An Bord Pleanála

Addendum Inspector's Report

Ref.:	PL04.243486
Development:	Ten year permission to construct a wind farm and all associated infrastructure. The proposed wind farm will comprise the provision of a total of 12 No. wind turbines, with a maximum overall blade tip height of up to 131m, upgrading of existing and provision of new internal access roads, provision of a wind anemometry mast (height up to 90 metres), 4 No. borrow pits, underground electricity connection cabling, upgrading of site access junctions, an electricity sub-station with control room and associated equipment, temporary construction compound and all ancillary site and ground works. The planning application is accompanied by an Environmental Impact Statement (EIS) and a Natura Impact Statement (NIS). Cloghboola, Gortnacarriga, Tooreenalour, Garryantorna and Shehy More, Dunmanway, Co. Cork.
INSPECTOR:	Robert Speer
Date of Site Inspections:	23rd September, 2014 & 25th October, 2016

1.0 INTRODUCTION:

1.1 This supplementary report has been prepared in response to a Board Direction issued on 13th November, 2015 which sought the preparation of an *'Addendum Report'* in respect of the Environmental Impact Assessment and Appropriate Assessment of the proposed development. It should be read in conjunction with the information which accompanied the initial planning application, including the EIS, the grounds of appeal and my earlier inspector's report.

1.2 By way of background, and in the interests of clarity, it should be noted that whilst a report was previously discharged by the reporting inspector in respect of the subject application (as originally lodged with the Board) which recommended that permission be granted subject to 23 No. conditions, in light of the final judgement of the High Court in the case of *O'Grianna & Ors. v. An Bord Pleanala [2014] IEHC 632* as delivered on 12th December, 2014, the Board opted to defer further consideration of the subject application and subsequently issued a Section 132 Notice to the applicant on 12th May, 2015 wherein the first party was advised that the Board was of the view that the *O'Grianna* judgement may be relevant to the current proposal and that there were concerns the details submitted in respect of a connection to the national grid may be inadequate for the purposes of carrying out an environmental impact assessment for the entire project, including the assessment of cumulative impacts.

1.3 The Section 132 Notice issued by the Board thus invited the applicant to submit, on or before 22nd September 2015, the following information:

- A Revised Environmental Impact Statement to incorporate sufficient information to enable the Board to complete an Environmental Impact Assessment in relation to the overall proposal, including the grid connection. The level of detail should be such as to enable the Board to complete an Environmental Impact Assessment in accordance with the requirements of the EIA Directive, and should include the following details in respect of a proposed grid connection:

    - General route corridor for proposed grid connection – whether that indicated in the original EIS or an alternative route;
    - Pole / tower type and height, if relevant;
    - Line voltage;
    - Overground and / or underground connection or combination of both.

The Environmental Impact Assessment should consider the cumulative effects of the proposed windfarm and the proposed grid connection (based on these details). In the event of alternative route corridors being proposed in respect of the grid connection, details of each alternative should be submitted and an assessment of the cumulative effects of the proposed windfarm and each alternative should be provided.

- A Revised Habitats Directive screening, and, if necessary, a Natura Impact Statement, in respect of the overall proposal, including the grid connection.

N.B. (1) The findings of the High Court in respect of *O'Grianna & Ors. v. An Bord Pleanala* were, inter alia, that the connection of the wind farm to the national grid forms an integral part of the overall development of which the construction of the turbines is the first part; and that the cumulative effects of the construction of the turbines and the connection to the national grid must be assessed in order to comply with the EIA Directive. It should also be noted that the High Court directed that the decision in question be remitted to the Board for further consideration).

N.B. (2) The Board is further advised to determine this appeal in conjunction with ABP Ref. No. PL88.246915 on the basis of the inter-relationship between the respective development projects i.e. the proposed development of the Shehy More Wind Farm and the associated connection to the national grid. Consideration should also be given to the parallel assessment of the foregoing applications with PA Ref. No. 14557 / ABP Ref. No. PL04.244439 as it is my understanding that the decision issued in respect of same was the subject of judicial review proceedings [2016 614 HR] and that the Board subsequently consented before Mr. Justice Seamus Noonan of the High Court on 1st November, 2016 to orders quashing its decision and remitting the appeal for reconsideration.

