitat.
- 6.1.8 West Clare known to be of particular importance for the Birds Directive Annex I species, Hen Harrier and the site is within an Important Bird Area for the species as identified by Bird Watch Ireland. According to the EIS and further information response there are known Hen Harrier nest sites at distances of 100m, 380m and 2.1km from the windfarm site. (2014) Hen harriers were recorded using the site in 2013, 2014 and 2015 during all seasons including the breeding season and in winter. Hen harriers were recorded on 10 of the 11 survey dates. The site is noted as having a high sensitivity rating for hen harrier and that direct loss of habitat and disturbance and displacement as a result of the windfarm development may impact on the Hen Harrier populations locally. The figures for habitat loss as presented do not include the losses that would result from compensatory forestry planting (uncertain) and which amount to 4ha at the site. The effects of habitat loss and displacement and potential disturbance and avoidance at the site are generally considered in isolation to other developments, including forestry management and wider disturbances likely to occur from grid connections and associated and other forestry operations.

6.1.9 Autumn migration remains poorly covered by the bird surveys with no data for the months of August September and most of October in any year. In addition, bird surveys do not cover the grid connection. It is noted that there is a high frequency of records of Annex I bird species in or passing through the site, including hen harrier, merlin, peregrine falcon and golden plover. Bird surveys are summarised in tables and text in the further information response. In order to interpret this summarised information and more fully assess the likely effects on birds, more comprehensive details of the bird surveys and their findings should be available, including dates, times and durations of surveys, survey locations weather conditions and visibility as well as bird observations.

6.2 Internal Reports

6.2.1 Road Design office report asserts that sightline visibility at the proposed entrance appears to be deficient to the left when exiting. L-6254-15 is very narrow, circa 3.5m in places. Applicant should be requested to submit a condition survey of this road prior to any works taking place on this site and post development. A bridge with a condition rating of 2 exists on the R484. Works are required to upgrade this bridge and appropriate contribution should be required.

6.2.2 Area Engineer's report recommends that a legal agreement be set in place to ensure adherence to haul routes. Maintenance and repair of haul routes as necessary. A Special Development Contribution of €338,150 for remediation of roads. The calculation is based on restoration rate of €8.50/m2.

L-2028 6km by 5W by €8.50	€255,000.
L-6254: 1.3km x3W by €8.50	<u>€33,150.</u>
Total	€288,150
Regional and National Secondary Road Network remedial works	<u>€50,000</u>
Total	€338,150

6.2.3 Planner's initial report recommended seeking additional information in respect of:

- Clarification of proposed area where it is proposed to clear fell and proposed new planting area. Further details in relation to the environmental impact of clearfelling and replanting.
- Statement of environmental impact of the proposed grid connection at Booltiagh. Craghashingaun Bogs NHA to be avoided by the power line.
- Additional information with regard to the potential impact of the development on the Annex I Species, the Hen Harrier. An assessment of the likely direct, indirect and cumulative effects on the hen harrier including

those resulting from collision, disturbance habitat loss and displacement as a result of the development.

- 6.2.4 Executive Engineer West Clare Municipal District Office report seeks further information in relation to proposed underground connection. Special development contribution of €240,000 for remediation of the road detailed as cable connector route. L-2048. Calculation is based on experience of the likely remedial works required to the road network of this nature following excavation of a substantial trench for which the most part will be in the carriageway. This is in addition to €338.150 detailed in the original application.
- 6.2.5 Planner's Final Report asserts that having regard to the details contained in the further information response and the assessment as per the EIS addendum carried out in relation to the proposed grid connection, the proposal to tree fell and replant in addition to further consideration given with respect to the Annex 1 species Hen Harrier as well as the Impact Assessment of the proposed development on the hen harrier provided for in Appendix 3 of the further information response and having regard to the submission received from the Department of Arts Heritage and the Gaeltacht it is considered that the EIS with the supplementary information provided by the applicant has not adequately addressed the impacts on the Annex 1 species Hen Harrier. Report concludes that on the basis of the information available there is insufficient information to enable the planning authority to carry out a full appropriate assessment screening. Report also notes that in relation to proposed grid connection no written consent has been obtained. Refusal was recommended.

6.3 Decision

- 6.3.1 By Order dated 25th June 2015, Clare County Council issued a Notification of decision to refuse permission for 2 reasons as follows:
- 1. It is an objective of Clare County Council under objective CDP17.8 of the County Clare Development Plan 2011-2-17 (as varied) to ensure the protection and conservation of areas, sites, species and ecological networks / corridors of local biodiversity throughout the county. The subject site contains areas of habitat identified as foraging habitat for the hen harrier which is afforded protection under Annex I of the EU Birds Directive. The Planning Authority is not satisfied, based on the detail submitted with the application, that the proposed development, by itself and in conjunction with existing and permitted wind farm developments in the vicinity, will not have a significant adverse ecological impact on the habitat of the hen harriers. Accordingly, the proposed development would contravene the above objective and*

would therefore be contrary to the proper planning and sustainable development of the area.

2. *It is an objective of Clare County Council, as outlined in objective CDP 17.3 of the Clare County Development Plan 2011-2017 (as varied) to afford the highest level of protection to all designated Natura 2000 sites in accordance with the relevant Directives and legislation on such matters. The Natura Impact statement which was received by the Planning Authority on 24th April 2015 has failed to include site specific conservation objectives to enable a full and complete assessment in determining whether or not the proposed development on its own or in combination with other plans and projects has the potential to have significant effects on any Natura 2000 site.*

It is considered that the report entitled “Article 6(3) Appropriate Assessment Natura Impact Statement” Submitted to the Planning Authority is insufficient to enable the Planning Authority to carry out a full and complete assessment of the development as is proposed, and therefore does not suffice for the purposes of Section 177T(2) of the Planning and Development Act 2000 (as amended), or Article 6(3) of the Habitats Directive. The Planning Authority therefore considers that the proposal would materially contravene objective CDP 17.3 of the County Development Plan 2011-2017 (as varied) and would be contrary to the proper planning and sustainable development of the area. “

7.0 GROUNDS OF APPEAL

- 7.1 The First party appeal is submitted by McCarthy Keville O Sullivan, Planning and Environmental Consultants on behalf of Mid Clare Renewable Energy Ltd. The appeal submission comprises a detailed Grounds of Appeal Document and a number of additional enclosures :
 - Appendix 1. Council Decision
 - Appendix 2. Updated impact assessment on hen harrier including a hen harrier habitat management plan.
 - Appendix 3. Ecological Assessment and Screening of alternative planting areas.
 - Appendix 4. Invasive Species Management Plan.
 - Appendix 5. Assessment of Other Birds
 - Updated Natura Impact Statement
- 7.2 The grounds of appeal address the Council’s specific reasons for refusal as well as the wider issues in terms of the detailed proposal. Grounds of appeal are summarised as follows:

- Matters raised in reason for refusal were fully and comprehensively addressed within the EIS and application documents including the addendum to the EIS an updated NIS submitted in response to request for further information.
- The proposed development is entirely appropriate and in accordance with the proper planning and sustainable development of the area.
- Current proposal represents an alteration to an extant permission. The current application proposes four turbines instead of the previously permitted six within an area designated as a strategic area for wind farm development within the County Development Plan Renewable Energy Strategy.
- Site is not within an area designated as an SPA SAC nor has any such designation been proposed.
- Additional assessment demonstrates that the proposed development will not have an adverse impact on hen harrier and also demonstrates that a reduction in turbine numbers will have a positive impact.
- The “do nothing” scenario in the context of the current proposal will result in the previously permitted six turbine wind farm being constructed.
- Report entitled “Impact Assessment of Proposed Wind Farm Development on the Hen Harrier concludes that development of the Cahermurphy wind farm will not impact on the hen harrier population during the construction phase based on scheduling of construction works outside the bird (including hen harrier) breeding / nesting season. No hen harrier winter roost site was identified within or in the immediate surroundings (minimum standard of 500m and beyond) in the Cahermurphy core study area during field surveys. Location of the nearest proposed wind turbine at Cahermurphy is at least 300m from the nearest confirmed nest site identified during the breeding bird surveys and beyond the 250m displacement buffer. There is a large area of suitable hen harrier foraging and breeding habitat in the form of wet heath, blanket bog and cutover bog in the wider surroundings that occurs outside the footprint of permitted and operating wind farms within the general core study area. Overall impacts associated with habitat loss, disturbance and displacement during the construction phase of the project are assessed as being of low significance. Findings of hen harrier assessment in relation the operational phase are similarly determined to be of low significance. The calculated collision risk is 0.017397 collisions per year equivalent to one collision every 57.5years or 0.43 collisions during a nominal 25 year wind farm lifespan. (low significance)
- Location of the nearest turbine at least 300m from the nearest confirmed nest site and beyond the 250m displacement buffer identified by Pearse Higgins et al 2009. Findings of previous studies have documented hen harriers nesting within 250m of operating turbines.
- Cumulative impacts of eight wind farm developments in the wider vicinity have been reviewed and are discussed in terms of disturbance,

displacement and collision effects. Proposal will not give rise to significant cumulative impacts and in fact will result in a reduction in the number of permitted turbines from six to four which will result in a slight positive effect in terms of cumulative collision effects. In relation to potential “Barrier Effect” which occurs where a large number of turbines that are densely clustered over a large area could potentially create a barrier to birds flying through the area.

