An Bord Pleanála

Inspector's Report

PL 03 244095

Development

Ten year planning application for a 7 turbine extension to an existing windfarm with associated site works at Boolynagleragh, Lissycasey, County Clare.

Planning Application

Planning Authority:	Clare County Council
Planning Authority Reg. Ref.:	13/0681
Applicant:	ESB Windfarm Development Ltd.
Type of Application:	Planning permission.
Planning Authority Decision:	Refuse permission.

Planning Appeal

Appellant(s):	ESB Windfarm Development Ltd.
Type of Appeal:	First v refusal.
Observers:	None
Date of Site Inspection:	21st & 22nd January 2015

Inspector: Karla Mc Bride.

1.0 INTRODUCTION

1.1 Background

This is a First Party appeal against the decision of Clare County Council to refuse planning permission for a 7 turbine extension to a permitted (but not yet constructed) 9 turbine windfarm in an upland rural area.

1.2 Site and location

The appeal site is located approximately 15km to the SW of Ennis in County Clare and c. 3km N of Lissycasey along the N68 (Ennis – Kilrush road) at the E end of a low ridge of hills. The local high point is Ben Dash to the NW of the site with an elevation of c.267mOD and this area is occupied by telecommunications antennae. The site occupies an elevated upland position, levels across the site vary between c.160m and c.210m OD and the lands generally rise to the N.

The site comprises part of an area of open peatland and coniferous plantations and the boundaries are generally undefined. There is extensive turbury activity in the area, a network of unpaved roads traverses the site and the Mid- Clare Way walking route crosses the site in a generally N-S direction. There are two existing quarries in the SW section of the site which appears to be no longer operational. The site is accessed primarily from the N68 at Beneden via c.2km of local roads and unpaved gravel tracks.

Lough Acrow Bog NHA is located to the immediate W of the site. The Cahermore Stream, which is part of the Inch River that discharges into the River Fergus, is located to the E of the site and the Lismorris Stream, which drains into the Owenslieve River, is located to the S. The Lower Shannon cSAC and the River Shannon and River Fergus Estuaries SPA, is located to the S of the site.

There are several houses are located to the E and NW of the site. A 7 turbine windfarm has already been permitted on the site and there are a number of permitted windfarms in the wider area to the W, SW, N and NE.

Photographs and maps in Appendix 1 describe the site and location in some detail.

1.2 Proposed Development

A 10-year planning permission is being sought for a 7 turbine extension to the 9 turbine Boolynagleragh windfarm permitted under PL03.236376 (not yet constructed), on a c.444ha site. The proposed development would comprise:

- Seven turbines with a hub height of c.75-80m and an overall height of c.126m.

- Turbine bases, crane bases and hard-standings.

- Site roads comprising 1.5km new access tracks and the upgrade of 1.4km of existing tracks.

- Underground cabling including a connection to the electricity substation permitted under PL03. 236376.

- Two permanent c.85m high anemometry masts and the replacement of a permitted mast (not yet constructed).

- Two borrow pits to the W, temporary construction compound and site works.

The proposed development would also comprise:

- The felling of 27ha of forestry subject to an application for a Limited Felling Licence and replacement planting on the overall lands.

- The developer has secured a connection for the Boolynagleragh windfarm to the National Grid under the Gate 3 process with a capacity of c.37MW, subject to a separate planning application for works to connect to the network.

Accompanying documents:

- Environmental Impact Statement
- Appropriate Assessment Screening Report
- Letters of consent from Coillte and other landowners

1.3 Interdepartmental reports, prescribed bodies and submissions.

Interdepartmental reports:

None received.

***Prescribed Bodies*:**

An Taisce has no objection to the proposal subject to the preservation of the Mid Clare Way and the protection of Annex 1 bog land habitats in the area including the implementation of mitigation measures to prevent slope failure and peat landslides. The new drainage network should take account of water loss in the surrounding lands due to previous drainage works. A Bat survey should have been undertaken.

Department of Arts, Heritage and the Gaeltacht (Archaeology) requested the attachment of archaeological monitoring conditions having regard to recovery of a substantial prehistoric hoard from a nearby bog at Booleybrien.

Irish Aviation Authority requested a Radar Impact Assessment to ensure that it will not affect the radar site at Woodcock Hill and a scheme of aviation obstacle warning lights for turbines should be agreed by way of condition.

Department of Arts, Heritage and the Gaeltacht (NPWS) made the following observations:

- Noted the site of the permitted development at Boolynagleragh encompasses part of the Lough Arrow Bogs NHA (Site code: 002421).

- Although not designated, Birdwatch Ireland has identified significant parts of W Clare, including the site, as an Important Bird Area for the Hen Harrier.

- Requested that various documents be taken into account including:

    - Wind energy developments and Natura 2000: EU Guidance, 2010
    - Wind energy development guidelines (s.5.3), DoEHLG, 2006
    - Landslides and Ireland, GIS, 2006
    - The County Clare Wind Energy Strategy (mitigation measures near NHA sites and Important Bird Areas.)

- The EIA should ensure that sensitive ecological and hydrological areas are avoided and that negative impacts are minimised as far as possible.

- The EIS should include sufficient project details; details of peat excavation, storage and reinstatement and measures to protect water quality; details of quarries and borrow pits including re-instatement; drainage details and measures to protect surface waters; impacts and implications of tree felling including the risk of Phosphate mobilisation from peat soils; impacts of grid connection for birds, sensitive habitats and surface waters; and ecological impacts of infrastructural works.

- The EIS should be informed by faunal surveys of the receiving environment undertaken at the appropriate time of the year for Winter and breeding birds, including Hen harrier surveys to determine bird usage of the site and surrounds, identify flight lines, evaluate site importance, assess likely effects on birds and habitats including collision risks, disturbance and habitat loss and displacement , cumulative impacts of other windfarms, and there is a record of Hen harrier nesting site in close proximity to the site.

Submissions:

None received.

1.4 Further Information

The Planning Authority requested the submission of Further Information in relation to the following 12 matters:

1. *EIS conclusions with regard to cumulative impacts (current plus Booltiagh projects) on Hen harriers* – peer reviewed study concluded that Booltiagh project is located on good quality blanket bog with regular Hen harrier activity whist the proposed windfarm is not, and it is located toward the E end of the West Clare hen harrier distribution so few passing birds occur.

2. *Submit further details in relation to:*

    a. *Road construction* – floating roads are not proposed, no areas of significant peat depths will be encountered, and access tracts will be designed and built to appropriate standards; adequate tests conducted.

    b. *Drainage patterns during and after construction* – no long term impacts and drainage patterns will be restored by the installation of drainage systems during track construction works and will mimic natural drainage patterns in the area.

3. *Details in relation to peat depths and slope gradients required along with contour plans for each turbine* – a Peat Stability Risk Assessment was carried out which shoed areas of low-medium /low risk rating, which is due to the minimal presence of deep deposits of peat on areas to be developed in conjunction with mild gradients and good drainage; slope failure risk has been minimized by mitigation measures; a new Peat Stability Risk Assessment Report (July 2014) was submitted along with drawings showing the topography of the site and the turbine locations.

4. *Submit summary of studies undertaken in relation to geotechnical assessment of overburden and bedrock, landslide and slope stability risk assessment, and possibility of a bog burst or landslide* - a summary of several previous studied submitted along with a new site investigation report.

5. *Excavation details in relation to:*

a. *Peat excavation, storage and disposal and capacity of borrow pits* – details provided and a storage capacity of 230,000m3 is available.

b. *Nature and extent of stone extraction from borrow pits and potential impacts* and along with compliance with quarry registration QY84 – extraction will be "as needed" as construction progresses, there will be no stockpiling of materials and the volume available at any time will not exceed 2000 tonnes; rock will be ripped by normal tracked excavator following loosening using a rock breaker on a tracked conveyor and there will be no washing or screening in the borrow pits and no process water will be used in operations. (No details provided in relation to compliance with the term and condition of QY84)

c. *Indicate how the extraction and storage volumes were calculated* – the national Geotechnical Borehole Database was used.

6. *Surface water details in relation to:*

a. *Mitigation measures including vegetation filter strips, resettlement ponds, check dams and drainage controls along with the size and location of settlement ponds* – the drainage plan will cater for both the proposed and permitted windfarm, 5 separate ponds are proposed which will be lined with single size stone and the gradient across the site is very low.

b. *Revised site layout to show the location of the settlement ponds and the extent of the buffer zones from water courses to turbines and settlement ponds* – drawings provided.

7. *Detailed site drainage map which shows all existing watercourses, drainage ditches, flushes, lakes or pond; new drainage ditches; all outfall points to watercourses or lakes; all settlement ponds and demonstrate no threat to surface waters* – the drainage on the site was highly modified during the afforestation of the lands, in the absence of mitigation measure the contamination of water courses is one of the most significant potential impacts and a range of measures are proposed.

8. *Tree felling details in relation to:*

a. *Map the extent of tree felling and compensatory planting and specify the future use of all cleared area, and address the risk of Phosphate mobilisation after tree felling* – details submitted and peat cannot store large amounts of Phosphorous so very little will be will be mobilized.

b. *Assess environmental implications (hydrological, hydrogeological and ecological) of any obligations attached to the Tree Felling Licence* – replanting will take place on a hectare by hectare basis for the footprint of the turbines and other works under 20ha and within the Coillte lands (No details provided in relation to location of trees, nature of habitat to be reinstated with no assessment of environmental impacts).

c. *The NIS refers to the felling of 12.2ha of trees while the EIS refers to c.27ha, clarify this discrepancy* – 12.2ha is more accurate.

9. *Clarify number of turbines that were used in the noise model* – all 7 turbines.

10. *Groundwater details in relation to:*

    a. *Proposals to overcome related to groundwater contamination* – no risk posed to groundwater and no groundwater abstraction wells close to the site with the nearest being c.1km from the site boundary.

    b. *Identify all well in the vicinity of the site* – the majority of houses in the vicinity are served by a GWS.

11. *Submit proposals for safeguarding the Mid Clare Way* – will not be physically affected but will be temporarily close for health and safety reasons during construction, the lands are privately owned and not a public right of way

12. *Submit an Aviation Radar Impact Assessment with regard to the radar site at Woodcock Hill* – submitted and none of the turbines would be detectable to the radar with no operational impacts anticipated.

The Planning Authority was generally satisfied with the applicants' submission except for evidence of compliance with QY84 and tree planting imapcts.

1.5 Further interdepartmental reports, prescribed bodies and submissions.

Interdepartmental reports:

None received.

***Prescribed Bodies*:**

Department of Arts, Heritage and the Gaeltacht (NPWS) stated that the FI response addresses some but not all concerns and raised the following concerns:

- The 3 met masts are to be constructed as part of the extension but the effects have not been addressed in the EIS, met masts 1 and 3 appear to be located in areas of open bog and in preferred foraging areas for Hen harrier.

- The windfarm site encompasses part of the Lough Arrow Bogs NHA, the location of the proposed extension and of the overall development relative to this NHA is not clear in the EIS.

- Some details of the ecological surveys and they findings are unclear in the context of the extension and the site as a whole and clarification is required:

    - The full extent of the extension site as surveyed for habitats, flora and fauna, including birds including the met mast locations are included.

    - The full extent and nature of habitat losses as a result of the extension, including clear felling, only the turbine locations and not the full footprint of the development are shown on the habitat map, and areas of open peatland will be impacted directly by the proposal.

    - The reason why all peatland areas are categorised as cutover bog when some intact areas are present.

- Newts are known to be present in ponds in a quarry on the site and a newt survey is required to determine the presence and distribution of this species and to assess potential impacts on this species and its habitat along with targeted mitigation measures.

- The EIS and other surveys have confirmed the presence of 4 breeding pairs of hen harrier within 5knm of the site including one within the proposal site, while a 500m separation distance is established (EIS Fig.9.8) one permitted turbine (T2) and four proposed turbines T10/12/15/16) and one met mast are located on or close to the 500m buffer. Surveys have also established that open peatland areas of the overall site and surrounds are used for foraging by hen harrier and concerns raised in relation to disturbance and abandonment of nest sites during construction and loss of foraging grounds.