2.0 UPDATED PLANNING HISTORY:

2.1 On Site:

PA Ref. No. 16/256 / ABP Ref. No. PL88. 246915. Application by Shehy More Windfarm Ltd. for a ten-year planning permission to construct an underground electricity cable in the townlands of Cloghboola, Cornery, Garryantornora, Tooreenalour, Gortnacarriga, Gortaknockane, Cooragreenane, Coolroe West,

Curraheen (ED Bealock), Cappanclare, Coorolagh, Carrignacurra, Dromnagapple, Teeranassig, Clonmoyle, Dromleigh, Coolaclevane, Carrigboy, Cooldorragha, Deshure, Teerelton, Lisnacuddy, Reanacaheragh, Barnadivane, Barnadivane (Kneeves) and Garranareagh, Co. Cork. The proposed underground electricity cable will be 38kV, will run predominantly within the public road corridor and is intended to connect the proposed Shehy More Wind Farm (Pl. Ref. 13/551, An Bord Pleanala PL04.243486) to the National Grid via either the permitted substation at Garranareagh (Pl. Ref. 11/6605, An Bord Pleanala PL04.219620) or the currently proposed substation at Barnadivane (Kneeves) (Pl. Ref. 14/557, An Bord Pleanala PL04.244439. At the time of lodging this application the proposed Shehy More Wind Farm and the proposed substation at Barnadivane (Kneeves) remain under appeal with An Bord Pleanala. This application is presently on appeal and a decision is pending with the Board.

2.2 Other Relevant Files:

PA Ref. No. 00/6590 / ABP Ref. No. PL04.127297. Was granted on appeal on 30th May, 2002 permitting South Western Services Co-Op Limited permission for a development comprising the construction of a wind farm consisting of 10 wind turbines (hub height 50 metres), an electrical substation with control building, two 40 metre high meteorological masts, upgrading of site access, construction and extension of existing internal site tracks and associated works at Cappyboy Beg, Curraglass, Coomacroobeg and Maugha, Kealkill, Co. Cork.

PA Ref. No. 055907 / ABP Ref. No. PL04.219620. Was granted on appeal on 14th February, 2007 permitting Barna Wind Energy Limited permission for the construction of 14 No. wind turbines (70 metres hub height and 70 metres blade diameter, with a total height not exceeding 105 metres), 18 transformers, a 110 kV substation, a 110kV switch station, one 70 metres high wind monitoring mast, construction and upgrading of site entrances, site tracks, and associated works at Barnadivane (Kneeves), Knockboy, Garranereagh, Lackareagh and Reanacaheragh, Teerelton, Co. Cork (as revised by further public notice received by the planning authority on the 14th day of July, 2006).

- PA Ref. No. 11/6605 - Was granted on 9th February, 2012 permitting Barna Wind Energy Ltd. an 'Extension of Duration' of PA Ref. No. 055907 / ABP Ref. No. PL04.219620.

PA Ref. No. 05/9688 / ABP Ref. No. PL04.219277. Was refused on appeal on 8th January, 2007 refusing Ecopower Developments Limited permission for the

erection of eight number wind turbines, overall height up to 107 metres, access roads, control building and sub-station compound and ancillary site works at Derryvacorneen and Carraignamuck, Co. Cork, for the following reason:

- Objectives ENV 3-2 to ENV 3-5 inclusive, of the Cork County Development Plan, 2003, seek to protect the visual and scenic amenities of designated scenic landscapes and preserve the character of all important views and prospects, including those obtainable from designated scenic routes. These objectives are considered to be reasonable. The proposed development, by reason of its scale, height and prominent elevated location and lack of natural screening, would give rise to unduly prominent and obtrusive development when viewed from a number of Scenic Routes, in particular routes A34, A82 and A83 which are located within designated Scenic Landscapes, would be detrimental to the preservation of views obtainable from those routes and would seriously injure the visual amenities of the area. The proposed development, which is not located within a Strategic Search Area for Windfarms, as designated in the Cork County Development Plan, 2003, would, therefore, materially contravene the objectives of the Development Plan and be contrary to the proper planning and sustainable development of the area.