- High sensitivity status for birds was assigned by the design team. It is not an official designation but a classification assigned due to the presence of two nest sites locally within 2km of the core study area. The sensitivity rating ‘high sensitivity’ should not be viewed as the overall impact when incorporating Percival’s 2003 methodology to assess impact significance. Overall Impact Significance is assessed by combining site sensitivity and magnitude of effects to determine overall impact significance.
- Hen harrier Habitat Management Plan (HHHMP) is provided in order to enhance and retain the current ecological interest of lands located to the south of the proposed development site throughout the operational phase of the proposed development and to provide optimum habitat and conditions for foraging hen harrier while also ensuring that hen harriers are not attracted within the 250m buffer distance surrounding the proposed windfarm.
- The aim of the HHHMP is to sustain and enhance the wet heath component of the land parcel extending to 9.5ha which is under the ownership of the applicant. The implementation of HHHMP habitat management plan will ensure that appropriate foraging habitat will be in place for hen harrier during the operational phase.
- NPWS noted following further information response that lands identified on site for replanting are all areas which are currently suitable for hen harrier foraging habitat. This issue was a contributory factor towards the perceived negative impact of the proposal on the hen harrier. To mitigate against this the applicant now wishes to clarify that it is not intended to replant the forestry areas as identified in the further information response and replanting will occur but will be at alternative locations such as those lands which are under the control of the applicants and which have been identified and assessed in the ecological assessment and screening of alternative replanting areas report (Appendix 3). The lands identified in the townlands of Dromconra, Drumquin and Carrowkeel More are all areas of low ecological value and do not currently provide suitable breeding or foraging habitat for hen harrier therefore the replanting of these lands will not give rise to impact on hen harrier. Should replanting occur elsewhere in the state it would be subject to control by the Irish Forestry Service in accordance with best practice forest regulations, policies and strategic guidance.
- As regards the issue of Appropriate Assessment and the second reason for refusal the revised NIS provided to the Board incorporates the site specific conservation objectives of the Natura 2000 sites. Applicants and

project team were disappointed that the issue in relation to the conservation objectives was not raised in the further information request. Notwithstanding the apparent internal change of opinion in relation to the NIS within the NPWS which was followed by the Planning Authority, An Bord Pleanála can now undertake its own appropriate assessment of the project on the basis of the information on file and included within the Appeal grounds.

- In relation to consent route for cable connection as this runs within the public road corridor third party consent is not required. In relation to invasive species an invasive species management plan sets out targeted mitigation measures in this regard.
- In relation to Grid connection which brings development closer within 200m of designated site Cragnashinaun Bog NHA this is assessed in EIS Addendum provided in response to the request for additional information. These documents demonstrate that the cable route can be provided without adverse impact and includes a comprehensive suite of management measures.
- Targeted bird surveys were not undertaken along the proposed grid connection as proposed cable utilises existing road infrastructure throughout its entire length.
- All works and construction machinery will operate within the paved surface of the existing road infrastructure and will not result in the requirement for land take associated with semi-natural habitats in adjoining areas. As the proposed works are restricted to existing roads and tracks no targeted surveys for birds deemed to be of high conservation concern were deemed necessary.
- Arising from concerns of NPWS relating to bird survey data a detailed Impact Assessment on Winter Spring and Autumn Migratory Bird Species and Birds of Conservation Concern” report has been prepared and is included as Appendix 5 of Appeal. Overall the impacts associated with habitat loss, disturbance and displacement during the construction phase of the project are assessed as being of low significance. Similar conclusions are reached in relation to the operational phase of the proposal. Assessment of other bird species does acknowledge that a slight positive impact will arise from the current proposal in that it is proposing to replace the permitted six turbines on this site with four. Overall this reduction in turbines provides a slight positive impact in relation to the barrier effect and the do noting scenario.
- In relation to roads contribution in the event of favourable consideration the first party requests the Board to consider the extent of the special roads contribution in the context of the scale and nature of the current proposal. Note that a special roads contribution sought in the roads report is €338,000 which amounts to a contribution of €84,500 per turbine exclusive of the normal charges and contributions for this four turbine development. The scale of this contribution would seriously undermine the viability of the project economics. Current proposal is a small sale local

farmer led windfarm that has been commenced under the provisions of 03/2071 and which has been subject to substantial works having been carried out already. Local road has already been used to facilitate turbine construction. The previously approved windfarm at this location was subject to a development contribution of €37,940 for six turbines and it is contended that this figure is more appropriate in relation to the current proposal. This matter was subject to a submission to the Planning Authority in June 2015.

- The proposed larger wind turbines will produce a larger energy output per unit rotor area and have been selected to match the wind regime on the site. This will create the optimal wind energy output from this approved windfarm location.
- Current proposal allows the provision of modern technology and the incorporation of a full suite of current mitigation measures as part of the development program.
- The EIS that has been submitted demonstrates that the proposed development can be provided at this location without adverse impacts and that it prevents a more favourable outcome than the “do nothing” scenario/ (provision of six turbine windfarm permitted in 2003)

8.0 RESPONSE SUBMISSIONS

8.1 Planning Authority.

8.1.1 The Planning Authority makes the following observation on the grounds of appeal:

“The first party submission is noted. The Planning Authority does not have any further observation to make in this regard, and requests the Board to uphold the decision of the planning authority. “

8.2 Prescribed Bodies.

8.2.1 The Board referred the complete grounds of appeal inclusive of all appendices to the Department of Arts, Heritage and the Gaeltacht. The response refers solely to archaeology and is summarised as follows:

In relation to Archaeology the department has reviewed the archaeological assessment of the proposed cable route grid connection in the addendum to the EIS. The assessment notes that the recorded monuments are outside of the public road corridor. The report notes that Recorded Monument CL048-007, a hut site, is located 90m from the line of the proposed grid connection and that recorded monument CL039-035 a Megalithic tomb, is located 460m from the line of the proposed grid

connection. The report concludes that due to the distance of the monuments from the grid connection route and the local road there will be no construction phase impacts associated with the route as no archaeological features are situated within the road corridor. The recommended mitigation from the assessment is for the construction works to stay within the confines of the existing road for laying the grid connection to ensure that there will be no impacts on any features outside the road corridor. This recommendation should form part of the conditions of any grant of permission that may issue. Should the Board decided to grant permission the conditions recommended in letter to Clare County Council 10.6.2015 should apply in addition to the recommendation of the archaeological assessment report.

9.0 ASSESSMENT AND RECOMMENDATION

9.1 Having examined the file, considered the prevailing local and national policies, inspected the site and assessed the proposal and all submissions, I consider the key issues to be considered in the Board's de novo assessment of the proposed development are:

- Policy Compliance – Principle of Development
- Landscape and visual impact
- Archaeology and Cultural Heritage
- Impacts on drainage, hydrology and hydrogeology
- Impact on the amenities of the area Noise, Shadow Flicker and telecommunications interference.
- Roads - Traffic Impact
- Ecological Impact
- Habitat's Directive Natura 2000 Sites. Appropriate Assessment Screening and Appropriate Assessment
- Environmental Impact Assessment

9.2 Policy Compliance. – Principle of Development.

9.2.1 The proposed development is in accordance with regional, national and EU policies which seek to promote the reduction of greenhouse gases and the advancement of renewable energy resources. Within the Clare County Development Plan 201-2017 Objective 10-2 Renewable Energy is an objective to encourage and to favorably consider proposals for renewable energy developments and ancillary facilities in order to meet national, regional and county renewable energy targets, and to facilitate a reduction in CO2 emissions and the promotion of a low carbon economy. Objective

10.3 Wind Energy Development and Residential Amenity is the general objective to promote and facilitate wind energy production in the county.