- The precautionary approach is advised when carrying out an EIA of the project particularly in the light of scientific doubt that persists in respect of the likely direct, indirect and cumulative effects on the Hen harrier.

Submissions:

None received.

1.6 Planning Authority's Decision

Following the receipt of Further Information, the erection of revised Public Notices and consideration of all submissions, the Planning Authority decided to refuse planning permission for 1 reason:

> It is an objective under Objective CDP17.8 of the Development Plan to ensure the protection of conservation areas, sites, species and ecological networks/corridors of local biodiversity throughout the County. The subject site contains areas of blanket bog and is identified as an importance foraging habitat for the Hen harrier, which is afforded protection under Annex 1 of the EU Birds Directive. The PA is not satisfied that, based on the details 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.

This decision reflects the report of the County Planning Officer.

1.6 Planning history

Appeal site

Reg. Ref. 09/0479: 10-year permission ***granted*** by the Council for an 11 turbine wind farm, access tracks and associated site works on a c.180ha site, turbine elevations vary between 165mOD and 205mOD with a maximum blade height of 125m and an electrical output of 27.5MW. The number of turbines was reduced to 8 by way of condition no.2 which required the omission of Turbine no.7 and the relocation of Turbine no.5 away from the boundary with Lough Arrow Bogs NHA.

This decision was upheld by the Board under ***PL03.236376*** subject to the omission of Turbine 5 and Turbine 7 by way of Condition no.2, in the interest of protecting the adjoining NHA at Lough Arrow Bog. *(Live parent permission for the appeal site).*

- The Board was satisfied that the proposed windfarm would not have an adverse impact on surface water in the area having had regard to the Site Investigation Report, including the peat risk assessment relieved by the Board who also noted that the site gradients were low.

- The Board also agreed with the conclusions of the submitted Screening Report that the project was unlikely to have any significant impacts on the local Hen harrier population noting that cumulatively wind farm developments in the area occupy a small part of the overall foraging area for Hen harriers.

Reg. Ref. 03/0079: Permission ***granted*** by the Council for a 17 turbine wind farm with a maximum turbine height of c.107m, access tracks and site works on the site, delays in grid connections prevented implementation. *(Expired permission)*

Reg. Ref.* 99/2384:** Permission ***refused on appeal under ***PL03.12326*** for a 17 turbines windfarm at Letteragh and Boolynagleragh for one reason related to:

> The site is located along the Ben Dash Ridge which is defined in the current Clare County Development Plan as "visually vulnerable" and where it is a requirement that developments should not impinge in any significant way upon the character, integrity or uniformity of the landscape. The proposed development would be prominently visible from a wide area which is defined in the Development Plan as "visually sensitive" where it is a requirement that developments demonstrate a very high standard of site selection, siting, layout and design. Having regard to the location of the site along Ben Dash Ridge and the configuration and number of the turbines proposed, it is considered that the visual impacts on the skyline, particularly from the north and from Scenic Route number 17, would be dominant and the proposed development would seriously injure the landscape and the "visually vulnerable" and "visually sensitive" designated areas would be significantly degraded by the proposed windfarm. The proposed development would, therefore, contravene materially a development objective of the Development Plan, which is considered reasonable, and be contrary to the proper planning and development of the area.

***Reg. Ref.* QY83:** An application to register a quarry within the appeal site under S.261 was rejected as the Council did not consider that the quarry was in operation prior to or following the coming into operation of S.261. See attached documents.

***Reg. Ref.* QY84**: This registration file relates to an existing quarry located on the site, from which it is proposed to source much of the required fill material in this development. The manager's order includes 16 no. conditions, including conditions limiting the area and rate of extraction. See attached documents.

Surrounding area

Booltiagh:

Reg. Ref.* 00/567:** Permission ***granted on appeal under PL03.120616 for a 15 turbine wind farm at Booltiagh and Glenmore North, c.5km to the W of the appeal site.

Reg. Ref.* 07/2900**: Permission ***granted for six wind turbines with 80m towers at Booltiagh and Carncreagh, adjacent to Booltiagh Windfarm, c.5km to the W of the appeal site.

Reg. Ref.* 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, c.5km to the W of the appeal site.

Reg. Ref 09/0828.: Permission ***refused*** under PL03.236950 for a two-turbine extension to an existing windfarm at Booltiagh, c.5-6km W of the appeal site for 2 reasons related to:

- The Board was not satisfied that the proposed development, by itself and in conjunction with existing and permitted windfarm developments in the vicinity, would not have significant adverse ecological impacts on the habitat of Hen harriers.

- Inadequate EIS and the Board was not satisfied that the proposed development would not have significant adverse impacts on the environment.

Kiltumper:

Reg. Ref.* 09/358**: Permission ***granted under PL03.234010 for 2 wind turbines at Kiltumper, Kilmihil, c.9km SW of appeal site.

Glenmore:

Reg. Ref.* 02/2228**: Permission ***granted for a 14 turbine a wind farm at Glenmore, Boolynamweel and Sorrel Island, c.7km to the W of the appeal site, number of turbines reduced to 11 by way of Condition no.2.

Reg. Ref.* 09/438:** Permission ***granted to extend the Period of Validity of Planning Permission 02/2228 by 5 years (now expired)

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 above. Permission refused for 2 reasons related to adverse impacts on freshwater pearl mussel and birds.

High Street & Lissycasey:

Reg. Ref.* 03/80:** Permission ***granted under PL03.204911 for a 10 turbine windfarm at Fruar North and High Street, Lissycasey c.2km to the SW of the appeal site.

Reg. Ref.* 09/248**: Permission ***granted for extension of duration of permission for a windfarm at Fruir North/High Street, Lissycasey.

Cahermurphy:

Reg. Ref.* 03/2071**: Permission ***granted under ABP ref. PL03.205692 for a 6 turbine windfarm at Cahermurphy, Kilmihil.

Reg. Ref.* 09/267**: Permission ***granted for extension of duration in respect of planning 03/2071.

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

Letteragh:

Reg. Ref.11/361: Permission ***granted*** under ABP ref. PL03.239933 for a 6 turbine windfarm at Letteragh c.2km to the W of the appeal site.

Slieve Callan:

Reg. Ref.10/0009: Permission ***granted*** under PL03.237524 for a 31 turbine windfarm c.9km to the NE of the appeal site. Number of turbines reduced to 29.

Reg. Ref.13/0558: Permission ***granted*** for changes to substation and borrow pits permitted under Reg. Ref.10/0009 above.

Crossmore:

Reg. Ref.09/0123: Permission ***granted*** for a 7 turbine windfarm ac.12km to the NE of the appeal site.

1.6 The Environmental Impact Statement

The EIS described the site and other windfarms in the area; stated that the proposed development would be compliant with national and local planning and energy policy; considered alternatives; and provided a detailed description of the proposed windfarm. The main body of the EIS described the receiving environment; outlined the study methodologies; assessed the potential impacts on the receiving environment; proposed mitigation measures for the construction and operational phases; identified residual impacts; and assessed interactions. A Non-Technical Summary was provided and the main conclusions are summarised below.

Human beings (EIS section 6.0):

Employment will be provided in the construction stage and operational stage; only 1.5% of the available lands will be occupied and the remainder will be available for existing or alternative uses; the payment of rates will be a long term benefit to the local community; and all relevant health and safety legislation will be adhered to.

Noise (EIS section 7.0 & Appendix C):

Construction works that could give rise to off-site noise will be limited to earth moving, excavating and concentrating with will comply with all control standards; turbines will be located in over 500m from the nearest houses with no significant operational impacts anticipated, any noise will be masked by ambient noise and turbines will not operate during periods of high winds.

Shadow flicker (EIS section 8.0):

The shadow flicker analysis, which was based on the operation of the permitted and windfarm and proposed extension, showed a potential for shadow flicker effect on a small number of houses; the worst case predicted hours of occurrence is less than 30% of the recommended limit value and is unlikely to occur.

Terrestrial ecology (EIS section 9.0 & Appendix D):

Most of the bog land has been cutover or afforested and the commercial plantation has limited nature conservation value; a central area comprises old cutover blanket bog which is of conservation value and no development will take place on it. The permitted windfarm contains an open area of open blanket bog that is mainly cutover, the main intact blanket bog is located to the W at Lough Acrow NHA and the lands to the N, E and S are characterised by a mix of forestry, cutover bog and agricultural fields.

The lands comprises a highly modified habitat with low ecological value although it supports a regular Hen harrier breeding area in the central part of the site on the unplanted area of cutover bog, which is of significant conservation importance. This species occurs occasionally in the vicinity of the site with a known winter roost c.5km to the W and the site is used for some foraging most foraging takes place over the neighbouring bogs. A 500m radius buffer zone around the nest is proposed along with seasonal construction restrictions to avoid disturbance to breeding birds; the proposed windfarm will be located entirely within commercial forestry with a close canopy and a very low risk of collision; and monitoring studies indicate that this species continue to use windfarm sites for foraging. No significant impacts predicted.

Aquatic ecology (EIS section 10.0 & Appendix E):

Potentially affected watercourses within c.0.5km of the down gradient were assessed including all tributaries of the Inch (Claureen) River and the Owenslieve River; habitat assessments were carries out on 19 sections on the site and within c.5-7km; the on-site tributaries are of moderate local value and the Cahermore and Lismorris Streams are of high ecological value. Suspended sediments from unmitigated construction works could contaminate surface water; and works in areas of deep peat could result in peat failure, contamination and scouring of watercourses. The two site tracks that intersect tributaries of the Lismorris Stream will not adversely affect fish movement as habitat quality is poor. No significant residual impacts subject to implementation of mitigation measures and the risk of pollution during the operation phases is minimal. The Stage 1 Screening concluded that The Lower River Shannon SAC will not be affected by the works and a Stage 2 NIS is not required.

Landscape (EIS section 11.0 & Vol. 2/2):

The site lies towards the SE end of a range of low uplands that rise up from the Shannon Estuary to a row of peaks, the southernmost peak is Ben Dash and the highest is Slieve Callan c.10km to the NW. The transport and settlement patterns in these upland peaks are sparse; the landscape of the receiving environment is unremarkable and it will be transformed by several permitted windfarms; and the area is designated as suitable for wind energy projects. The proposed turbines would read as an integrated extension to the permitted windfarm and add marginally to the overall number of turbines visible across the area with little additional visual impact.

The potential effects on views form 14 locations was assessed (nearby houses, scenic routes and protected views); several houses to E the will experience a high magnitude of change in their views, although most turbines will be screened by forestry plantations, the two nearest turbines will protrude above the treeline and be visible from nearby gardens but not from within the houses.

None of the remaining turbines would have a visual impact from viewpoints except for one medium impact along a local road to the S approaching the site along the Mid-Clare Way; although prominent there would be no significant adverse impact overall. There are very few locations from which all of the permitted windfarms in the area could be viewed in a single panoramic view and the predicted visual impacts are within acceptable levels.

Geology and soils (EIS section 12.0 & Appendix F):

The site is underlain by the Carbonferous Namurian Shannon group represented by the Clare Shale formation; the geological progression comprises c. 0.9m of peat, c. 0.1-0.25m of brown clay, c.0.5-2.0m of boulder clay to weathered shale and bedrock. No significant impacts predicted from excavation, backfilling and reinstatement works at the borrow pit, which would also be used as a rock resource for tracks and hard standings. The risk of a peat burst or landslide is low subject to mitigation measures with little likelihood of impacts on soils and geology in the area, construction workers, property or watercourses.

Hydrology and hydrogeology (EIS section 13.0):

The site straddles the catchment of two rivers which form part of the River Shannon catchment. One turbine is located in the N part of the site that drains to the E via the Cahermore Stream to the Inch River which joins the Fergus River at Ennis; the S part contains 6 turbines that drain to the S via the Boolynagleragh Stream to the Lismorris Stream and then the Owenslieve Stream, which joins the tidal reaches of the Shannon Estuary at Ballycorick Bridge. There are no ponds, lakes or recorded flood events.