PA Ref. No. 08/2119. Was granted on 12th March, 2009 permitting George O'Mahoney permission for the erection of a wind farm comprising 5 wind turbines with towers up to 46m in height and rotor diameter up to 62m and ancillary equipment for generation of electricity with control building and substation and 40m wind monitoring mast at Goulacullin, Dunmanway, Co. Cork.

PA Ref. No. 09/63. Was granted on 23rd December, 2009 permitting Organic Power Ltd. a ten year permission to erect 11 no. wind turbines on single site, of which 5 no. wind turbines with ancillary hardstand and assembly areas are in townland of Dromleena, 3 no. wind turbines with ancillary hardstand and assembly areas and 1 no. borrow pit are in townland of Inchanadreen, 3 no. wind turbines with ancillary hardstand and assembly areas and 1 no. electrical substation are in townland of Derrynasafagh; install underground fibre optic and electrical cables and ancillary works in townlands of Dromleena, Inchanadreen and Derrynasafagh, Dunmanway, Co. Cork; Install underground fibre optic and electrical cables and ancillary works along public road to 110kV Electrical Substation 1km east of Dunmanway town adjacent to the R586 and all ancillary associated site works including internal roadways and wheelwash facilities. All at Dromleena, Inchanadreen & Derrynasafagh, Dunmanway, Co. Cork.

PA Ref. No. 09/849 / ABP Ref. No. PL88.235028. Was granted on appeal on 5th August, 2010 permitting Ballybane Windfarms Limited a ten year planning permission for the construction of a wind farm extension consisting of up to six number wind turbines (hub height 64 metres and rotor diameter 71 metres – tip height of 99.5 metres), access roads, hard standings, underground cabling, rock borrow pit and ancillary site works – forming an extension to the existing Glanta Commons Wind Farm, all at Dromourneen, Lognagappul and Barryroe townlands, Bantry, Co. Cork.

PA Ref. No. 11/00050. Was granted on 9th December, 2011 permitting Environ Renewables Ltd. a ten year permission for a wind farm of up to 8 no. turbines with tip height of up to 110m, site substation with compound (to include grid transformer, end mast and electrical equipment), upgrade of existing entrance and existing forestry road, construction of new access roads, hardstandings, rock borrow pit, meteorological mast (74.5m high), underground cabling and all ancillary site works, at Killaveenoge East, Killaveenoge West, Curranashing, Derreenaspeeg, Kilnahera East, Garranes, Drinagh, Co. Cork.

PA Ref. No. 11/00059 / ABP Ref. No. PL88.240070. Was granted on appeal on 24th August, 2012 permitting James O'Regan permission for a development comprising 7 No. electricity generating wind turbines with a hub height of up to 70m and a rotor diameter of up to 71m, an electrical compound, substation building, a 70 m high permanent meteorological mast, 4 No. car parking spaces and associated site roads and site works. It is proposed to source stone from an on-site borrow pit, all in the townlands of Cashloura, Kilronane West and Knockeenboy, Dunmanway, Co. Cork, as amended by the revised public notices received by the planning authority on the 24th October, 2011.

PA Ref. No. 11/318 / ABP Ref. No. PL04.240461. Was refused on appeal on 8th July, 2014 refusing Ardrah Wind Farm Limited permission for a development comprising a wind farm of five (5) number electricity generating wind turbines with a hub height of 64 metres and a rotor diameter of 71 metres, an electrical tail station compound and substation building, car parking space, access roadway and a temporary roadway to be used during the construction process, borrow pit, peat storage areas and all associated site works in the townland of Ardrah, Bantry, Co. Cork, with access roads in the townlands of Laharanshermeen and Maughanaclea, Bantry, Co. Cork, for the following reason:

- The Cork County Development Plan 2009 sets out policies and objectives in relation to wind energy development and identifies areas in broad strategic terms for the location and siting of such development, identifying "Strategic Search Areas" and "Strategically Unsuitable Areas". The overall strategic approach as set out in the said Development Plan is considered to be reasonable. The proposed development, which is not located within a "Strategic Search Area", is located immediately adjacent to areas designated as "Strategically Unsuitable Areas", would be unsuitable for wind energy projects and where such projects would normally be discouraged.