9.2.2 Clare County Development Plan policy in respect of wind energy is based on the Renewable Energy Strategy 2014-2020 and the Wind Energy Strategy 2011-2017. The wind energy strategy has an overall stated target of 550MW electricity to be generated from wind energy by 2017. The wind energy strategy focuses on four classifications Strategic Areas, Acceptable in Principle, Areas Open to Consideration, Not normally permissible. The site is located within a Strategic Area (WES8) which are eminently suitable for wind farm development. noting their good / excellent wind resource, access to grid, distance from properties and location outside designated sites. A target of 400MW from these areas is identified. Notably there is an extant permission PL03.205692 for the erection of six number one megawatt wind turbines, one no 40metre wind monitoring mast, service roadways and control house as extended by PL09-267 and 13-507 (expires 20/07/2019). As set out within the grounds of appeal the proposal seeks to redesign and optimise the previously approved wind farm development by reducing the number of turbines from six permitted to four proposed increasing the turbine tip height from 82.5 metres to a maximum of 131 metres. On the basis of the planning history on the site and the provisions of the Clare County Development Plan 2011-2017, National and EU considerations, I consider that there is no policy objection to the principle of the development.

9.3 Landscape and Visual Impact.

9.3.1 Landscape and Visual Impact is addressed within chapter 10 of the submitted EIS. It is noted that the proposed development lies within the Slieve Callan Upland Landscape Character Area (LCA) as identified by the Landscape Character Assessment within the Clare County Development Plan 2011-2017. The highest peak in the area is that of Slievecallan at 391m OD which is approximately 8.5km north of the site. The Landscape character assessment accurately describes the area as an upland area comprised of hills with extensive plateau in parts. While the area is generally at a higher elevation than the lands to the west and south there are significantly higher lands to the east and north. There are extensive views particularly to the north west and south although some views are restricted by dense conifer forestry plantation. Long ranging views are available from the site in most directions. To the south as far as Moneypoint power station depending on visibility and over coastal areas to the west.

9.3.2 The area covered by the ZTV maps has a radius of 20km and shows the visibility of the proposed wind farm using the hub and half blade of the

wind turbines as points of reference. A total of five ZTV maps are provided also showing the visibility of the proposed wind farm and cumulative visibility having regard to the other existing and permitted wind farms in the area. It is noted that there are a total of 81 existing permitted and proposed turbines located within a 20 kilometre radius of the site. The majority of these and the larger developments lie to the north and east of the proposed development, while a number of smaller development site to the south.

- 9.3.4 The ZTV maps show that there are no major differences in theoretical visibility between ZTV maps at hub height and half blade. The overall pattern of visibility indicated within the ZTV shows that within the 20km radius, where there is any visibility (the degree of visibility is extensive), the four turbines will be visible from most locations. Within the immediate environs of 5km most areas will have visibility of the four turbines. All turbines will be theoretically visible in the majority of areas to the west and south west extending to the coastal areas. To the north of the site, there are pockets of visibility around Miltown Malbay and along the scenic route to the west of Miltown Malbay however visibility is intermittent along this route and at some distance. To the east of the study area, visibility is concentrated mostly on the areas within 10km radius of the site and there are few areas outside the 10km radius where the development is theoretically visible due to elevated topography. To the south and south east visibility is more intermittent beyond the 5km radius of the study area boundary and there is no significant visibility from the scenic routes to the south. Viewpoint 1 is to the south of the scenic route 15 in an area of open views.
- 9.3.5 As regards Cumulative visibility it is noted that there are considerable areas to the northeast of the site which have no visibility of the proposed development but which have considerable cumulative visibility.
- 9.3.6 Six locations were selected within 10km radius of the study area as viewpoint locations. Descriptions of the view presented are provided and the overall visual impact assessment is provided in tabular format taking account of the quantitative assessment and qualitative assessment. Mitigating factors are taken into account in terms of the impact classification. In the visual impact assessment tables for each photomontage the impacts varied from slight to moderate. The overall impact of the development is deemed to be slight. It is asserted that the scale of the landscape is considered suitable to accommodate turbines of this height and the spatial extent of the windfarm is limited to suit the landscape character type in accordance with the DoEHLG guidelines. In addition the development involves the replacement of the permitted development with reduction in number of turbines and a simpler less cluttered layout. Overall the quality of the impact is deemed to be neutral,

although it is acknowledged that this may vary depending on viewer preferences. As wind turbines are a recognisable element of the landscape and the proposed development is replacing a current permitted wind energy development on the site, the proposal is not introducing a completely new element in terms of visibility or land use into the area. Visual impact is predicted as long term slight neutral. Overall impact on landscape character is deemed to be long term slight neutral.

9.3.7 As regards cumulative impact assessment it is noted that the addition of four turbines instead of the permitted six will result in a reduction in the number of turbines visible overall and therefore the development will not give rise to a significant cumulative impact.

9.3.8 The detail and appraisal of visual impact provided in the EIS is in my view reasonable. The areas of visibility are extensive and are clearly set out. Having considered the EIS and visited the site and surrounds, I would conclude that having regard to the robust nature of the wider landscape and to the topography and character of the area the proposed Cahermurphy wind turbines will not be an unduly dominant feature in the landscape rather a component in the landscape. I note that the proposed turbines will be a significant feature from the local road which provides access to the site and will alter the character of the local area for a number of residential properties in the local area. However I consider that given that the proposal represents a reduction from six to four turbines with a less cluttered layout this will lessen the visual impact. Furthermore I note that there were no third party objections to the proposal and the fact that the proposed development is promoted by local landowners would appear to significantly influence the local acceptance of the proposal. On the basis of the foregoing I consider that the proposed development can be accommodated in the landscape and will not have a significant detrimental visual impact.

9.4 Archaeology and Cultural Heritage

9.4.1 Archaeology and Cultural Heritage is addressed in Chapter 11 of the Environmental Impact Statement. The assessment provided is based on both a desktop review of the available cultural heritage and archaeological data and a comprehensive programme of field walking of the study area. Notably there are no recorded monuments on the site and no new archaeological sites were encountered during field inspection. The general area is rich in archaeological heritage with 12 recorded monuments within 2km of the study area including a number of early medieval structures such as ringforts and cashels the nearest of which is located approximately 1.7km from the nearest proposed works area. (T1)

9.4.2 The architectural heritage of the area is characterised by vernacular buildings using local stone in distinctive narrow flat courses. Remnants of such structures from the 18th and 19th Century remain and are in use as outbuildings or picturesque ruins. Some fine road bridges using cut stone are in use on roads surrounding the site. The only building on the record of protected structures in the vicinity is St Michael's church Kilmihil (RPS 140) which is 5km south of the site. Cahermurphy or *Cathair Mhurchu* refers to a stone fort or Cashel and is associated with the clan *Murchada or the Dal gCais*. CL048-005 1.5km south of the proposed development. Archaeological mitigation measures include pre construction archaeological testing of all turbine bases, hardstands, substation site compound and borrow pit and archaeological monitoring of groundworks at construction stage.

9.4.3 The grid connection route is assessed in terms of the archaeological impact within the addendum to the EIS. On the basis of proximity of the proposed grid route to a number of recorded monuments CL048-007 Hut Site (90m) and CL039-035 Megalithic Tomb (460m) mitigation measures propose that construction stay entirely within the confines of the existing road for the laying of the grid connection to ensure that there will be no impacts on any features outside the road corridor.

9.4.4 I note the submissions from the Department of Arts Heritage and the Gaeltacht in relation to archaeology which recommend that further impact assessment of the development site as well as monitoring of development works and restriction of construction works related to grid connection to the confines of the route corridor should be conditions of a permission. I note that the proposed grid connection does not form part of the application, rather it has been considered in terms of the Environmental Impact Assessment process in accordance with the decision delivered in *O Grianna and Others v An Bord Pleanála* 12 December 2014. On this basis I consider that conditions related to grid connection are beyond the remit of the appeal. Having reviewed the submitted assessment I consider that the proposal is appropriately mitigated in terms of the impact on archaeological and cultural heritage.

9.5 Hydrology Drainage and Peat Stability.

9.5.1 As regards water the majority of the site slopes in a north / north-westerly direction from a topographic high point which exists on the south-eastern corner of the site. With the exception of the Cahermurphy stream which runs along the eastern boundary of the site there are no other natural drainage features within the site other than a limited number of manmade drains. Regionally the site is within the Annageeragh-Annagh-Creegh Coastal regional catchment within hydrometric area 28 of the Shannon

River Basin District. The northern section of the site and all proposed development areas are within the Annageeragh River Catchment while the southern section of the site is located within the Creegh river catchment. The Annegeeragh River runs in a westerly direction approximately 3km northwest of the site. The Creegh River runs in a westerly direction approximately 1.4km south of the site.