Potential impacts are associated with construction as flow paths are interrupted or redirected and an increase in run-off following rainfall will occur, however only c.1.5% of the overall land area will be affected. The extent of the new hard-standing areas relative to the overall site of the site and the river catchments is negligible, no discernible change in peak flows expected with a worst case increase of c.0.52% predicted, and no potential for increased flood risk.

Potential alteration to hydrology could arise from tree felling, construction of foundations and drainage infrastructure however the drainage regime is already modified by the forestry plantations. The site is located within three WFD surface water bodies with Poor to Good status, and the works would not result in any downstream deterioration of status. Regional groundwater flow is S towards the River Shannon, there are no wells within the site and there will be no discharge to groundwater.

Roads and traffic (EIS section 14.0):

Access is off the N68 and via the L4239 local road, short term impacts relate to disturbance from construction traffic with no long term impacts predicted. Materials will be delivered by HCVs over c.3, 700 trips which equates to 10HCVs or 20HCV movements per day over the 18 month construction period and return vehicles will be mostly empty. Traffic movements will peak on the 7 non-consecutive – days on during delivery of concrete for turbine foundations (50 deliveries per turbine); turbine components will be delivered by special transporter vehicles appropriate traffic management measures required; and all other impacts will be indiscernible all local road improvements will be agreed with the Council.

Air and climate (EIS section 15.0):

Ambient air quality is high and characteristic of a rural environment, there will be no emissions and no impacts on air quality predicted; airborne dust from construction activities is unlikely to affect nearby houses; and overall positive impacts related to less SO_2, NO_x and CO_2 emissions electricity generation.

Material assets (EIS section 16.0):

Forestry: Clear felling will be required at each turbine and access track location with insignificant impact in overall commercial plantation.

Tourism and amenity: Site is not located within a significant tourist area. The Mid-Clare walking route (130km) passes through the site and access to some parts of the route will be temporality restricted during construction, with no permanent impacts.

Energy supply: The permitted windfarm and proposed extension will generate enough electricity to power c.19, 000 homes and it will avoid the annual import of c.45, 000 tonnes of fossil fuels.

Air navigation & electromagnetic interference: No impacts predicted.

Cultural heritage (EIS section 17.0 & Appendix G):

Two Recorded monuments have been recorded in the general area although not within the site, the closest turbine is c.1.2km away and the works will be monitored.

Interactions and Mitigation Measures (EIS section 18.0 & 19.0):

The levels of interaction will not significant magnify the primary impacts and no adverse impacts predicted subject to the implementation of mitigation measures.

1.7 The Appropriate Assessment Screening Report

The applicant consulted with Inland Fisheries Ireland, the Department of Arts, Heritage and the Gaeltacht and the Marine Institute. The Screening Report described the site, and the proposed development, and it confirmed that the proposal would not be located within or close to a European site. The report identified the relevant European sites within a 10km radius of the proposed works, it listed their qualifying interests and conservation objectives, and it identified the potential sources of indirect impacts on these sites via the Source-Pathway-Receptor model.

The relevant sites are:

- The Lower Shannon SAC (Site code: 02165) is located within c.7km
- River Shannon & River Fergus Estuaries SPA (Site code: 004077) within 7km.
- Newall & Edenvale Complex SAC (Site code: 002091) within c.8km.

The potential indirect impacts relate to:

(a) *Transport of pollutants in surface water flowing into the SAC/SPA* – the site is connected via tributaries and watercourses to the Lower River Shannon SAC and the River Shannon & River Fergus Estuaries SPA; no significant risk of contamination due to separation distances between the site and the discharge points to the SAC at Ennis (c.14km) and the SPA at Clarecastle (c. c.21km).

(b) *Ex situ impacts on qualifying species outside the SAC but which is an integral and connected part of the SAC population of qualifying interest species* –

- Natural barriers in the Lismorris/Owenslieve River prevent the upstream migration of Salmon and River Lamprey (QIs for the Lower River Shannon SAC) which will therefore be unaffected by the works; lamprey habitat is recorded as poor on the Lismorris River; and Otters will be largely unaffected.

- The tributary of the Cahermore/Inch River downstream of the works has no suitable habitat for Salmon, no fish were recorded within 1km of the works and 4 trout were recorded 1.5km downstream; from 1.5km onwards to the Inch River there is significant potential salmon nursery habitat and the Inch River provides a good habitat for all Salmonid life stages; the presence of only one turbine in the vicinity of the Cahermore stream (not within 50m) combined with the distance to the Inch river will prevent significant ex situ impacts on salmon populations in the Lower River Shannon SAC.

- Juvenile brook/river lamprey was recorded in the Inch/Claureen River in 2003, lamprey nursery habitat is generally poor in the Cahermore River and brook lamprey are at low densities (if present), no significant ex situ impacts on lamprey populations in the Lower River Shannon SAC predicted.

- No physical impacts on Otter predicted and mitigation measures will protect water quality.

(c) *Possible interference with flight lines of bird species associated with the SPA or possible collision of birds from the SPA with the turbines –*

- The works are located c.7km NW of the estuarine habitats of the River Shannon & River Fergus Estuaries SPA; there are no significant bird populations in the vicinity of the works, flight lines do not occur across the site, most of the QIs would not use this upland habitat for feeding or roosting with no risk of collision; and no impacts predicted.

- There is no evident pathway between the site and the Lesser Horseshow bat population at the Newall & Edenvale Complex SAC.

Screening Statement with Conclusions:

The Report concluded that the proposed extension to the permitted windfarm will have no significant impact (direct, indirect, ex situ or cumulative) on the Qualifying Interests of the European Sites and that progression to a Stage 2 Natura Impact Statement is not necessary.

2.0 NATIONAL AND REGIONAL POLICIES

2.1 National Spatial Strategy 2002-2020

The NSS sets out a national planning framework to co-ordinate future development and planning throughout the country in a sustainable manner and it seeks to promote reliable and effective energy systems as key prerequisites for effective regional development.

2.2 National Development Plan 2007-2013

The NDP identifies environmental protection as one of the main considerations in relation to sustainable energy policy.

2.3 Mid-West Regional Planning Guidelines 2010-2022

The Guidelines provide a long term planning framework for the overall development of the region. Section 2.2.3 notes that the region has a wide range of renewable energy resources and section 6.6.1 states that favourable consideration should be given to renewable energy proposals subject to consideration of the environmental and social impacts as well as potential landscape impacts.

2.4 Wind Energy Development Guidelines - Guidelines for PAs, June 2006.

These Guidelines provide advice to Planning Authorities in relation to the preparation of Development Plan policies for wind energy including the identification of suitable locations for windfarms and in dealing with planning applications. A reasonable balance must be achieved between meeting Government Policy on renewable energy and the proper planning and sustainable development of an area.

The Guidelines provide advice on the type of information that should be submitted with planning applications which includes ground conditions (including peat stability); site drainage and hydrological works; size, scale and site layout; impact on natural/cultural heritage; landscape/visual impact; local environmental impacts; local road network and internal access tracks; cumulative effects; location of quarries to be used as burrow pits during construction; waste disposal and decommissioning. They recommend that the noise impacts should be assessed particularly for residential amenity and shadow flicker is addressed.

Chapter 5 addresses Natural Heritage and PAs must ensure that a proposal, which is likely to have a significant effect on an SAC or other designated area, is authorised only to the extent that the planning authority is satisfied it will not adversely affect the integrity of the area. In relation to birds it is noted that the extent to which birds will be impacted by wind energy developments will vary depending on species, season and location and these impacts may be temporary or permanent. The main potential impacts to birds from wind energy developments have been identified as:

- Disturbance during construction and operational phases leading to the temporary or permanent displacement of birds from the site and its environs.
- Collision mortality, although studies have shown this to be low risk.
- Barrier to movement, although studies indicate that the response by birds to turbines may be variable and related to species and/or season.
- Direct loss or degradation of habitats for breeding, feeding and/or roosting purposes, particularly in wetland sites.

2.5 Proposed Revisions to Wind Energy Development Guidelines 2006 Targeted Review, December 2013

The Department of the Environment, Community and Local Government is currently conducting a targeted review of its Wind Energy Development Guidelines in relation to noise, proximity and shadow flicker. It is proposed to update the relevant sections of the existing Guidelines on these specific issues with the text set out in this document. There will also be a number of technical appendices developed to assist planning authorities in relation to noise assessment, monitoring and the setting of planning conditions.

2.5 Other policy documents

- EU Directive on Electricity from Renewables and associated national targets for renewable energy by sector.
- National Climate Change Strategy.
- White Paper on Energy 2007
- Mid-West Energy Balance and Climate Change Strategy.
- EU Final Draft Guidance (March 2010) Wind Energy Developments and Natura 2000.
- EU Directives on Flooding and the Water Framework Directive.
- The Planning System and Flood Risk Management, 2009.

2.6 NPWS Nature Conservation designations

The Department of the Environment, Heritage and Local Government is responsible for the designation of conservation sites throughout the country. The three main types of designation are Natural Heritage Areas (NHA), Special Areas of Conservation (SACs) and Special Protection Area (SPAs) and latter two form part of the European Natura 2000 Network. There are three European sites and several NHAs and located within 10km of the site.

- The Lower Shannon cSAC, c.7km to the S.
- The River Shannon and River Fergus Estuaries SPA, c.7km to the S.
- The Newhall and Edenvale Complex SAC, c.8km to the NE.

- Lough Acrow Bogs NHA is adjacent to the W site boundary.

2.7 Appropriate Assessment Guidance for Planning Authorities, 2009.

SAC and SPA sites are subject to the requirements of Article 6(3) of the Habitats Directive in relation to screening for an Appropriate Assessment of the potential impacts of a plan or project, both on their own and/or in combination with

other plans or projects in the wider area. Applicants are required to submit a Stage 1 Screening Report and a Stage 2 Natura 2000 Impact Statement to enable the competent authority to carry out the Appropriate Assessment of the proposal. The DoEH&LG have provided guidance in relation to this requirement.

3.0 LOCAL PLANNING POLICY

3.1 County Clare Development Plan 2011-2017

Renewable energy objectives:

> ***Objective CDP 10.2:*** seeks to **"**'encourage and favourably consider proposals for renewable energy developments and ancillary facilities in order to meet national, regional and local renewable energy targets…"
>
> ***Objective CDP 10.3*** seeks to:
>
> (a) Promote and facilitate wind energy production in the county and 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"
>
> (b) Promote and facilitate wind energy and that proposals for the development of infrastructure will be determined having regard with reference to the Wind Energy Strategy.
>
> (c) Ensure proposals are fully compliant with the Habitats Directive.

Renewable Energy Strategy 2014-2020 (Variation No.1 & Volume 8)

This Strategy outlines the renewable energy resource that is deliverable are up to 2020, Ch.9 deals with onshore wind and summaries the key objectives of the Wind Energy Strategy (WES) and the renewable energy resource targets for 2020 are:

Type of energy	**Renewable energy resource**	**MW**
Thermal	Wood, crops, geo-thermal, micro-thermal	177.0
AD-CHP thermal	Silage, animal & municipal waste, biomass	66.6
Electric	On & off-shore wind, hydro, wave, tidal	720.8
Onshore wind	*Wind turbines*	*550.0*
Transport		2.0
Overall total		**966.4**

- The Strategy sets out 4 areas where windfarms may or may not be permissible and the appeal site is located within a Strategic Area (Ben Dash) which forms part of a larger Acceptable in Principle area (Sliabh Callan).

- Protection is afforded to NHAs and pNHAs in relation to the potential adverse impact of windfarms their conservation value, and any proposed wind energy development that could have significant effects on an NHA is likely to require an EIA and the preparation of an EIS.

- The changing nature of SPAs, SACs and NHAs boundaries is noted and the assessment of any windfarm applications will have regard to the most up to date nature designation boundaries and the consequent requirements and obligations under the Habitat Directive and associated Regulations.