  The proposed development, which would by itself be visible over a wide area, would in conjunction with permitted and proposed development in the area, give rise to an undue concentration of wind energy development with significant negative impacts on the landscape character and visual amenities of the area, and in particular the Mealagh Valley, and it's amenity, tourism and recreational potential. The proposed development would, therefore, seriously injure the visual amenities of the area and be contrary to the proper planning and sustainable development of the area.

PA Ref. No. 11/5245 / ABP Ref. No. PL04.240801. Was granted on appeal on 29th April, 2013 permitting Cleanrath Windfarm Limited a ten year planning permission for the development of a site in the townlands of Cleanrath South, Cleanrath North and Derrineanig, Co. Cork. The development will consist of a windfarm consisting of 11 number wind turbines with a maximum ground to top blade tip height of up to 126 metres with ancillary structures, one number permanent 85 metre meteorological mast, one number substation compound with control house, internal road network and associated drainage features, one number wind turbine delivery entrance, one number light vehicle access entrance, two number borrow pits, underground cabling, temporary construction site compound and associated works.

PA Ref. No. 12/5270 / ABP Ref. No. PL04.242223. This application by Framore Limited sought a ten year planning permission to construct a wind farm consisting of six number turbines (each with a minimum hub height of 100 metres, maximum rotor diameter of 100 metres and with a total tip height of 150 metres), a substation including one control building and associated internal equipment, one borrow pit, new internal access roads, upgrading of existing internal access roads, underground cables and ancillary works in the townlands of Derragh, Rathgaskig and Lack Beg, Ballingeary, Co. Cork.

- Whilst permission was granted on appeal on 15th November, 2013, this decision was the subject of Judicial Review by *Pól Ó Grianna & Others* and was subsequently quashed by the High Court in its ruling issued on 5th June 2015 wherein it was directed that the case was to be remitted to the Board for reconsideration in accordance with the findings of the Court

  The findings of the Court were, inter alia, that the connection of the wind farm to the national grid forms an integral part of the overall development of which the construction of the turbines is the first part; and that the cumulative effects of the construction of the turbines and the connection to the national grid must be assessed in order to comply with the EIA Directive.

  The Board, therefore, assigned a new reference number (PL04.245082) to the original appeal reference number (PL04.242223).

PA Ref. No. 12/5270 / ABP Ref. No. PL04.245082. Was granted on appeal on 15th June, 2016 permitting Framore Limited permission for the development of a wind farm consisting of six turbines (each with a maximum hub height of 100 metres, maximum rotor diameter of 100 metres, and with a total tip height of 150 metres), a sub-station including one control building and associated internal equipment, one borrow pit, new internal access roads, upgrading of existing internal access roads, underground cables, and ancillary works in the townlands of Derragh, Rathgaskig and Lack Beg near Ballingeary, County Cork, as amended by the revised public notice received by An Bord Pleanála on the 5th day of November, 2015 consisting of (1) the relocation of Turbine T1 a distance of 50 metres to the south of its previous proposed location with consequent minor alterations to the internal access track and associated underground cable, (2) the provision of approximately 11.5 kilometres (of which approximately seven kilometres are within the public road) of 38 kV underground cabling and associated underground communication cables between the proposed on-site 38 kV substation and the national electricity grid at the permitted Coomataggart 110 kV substation at Grousemount, Kilgarvan, Co. Kerry. The development, including the proposed grid connection, would be located at the following townlands in Co. Cork: Rathgaskig, Gorteennakilla, Derragh, Lackabaun, Carrignadoura, Gurteenflugh, Augeris, Gortnabinna, Gurteenowen, Lack Beg and Lyrenageeh and the following townlands in Co. Kerry: Grousemount and Sillahertane.