- 9.5.2 The bedrock underlying the site is classified as locally important in terms of well water yields. The bedrock has little or no open cracks which means groundwater movement within the aquifer is localised. Groundwater at the site can be classed as sensitive in terms of potential impacts from the proposed development however the majority of the bedrock is covered in peat which acts as a protective cover to groundwater quality. The low potential for pollutant travel within the bedrock groundwater makes surface water bodies such as streams more vulnerable to pollution than groundwater at this site. The primary risk to groundwater would be from hydrocarbon spillage and leakages at the borrow pit. Management of contamination sources during construction and operational phases are outlined to address potential impacts. As regards cumulative impact a total of 21 potential turbines within the Annageeragh River Catchment equating to one turbine for every approximately 3km² which would be imperceptible in terms of cumulative hydrological impacts.
- 9.5.3 Application details indicate that the proposed drainage system is designed specifically with the intention of having no negative impact on water quality of the surrounding rivers and streams and consequently no impact on downstream catchments and ecological ecosystems. No new watercourse crossings are required within the windfarm site and there will be no direct discharges to watercourses. Diversion of existing agricultural or forestry drains in the vicinity of work areas will be carried out to minimise the amount of water in the vicinity of work areas. The proposal provides for collection of drainage waters from works areas within the site that might carry silt or sediment to allow attenuation and settlement prior to controlled diffuse release at pre-existing greenfield rates. Drainage design includes interceptor drains, swales, check dams and level spreaders, piped slope drains, vegetation filters, stilling ponds, siltbuster or similar equivalent. As regards borrow pit drainage the design proposal is to control the level of water in the borrow pit area by creating a single point outlet from the basin like area that will ensure that water does not overtop the pit area. Run off from the borrow pit will be diverted via a drainage swale to a series of settlement ponds and onwards to a level spreader which will convert concentrated flows in the drain into diffuse sheet flow on areas of vegetated ground.

- 9.5.4 As regards peat stability, the geology of the site predominantly comprises poorly drainage soil or peat overlying subsoil which is underlain by sandstone and siltstone bedrock. Assessment by A Gec Geotechnical Consultants dated August 2014 is included as Appendix 9 of the EIS. The report notes that the site is characterised by little or no peat cover and only thin subsoils in general. Peat depths at the site are shallow ranging from 0.2 to 0.5m with an average of 0.4m. The detailed stability assessment showed that all locations have an acceptable margin of safety and subject to mitigation measures have a low risk of slope failure or mass movements.
- 9.5.5 Having regard to the foregoing and subject to the implementation of the mitigation measures as outlined in the EIS, including the use of good construction management practices, I am satisfied that the proposed development would not have a significantly adverse impact on hydrology or drainage patterns in the area and would not give rise to water pollution. I consider that it has been demonstrated based on the shallow depth of peat across the site that the proposed development will not give rise to peat instability or slippages.

9.6 Impact on the amenities of the area Noise / Shadow Flicker

- 9.6.1 As regards shadow flicker, the Wind Energy Development Guidelines (2006) note that the effect known as shadow flicker occurs where the blades of a wind turbine cast a shadow over a window in a nearby house and the rotation of the blades causes the shadow to flick on and off. This effect lasts only for a short period and happens only in certain specific combined circumstances. It is recommended that shadow flicker at neighbouring dwellings within 500m should not exceed 30 hours per year or 30 minutes per day.
- 9.6.2 At distances greater than 10 rotor diameters from a turbine, the potential for shadow flicker is very low. Turbine diameter in this case will have a maximum diameter of 100m, such that ten rotor diameters would equate to a maximum distance of 1000m. As noted above the guidelines limit applies to dwellings or offices within 500m of turbines. At distances of greater than 500m the potential shadow flicker will be less intense and less distinct.
- 9.6.3 As noted there are a number of dwellings within the local area (77 dwellings within 2.7km) and including a number within 1000 metres of a proposed turbine. Two dwellings within 500m P43 and P42 are 450 metres and 490 metres respectively from a proposed turbine however both properties, as well as P38 at 660m belong to landowners who are participating in the project. A further 8 dwellings, some of which are currently unoccupied or semi derelict, but which might well be restored to habitable condition, are between 500m and 1000 metres of a turbine.

- 9.6.4 The shadow flicker assessment considers the potential impact on 77 properties in the vicinity of the site up to a distance of 2.7 kilometres. The maximum daily shadow flicker predicted shows that of the seventy seven properties modelled some level of shadow flicker is predicted to occur at 26 properties and of these the daily guidelines limit of 30 minutes is predicted to be exceeded at eight properties. Of the seventy seven properties modelled the DoEHLG total annual guideline limit of 30 hours is predicted to be exceeded at seven properties. (P44-P50). However when the regional sunshine average of 30% is taken into account the number of properties at which the exceedence of the 30 hour limit occurs is zero. As regards cumulative shadow flicker some element of cumulative annual shadow flicker will occur at three properties P21, P28 and P29. Notwithstanding the conclusion that a mitigation strategy will not be required provision is made for use of the windfarm's SCADA control system to switch off particular turbines or provision of screening measures as necessary.
- 9.6.5 As regards noise levels, the wind energy guidelines state that generally noise at receptors should not exceed 45dBA or represent a maximum increase of 5dBA above the background noise level. A review of predicted noises impacts for 12m/s wind speed for the various noise sensitive locations confirms that at the vast majority of locations assessed the current proposal has a reduced noise impact associated when compared to the permitted development. The assessment finds that there are no locations where the proposed development exceeds the adopted day and night time noise criteria. During construction phase there will be some impact on noise sensitive properties due to traffic and other activities however this impact will be temporary and is not deemed to be excessively intrusive. On the basis of the information provided in the EIS, I consider that the proposed development is acceptable in terms of noise impact. Impact or nuisance caused by vibration during the construction, operational and decommissioning phase of the development is not anticipated as neither blasting nor piling are required.
- 9.6.6 As regards telecommunications and aviation impact no interference issues or negative impacts on telecommunications were identified during the scoping and consultation phase. In the event of interference it is proposed to provide for the use of divertor relay links out of line with the wind farm.
- 9.6.7 On the basis of the information provided within the EIS, I consider that it has been demonstrated that the development is acceptable in terms of impacts on the amenities of the area relating to noise, shadow flicker, and telecommunications. I note that the proposal does not provide for a

community benefit scheme. IWEA Best Practice Principles in Community Engagement and Community Commitment, March 2013, sets out best practice principles for delivering extended benefits to local communities for windfarms of 5MW or above. The guidelines refer to support equivalent to a value of at least €1,000/MW of installed capacity per annum index linked for the lifetime of the project. I note however that the proposed development is a locally owned farmer led project and notably there were no third party objections to the proposal which would suggest a degree of local acceptance.

9.7 Roads Traffic Impact and Appropriateness of Special Contribution Roads.

9.7.1 The main traffic impact arising from the development will arise during the construction phase. During the construction phase impact is generally moderate or slight but temporary. During the four days of the turbine construction phase when large turbine plant is delivered the impact will be significant however this will be limited to 4 days. Operational phase impact on local network will be negligible.

9.7.2 I consider that given that the impacts are short term and subject to the provision for remedial measures the impact on roads and traffic is appropriately mitigated. On this basis I consider that traffic and roads issues are not an impediment to the proposed development.

9.7.3 I note the recommendation of the Area Engineer that a special contribution of €338,150 apply in respect of the remediation of roads associated with the development of the windfarm site. The calculation is based on restoration rate of €8.50 / m²

L-2028 6km by 5W by €8.50	€255,000
L-6254 1.3km x 3W by €8.50	€33,150
	€288,150
Regional & National Secondary Road	€50,000
Total	€338,150

Additionally a special development contribution of €240,000 for remediation of the road detailed as cable connector route L-2048 was recommended. It is outlined in the report of Area Engineer that the calculation is based on experience of the likely remedial works required to the road network of this nature following excavation of a substantial trench for which the most part will be in the carriageway.

9.7.4 The first party within the grounds of appeal asserts that the special roads contribution sought in respect of roads €338,000 which amounts to a contribution of €84,500m per turbine exclusive of normal charges and contributions for the development would seriously undermine the viability of the project economics. The first party appeal does not address the recommendation of the additional €240,000 in respect of the grid connection route. I note the Clare County Council General Development Contribution Scheme mid 2013-2017 which was adopted on 16th September 2014 which provides for a S48 development contribution of €10,500 per MW capacity in respect of wind turbines. It is outlined that as part of this contribution 75% will apply to transport, 12% to amenities, 12% to recreation and amenities and 13% to Community Facilities. I note the planning history on the site where the initial grant of permission for a wind energy development was originally granted in July 2004. I further highlight the location of the site largely within an area identified as a strategic area for wind energy development within the Wind Energy Strategy which forms part of the Clare County Development Plan 2011-2017. I consider that the Planning Authority has not set out a detailed justification for the application of a Special Contribution under Section 48 (2)(c) of the Planning and Development Act 2000, as amended, in respect of roads within the appeal case. I note that the Section 48 Development Contribution scheme was prepared having regard to the land use objective and designations within the adopted development plan. On this basis I consider that the application of a special contribution is inappropriate and I note the First Party commitment as outlined within the application and appeal in respect of any necessary remediation of roads.