Wind Energy Strategy (Volume 5):

This Strategy facilitates the development of onshore wind farms by maximising the wind resources of the County having regard to technological advances in turbine design, information on wind speeds, proximity and availability to grid connection and to changing energy and grid connection regulations while minimising any environmental and visual impacts.

The main points are summarised below:

- That the working target for wind energy within the county is 550 MW.
    - The 550MW target will be accommodated within:
        - Strategic Areas - 400MW
        - Acceptable in Principle areas - 150MW

- The main area of permitted development to date is in the surrounding uplands to the E of the site, within an area located to the W of Ennis bounded.

- The Strategy has 4 categorisations of area based on their appropriateness for wind energy developments and the site is mainly located within a Strategic Area that forms part of a larger Acceptable in Principle, although a small section appears to be located within an Open for Consideration area

- The council seeks to accommodate wind energy developments in areas identified as Strategic or Acceptable in Principle subject to implementation of best practice in siting and design.

- Specific Area Objective 9 states that ***Acceptable in Principle*** areas are considered suitable for windfarms because of viable wind speeds, access to grid, slopes less than 15 degrees, excludes SACs and SPAs an avoids most NHAS and low population density. A target of 150MW from these areas is identified.

- Specific Area Objective 8 states that ***Strategic Areas*** are considered suitable for windfarms because of viable wind speeds, access to grid, slopes less than 15 degrees, they exclude SACs and SPAs and avoid most NHAs, and 400m distance from residential properties. A target of 400MW is identified for these areas.

- This Strategic Area is located within the ***Sliabh Callan Landscape Character*** Area which encompasses upland hills and the slopes of Sliabh Callan and Ben Dash. Table 4a of the WES states that this area could accommodate large or medium windfarms subject to careful siting to avoid significant impacts on the skyline and that the potential energy for this area is 250MW.

Landscape and scenic routes:

Chapter 16 and Appendix 7 deal with landscape and scenic routes and these sections which include a Landscape Character Assessment of the county and Landscape Character Areas are identified.

- The site is located within the Sliabh Callan Upland.

- The county is divided into three character types (heritage, working and settled landscape) and the site is located within a settled landscape where the uses envisaged include energy (16.4.3).

Objective 16.2 states that it is an objective within settled landscape areas to permit development that would sustain and enhance the quality of life and residential amenity and promote economic activity subject to, inter alia, conformity with other relevant plan provisions, appropriate sites, avoidance of intrusions on scenic routes, ridges or shorelines, avoidance of visually prominent locations and reduction in visual impact by design, form and finish.

Natural heritage:

Chapter 17 deals with Biodiversity and this section contains a range of policies and objectives that protect:

- Natura 2000 sites (Objective CDP 17.3 and 17.4)
- Non-designated sites (Policy CDP 17.8)
- Inland waters (Objective CDP 17.10)
- Peatland areas (Objective CDP 17.11)

Objective CDP 17.3 deals with European sites and seeks:

(a) To afford the highest level of protection to all designated Natura 2000 sites in accordance with the relevant Directives and legislation on such matters;

(b) To require all planning applications for development within, adjacent to, or with the potential to affect a Natura 2000 site to submit a Natura Impact Statement in accordance with the Habitats Directive (1992);

(c) To recognise and afford appropriate protection to any new or modified SPAs or SACs that are identified during the lifetime of this Plan.

Objective 17.8 deals with non-designated sites and it seeks to:

(a) To ensure the protection and conservation of areas, sites, species and ecological networks/ corridors of local biodiversity value outside of designated sites throughout the County.

(b) To complete the Habitat Mapping of the County (in accordance with A Guide to Habitats in Ireland – The Heritage Council (2000) in order to identify and record the natural habitats of the County at a detailed level and afford appropriate protection to areas of importance, as required.

Water and the environment:

Chapters 8 and 9 deal with Water Supply and Wastewater Services and the Environment and the relevant sections seek to:

Objectives 8.1, 8.2 and 8.3 relate to water and seek the protection of ground and surface waters and to ensure that development that have an unacceptable impact on the water environment will not be permitted.

Objective 8.3 specifically states that developments that infringe on a river boundary or their associated habitat will only be considered where there will be no impact on the ecological or aquatic or fishing potential of the waters.

Objective 9.1 requires compliance with the provisions of the Water Framework Directive and the relevant river basin management plan.

Forestry and wind energy:

Chapter 13 deals with Rural Development and Natural Resources and it seeks to:

> ***Objective CDP 13.8 (a)*** seeks to encourage the development of forestry and ancillary enterprise throughout the Countryside as a means of promoting rural diversity and strengthening the rural economy;
>
> ***Objective CDP 13.11*** seeks to facilitate the development of wind energy developments in rural areas in accordance with the Wind Energy Strategy 2011 - 2017 and associated SEA and HDA.

4.0 APPEAL

4.1 First Party appeal

There is one First Party appeal against the decision of the Council to refuse planning permission from ESB International:

Summary

- The Council incorrectly asserts that the site constitutes blanket bog which has been identified as an important foraging habitat for the Hen harrier.

- The potential impacts of the proposed windfarm extension on the local Hen harrier were considered in the past not to be significant; substantial baseline data was presented on the distribution and movements of Hen harriers in the wider area over two full seasons (2011 and 2013) which informed the design of the extension.

- All proposed turbines, additional anemometer masts and virtually all additional access tracks are located within a conifer plantation which is of low value to Hen harriers (not used for nesting for foraging).

- One additional anemometer mast and a short length of access track are located in a non-forest area where the associated habitat is not significant, particularly in the context of historic and ongoing turbary.

- The area of the extension is not a foraging habitat for Hen harrier and the layout has been designed to avoid the bog area by observing a permanent exclusion zone (500m and c.76ha) to cover all the blanket bog where the birds nest and substantial areas of conifer forest around the bog.

- A c.200-300m zone around operational turbines in NI has been identified as the area where displacement may occur and ABP considered that a 500m exclusion zone was adequate to protecting hen harriers within the overall site.

- Recognised mitigation measures, comprising seasonal restrictions and an exclusion zone, are incorporated to ensure that significant impacts will not arise for nesting birds.

- The 2011/13 site surveys concluded that the appeal site is not an important foraging habitat for Hen harrier and active foraging was observed mostly over the heath and bog and no strikes were observed and this reflects the dominance of the tree canopy.

- Accept that the bog is an important nesting location for a pair of hen harriers but surveys have shown that it is not valuable for foraging; most foraging takes place over the bogs to the W including the permitted Boolynagleragh windfarm, the Lough Acrow Bogs NHA and the open bogs to the NW of the of the permitted windfarm, and N of the permitted Letteragh windfarm

Response to submission by DAHG (NPWS)

Anemometer masts:

- Incorrect to state that 3 met masts are under consideration.

- Mast 1 is already part of the permitted Boolynagleragh windfarm and the proposal seeks to substitute this with a free-standing lattice mast with a smaller development footprint at the same location.

- Mast 2 will be located in a forested area with a closed canopy that is not used by Hen harriers.

- Mast 3 will be located in an area of cutover bog adjoining the network of existing tracks with ongoing peat cutting

- All three masts will be free standing with no guy ropes and small foundations which will reduce the risk of collision.

- The local Hen harrier population has not been affected by the series of telecommunications masts and structures on the nearby Ben Dash.

NHA location:

- The relationship of the proposal to Lough Acrow Bogs SNHA has been described in the EIS.

- Since 2005 a small part of the lands forming part of the approved main Boolynagleragh windfarm is now located in this NHA which is designated with respect to Blanket Bog.

- Turbines will not be erected on these lands and they will be unaffected by the permitted windfarm and proposed extension and the turbines in the proposed extension are at a greater distance from the NHA boundary.

- At the nearest point, the NHA is located c.600m to the W of T10 and T11 and the proposed extension will not have any direct or indirect impacts.

Ecological survey details:

- The area of the ecological surveys is clearly shown on the habitats map in the EIS as well as in the drawings showing the Hen harrier flight lines and a bat survey was carried out in the same area as the habitat survey.

- Both the EIS and NIS Screening Report indicate the extent of clear-felling which was clarified in the AI response submission as 12.2ha and the EIS describes the extent of habitat loss with a c.2.5ha loss for turbine locations and access tracks.

- The track leading to T10 in the W section, which connects to the permitted windfarm, is on open bog and not forest, and this area relates to a c.250m long track or 1,500sq.m. within an cutover bog within an active turbary area.

- There is one principal area of bog in the central part of the extension site that comprises re-vegetated old cutover bog which is traversed by drains and the hydrology of any remnants of blanket bog will have been compromised, and no construction works proposed in this area.

Newts:

- Newts are present in ponds in the quarry complex, a survey will be undertaken prior to construction works, and newts will be relocated to replacement ponds subject to licence.

Hen harriers:

- The importance of the area for Hen harrier if noted and a separation distance of 500m from the Hen harrier pair has been established to provide a buffer zone that includes all of the bog area.

- While 4 of the turbines (T10/12/15/16) are located close to the 500m buffer zone around the nest site, this zone is 1km in diameter and 78.5ha in area, it also includes substantial areas of forestry around the bog and nest site, the turbines are not located around the perimeter of the bog area and the turbines are also located a considerable distance from each other and do not surround the nest area (c.538m to 1,009m).

- Construction works will be confined to times outside the main breeding season to avoid disturbance to birds and not occur between mid-March to the end of May, and any subsequent progression of works will depend on the presence of the nesting pair in the immediate area.

- There are 9 wind farm projects (permitted and constructed) within a 15km radius of the site (15km E-W and 10km N-S) and the area provides excellent foraging habitat for Hen harriers, and there is no evidence that windfarms have caused detrimental effects on this species.

- The location of the proposed turbines within a conifer forest (other than a 250m access track) along with the seasonal construction restrictions will protect this specie from disturbance an the proposal will not add significantly to any cumulative impact from other windfarms or land use activities .

4.2 Prescribed Bodies

The DAHG (NPWS) raised no new issues but requested the Boards to have regard to the matters raised in their submission of 02/09/14 in respect of the EIA and that caution should be exercised in relation to the deferral, to the post-consent stage, of data collection and of the details and specific of mitigation measures necessary (e. g. in respect of newts).

An Taisce requested the Board to have regard to its original submission to the Planning Authority in respect of this case.

4.3 Observers: No Observations received.

4.4 County Council Response submissions: No new issues were raised.

5.0 REVIEW OF ISSUES AND ASSESSMENT

The main issues arising in this case are:

1. Compliance with renewable energy and planning policy
2. Design, layout and visual amenity
3. Movement and access
4. Hydrology, drainage and peat stability
5. Ecology and wildlife
6. Grid connection
7. Other issues.

5.1 Compliance with renewable energy and planning policy

The proposed development would be broadly compatible with European, national and regional planning and renewable energy policy as set out in section 2.0 above, subject to the consideration of environmental, landscape and social impacts. The 2006 Wind Energy Development Guidelines advise that a reasonable balance must be achieved between meeting Government Policy on renewable energy and the proper planning and sustainable development of an area, and projects should not adversely affect the integrity of European sites or have an adverse impact on birds.

The proposed development would be located within in a rural area that is covered by the Clare County Development Plan 2011 to 2017. This plan includes the Wind Energy Strategy (Volume 5) and the Renewable Energy Strategy 2014 to 2020 (Volume 8) that was incorporated into the Development Plan by way of Variation No.1 on 12th May 2014. The proposed development would be broadly compatible with the Councils planning and renewable energy policy objectives for the County as set out in section 3.0 above. Overall, the Council seeks to encourage projects which help meet national, regional and local renewable energy targets (Objective CDP 10.2) while balancing the need to protect residential amenities from noise and visual intrusion and to protect European sites (Objective CDP 10.3).

The Wind Energy Strategy (WES) provides detailed site specific locational guidance for windfarms by identifying areas suitable for windfarms based on prevailing wind speeds and existing grid connections, classifying Landscape Character Areas which have varying degrees of sensitivity to windfarms, and sub-dividing the County into areas where windfarms are Normally Not Permissible, Open for Consideration, Acceptable in Principle or Strategic Areas.