PA Ref. No. 13/635 / ABP Ref. No. PL88.242998. Was granted on appeal on 17th June, 2014 permitting Environ Renewables Limited a ten-year planning permission to construct a wind farm. The proposed wind farm will comprise the provision of a total of up to 10 number wind turbines, with a maximum overall blade tip height of up to 131 metres, upgrading of existing and provision of new internal access roads (including the upgrading of site access junction), provision of a wind anemometry mast (height up to 90 metres), three number borrow pits, an electricity sub-station with control room and associated equipment, underground electricity connection cabling, temporary construction compound and all ancillary site works and associated infrastructure in the townlands of Killaveenogue West, Derreenaspeeg, Kilaveenoge East, Currranshingane, and Garranes, Drinagh, Co. Cork.

PA Ref. No. 14557 / ABP Ref. No. PL04.244439. Was granted on appeal on 11th July, 2016 permitting Arran Windfarm Limited permission for the construction of an electricity substation compound to replace the substation already granted permission under appeal reference number PL04.219620 (planning register reference number 05/5907) and subsequently extended under planning register reference number 11/6605. The electricity substation layout includes three number control buildings, associated electrical plant and equipment, security fencing and ancillary works, all at Barnadivane (Kneeves), Tarelton, Co. Cork.

(*N.B.* It is my understanding that this decision was the subject of judicial review proceedings [2016 614 HR] and that the Board subsequently consented before Mr. Justice Seamus Noonan of the High Court on 1st November, 2016 to orders quashing its decision and remitting the appeal for reconsideration).

PA Ref. No. 146760 / ABP Ref. No. PL04. 245824. Was granted on appeal on 8th July, 2016 permitting Barna Wind Energy (BWE) Limited permission for the construction of 6 No. wind turbines, with a maximum tip height of 131 metres and associated turbine foundations and hardstanding areas, one number permanent meteorological mast up to 90 metres in height, upgrade of existing and provision of new site tracks and associated drainage, new access junction and improvements to public road to facilitate turbine delivery, one number borrow pit, underground electrical and communications cables, permanent signage and other associated ancillary infrastructure at Lackareagh and Garranereagh, Lissarda and Barnadivane (Kneeves), Teerelton, Co. Cork. This application is intended to replace the development already granted permission under PL04.219620 (planning register reference number 05/5907) and subsequently extended under planning register reference number 11/6605. This application is

seeking a 10 year planning permission. (As amended by the further public notice received by the planning authority on the 5th day of June, 2015).

(*N.B.* It is my understanding that this decision was the subject of judicial review proceedings [2016 614 HR] and that the Board subsequently consented before Mr. Justice Seamus Noonan of the High Court on 1st November, 2016 to orders quashing its decision and remitting the appeal for reconsideration).

PA Ref. No. 14/06803. Was granted on 27th July, 2015 permitting Barna Wind Energy (B.W.E.) Ltd. permission for the construction of a private roadway, approximately 150m long, from the R585 to the L6008 and all associated works. This will facilitate the delivery of abnormal loads to a wind farm located in the townlands of Barnavidane (Kneeves), Lackareagh & Garranereagh. All at Bengour West, Newcestown, Co. Cork.

PA Ref. No. 156966 / ABP Ref. No. PL04.246742. Application by Cleanrath Windfarm Ltd. for permission for the provision of a total of 11 No. wind turbines with a maximum ground to blade tip height of up to 150m, upgrading of existing and provision of new internal access roads, provision of a wind anemometry mast (height up to 100 metres), 2 no. borrow pits, underground electrical cabling, underground grid connection electrical cabling including all associated infrastructure, junction accommodation works for the proposed turbine delivery route and provision of a temporary roadway to facilitate turbine component deliveries, 1 no. electricity sub-station with control building and associated equipment, 1 no. construction compound, upgrading of the existing site access junctions, permanent signage, and all ancillary site works. The proposed development comprises the redesign of a wind farm at this location previously considered by Cork County Council and An Bord Pleanala under pl. ref: 11/5245, and PL 04.240801 respectively. All at Cloontycarthy, Cleanrath North, Cleanrath South, Derreennacarton, Derrineanig, Turnaspidogy, Milmorane, Coomlibane, Rathgaskig, Derragh, Augeris, Gorteenakilla, Carrignadoura, Gurteenowen, Gurteenflugh, Lyrenageeha and Lackabaun Co. Cork. This application is presently on appeal and a decision is pending with the Board.