9.7.5 As regards the proposed special contribution of €240,000 in respect of the proposed grid connection route, I note that the current application / appeal does not seek permission for the proposed grid connection. Rather the details of the proposed grid connection route are included within the Environmental Impact Statement and appeal documentation to enable Environmental Impact Assessment of the overall project in accordance with the decision of Justice Peart in *Pol O' Grianna and others v An Bord Pleanála*.² Accordingly I conclude that it would be *ultra vires* to apply such a contribution as it is beyond the scope of the appeal.

9.8. Ecological Impact

² *Pol O' Grianna and others v An Bord Pleanála*. In his judgement Mr Justice Michael Peart found, inter alia: the connection to the national grid forms and integral part of the overall development of which the construction of the turbines is the first part; the cumulative effects of the construction of the turbines and the connection to the national grid must be assessed in order to comply with the EIA Directive.

- 9.8.1. Chapter 5 of the Environmental Impact Statement addresses the issue of flora and fauna and provides details of field visits, vantage point survey work and walkover studies and is supplemented by additional details provided during the course of the application to the council and within the grounds of appeal. As regards designated areas, no part of the site lies within a site that has been designated for its conservation significance. The closest designated site is the Cragnashingaun Bogs NHA which is located approximately 0.9kilometres from the study area. The closest Natura 2000 sites are the Carrowmore Point to Spanish Point and Islands SAC and Mid Clare Coast SPA, 8.2km west of the study area.
- 9.8.2 Habitats on the site were classified according to the guidelines sets out in “A Guide to Habitats in Ireland” [Fossit 2000] Habitats were classified as being of relatively low ecological significance. Conifer plantation occupies the largest of any habitat type. The other habitats include cutover bog and wet grassland areas and improved agricultural grassland areas grazed by cattle and the latter used for silage cutting.
- 9.8.3 Approximately 65% of the study area is taken up by conifer plantation dominated by Sitka spruce and lodgepole pine with little variation in age structure and dominated by semi mature trees. A further 24% by pasture grassland which are known to support a low poor diversity of species. There are many areas which have been altered and improved for turbary and agricultural purposes. A small area of cutover bog [approximately 2.3hectares of the study area does correspond to the Annex I habitat Blanket Bog (Natura 2000 code 7130] but this area is heavily degraded, subject to drying and inactive as bog.
- 9.8.4 The four turbine base sites will be located within three habitat sites; two within conifer plantation and one within wet grassland and one in cutover bog within a cutover bog / wet grassland mosaic. The control compound and borrow pit will also be within conifer plantation. An area of 0.08hectares of cutover bog (3.3% of the total at the site) will be lost. The permanent footprint of the proposed development will be approximately three hectares in area.
- 9.8.5 Fauna of conservation significance that were recorded within the study area comprised two species of Birds Directive Annex I [Hen Harrier and Peregrine], one species of BoCCI red list bird (Meadow Pipit). Three species of bat recorded at the site are listed in Annex IV of the EU Habitats Directive. In 2014 four active Hen Harrier nest sites were recorded in the wider area surrounding the study area. These were to the east of the study area approximately 100m, 380m, 2.1km and 7.5 kilometres from the site. Peregrine was recorded on one occasion.

- 9.8.6 Hen harrier was recorded during both breeding seasons and in winter and the north west Clare area is well known as a breeding area for this species. VP surveys found that a pair breed within 100m of the study area boundary and within 300metres of the proposed turbine site. The Hen Harrier is a threatened raptor species of conservation concern in Ireland listed on Annex I of the EU Birds Directive.
- 9.8.7 The potential impact on fauna potential for disturbance during construction is explored within the EIS and appeal documentation. Mitigation by phasing is proposed as a significant measure. As regards operational impacts the potential for birds and bats to be struck and killed by moving rotor blades is addressed. The impact of turbine collision on bat species is expected to be negligible to slight.
- 9.8.8 In relation to potential for entrainment of suspended solids and nutrient release in surface watercourses, and pollution of watercourses mitigation detailed measures are set out including the provision of buffer zones surrounding water features, discharge of ponded water onto vegetated ground a minimum of 50metres from watercourses, use of sumps, attenuation ponds, temporary storage lagoon, sediment / silt traps, settlement ponds and specialist treatment systems (eg *Siltbuster*TM) Mitigation for the prevention of pollution events and the drainage design. Based on the details provided, I consider that the proposal is appropriately mitigated. I consider that there is no impediment to development in terms of impact on water quality.
- 9.8.9 As regards the impact on the hen harrier additional information is provided in the Hen Harrier Report (Appendix 3 Appeal documentation). Collision modelling based on observation of species of conservation significance during 2013 and 2014 indicates that (with an avoidance factor of 99%) hen harrier are likely to be involved in collisions with wind turbines at the site only once in approximately 57 years years. The amount of habitat loss (cutover bog and wet grassland) as a result of the proposed development considered suitable for the foraging and breeding requirements of hen harrier is estimated to be 1.37hectares. Indirect habitat loss through avoidance and displacement is also assessed. It is asserted that impact is not significant given that there are large areas of alternative hen harrier habitat in the mid Clare uplands. A Hen Harrier Habitat Management plan is provided in respect of 9.5hectares of voluntary habitat circa 250m to the south east of the proposed windfarm. As regards replanting area to mitigate proposed treefelling within the appeal site, it was outlined within the grounds of appeal it is now proposed to undertake forestry replanting at lands dominated by improved agricultural grassland (deemed to of low ecological value and unsuitable for foraging and breeding requirements of hen harrier) at various sites in Barefield Co Clare (ca 28km to the north

east). Assessment of the implications of the planting of these lands are presented in a standalone report attached to the appeal.

9.8.10 As regards assessment of potential disturbance, the proposed layout results in two active hen harrier sites from the 2014 breeding season being located approximately 300 and 550m from the nearest turbine sites. The First party notes that observations from operational wind farms indicate that hen harriers may continue to use areas after windfarms have been constructed on them at least in the short term. It is suggested therefore that this indicates that wind farms do not necessarily displace the birds. Overall impacts on hen harrier populations in the core study area during the operational phase of the project is considered to be a low probability of significant impact. The proposed windfarm will not impact on the hen harrier during the operational phase based on

- The calculated collision risk of 0.017397 collisions per year (equivalent to one collision every 57.5 years or 0.43 collisions during the nominal 25 year windfarm lifespan.
- The location of the nearest proposed wind turbine at Cahermurphy is located at least 300m from the nearest confirmed nest site identified during breeding bird surveys and beyond the 250m displacement buffer outlined in Pearce Higgins et al (2009)
- Low number of hen harrier observations recorded within the Cahermurphy core study area during June and July 2015,
- The findings of previous studies have documented hen harriers nesting within 250m of operating turbines
- There is a large area of suitable hen harrier foraging and breeding habitat in the form of wet heath, blanket bog and cutover bog in the wider surroundings that occurs outside the footprint of permitted and operating wind farms within the general study area.

9.8.11 As regards cumulative impact the significant of the Slievecallan / Ben Dash / West Clare upland area in terms of its provision of habitats that are used as breeding and foraging locales for fauna including breeding hen harrier are considered. It is noted that there is currently one operating wind farm in this area, while permission has been granted for a further six wind farm developments and further wind farm developments are proposed for the area. In a worst case scenario of 100% avoidance of the area within 100 metres of a wind turbine is used and it is assumed that (along with the existing 19 turbines at Booltiagh (all of the permitted and proposed turbines were constructed giving a total of 89 turbines in the Slievecallan / Ben Dash / West Clare upland area) then the extent of the secondary habitat loss would be equal to approximately 280 hectares. This would be equal to 1.3% of the 210 square kilometre Slievecallan/ Ben Dash / West Clare upland area. It is asserted that as hen harriers may nest within the 250-300metres of wind turbines, it is reasonable to conclude that the loss of breeding areas in the immediate vicinity of

operating wind turbines is not likely to be significant. It is asserted that the processes that may impact negatively on west Clare population of hen harriers are more likely to be those which affect the large scale character of the regional habitats and land usage rather than mortality or habitat loss connected to wind farm developments which would be sited in areas of land covering a fraction of the total range area of the birds. The most important of these is likely to be forestry practice into the future.