The Renewable Energy Strategy (RES) describes the various categories of renewable energy that can be harnessed in County Clare and it outlines the targets for each type of energy resource up to 2020 with a total output from all resources of

966.4MW. The RES states that that 550MW or c.57% of the renewable energy target will be provided by wind power and the Wind Energy Strategy (WES) states that this 550MW target will be accommodated within Strategic Areas (400MW) and Acceptable in Principle areas (150MW). According to the WES, some 101MW of wind energy was approved in the county by 2011, mainly in the surrounding upland area to the E of the appeal site. Most of the appeal site and surrounding lands have been designated as a Strategic Area for wind energy in the Development Plan (which incorporates the RES and WES).

The proposed development would comprise a 7 turbine extension to a permitted (but not yet constructed) 9 turbine windfarm. The site is mainly located within a Strategic Area and within a larger Acceptable in Principle Area, although it would appear that one of the one of the proposed turbines (T14) would be located within an Open for Consideration Area. The Council seeks to accommodate wind energy developments in areas identified as Strategic or Acceptable in Principle areas subject to implementation of best practice in siting and design. Specific Area Objective 8 of the Wind Energy Strategy (WES) states that Strategic Areas are considered suitable for windfarms because of viable wind speeds, access to the grid, slopes which are less than 15 degrees, the absence of SACs and SPAs and avoidance of NHAs, with a 400m separation distance from residential properties and a target of 400MW is identified for these areas. I am satisfied that the proposed development would comply with all of the criteria set out in Specific Area Objective 8.

This Strategic Area is located within the Sliabh Callan Landscape Character Area which encompasses upland hills and the slopes of Sliabh Callan and Ben Dash, it is located within a settled landscape where the uses envisaged under section 16.4.3 of the Development Plan include energy, and there are several other permitted and constructed windfarms in the wider area. Table 4a of the WES states that this area could accommodate large or medium windfarms subject to careful siting to avoid significant impacts on the skyline and that the potential energy for this area is 250MW. The proposed 7 turbine windfarm would generate a stated 45,000,000kWh (units) of electricity per annum and when combined with the permitted 9 turbine windfarm, the overall 16 turbine windfarm would generate a stated total of 100,000,000kWh of electricity annually.

Having regard to all of the foregoing, I am satisfied that the proposed development would be compatible with European, national, regional and local planning and renewable energy policies, and that it would comply with the criteria set out in Specific Area Objective 8.

5.2 Design, layout and visual amenity

The permitted 9 turbine windfarm and proposed 7 turbine extension would be located within an upland rural area to the W of Ennis and to the N of the N68. The windfarm would be located at the E end of a low ridge of hills that runs from NE to SW and the local high point is Ben Dash to the NW which is occupied by telecommunications antennae. The levels within the extensive site vary between c.160m and c.210m OD and the lands generally rise to the N. The site is characterised by a mix of open peatland and commercial coniferous forestry plantations, the boundaries are generally undefined, a network of access tracks traverse the site, and there are two quarries in the SE and SW sections. The Mid-Clare Way walking route crosses the site from N to S, Lough Acrow Bog NHA is located to the immediate W, there are two streams located to the E and S, and there are several houses to the E and NW. The following windfarms have also been permitted in the wider area:

Location	Direction from site	No. of turbines
Letteragh	W	6
Glenmore	W	11
High Street	SW	5
Kiltumper	SW	2
Booltiagh	N	15 & 6
Slieve Callan	NE	29
Crossmore	NE	5

The site is not covered by any sensitive environmental or scenic designations in the Development Plan and there are no Protected Views through the site. However there is a designated scenic routes located c.6km to the NW of the site between Connolly and Miltown Malbay and a local road c.13km to the N of Shannon Airport between Ballycally and Ballysallagh East.

The windfarm would be located within a designated Strategic Area for wind energy that forms part of the Sliabh Callan Landscape Character Area and within a Settled Landscape, and this area could accommodate large or medium windfarms subject to careful siting to avoid significant impacts on the skyline.

The appeal site already has the benefit of a 10 year planning permission for a 9 turbine windfarm which was granted permission by the Board under PL03.236376 in 2010. The number of turbines was reduced from 11 to 9 by way of Condition no.2 which required the omission T5 and T7 in the W section of the site for reasons related to protecting the adjoining NHA at Lough Acrow Bog. The Board was otherwise satisfied that the windfarm would not have an adverse impact on the visual or residential amenities of the surrounding area.

The permitted turbines would be located in the W section of the site while most of the proposed turbines would be located in the E section.

Under the layout permitted by PL03.236376, all 9 turbines and access tracks would be located in the W part of the site which is mainly characterised by open peatland with two existing quarries in the SW section. Permitted T1-T4 and the electrical compound would be located in the NW section; T5 would be located in the mid-W section; while T6-T9 and two borrow pits would be located in the SW section. The permitted turbines would have an overall height of c.125m with a blade rotor diameter of 90m and the lattice anemometry mast to the SW would be c.80m.

Under the layout currently proposed for the windfarm extension, all except one of the 7 turbines and most of the access tracks would be located within the E section of the site which is mainly characterised by forestry plantations with open peatland to the W. The remaining turbine (T10) would be located in the NW section in the vicinity of permitted T1-T4. All of the turbines and most of the tracks would be located within the forestry plantations. The permitted 80m high lattice met mast in the SW corner would be replaced a new 85m high freestanding met mast (M1). The two proposed free standing met masts (M2 and M3) would be located in the SW and NE sections of the site respectively. The proposed turbines would have an overall height of c.126m with a blade rotor diameter of between 82m and 100m and the met masts would be c.85m high. The proposed development would also comprise the felling of c.12ha of forestry and replacement planting on the overall lands.

The proposed turbines and met masts would be well spaced throughout the site. All of the proposed turbines and two of the three met masts (M2 and M3) would be located in excess of 200m from the site boundaries, while the third met mast (M1) in SW corner would be located c.115m from the site boundary with Lough Acrow Bog. Most of the proposed turbines would be located in excess of c.500m from its nearest neighbour (either permitted or proposed), except for T12 and T14 in the SE section and permitted T2 and proposed T10 in the NW section which would be located within c.400m of each other. Most of the proposed turbines would also be located a substantial distance from neighbouring houses and all of the turbines would be located in excess of 500m from existing houses. T15 in the E section of the site would be located c.550m and c.600m from the houses along the local road to the E of the site, and T10 and T16 in the NW section would be located c.600m and c.700m respectively from two houses.

The EIS had regard to the 2006 Wind Energy Guidelines in relation to the siting and design of the proposed windfarm extension. It established Zones of Theoretical Visibility for the proposed extension and the overall windfarm (proposed and permitted) and the potential effects on views from 14 locations within a 20km radius

of the sites (including nearby houses, scenic routes and protected views), were assessed in Volume 1 (Section 11.0) and Volume 2 of the EIS.

The EIS confirmed that several houses to E the will experience a high magnitude of change in their views, although most of the proposed turbines will be screened by forestry plantations. The two nearest turbines to these houses will protrude above the treeline and although they will be visible from nearby gardens they will not be visible from within the houses. The EIS concluded that none of the remaining turbines would have a visual impact from viewpoints except for one medium impact (View no.2) along a local road to the S which approaches the site along the Mid-Clare Way, that there are very few locations from which all of the permitted windfarms in the area could be viewed in a single panoramic view and that the predicted visual impacts are within acceptable levels.

Having regard to the design and layout of the proposed windfarm extension; the Strategic Area designation and the upland character of the landscape; along with the dispersed low density pattern of residential development in the vicinity; and following on from my visual assessment of the appeal site and the surrounding area, which had regard to existing, permitted and proposed windfarms in the wider area; I would generally concur with the EIS conclusions with regard to visual impact. I am satisfied that the proposed windfarm extension would not have an adverse impact on medium to long distance views of the site either on its own or in combination with the other permitted windfarms in the area. I am also satisfied that the proposed windfarm extension would not have an adverse impact on the designated scenic routes to the NW and S of the site between Connolly and Miltown Malbay and between Ballycally and Ballysallagh East, having regard to the substantial separation distances.

Although the proposed turbines would be visible alongside the 9 permitted turbines (PL03.236376) when approaching the site from along the local road to the S off the N68, which incorporates the Mid Clare Way (View 2), the proposed windfarm extension would not affect the visual amenities of the area to any significant extent. Three of the proposed turbines (T14, T15 and T16) in the E section of the site would be highly visible from the gardens and driveways of the existing houses located along the local road to the E (View 12). However they would be set back between 550m and 750m from the nearest house and their visual dominance would be partly mitigated by their location within an existing coniferous forestry plantation.

The main EIS conclusions and the Inspector's visual impact assessment of the proposed windfarm extension are summarized in the following table:

	View location		KM	Visibility of *permitted* turbines in area	EIS visual impact	Potential visual Impact
1	Kilmaley	N	3km	Several marginally visible	Neutral	Low
2	Mid Clare Way	S	1km	Several highly visible	Neutral	Medium
3	Caherea	SE	3km	Several marginally visible	Neutral	Low
4	Liscasey	SW	3km	Several marginally visible	Neutral	Low
5	Clooncaurha	N	10km	Several marginally visible	Neutral	Low
6	Ballynagard	S	10km	Several marginally visible	Neutral	Low
7	Ennis N	NE	15km	Barely discernible	Neutral	Very low
8	Sheeaun	SW	15km	Several marginally visible	Neutral	Low
9	The Hand	NW	10km	Several marginally visible	Neutral	Low
10	Newmarket	SE	16km	Barely discernible	Neutral	Very low
11	Barloughra	NE	10km	Barely discernible	Neutral	Very low
12	Local road	NE	0.5km	Barely discernible	Adverse	High
13	Ballea S	NW	16km	Barely discernible	Neutral	Very low
14	Foynes	S	19km	Barely discernible	Neutral	Very low

Having regard to all of the foregoing, the proposed windfarm extension, on its own or in combination with other permitted and existing windfarms in the vicinity, would not seriously injure the visual amenities or landscape character of the area to any significant extent.

5.3 Movement and access

Vehicular access (including haul routes) to the windfarm site would be off the N68 (Ennis to Kilrush road) and via the L4239 local road which also encompasses a section of the Mid Clare Way (walking route) that traverses the site.

The proposed windfarm would not have a significant long term impact on traffic movement in the surrounding area and the proposed development, would not give rise to a traffic hazard or endanger the safety of other road users.

Short term impacts relate to disturbance from construction traffic and the delivery of materials by Heavy Commercial Vehicles (HCVs) which would equate to some 10 or 20 HCV movements per day over the anticipated 18 month construction period, although most returning vehicles would be empty. According to the EIS Section 14, traffic movements will peak on several non-consecutive days when concrete is delivered for the turbine foundations (c.50 deliveries per turbine) and the delivery of turbine components by special transporter vehicles will require appropriate traffic management measures to be agreed in advance with the Planning Authority. The local community should also be advised in advance of all major deliveries to the site.

The Applicant also referred to minor local impacts along the haul route that may require road upgrades along certain sections to accommodate the wide and heavy loads and these concerns could be addressed by way of planning condition. The Board should also consider attaching the standard Bond condition to ensure the completion of these works to an acceptable standard.

5.4. Hydrology, drainage peat stability

Context:

The proposed windfarm would be located within an upland area which is characterised by mainly cutover blanket bog and commercial forestry plantations. The lands form part of a commercial forestry plantation, the natural drainage on the site has been highly modified over time and the lands drain to a number of streams and rivers to the S and E, and Lough Acrow Bogs NHA is located to the W. Peat depth is generally less than 1m across the site although there are some areas of deep peat (c.3m), the proposed turbines would be located at elevations between 140 and 170m OD, and site gradients at the turbine locations vary between 0 and 7 degrees. Concerns have been raised in relation to the effects of the proposal on the hydrology, drainage patterns, water quality and peat stability in the area.