PA Ref. No. 15730 / ABP Ref. No. PL04. 246353. Waa granted on appeal on 28th October, 2016 permitting Keel Energy Ltd. a ten year planning permission for the construction of a wind farm of up to 5 No. wind turbines, with a maximum ground to blade tip height of up to 140m, upgrading of existing and provision of new internal access roads, provision of a wind anemometry mast (height up to 90 metres), 2 no. borrow pits, underground electricity cabling, underground grid

connection electrical cabling including all associated infrastructure, junction accommodation works for the proposed delivery route, 1 no. electricity sub-station with control building and associated equipment, 1 no. construction compound, upgrading of the existing site access junction, permanent signage and all ancillary site works. All at Gurteen, Clogher, Derryleigh, Gortatanavally, Carrigdangan, Inchincurka, Johnstown, Haremont, Gorteenadrolane, Teeranassig, Clonmoyle, Dromleigh, Coolaclevane, Carrigboy, Cooldorragha, Deshure, Teerelton, Reanacaheragh, Barnadivane, Barnadivane (Kneeves) & Garranereagh, Co. Cork.

N.B. An overview of the planning history along the proposed grid connection route is set out in Appendix 2.1 of the Environmental Impact Statement which has accompanied PA Ref. No. 16/256 / ABP Ref. No. PL88. 246915 and in this regard it is evident that most of these applications relate to the provision and / or alteration of one-off rural housing and agricultural-related structures.

3.0 FIRST PARTY RESPONSE TO SECTION 132 NOTIFICATION:

3.1 On 18th September 2015, McCarthy Keville O'Sullivan, Planning & Environmental Consultants, on behalf of the applicant, submitted additional information to the Board in response to the Section 132 Notice which included the following documents:

- Addendum to Environmental Impact Statement
- Article 6(3) Appropriate Assessment Revised Natura Impact Statement
- Natura Impact Statement: Appendix 4.5: Addendum to Environmental Impact Statement
- Additional Planning Drawings (Booklet)

3.2 The principle purpose of this documentation is to provide the Board with sufficient information in order to enable it to complete an 'Environmental Impact Assessment' and an 'Appropriate Assessment' of the overall proposal, including the grid connection, with particular reference to the consideration of cumulative impacts, and in this respect the additional information provided clarifies that the means of grid connection will be entirely by way of the laying of an underground 38kV cable that will run within the public road corridor between the site of the proposed Shehy More Wind Farm (i.e. the subject proposal) and either the permitted substation at Garranareagh (PA. Ref. No. 11/6605 / ABP Ref. No. PL04.219620) or the 'proposed' substation at Barnadivane (Kneeves) (PA Ref. No. 14/557 / ABP Ref. No. PL04.244439) (*N.B.* The proposed grid connection

route detailed in the newly submitted additional information supersedes the preferred grid connection route previously described in the original EIS which envisaged that the wind farm, if approved, would connect to the Dunmanway substation).

3.3 It is envisaged that the 'proposed' grid connection cable route will extend through 26 No. townlands from the south-western cluster of 4 No. wind turbines within the proposed Shehy More Wind Farm in the townland of Cloghboola along the public road corridor within an excavated cable trench whereupon it will re-enter the site of the proposed Shehy More Wind Farm in order to connect to the on-site substation in the townland of Tooreenalour. From the proposed substation, the cable route will extend along existing internal site roads within the Shehy More Wind Farm before subsequently emerging back onto the public road in the townland of Gortnacarriga where it will continue in a generally easterly direction along the public road corridor within an excavated cable trench (through the villages of Kilmichael and Teerelton) before terminating at Barnadivane Substation (*N.B.* For ease of reference, both of the substations either permitted under ABP Ref. No. PL04.219620 & or proposed under ABP Ref. No. PL04.244439 have been referred to as the "Barnadivane Substation". In this respect the Board is advised that the total length of the proposed underground grid connection will depend on whether it connects into the either of the aforementioned substations, however, it has been clarified by the applicant that any connection to the substation permitted under ABP Ref. No. PL04.219620 will necessitate the provision of approximately 850m of additional cable length).