9.8.12 On the basis of the evidence provided, and having regard to the location outside a designated SAC, to the stated provision of mitigation measures outlined in the application, EIS NIS and appeal documentation including a hen harrier habitat management plan, and including provision for monitoring to assess the efficacy of the management plan to determine and devise any necessary adjustments to maintain or improve the conservation status of the hen harrier I consider that the proposed development is acceptable in terms of impact on ecology.

9.9 Screening for Appropriate Assessment

9.9.1 The obligation to undertake appropriate assessment derives from Article 6(3) and 6(4) of the Habitats Directive. Essentially it involves a case by case examination for a Natura 2000 site and its conservation objectives. Appropriate Assessment involves consideration of whether the plan or project alone or in combination with other projects or plans will adversely affect the integrity of a European site in view of the site's conservation objectives and includes consideration of any mitigation measures to avoid reduce or offset negative effects. This determination must be carried out before a decision is made or consent given for the proposed plan or project. Consent can only be given after having determined that the proposed development would not adversely affect the integrity of a European Site in view of its conservation objectives.

9.9.2 The revised Natura Impact Statement, dated 27th July 2015 provided with the grounds of appeal is prepared by McCarthy Keville O Sullivan Ltd. The report examines the likely effects of the proposed wind energy development both alone and in combination with other projects on the conservation objectives of Natura 2000 sites within the zone of likely influence 15km of the proposed windfarm and considers whether any possible impacts on the conservation objectives of any Natura 2000 sites can be characterised as significant. The revised NIS takes account of the core windfarm site and the grid connection route.

9.9.3. In terms of step 1 of **Stage 1 Screening**, the European Sites which could potentially be affected using the Source-Pathway-Receptor model are identified as the seven Natura 2000 sites within a 15km radius of the proposed windfarm site and the associated grid connection route, namely:

Site Name	Site Code	Distance from windfarm site	Distance from entire area including grid
Carrowmore Point to Spanish Point and Islands SAC	Site Code 001021	8.2km	8.2km
Mid Clare Coast SPA	Site Code 004182	8.2km	8.2km
Carrowmore Dunes SAC	Site Code 002250	9.1km	9km
Lower River Shannon SAC	Site Code 002165	9.6km	7.6km
River Shannon and River Fergus Estuaries SPA	Site Code 004077	13.4km	12.4km
Tullaheer Lough and Bog SAC	Site Code 002343	14.7km	14.7km
Poouladatig Cave SAC	Site Code 000037	17km	15km
Knockanira House SAC	Site Code 002318	12.6km	12.6km

9.9.4 Step 2: Identify the Conservation Objectives for these sites.

9.9.4.1 The Qualifying Interests for the Lower River Shannon SAC are as follows:

- Sandbanks which are slightly covered by sea water all the time [1110]
- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Coastal lagoons [1150]
- Large shallow inlets and bays [1160]
- Reefs [1170]
- Perennial vegetation of stony banks [1220]
- Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]
- Salicornia and other annuals colonising mud and sand [1310]
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330]
- Mediterranean salt meadows (*Juncetalia maritimi*) [1410]

- Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation [3260]
- Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410]
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0]
- *Margaritifera* (Freshwater Pearl Mussel) [1029]
- *Petromyzon marinus* (Sea Lamprey) [1095]
- *Lampetra planeri* (Brook Lamprey) [1096]
- *Lampetra fluviatilis* (River Lamprey) [1099]
- *Salmo salar* (Salmon) [1106]
- *Tursiops truncatus* (Common Bottlenose Dolphin) [1349]
- *Lutra* (Otter) [1355]

Site specific conservation objectives for the SAC have been published, dated 7 August 2012 and provide specific conservation objectives for each qualifying interest.

9.9.4.2 The qualifying interest for the Carrowmore Point to Spanish Point and Islands SAC are:

- Coastal lagoons [1150]
- Reefs [1170]
- Perennial vegetation of stony banks [1220]
- Petrifying springs with tufa formation (*Cratoneurion*) [7220]

Detailed conservation objectives have been published. April 2014.

9.9.4.3 The qualifying interest for the Carrowmore Dunes SAC are:

- Reefs [1170]
- Embryonic shifting dunes [2110]
- Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]
- Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]
- *Vertigo angustior* (Narrow-mouthed Whorl Snail) [1014]

9.9.4.4 The qualifying interests for Knockanira House SAC are

- *Rhinolophus hipposideros* (lesser Horeshoe Bat) [1303]
- The generic conservation objective to maintain or restore favourable conservation condition of the Annex 1 habitat and or Annex II species for which the SAC has been selected applies to the site.

9.9.4.4 The qualifying interest for Tullagher Lough and Bog SAC are

- Active raised bogs [7110]
- Degraded raised bogs still capable of natural regeneration [7120]
- Transition mires and quaking bogs [7140]

- Depressions on peat substrates of the Rhynchosporion [7150]
The generic conservation objective to maintain or restore favourable conservation condition of the Annex 1 habitat and or Annex II species for which the SAC has been selected applies to the site.

9.9.4.6 The qualifying interest for Pouladatig Cave

- *Rhinolophus hipposideros* (lesser Horeshoe Bat) [1303]
- *Caves not open to the public* [8130]
The generic conservation objective to maintain or restore favourable conservation condition of the Annex 1 habitat and or Annex II species for which the SAC has been selected applies to the site.

9.9.4.7 The qualifying interests for the Mid Clare Coast SPA are

- Cormorant (*Phalacrocorax carbo*) [A017]
- Barnacle Goose (*Branta leucopsis*) [A045]
- Ringed Plover (*Charadrius hiaticula*) [A137]
- Sanderling (*Calidris alba*) [A144]
- Purple Sandpiper (*Calidris maritima*) [A148]
- Dunlin (*Calidris alpina*) [A149]
- Turnstone (*Arenaria interpres*) [A169]
- Wetland and Waterbirds [A999]
Detailed Conservation Objectives for this SPA have been published, 8 September 2014.

9.9.4.8 The qualifying interests for the River Shannon and River Fergus Estuaries SPA

- Cormorant (*Phalacrocorax carbo*) [A017]
- Whooper Swan (*Cygnus cygnus*) [A038]
- Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]
- Shelduck (*Tadorna tadorna*) [A048]
- Wigeon (*Anas penelope*) [A050]
- Teal (*Anas crecca*) [A052]
- Pintail (*Anas acuta*) [A054]
- Shoveler (*Anas clypeata*) [A056]
- Scaup (*Aythya marila*) [A062]
- Ringed Plover (*Charadrius hiaticula*) [A137]
- Golden Plover (*Pluvialis apricaria*) [A140]
- Grey Plover (*Pluvialis squatarola*) [A141]
- Lapwing (*Vanellus vanellus*) [A142]
- Knot (*Calidris canutus*) [A143]
- Dunlin (*Calidris alpina*) [A149]
- Black-tailed Godwit (*Limosa limosa*) [A156]
- Bar-tailed Godwit (*Limosa lapponica*) [A157]
- Curlew (*Numenius arquata*) [A160]

- Redshank (*Tringa totanus*) [A162]
- Greenshank (*Tringa nebularia*) [A164]
- Black-headed Gull (*Chroicocephalus ridibundus*) [A179]
- Wetland and Waterbirds [A999]

Detailed Conservation objectives have been published for this site. 17th September 2012.

9.9.5 Step 3. Identify the potential a) likely and b) Significant effects (direct or indirect) of the project along on the European sites solely within the contexts of the sites conservation objectives

9.9.6 The potential impacts with reference to the Natura 2000 sites' conservation objectives at various stages of the process include:

Emissions to surface and ground water, run off, Silt laden run off, hydrocarbon and other pollutants fuels/ Construction materials to watercourses, loss of habitat for fauna, Avoidance.

9.9.7 In terms of significance I note that the European Sites Carrowmore Point to Spanish Point and Islands SAC and Mid Clare Coast SPA are located over 12km downstream hydraulic distance from the site.

9.9.6 Step 4. Identify the potential a) likely and b) Significant effects (direct or indirect) of the project in combination with other plans or projects on the European sites solely within the contexts of the sites conservation objectives

9.9.6.1 There are eight operating and proposed windfarms within 12km of the study area boundary. I would concur with the findings of the NIS that there is no potential for additional impacts on any of the European Sites for which pathways for impact were identified resulting from the cumulative effects of developments in the area.

9.9.7 Step 5. Evaluate Potential Effects identified above using the source pathway receptor model.

9.9.7.1 No direct impacts on European sites are predicted. Indirect impacts however cannot be excluded. The identified pathways for potential impact on European Sites were associated with the potential for surface water pollution via the surface water network as potential impacts on a number of European Sites cannot be excluded, However the development has been designed to ensure that the identified pathways have been blocked through the design of robust drainage design and surface water treatment and good construction site management.