Existing planning permission:

The Planning Authority granted planning permission in 2010 under Reg. Ref. P09/0479 for a 10 turbine windfarm on the W section of the site and the number of turbines was reduced from 11 to 10. Condition 2(a) required the omission of T7 and the associated access track while Condition no.2 (b) required the relocation of T5 and the associated access track so as to provide a minimum 50m separation from the Lough Acrow Bogs NHA to the W. The Planning Officers report clarified that these requirements relate to hydrology, drainage and peat stability.

The Board granted planning permission under PL03.236376 for a 9 turbine windfarm following the submission of further information in relation to hydrology, drainage and peat stability. The Board had regard the Site Investigation Report including the peat risk assessment and, in particular, noted that peat depths on the site are generally low. The Board concluded that the proposed wind farm, subject to the proposed construction methods, would not have an adverse impact on surface water in the area subject to the omission of T5 and T7 in the SW section to protect the adjoining Lough Acrow Bogs NHA.

Current application:

The proposed development would comprise the construction of 7 turbines along with turbine bases, hard-standings and access tracks, 2 met masts, and associated site works. All of the turbines and most of the tracks would be located within the forestry plantations and not on open peatland, and within the central and E sections of the site. The application was accompanied by an EIS, and section 12.0 and Appendix F dealt with geology and soils, section 13.0 dealt with hydrogeology and hydrogeology, while section 19 summarized a range of construction mitigation measures to prevent water pollution. A Site investigation Report and Peat Stability Rick Assessment were submitted by way of further information.

Section 12.0 of the EIS stated that the site mainly comprises c.0.9m of peat and it predicted no significant impacts from the excavation works at the turbine locations or the reinstatement works at the borrow pit; that the risk of a peat burst or landslide is low subject to the implementation of mitigation measures; and that there is little likelihood of impacts on nearby watercourses.

Section 13.0 of the EIS confirmed that the site straddles the catchment of two rivers which form part of the River Shannon catchment and that there are no ponds, lakes or recorded flood events in the area. The turbine located in the N part of the site that drains to the E via the Cahermore Stream to the Inch River which joins the Fergus River at Ennis; the S part contains 6 turbines that drain to the S via the Boolynagleragh Stream to the Lismorris Stream and then the Owenslieve Stream, which joins the tidal reaches of the Shannon Estuary at Ballycorick Bridge. The EIS predicted no significant impacts on nearby watercourses, groundwater or wells from the excavation, construction and tree felling works, subject to the implementation of mitigation measures.

Section 19 of the EIS contains a suite of mitigation measures to prevent water pollution which will minimise the area to be stripped of soil and vegetation; the construction of roadside drains with moderate gradients to prevent scouring; avoidance of drains during excavations; the installation of silt traps and buffer zones to prevent contaminated material entering drains; the appropriate storage of excavated material; the provision of settlement ponds and silting basin for any dewatering; and procedures for the management of spillages and storage of fuel.

The DAHG and An Taisce raised concerns in relation to the proximity of the works to Lough Acrow Bogs NHA and emphasised the need to protect sensitive ecological and hydrological areas from water pollution and peat instability.

The Planning Authority requested further information in relation to:- road construction details; drainage patterns during and after construction; details of peat depths and slope gradients along with contour plans for each turbine; geotechnical assessment of overburden and bedrock, landslide and slope stability risk assessment; excavation details in relation to peat excavation, storage and disposal and capacity of borrow pits; surface water details in relation to mitigation measures including vegetation filter strips, resettlement ponds, check dams and drainage controls along with the size and location of settlement ponds; revised site layout to show the location of the settlement ponds and the extent of the buffer zones from water courses to turbines and settlement ponds; detailed site drainage map showing all existing watercourses, drains and ponds; tree felling details and proposals to overcome groundwater contamination and details of wells in the vicinity of the site. (Refer to section 1.4 above for more details). The Planning Authority was satisfied with the Applicants' response submission and none of these issues informed the Council's decision to refuse permission.

Discussion:

The Board adjudicated on the issues related to surface water drainage and peat stability when it decided to grant planning permission for the 9 turbine windfarm on this site under PL03.236376, when it noted that peat depths on the site are generally low and concluded that the proposal would not give rise to water pollution or the risk of land slippage, and that the proposed construction methods would not have an adverse impact on surface water in the area. The permitted turbines would be located in the far W section of the appeal site and the proposed turbines would be located in the central and E sections. Given that the Board has already decided that the 9 turbine windfarm in the W section of the site would not have any significant impacts on the surface water and peat stability I do not intend to revisit this issue in the current assessment.

The site comprises a gently sloping blanket bog plateau and the proposed turbines would be located at elevations between 140 and 170m OD. The lands form part of a commercial forestry plantation and the natural drainage on the site has been highly modified over time. Peat depths across the site are generally less than 1m but with some localised deeper pockets (up to 3m) and the peat is underlain by a sequence of shales, siltstone and mudstone with a bed of soft silty clay. Site gradients vary between 0 degrees to 7 degrees. Although the 7 proposed turbines would be located to the E of the 9 permitted turbines, all 16 turbines would be located within the same general area with similar site characteristics with regard to peat depth and gradient. All 16 turbines would be located within an area which has a c.1.5km radius, and the maximum separation between opposing turbines would be c.2.2km between permitted T7 in the SW corner and proposed T16 in the NE corner.

The main ground conditions for each of the trial pits located in the vicinity of the proposed turbines are summarised in the following table.

	Location	Peat depth	Gradient	Comments
T10	NW section & close to permitted T1/2/3	0-0.1m Over clay	3-7°	Trial pit stable, dry ground & no water ingress
T11	Central & close to permitted T5/6	200mm Over shale	<3°	Shallow peat & exposed rock nearby
T12	S section	0.0-3.0m Over clay	<3°	Firm stable peat &no water ingress, adjacent to deep peat area
T13	SE section	0-0.1m Over clay	3-7°	Trial pit stable, dry ground & no water ingress
T14	SE section	0.0-3.0m Over clay	3-7°	Trial pit stable, dry ground & no water ingress
T15	E section	0-0.5m highly saturated 0.5m-2.5m soft to firm peat	<3°	Deep peat location Trial pit fairly stable with no water ingress
T16	NE section	0-2.00m soft & highly saturated	<3°	

The Peat Stability Risk Assessment, which was based on the Scottish Executive document, rates the risk of instability with reference to four categories Insignificant, Significant, Substantial and Serious. The results of this PSRA indicates areas of "Significant" (low to medium and low risk rating) peat risk across the site, however this is mainly due to the minimal presence of deep deposits of peat on areas to be developed, in conjunction with mild gradients and good drainage conditions. According to the PSRA report, this risk has been minimised and mitigated by optimising the design of the windfarm and the use of a safe and controlled construction methodology. The risk level after mitigation has been categorised as Insignificant and no areas have been categorised as Substantial or Serious.

Conclusions

Having regard to all of the foregoing and subject to the implementation of the mitigation measures outlines 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.

I am also satisfied that the proposal would not result in surface water pollution or groundwater contamination, or give rise to peat instability or slippages, having regard to the relatively flat character of the surrounding area, the mainly shallow depth of peat across the entire site and the gradients at the turbine locations which are not considered to be excessive.

5.5 Ecology and wildlife

Context:

The appeal site is located within an upland peat area that is characterised by a mix of active and cutover blanket bog and commercial forestry plantations. The site is not covered by any sensitive environmental designations however it is located within c.7km of three European sites which include the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA to the S, and the Newall & Edenvale Complex SAC to the E. The Lough Acrow and Bogs NHA adjoins the site to the W.

The site lies at the E end of the West Clare upland area that comprises a mix of blanket bog and forestry which provide a suitable habitat for Hen harrier. The presence of this species in the area has been well documented and it is known to utilise the site and surrounding bogs for nesting and foraging, and there is a nest located within the central cutover blanket bog in the N section of the site. The existing quarry located in the SW section may also provide a habitat for Newts, the Otter is known to use the streams to the S and E of the site which may also contain suitable habitats for salmon, trout and river and brook lamprey, and the Horseshoe bat is a qualifying interest for the Newall & Edenvale Complex SAC to the E.

General concerns have been raised in relation to the effects of the proposed development on the ecology of the area and in particular the potential impact on Hen harriers, Newts and other species including bats and fish.

Hen harrier:

Existing planning permission:

As previously stated in Section 5.4 above, the Board granted planning permission under PL03.236376 for a 9 turbine windfarm on the site. The DoEHLG and An Taisce raised concerns in relation to the effects on the Hen harrier and its habitat. A further assessment of cumulative effects was submitted as clarification of Further Information which took account of recent scientific evidence of displacement of birds based on a 25 year landscape model within 5km of the site. The DoEHLG response to FI submission made no further comment on impacts on hen harrier following the submission of this report.

Based on the information provided, the Board concluded that that the proposed windfarm would not adversely affect the integrity of any Natura 2000 Site, and the protected avian species in the area. In coming to this decision, the Board had regard to the Appropriate Assessment Screening report submitted by the Applicant. The Board concluded that the project would not have any significant impacts on the local hen harrier population, noting that cumulatively, wind farm developments in the area occupy a small part of the overall foraging area for Hen harriers.

Current application:

The proposed development would comprise the construction of 7 turbines along with turbine bases, hard-standings and access tracks, 2 met masts, and associated site works. All of the turbines and most of the tracks would be located within the forestry plantations and not on open peatland. The application was accompanied by an EIS and a Stage 1 Screening report for Appropriate Assessment which concluded that a Stage 2 NIS was not required. Section 9.0 and Appendix D of the EIS dealt with terrestrial ecology while section 10 and Appendix E dealt with aquatic ecology.

Section 9 of the EIS stated that most of the site has limited nature conservation value but that no development will take place on a central area of old cutover blanket bog that supports a regular Hen harrier breeding area which is of significant conservation importance. This species occurs occasionally in the vicinity of the site with a known winter roost c.5km to the W and although the site is used for some foraging, this activity mostly takes place over the neighbouring bogs to the N and NW. By way of mitigation, a 500m radius buffer zone will be provided around the nest site along with seasonal construction restrictions to avoid disturbance to breeding birds. As the proposed windfarm will be almost entirely located within commercial forestry with a closed canopy there is very low risk of collision with turbines. The EIS predicted no significant impacts predicted subject to the implementation of mitigation measures.

The DAHG raised concerns in relation to impacts on Hen harrier given that the site and surrounding area has been identified as an Important Bird Area for Hen Harrier by Birdwatch Ireland, and there is a record of a nearby Hen harrier nesting sites.

The Planning Authority requested further information in relation to the cumulative impact of windfarm projects on Hen harriers in the wider area. The applicant submitted a peer reviewed study which stated that the proposed windfarm would be located toward the E end of the “West Clare Hen Harrier” distribution so few passing birds occur. It concluded that this concern was more relevant to other proposed windfarms to the W/NW of the site, including the Booltiagh project, which are, or would be, located on good quality blanket bog with regular hen harrier activity.

The DAHG continued to have concerns in relation to the Hen harrier and the location of 2 of the met masts (M1 and M3) within an area of open bog and in preferred foraging area for Hen harrier; the proximity of four proposed turbines (T10/T12/T15/ T16) and one met mast (M2) to the 500m buffer zone; and disturbance and abandonment of nest sites during construction and loss of foraging grounds.
The Planning Authority decided to refuse planning permission for 1 reason related to the location of an area of blanket bog within the site that is an important foraging habitat for the Hen harrier, and the cumulative ecological impact of proposed and permitted windfarms in the vicinity on the habitat of the Hen harrier.

The applicant submits (in the appeal submission) that the 500m buffer zone around the nest site will protect the nesting pair of Hen harriers. Although the 4 turbines (T10/T12/T15/T16) are located close to this buffer zone, the 78.5ha zone includes substantial areas of forestry around the bog and the nest site, and the turbines would not be located around the perimeter of the bog area and or surround the nest site. The applicant reiterated that the location of the proposed turbines within a conifer forest (other than a 250m access track) along with the seasonal construction restrictions will protect the Hen harrier from disturbance and the proposed windfarm will not add significantly to any cumulative impact from other windfarms or land use activities in the wider area.