3.4 Section 3.2 of the *'Addendum to Environmental Impact Statement'* states that the total length of the proposed grid connection cable route will be approximately 21.6km, although this would seem to exclude the *'Proposed Underground <u>On Site</u> Interconnection Cable Route'* (*N.B.* At this point I would advise the Board that ABP Ref. No. PL88.246915 states that the total length of the grid connection proposed in that application will extend to 26.27km, of which approximately 2.81km will be located within the internal access roadways serving the proposed Shehy More Wind Farm, with the remaining 23.46km located along the public road corridor). Outside of the proposed Shehy More Wind Farm site, all works for the proposed grid connection will occur within the corridor of the public road.

3.5 The proposed works will involve the excavation of a trench to the required depth to safely accommodate the insulated power cables; approximately 1.2m. Following the laying of the cable ducting, the trench will then be backfilled and re-

surfaced. It is envisaged that the cable laying works area in any one day will extend to approximately 100-150m.

3.6 Any underground services encountered along the cable route will be surveyed for level and the ducting will pass over the service provided adequate cover is available. If the required minimum clearance of 300mm between the bottom of the ducts and the service cannot be achieved the ducting will pass under the service and again 300mm clearance will be achieved between the top of the communications duct and the bottom of the service. If the required separation distances cannot be achieved, then a number of alternative options are available such as using steel plates laid across the width of the trench and using 35N concrete surrounding the ESB ducts where adjacent services are within 600mm.

3.7 Pre-cast concrete chambers known as joint bays will be used to join individual lengths of cable and these will be located at various points along the ducting route approximately every 600-1,000m. Where possible, these joint bays will be located in areas where there is a natural widening / wide grass margin on the road in order to accommodate easier construction, cable installation and less traffic congestion.

3.8 The proposed grid connection route will necessitate a total of 41 No. watercourse / culvert crossings which will employ either of the following methodologies: Piped culvert crossings, flatbed formation over culverts or at road level, or directional drilling. No in-stream works are required at any of the watercourse crossings.

3.9 Any future decommissioning works would only involve the removal of the cables which can be carried out via the joint bays with no requirement for excavation or earth-moving works.

3.10 In addition to detailing the proposed grid connection route, the revised documentation also references various temporary junction accommodation works (please refer to Drg. No. APBFI 0520a-02: *'Cable & Transport Route Key Plan'* and Drg. Nos. APBFI 0520a-28 – APBFI 0520a-33 inclusive) which will be required to accommodate the wind turbine component transporter vehicles along 2 No. potential haul routes as follows:

- *Location D – R585 / R587 junction at Glan:*
  Where the route turns right from the R585 onto the R587, a swept-path analysis has indicated that a section of land on the north-eastern corner of the junction will be required to provide a temporary over-run area for vehicles.

- *Location E – R587 / local road junction:*
  The left-turn onto the local road from the R587 at this location is relatively tight and an area of land will be required on the south-western corner of the junction to provide for the turning requirements of vehicles.

- *Location F – Bend on local road:*
  The swept-path analysis has shown that a small strip of land will be required on the north-eastern corner of the junction as a temporary overrun area during the delivery stage of the turbine plant.

- *Location G - Kilhanna Crossroads (Johnstown):*
  The optimum route through Kilhanna Crossroads requires a segment of land on the south-eastern side of the junction to provide for the delivery vehicles.

- *Location H – Right turn onto L4607 at Kilhanna School:*
  The swept-path analysis for this location, where the route turns right from the local road onto the L4607 just to the west of Kilhanna N.S., shows that various sections of land will be required to provide a route through this junction, including the bridge just east of the junction.