9.9.8 Step 6 Determine whether or not likely significant effects, either individually or in combination with other plans or projects on the

European Sites can be reasonably ruled out on the basis of objective scientific information.

9.9.8.1 On the basis of the identified pathways for potential impacts in respect of Carrowmore Point to Spanish Point and Islands SAC and Mid Clare Coast SPA having regard to the hydrological connection from the site.

I note that in respect of the following sites were screened out.

- Lower River Shannon SAC
On basis of qualifying interests and due to distance 7.6km and absence of complete impact source pathway receptor chain. SAC is within a different catchment.
- Carrowmore Dunes SAC
Development has no potential to impact on the various coastal habitats that are the qualifying interests for the site due to distance 9.1km.
- Knockanira House SAC. No pathway to impact on sole qualifying interest (lesser horseshoe bat) due to distance c12km. Study area outside the favourable range for this species.
- River Shannon and River Fergus Estuaries SPA. Due to distance 12.4km and lack of evidence of species listed as conservation interests for the SPA, lack of suitable habitat for the majority of conservation interests and lack of complete impact source pathway receptor chain
- Tullaher Lough and Bog SAC. Given the distance 14.7km the nature of habitats and lack of c lack of complete impact source pathway receptor chain on basis of location within a different catchment.
- Poouladatig Cave SAC No pathway to impact on sole qualifying interest (lesser horseshoe bat) due to distance c12km. Study area outside the favourable range for this species.

9.10 Appropriate Assessment.

9.10.1 The stage 2 NIS considers activities during each phase of the development (construction, operation, maintenance and decommissioning)

9.10.2 Steps 1-4 above from Stage 1 Screening are detailed above. The screening assessment identifies potential pathways for impact through potential emissions to surface water on the following Natura 2000 sites given their location within the same catchment of the development site:

- Carrowmore Point to Spanish Point and Islands SAC [001021]
- Mid Clare Coast SPA [004182]

- 9.10.3 Step 3 is an evaluation of the potential effects of the project on the conservation objectives of the sites taking account of mitigation. In relation to the **Carrowmore Point to Spanish Point and Islands SAC [Site Code 001021]** the qualifying interest for which pathways for potential effects were identified within the NIS included coastal lagoons [1150]. On the basis of detailed mitigation measures for protection of water quality in the proposed drainage design and site management programme in addition to the nature of the qualifying interest and the hydraulic distance (14km from nearest lagoon) impacts on downstream aquatic or coastal / marine habitats are unlikely. However on the basis of the precautionary principle the NIS provide additional evaluation in relation to this qualifying interest. On the basis of the detailed mitigation measures it is concluded that significant impact on this qualifying interest are not likely. On the basis of this conclusion it is considered that the project would not affect the integrity of the European Site either individually or in combination with other plans or projects.
- 9.10.4 In relation to the **Mid Clare Coast SPA [Site Code 004182]** potential pathways identified for assessment relate to wetlands A9999. The site is 14km downstream from Lough Donnell which is the closest wetland located within the SPA. On the basis of the detailed mitigation measures it is concluded that significant impact on this qualifying interest are not likely. On the basis of this conclusion it is considered that the project would not affect the integrity of the European Site either individually or in combination with other plans or projects
- 9.10.5 Having considered the submitted report, I am satisfied that the methodology used in the NIS report is clearly explained and information sources set out. I consider that the level of information provided allows the Board as the competent authority to assess the impact of the proposed development on the integrity of the adjacent Natura 2000 sites. Having regard to the mitigation measures proposed I consider that the conclusion that the proposed development will not adversely impact on the **Carrowmore Point to Spanish Point and Islands SAC [Site Code 001021]** **Mid Clare Coast SPA** is reasonably supported.
- 9.10.6 On the basis of the details provided I accept the assertion of the first party that it has been demonstrated that the cumulative impact of the development will not have adverse effect on the adjacent Natura 2000 sites in the light of their conservation objectives and that subject to the mitigation measures and habitat and species management plan, construction and environmental management plan and surface water management plan the proposed project will not adversely affect the integrity and conservation status of any Natura 2000 sites.

9.11 Environmental Impact Assessment

9.11.1 On the matter of the Environmental Impact Assessment, I note that that the proposal involves the erection of 4 turbines, each with a rated electrical power output of 2.4 – 3 megawatts [MW]. A rated output of 3MW would result in an estimated installed capacity of 12 MW on the site. The relevant threshold in terms of the prescribed development for the purposes of part 10 provides that EIA is required for “Installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts”, as set out in Category 3(i) of Part 2 Schedule 5 – Development for the purposes of Part 10 (Environmental Impact Assessment) of The Planning and Development Regulations 2001, as amended. An EIS is therefore mandatory for the proposed development.

9.11.2 Compliance with Requirements of Articles 94 & 111 of the Planning and Development Regulations 2001 (as amended)

I consider that the EIS in overall terms, is in compliance with Articles 94 and 111 of the Planning and Development Regulations, 2001, as amended. To this extent I would observe that-

The EIS contains the information specified in paragraph 1 of Schedule 6 of the Regulations. The EIS-

- Describes the proposal, including the site and the development's design and size;
- Describes the measures envisaged to avoid, reduce and, if possible, remedy significant adverse effects;
- Provides the data necessary to identify and assess the main effects the project is likely to have on the environment;
- Outlines the main alternatives studied and the main reasons for the choice of site and development, taking into account the effects on the environment.
- The EIS contains the relevant information specified in paragraph 2 of Schedule 6 of the Regulations. This includes-
- A description of the physical characteristics of the project and its land use requirements;
- The main characteristics of the wind energy process to be pursued;
- The emissions arising;
- A description of the aspects of the environment likely to be significantly affected by the proposal;
- A description of the likely significant effects on the environment resulting from the development's existence, the development's use of natural resources, the emission of pollutants and creation of nuisances, and
- a description of the forecasting methods used; and

- There is an adequate summary of the EIS in non-technical language.
- There is an indication of any difficulties (technical deficiencies or lack of know-how) encountered by the developer in compiling the required information.

9.11.3 The submitted EIS the additional information submitted in the course of the application and appeal focus on the significant direct and indirect effects arising from the proposed development. The main likely effects can be identified under the range of headings as follows:

Human Beings

- Employment and economic impact at the construction stage and operational phase
- Health and Safety impacts during construction.
- Shadow flicker.
- Visual impact
- Traffic

Noise and Vibration

- Noise & other disturbance to residents.

Ecology - Flora & Fauna

- Effects on SPA, SAC pNHA
- Impacts on on-site habitats.
- Species impact.
- Avifauna disturbance.
- Hen harrier displacement collision

Aquatic Ecology

- Undermining water quality in streams during construction phase.
- Affecting important habitats downstream of the site.
- Fisheries.

Soils, Geology and Hydrogeology

- Removal of soil
- Peat stability.
- Impact on natural drainage patterns
- **Hydrology and Water Quality.**

- Sediment release
- Surface water runoff
- Water quality

Landscape and Visual Impact

- Scale, height and extent of visibility.
- Impact on landscape character.
- Impact on important views.
- Cumulative impact with other permitted wind farms.

Cultural Heritage

- Effects on archaeology.
- Impact on structures of heritage significance.

Air Quality and Climate,

- Dust

- Climate Change.

Material Assets

- Tourism and amenity.
- Impact on local road network.
- Electromagnetic radiation
- Shadow cast shadow flicker
- Interference with telecommunications.
- Impact on land use

9.11.4 Interactions Chapter 13 deals with the interaction of the foregoing.

Matrix Table 13.1. Seeks to identify interactions between various aspects of the environment.

- Humans and noise, flora and fauna, landscape and visual, cultural heritages, soils geology and hydrology, water quality and fisheries.
 - Flora and Fauna, noise, soils geology hydrology, water quality and fisheries
- Cultural Heritage, Landscape and visual material assets.
- Geology and Hydrology.
- Direct indirect and cumulative impacts were considered during the siting of turbines for the proposed wind farm

The effects of the interactions between humans and air quality, the visual landscape, flora & fauna and water and soils; and landscape and the natural environment are implicit in the range of preceding issues listed.

9.11.5 As regards **alternatives**, consideration is given to site selection, other land use options for the site in terms of site selection, wind farm output, turbine model and number, site layout and transport routes to the site. In relation to the “Do nothing” option the EIS considers the completion of the permitted wind farm.

9.11.6 Assessment of the Likely Significant Effects Identified having Regard to the Mitigation Measures Proposed

The assessment preceding this section of the report under the relevant headings fully considers the range of relevant likely significant effects with due regard given to the mitigation measures proposed to be applied if the to address the range of potential significant impacts arising from the proposed development.