Discussion:

The Board adjudicated on the cumulative impacts of windfarms in the West Clare uplands on the local Hen harrier population when it decided to grant planning permission for the 9 turbine windfarm on this site under PL03.236376. The permitted turbines would be located in the far W section of the appeal site and the proposed turbines would be located in the central and E sections. It is noted that one of the permitted turbines (T2) would be located within c.100m of the proposed 500m buffer zone around the Hen harrier nest. Given that the Board has already decided that the 9 turbine windfarm would not have any significant impacts on the local hen harrier population and that cumulatively, wind farm developments in the area occupy a small part of the overall foraging area for hen harriers, I do not intend to revisit this issue in the current assessment. Furthermore the proposed freestanding met mast (M1) located in the SW corner of the site would replace a lattice met mast that was previously permitted under PL03.236376 in the same location.

Notwithstanding the above, the issues raised in relation to the location of proposed turbines T10, T12, T15 and T16 and met mast (M2) around the 500m buffer zone for the Hen harrier nest; disturbance to and abandonment of nest sites during the construction period; and the location of a met mast (M3) in the SW section of the site within an area of open bog and foraging ground for Hen harrier, all require consideration.

In relation to the effectiveness of the proposed 500m buffer zone around the Hen harrier nest, it is noted that research into the relationship between windfarms and Hen harriers concludes that they can co-exist with minimal risk of collision, displacement or disturbance. A number of US and EU studies of hen harrier displacement effects have concluded that if displacement of foraging occurs then it will likely be limited to within 100m of wind turbines if it occurs at all; preliminary results from Scotland and Northern Ireland indicate that birds will nest 200-300m from turbines; and several other (mainly US studies) studies indicate there is also a minimal risk of collision fatalities as Hen harriers tend to fly at low altitudes than other raptors and well below rotor blade sweep (Whitfield and Madders, 2008). Having regard to the foregoing I am satisfied that the 500m buffer zone around the nest is acceptable in principle.

In relation to the layout of the proposed turbines relative to the perimeter of the proposed 500m buffer zone and to each other, the following table describes these relationships in more detail.

Turbine	**Relationship to 500m buffer zone**	**Existing land use**	**Distance from neighbour (proposed & *permitted*)**
T10	Located along the perimeter	Within forestry plantation	*c.350m from T2 (N)* c.500m from T11(S) c.700m from T12 (SE)
T12	Located marginally outside the perimeter	Within forestry plantation	c.380m from T14 (SE) c.580m from T15 (NE)
T15	Located marginally outside the perimeter	Within forestry plantation	c.540m from T16 (NW)
T16	Located along the perimeter	Within forestry plantation	c.1000m from T10 (SW)
M2	Located marginally outside the perimeter	Within forestry plantation	c.150m from T15 (SW) c.400m from T16 (NW)

The proposed 500m buffer zone around the Hen harrier nest has a 1000m diameter and it covers an area of c.78ha. This zone is characterised by a mix of open cutover blanket bog grading to coniferous forestry plantations. The lands occupied by the nest and the surrounding area comprise open bog with coniferous plantations beyond. All four turbines and the met mast would be located within the forestry plantations and either along or just outside of the perimeter of the 500m buffer zone. EIS figure 9.8 gives the impression that the proposed turbines and met mast would form a circle around the buffer zone. However each of the turbines would be separated from its nearest neighbour by a minimum distance of c.350m and a maximum distance of c.1000m. Having regard to the foregoing I am satisfied that the 500m buffer zone around the nest is acceptable in practice.

In relation to the position of the met mast (M2), it would be located within c.150m of T15 to the NE and c.400m of T15 to the SW, all three structures would be located within a forestry plantations in the E section of the site, which is unlikely to be utilised for foraging because of the closed canopy, and its location at the E extremity of the West Clare uplands.

In relation to disturbance and the abandonment of the nest site during the construction period, I am satisfied that the seasonal restrictions on construction activity and ongoing monitoring of the site are appropriate mitigation measures.

In relation to the location of a met mast (M3) in the SW section of the site within an area of open bog and potential foraging ground for Hen harrier, I am satisfied that this would not have an adverse impact on foraging actively for the reasons set out above, and there would be a minimal risk of collision because of the slim line design of the mast, and the absence of guy ropes and rotor blades.

Other bird species:

Although several other species of bird frequent the site and surrounding area however few are attracted to the closed canopy of the coniferous forestry plantations within which the turbines are located and there are unlikely to be any significant adverse impacts. The River Shannon and River Fergus Estuaries SPA is located to the S and SW of the site however none of the birds that are listed as being of Conservation Interest for this European site have flight paths that cross the site.

Newts:

The DAHG raised concerns in relations to the effects of the proposed works on Newts which are known to be present in quarry ponds. Rock would be extracted from for use during construction and the area would then be used to store excavated peat. The DAHG stated that a Newt survey is required to determine the presence and distribution of this species and to assess potential impacts on this species and its habitat. This issue could be addressed by way of a condition which would require the submission of a detailed report along with any mitigation measures or licence details.

Bats:

The site provides good foraging opportunities for bats and Section 9.3 of the EIS confirmed the presence of at least 4 species. As bats are low fliers they are not expected to be affected by the proposed development except for Leisler's bat which is a high flying species that may collide with the turbines, they also travel large distances between roosts and foraging areas. Although recent US and EU studies present evidence of collision related bat fatalities, it is noted that this research relates

to very large wind farms sited along known bat migration routes where many hundreds (or thousands) of bats commute seasonally, and there is no evidence of similar mortality rates in Ireland.

Notwithstanding these concerns, there are no known bat roosts on the site with the closest located over 7km to the E at the Newall and Edenvale Complex SAC and most of the Leisler's bat hunting activity takes place below the rotor clade sweep. The proposed EIS mitigation measures include the provision of a 50m buffer zone around the turbines (vegetation and insect free) to reduce the risk of collision and barotrauma, seasonal restrictions on tree felling where possible, and the avoidance of artificial lighting. It is also proposed undertake pre-construction surveys of any bridges along the haul route that may need to be strengthened.

Having regard to the foregoing, I am satisfied that the proposed development would not have a significantly adverse impact on the various species of bat that forage in the area, however a bat monitoring regime should be put in place to record bat movements during the construction and operational phases.

Mammals:

Otter, foxes and other mammals are unlikely to be significantly affect for the proposed development, and the nearest otter commuting zone is located a substantial distance to the SW of the site and on the S side of the N68.

Aquatic ecology:

The site is traversed by a number of tributaries of the Cahermore and Lismorris Streams which drain into the Inch (Claureen) River and the Owenslieve River and ultimately to the Lower River Shannon SAC. Section 10 and Appendix E of the EIS stated that suspended sediments from unmitigated construction works could contaminate surface water; and works in areas of deep peat could result in peat failure, contamination and scouring of watercourses. However no significant residual impacts are predicted subject to implementation of mitigation measures and the risk of pollution during the operation phases is minimal (refer to section 5.4).

Conclusions

The proposed development would not be located within or in close proximity to a designated European site. Having regard to all of the above, I am satisfied that the proposed windfarm extension would not have a significant adverse impact on ecology and wildlife during the construction and operational phases, subject to the implementation of the EIS mitigation measures and ongoing monitoring in respect of the Hen harrier, newts and bat populations.

5.6 Connection to national grid:

The Applicant has secured a connection for the existing Boolynagleragh windfarm to the national electricity network under the Gate 3 process with a capacity of c.37MW. The Applicant submits, that given the dimensional constraints applying to the 9 previously permitted turbines (under PL03.236376), it is not possible to satisfy the full capacity of the available connection with the project as currently permitted and that the proposed development would allow for the full take-up of the capacity available. However, notwithstanding this Gate 3 connection, the previously permitted development did not include details of a physical connection to the grid and this issue was to be addressed by way of a separate planning application.

The Applicants states that the proposed windfarm extension will be connected to the substation that forms part of the 9 turbine windfarm previously permitted under PL03.236376. However, the current application and appeal documents do not contain any details of how the proposed extension or overall windfarm will be physically connected to the national grid. Any such connection should have been considered in the applicant's Environmental Impact Statement so as to enable the Board to carry out an Environmental Impact Assessment of this aspect of the proposed development in line with the recent High Court Judgement (O'Grianna v ABP - 2014). However the Board may wish to seek Further Information in relation to this matter in the event that it is satisfied with all other aspects of the proposal.

5.7 Other issues.

Residential amenity: The visual impacts have been assessed in section 5.2 above and the traffic impacts have been assessed in section 5.3. The proposed windfarm would not have any additional significant impacts on the residential amenities of the area however local residents should be notified in advance of any major construction works including the transport of large pieces of plant and equipment.

Noise: The proposed redesigned windfarm would not have a significant additional impact on noise levels at residential dwellings in the surrounding area and the standard noise control and monitoring conditions should be attached.

Shadow flicker: There are several houses located within 1.5km and to the E and N of the proposed turbines although none are located within 500m of a structure. None of these houses are likely to be affected by shadow flicker given their orientation relative to the turbines in conjunction with the substantial separation distances.

Electromagnetic interference: The proposed redesigned windfarm would not have a significant additional impact on the surrounding area.

Archaeological heritage: There are no recorded national monument sites located within the site although it may contain as yet undiscovered artefacts. The proposed windfarm would not have a significant impact on the archaeological heritage of the area subject to compliance with standard archaeological monitoring conditions.

Architectural heritage: There are no protected structures located either within or in the vicinity of the appeal site although care should be taken by vehicles using the local road network to ensure that no damage occurs to buildings and structures in the wider area along the haulage route.

Landownership and turbary rights: The concerns raised by the Observers in relation to these matters are noted.

Quarries: The concerns raised by the Council in relation to this matter are noted.

Phosphate mobilisation: Given that peat cannot store large amounts of Phosphorous it is unlikely that any will be mobilized after tree felling.

Compensatory tree planting: The map which illustrates the extent of tree felling and compensatory planting is noted.

Carbon sink: Any loss of CO2 from the bog that that may occur as a result of peat extraction to facilitate the proposed development would be compensated by the generation of carbon neutral energy.

Aviation: The proposed windfarm would not have a significant additional impact on aviation in the area subject to compliance with the requirements of the Irish Aviation Authority.

Financial contributions and bonds: The standard development contribution and bond conditions should be attached.

6.0 ENVIRONMENTAL IMPACT ASSESSMENT

Compliance with Articles 94 and 111 of the Planning and Development Regulations 2001, as amended

The application is accompanied by an EIS, as required for any application made under Section 37A. The EIS is laid out as follows:

- Non-Technical Summary
- Main Statement
- Photomontages
- Appendices

    - A: Windfarm planning application
    - B: ESB's operational windfarms
    - C: Noise
    - D: Terrestrial ecology
    - E: Aquatic ecology
    - F: Geology and soils
    - G: Cultural heritage

I have reviewed the application documentation, including the EIS, the written submissions, and the legislative requirements in terms of Environmental Impact Assessment. In particular, I note the requirement of Article 94 of the Planning and Development Regulations 2001, as amended that the EIS shall contain the information specified in paragraph 1 and paragraph 2 of Schedule 6 of the Regulations.

The EIS describes the proposed development, including information on the site and the project size and design. A description of the main alternatives studied by the developer and alternative locations considered, is provided and the reasons for the preferred choice. The impact of the proposed development was assessed under all the relevant headings with respect to human beings; noise; shadow flicker; terrestrial ecology; aquatic ecology; landscape; geology and soils; hydrology and hydrogeology; roads and traffic; air and climate; material assets; and cultural heritage; interactions of impacts: and long with a summary of the mitigation measures. The content and scope of the EIS is considered to be acceptable and in compliance with Planning Regulations. No likely significant impacts were identified.

With regard to the requirements of Article 111 of the regulations, I consider that the submissions are generally in accordance with the requirements of Article 94 of the Planning and Development Regulations 2001, as amended. In-combination effects with other plans and projects in the area are not considered likely to be significant.