9.11.7 Conclusions Regarding the Acceptability or Otherwise of the Likely Residual Effects Identified

The conclusions regarding the acceptability of the likely main residual effects of this proposal are clearly addressed under the various headings

of the main assessment. The principal areas of concern focus on cumulative visual and landscape impact and impact on ecology.

9.11.8 I consider that the EIS is adequate and of an acceptable standard that the document is generally in compliance with the provisions of Article 94 and Schedule 6 of the Planning and Development Regulations 2001.

10.0 CONCLUSION & RECOMMENDATION

10.1 The site is within an area which in the context of the development plan is largely designated as a strategic area for wind energy development and also an area where wind energy proposals are acceptable in principle. The site was also subject to prior permission for a development six no 1MW turbines. PL03.205692 as extended by 09/267 and 13/507 and in accordance with which development works in terms of site clearance and provision of an internal road network have been carried out. Having considered the contents of the application, the decision of the planning authority, the provisions of the development plan, national policy as set out in the Windfarm Development Guidelines issued by the Department of Environment Heritage and Local Government, the grounds of appeal and third party submissions, my site visit and assessment of the planning issues, I conclude that subject to the stated mitigation the proposed development would not have an adverse impact on the integrity of the adjacent European Sites, would not seriously injure the amenities of the area or of property in the vicinity and would be acceptable in terms of traffic impact. Accordingly I recommend permission subject to the following schedule of conditions:

REASONS AND CONSIDERATIONS

Having regard:

- (a) national policy with regard to the development of sustainable energy sources,
- (b) the Wind Energy Development Guidelines for Planning Authorities issued by the Department of the Environment, Heritage and Local Government in June, 2006,
- (c) the planning history on the site including permission PL03.205692 as extended by P09/267 and 13/507.
- (d) the character of the landscape in the area and the topography surrounding the site,
- (e) the pattern of development in the area,
- (f) the provisions as set out in the current Clare County Development Plan, including those regarding renewable energy development, in

particular the Renewable Energy Strategy 2014-2020 and the Wind Energy Strategy,

(g) the distance to dwellings or other sensitive receptors from the proposed development, and

(h) the submissions made in connection with the planning application and the appeal, including the Environmental Impact Statement submitted with the planning application (including mitigation measures therein), the further supplementary information submitted by the applicant in the course of the planning application and the appeal,

(i) the Natura Impact Statement and the further information submitted in relation to ecology by the applicant in the course of the planning application and appeal

It is considered that, subject to compliance with the conditions set out below, the proposed development would not adversely affect the landscape, would not seriously injure the visual or residential amenities of the area and would not give rise to any significant impacts on the natural heritage of the area or affect the integrity of any European Site or any protected species. 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 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, 24th April 2015, and information submitted to the Board on 22nd July 2015, including the detailed mitigation measures set out in the EIS and NIS, except where otherwise may be required in order to comply with the following conditions.

Reason: In the interest of clarity.

2. The period during which the development hereby permitted may be carried out shall be 10 years from the date of this order.

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

3. This permission shall be for a period of 25 years from the date of commissioning of the wind farm.

Reason: To enable the planning authority to review its operation in the light of the circumstances then prevailing.

4. 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.

5. 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.

6. 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 operation (including hydrological and geotechnical investigations) regarding 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 appropriate to remove.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 site and to secure the preservation and protection of any remains that may exist within the site.

7. Prior to the commencement of works on site, a surface water management plan shall be submitted to the Planning Authority for written agreement and shall set out the detailed measures to be undertaken to protect water quality during tree harvesting, construction and operation phase, as well as a schedule for water quality monitoring. Works with a potential to result in pollution or siltation of watercourses shall be supervised by an on site clerk of works who will report on compliance with the relevant mitigation measures. The clerk of works shall be empowered to halt works where

he/she considers that continuation of the works would be likely to result in a significant pollution or siltation incident. In the event of a water pollution incident, or of damage to a river, these reports will be made available to the relevant statutory authorities and on site works will cease until authorised to continue by the Planning Authority.

Reason: To prevent water pollution.

8. Disposal of foul effluent on site is not permitted, unless otherwise authorised by a prior grant of planning permission.

Reason: In the interest of public health.

9. (a) Roads, hardstanding areas and other hard-surfaced areas shall be completed to the written satisfaction of the planning authority within three months of the date of commissioning of the wind farm.
(b) Soil, rock or sand excavated during construction shall not be left stockpiled on site following completion of works. Details of the treatment of stockpiled materials shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

Reason: In the interest of visual amenity.

10. (a) A condition survey of the proposed construction haul routes, including provision for bridges, culverts or other structures, shall be carried out by a suitably qualified engineer both before and after construction of the proposed development. The extent and scope of the survey shall be submitted to, and agreed in writing with the planning authority, prior to commencement of development. In the event of damage occurring to the public road network or associated infrastructure as a result of the construction of the proposed development, such damage shall be made good in accordance with the requirements of and to the satisfaction of the planning authority.
(b) Any such works shall be undertaken in accordance with the "Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes" issued by the National Roads Authority (2006).

Reason: To ensure successful reinstatement of the public road network in the area.

11. A protocol for annual reports on the impact of the windfarm on wildbirds in the vicinity with particular reference to hen harrier shall be submitted by the developer to and agreed in writing with the planning authority prior to

the commencement of development. These reports shall be submitted on an agreed date annually for as long as the windfarm is operational.

Reason: To allow full monitoring of the ecological impact of the proposed development.

12. The wind turbines including masts and blades shall be finished externally in a colour to be agreed in writing with the planning authority prior to commencement of development. Precise specifications of the turbines shall be provided to the planning authority prior to delivery.

Reason: in the interests of visual amenity.

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 - (a) Cables within the site shall be laid underground.
 - (b) The wind turbines shall be geared to ensure that the blades rotate in the same direction.
 - (c) Transformers associated with each individual turbine and mast shall be located either within the turbine mast structure or at ground level beside the mast.

Reason: In the interest of visual amenity.

14. Facilities shall be installed to minimise interference with radio or television reception in the area, Details of the facilities to be installed, which shall be at the developer's expense, shall be submitted to, and agreed in writing with, the planning authority prior to the commissioning of the turbines and following consultation with the relevant authorities.

Reason: In the interest of residential amenity.

15. Details of aeronautical requirements shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Subsequently the developer shall inform the planning authority and the Irish Aviation Authority of the co-ordinates of the as constructed positions of the turbines and the highest point of the turbines to the top of the blade spin.

Reason: In the interest of air traffic safety.

- 16 Wind turbine noise arising from the proposed development shall not exceed the greater of:

- dB(A) above background noise levels or
- 43 dB(A)

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 R1996-1. 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.

17. (a) Shadow flicker arising from the proposed development shall not exceed 30 hours per year or 30 minutes per day at existing or permitted dwellings or other sensitive receptors.
- (b) 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.

18. Prior to commencement of development, the developer shall submit and agree in writing with the planning authority a detailed Construction Management Plan, including a monitoring regime. The Plan shall make provision for inclusion of all relevant mitigation proposed in the EIS and NIS and shall in any event ensure that its scope extends to the following parameters:
- (a) surface water management during construction to prevent runoff from the site onto the public roads, unnatural flooding and/or the occurrence of any deleterious matter in the rivers and the tributaries and watercourses of their catchments or other waters within and adjoining the site including groundwater in accordance with best practice
- (b). Detail of treatment of stockpiled material arising from excavation during construction, management of peat storage and disposal
- (c) dust minimisation including dust potentially generated from vehicles, measures to include appropriately located wheel wash facilities and appropriate good practice in the covering of laden and unladen vehicles;

(d) management of public roads in the vicinity/ so that they are kept free of soil, clay, gravel, mud or other debris and general site management to the satisfaction of the planning authorities;

(e) provision of detailed plans for all temporary facilities and operations, including the storage of hydro-carbons, and proposals for reinstatement as appropriate on completion of the construction phase;

(f) preparation of a formal Project Construction and Demolition Waste Management Plan;

(g) control of adverse noise and disturbance by reference to construction working hours, noise limits and traffic management arrangements;

A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan shall be kept for inspection by the relevant planning authorities. The developer shall satisfy the requirements of the planning authority in relation to measures to be proposed to prevent pollution run-off into water courses. The development shall thereafter be implemented in accordance with the agreed details.

Reason: In the interest of amenities, public health and safety, and to protect the adjoining surface watercourses and areas subject to environmental designations.

19. 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 masts and the turbines concerned including foundations shall be removed and all decommissioned structures shall be removed within three months of decommissioning.

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

20. 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.

21. 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. 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.

**Bríd Maxwell,
Inspectorate.
9th February 2016**