Likely significant effects arising from the proposed development

Section 5.0 of this report identifies and describes the main likely significant effects arising from the proposed development and regard should be had to this section of the report. The likely significant effects are identified as follows:

Impacts: Human Beings	**Mitigation measures**
Health and safety: On-site accidents.	Secure site and turbines & restrict access to authorised staff; compliance with health and safety legislation and best practice guidelines.
Residential Amenity: Construction activity could potentially impact on surrounding residential amenities by area with minor visual, noise and shadow flicker intrusion.	Phasing and timing of construction activity; compliance with all relevant standards & guidelines for noise, vibration, dust & shadow flicker.
Tourism Impacts: The visual impact of the proposed turbine could have a potential negative impact on the Mid Clare walking route through the site.	Ensure re-opening of Mid Clare Way post construction.
Residual Effects: There will be some increase in noise emissions during the construction and operational phases however predicted levels are within guidance limit values and residual impacts are not predicted to be significant.	

Impacts: Air, climate, noise & shadow flicker	**Mitigation measures**
Residential noise impacts: There is potential for negative noise impacts on residential amenities from construction activities and minor noise intrusion during the operational phase.	Compliance with guidance for noise and dust control during construction & operation. Maximum feasible distance from houses. Phasing and timing of construction works and deliveries.
Dust emissions: Dust and air quality issues from the construction phase.	Compliance with standard construction management measures.

Increased emissions: Increased traffic volumes during construction have the potential for local air quality impacts. *Shadow flicker*: Potential minor disturbance.	As above. No operational constraints required.
Residual Effects: Residual impacts are not predicted to be significant.	

Impacts: Landscape	**Mitigation measures**
Scale, height and extent of visibility: The works will visible from the N68 and the Mid Clare Way to the S. *Impact on landscape character*: Potential impacts when viewed from outside the immediate area and minor impacts when viewed from inside or nearby.	No realistic measures given the scale & height of the turbines and their location on a elevated upland site.
Residual Effects: Long term impacts anticipated but not significant.	

Impacts: Ecology & wildlife	**Mitigation**
Hen harrier: Potential disturbance to nest with in cutover bog and potential collision risk.	No development on the bog; 500m buffer zone around nest & locations of turbines with forestry will reduce collision risks; season construction restrictions; monitoring before and during construction.
Bats: Potential disturbance while foraging during construction and potential collision risk.	50m buffer zone between rotors & nearest vegetation to reduce the risk of collision and barotrauma; seasonal restrictions on tree felling; avoidance of artificial lighting; and pre-construction surveys of bridges in need of strengthening.

Fisheries: Potential pollution of watercourses by suspended solids & building materials; enrichment (vegetative decay) during construction; and barriers to upstream migration.	Vegetative buffer zones; separate drainage channels and the clear-fell area; keep machinery, roads, tracts & timber stacks away from watercourses; install silt traps prior to felling; compliance with EU & EPA standards for water quality; construction practice methodologies; and monitoring .
Residual Effects: Residual impacts are not predicted to be significant.	

Impacts: Geology, soils, hydrology and hydrogeology	**Mitigation**
Excavations: The excavation and disposal of a significant amount of peat could have potential impacts on water quality and site stability (slippage).	Phasing, timing & sequencing of work; buffer zones, silt traps & settlement ponds; separation of organic & mineral material; approved storage/disposal sites. Utilise existing site contours and excavate during dry weather. Compliance with EU and EPA standards for water quality and adherence to best construction practice methodologies; & ongoing monitoring.
Residual Effects: Residual impacts are not predicted to be significant.	

Impacts: Roads and traffic	**Mitigation**
Impact on local road network: Potential for short term disruption during construction and deliveries. *Road safety*: Potential for short term disruption during construction.	Compliance with Council requirements in relation to road improvements. Erect traffic warning notices prior to turbine delivery; sequencing of deliveries; use of appropriate vehicles.
Residual Effects: None predicted.	

Impacts: Material Assets & cultural Heritage:	Mitigation
Forestry: Potential impacts related to clear felling on surface water runoff, water quality and wildlife (Hen harrier, bats & fisheries)	Refer to previous tables for ecology, geology, soils, hydrology and hydrogeology. Compliance with Tree Felling Licence and relevant guidelines and undertaking felling outside of bird d breeding season.
Electromagnetic interference: Minor potential for impacts on TV reception	Advice and help desk provided.
Features of archaeological interest: Potential impacts on unrecorded artefacts within the site.	Appointment of archaeological consultant & on-going monitoring during works.
Residual Effects: Residual impacts are not predicted to be significant.	

Summary of Interactions

Human Beings:

- Noise & shadow flicker
- Air Quality & climate
- Landscape (visual)
- Material Assets (electromagnetic interference)
- Road and traffic (safety & disturbance)

Air, Climate, Noise and Shadow Flicker

- Roads & traffic (noise, emissions & dust)
- Human Beings (noise, emissions & dust)

Landscape

- Human Beings (visual)

Ecology (terrestrial & aquatic):

- Hydrology (water quality & fisheries)
- Human Beings
- Material assets (tree felling)
- Landscape (visual)
- Soils & geology (siltation and water quality)

Soils, Geology, Hydrology & Hydrogeology:

- Air quality
- Ecology (terrestrial & aquatic)
- Human beings

Roads & Traffic:

- Noise, air quality & climate
- Human beings (road safety & disturbance).

Cultural Heritage:

- Human Beings
- Material Assets
- Landscape (visual)

Material Assets:

- Human Beings
- Cultural heritage
- Roads and traffic (disturbance & safety)

Conclusions regarding the acceptability or otherwise of the likely residual effects identified

The main assessment in Section 5.0 of this report outlines the likely main residual effects of this proposal and the impacts on visual amenity, water quality and ecology are not predicted to be significant, subject to the implementation of mitigation measures.

7.0 SCREENING FOR APPROPRIATE ASSESSMENT

Compliance with Articles 6(3) of the EU Habitats Directive

The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site.

The application was accompanied by a Stage 1 Screening Assessment which is summarized in Section 1.7 of this report and the main issues related to ecology and wildlife are addressed in Section 5.5 of this report.

The Screening Report described the site, and the proposed development, it confirmed that the proposal would not be located within or close to a European site, and it identified three European sites within a 10km radius of the proposed works that had the potential to be affected by the proposed development. The report listed the qualifying interests and conservation objectives for each site, identified the potential sources of indirect impacts on these sites via the Source-Pathway-Receptor model and concluded that proposed extension to the permitted windfarm will have no significant impact (direct, indirect, ex situ or cumulative) on the Qualifying Interests of the European Sites and that progression to a Stage 2 NIS is not necessary.

The relevant sites are:

- The Lower River Shannon SAC (Site code: 002165) is located within c.7km
- River Shannon & River Fergus Estuaries SPA (Site code: 004077) within 7km.
- Newall & Edenvale Complex SAC (Site code: 002091) within c.8km.

The potential indirect impacts relate to:

- Transport of pollutants in surface water flowing into the SAC/SPA via on-site tributaries.

- Ex-situ impacts on qualifying species outside the SAC but which is an integral and connected part of the SAC population of qualifying interest species (e.g. Salmon, lamprey and otter).

- Possible interference with flight lines of bird species associated with the SPA or possible collision of birds from the SPA with the turbines.

Screening assessment and conclusions:

- No impacts predicted for the Lower River Shannon SAC due to substantial separation distances between the works and the discharge points to the SAC at Ennis (c.14km) and the SPA at Clarecastle (c. c.21km); the presence of natural barriers in the watercourses or poor quality habitats for Salmon and Lamprey (river and brook); and Otter would be largely unaffected.

- No impacts predicted for the birds in the River Shannon & River Fergus Estuaries SPA due to substantial separation distances between the works and the SPA, the absence of significant bird populations in the vicinity of the works and flight lines across the site, with no risk of collusion.

- There is no evident pathway between the site and the Lesser Horseshoe Bat population at the Newall & Edenvale Complex SAC.

The Report concluded that the proposed extension to the permitted windfarm will have no significant impact (direct, indirect, ex situ or cumulative) on the Qualifying Interests of the European Sites and that progression to a Stage 2 Natura Impact Statement is not necessary.

Discussion:

The proposed development would not be located within an area covered by any sensitive European site designations although there are two SACs and one SPA located within a 10km radius of the proposed works.

The NPWS Conservation Objectives for these sites seek to:

- *The Lower River Shannon SAC*:

    - Restore the favourable conservation condition of Freshwater Pearl Mussel (in the Cloon River).
    - Maintain the favourable conservation condition of Brook Lamprey.
    - Maintain the favourable conservation condition of River Lamprey.
    - Restore the favourable conservation condition of Salmon (fresh water).
    - To restore the favourable conservation condition of Otter.

- *River Shannon & River Fergus Estuaries SPA*: To maintain the favourable conservation condition of the various bird species for which the SPA has been selected.

- *Newall & Edenvale Complex SAC*: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected (Caves and Lesser Horseshoe bat)

The site has an aquatic link with the Lower River Shannon SAC which is located c.7km to the S. However this link is via a network of on-site tributaries and nearby watercourses that ultimately drain into the SAC a substantial distance to the E at Ennis (c14km) and Clarecastle (c.21km). Having regard to this substantial distance I am satisfied that the Lower River Shannon SAC would not be adversely affected by the proposed works.

A number of Annex 11 species of fish (Salmon, River and Brook Lamprey) which are listed as Qualifying Interests for the Lower River Shannon SAC may use the nearby water courses for different stages of their lifecycles. Based on the information provided in the applicant's Screening Report and the NPWS Site Synopsis (attached), the sections of watercourse located in close proximity to the proposed works either do not provide a suitable habitat for these species populations, or the natural barriers prevent their upstream migration.

Although the Otter, which is a Qualifying Interest for the Lower River Shannon SAC, is thought to frequent nearby watercourses, the site is located a significant distance to the N of the Otter Commuting Buffer zones as indicated on Map 17 of the NPWS Conservation Objectives for this SAC (Map attached). I am satisfied that the Otter will suffer no physical damage as a result of the proposed works and any adverse effects on water quality would not extend into the Buffer zones.

The Screening Report did not deal with the Freshwater pearl mussel which is also listed as a Qualifying Interest for the Lower River Shannon SAC. This species is associated with sections of the Cloon River to the S of the proposed development and the N68 (Ennis to Kilrush road). However the proposed windfarm extension would be located a significant distance from the Freshwater pearl mussel catchment area as indicated on Map 15 of the NPWS Conservation Objectives for this SAC (Map attached). Any adverse effects on water quality as a result of the construction works and possible siltation of watercourses would be relatively local to the site and the effects would not extend as far as the Cloon River.

There is no evidence that any of the birds listed as being of Conservation Interest for the River Shannon & River Fergus Estuaries SPA use the appeal site or environs for feeding or roosting, and there is a minimal risk of collision with turbines.

As there is no apparent link between the proposed development and the Newall and Edenvale Complex SAC to the E of the site which comprises an extensive wooded area, it is unlikely that this SAC and its Qualifying Interests (Lesser Horseshoe Bat) would be affected by the proposed works.

Conclusions:

Having regard to all of the above, I would concur with the conclusions reached by the Applicant in the Stage 1 Screening Report that the proposed extension to the permitted windfarm will have no significant adverse effects (direct, indirect, ex situ or cumulative) on the Qualifying Interests of the European Sites and that progression to a Stage 2 Natura Impact Statement is not necessary.

8.0 RECOMMENDATION

Arising from my assessment of the appeal case I recommend that planning permission should be refused for the proposed development for the reasons and considerations set down below.

REASONS AND CONSIDERATIONS

1. On the basis of the information lodged and that of a recent legal ruling (O'Grianna v An Bord Pleanála) it is considered that, as the proposed development does not include as part of the application a proposed connection to the national grid as one project, the EIS lodged is inadequate in that a cumulative assessment of the likely environmental impact cannot be undertaken. It is therefore considered that the proposed development would be contrary to the proper planning and sustainable development of the area.

Karla Mc Bride
Senior Planning Inspector
9th March 2015