- *Location AA – Right turn onto L4607:*
  The swept-path analysis for this location, where the second transport route option turns right onto the L4607 from the R585 west of Inchincurka Crossroads, indicates that land will be required on the western side of the junction to provide the necessary turning radius for the turbine delivery vehicles.

3.11 The 2 No. identified turbine delivery route options are stated to have all the appropriate consents in place whilst the necessary accommodation works have all been projected using the standardised delivery techniques currently in use in Ireland. However, in the context of improved delivery systems currently available elsewhere on the continent (e.g. the use of a blade adapter based delivery

system), the junction improvements outlined are considered to represent a 'worst-case' scenario in terms of the level of junction accommodation works that would be required to facilitate abnormal load access to the site.

3.12 The proposed junction accommodation works will entail the excavation of overburden within the affected area until a competent stratum is reached which will subsequently be overlain with granular fill and finished in a final surface running layer. Upon completion of the turbine delivery phase it is envisaged that the granular fill and final surface running layers will be left *in situ* which will allow these areas to be used again in the future should it be necessary (e.g. at decommissioning stage for turbine removal or in the unlikely event of having to swap out a blade component during the operational phase), although they will be permitted to revegetate naturally whilst any boundary walls or hedgerows that were removed will be reinstated by creating earthen stone berms.

3.13 The additional revised documentation also provides further clarity as regards the applicant's proposals for the replanting of lands in line with the published policy of the Forestry Service on the granting of felling licences for wind farm developments whereby those areas cleared of forestry for turbine bases, access roads, etc. have to be replaced by replanting either within the area felled under licence or at an alternative location elsewhere in the State. In this respect it has been submitted that the planting requirement for the proposed Shehy More wind farm will equate to 8.4 hectares which will be accommodated on lands at Tully, Co. Roscommon. Those lands have seemingly been assessed as part of the Afforestation Approval – Form 1 process and have obtained Technical Approval for Afforestation from the Forest Service.

4.0 RESPONSES TO CIRCULATION OF APPLICANT'S SUBMISSION:

4.1 Response of the Planning Authority:
No further comments.

4.2 Response of the Appellants:
4.2.1 Dan Kelleher & Others:

- The Board is requested to consider whether the subject application can be deemed to be valid in the first instance given the omission of a critical element of the Environmental Impact Statement from the original application and the subsequent seeking of a Revised Environmental Impact Statement to include information on the grid connection corridor.

- It is considered that the further information and the Revised EIS submitted in response to the Board's Section 132 Notice is not sufficiently robust to satisfy the requirements for 'Appropriate Assessment' or to allow the Board to complete its Environmental Impact Assessment. In this regard specific reference is made to the likelihood of significant impacts on the Freshwater Pearl Mussel and the failure to seek a license from the NPWS to carry out a proper survey of that species.
- The applicant has not properly considered the implications of peat stability and the runoff associated with the proposed development.
- The concerns raised in the grounds of appeal with regard to the noise impact of the proposed development have not been addressed.
- The Revised EIS fails to provide a sufficient body of information which would permit the Board to conduct a comprehensive environmental impact assessment in that it does not include the data required to identify and asses the main effects the project is likely to have on the environment.
- In its assessment of the initial planning application, Cork County Council engaged the services of independent consultants (RPS) to review the potential water quality impacts of the proposal and the applicant has sought to rely on the conclusions of that review as confirmation that its assessments were adequate and robust. However, the authors of the review identified constraints on their assessment and their conclusions were entirely based on the assumption that the information provided in the EIS was accurate. Therefore, the admitted limitations of the RPS report renders it unfit for the purposes for which the Council relied and thus it similarly cannot be relied upon by the applicant.
- The Revised EIS has acknowledged that letters were received from the NPWS which confirmed the presence of Freshwater Pearl Mussel in the Bealaphadeen River, with the latter of these letters indicating that it may be necessary for the applicant to apply for a licence to undertake a proper survey.
- In relation to peat depths within the footprint of the proposed wind farm construction, whilst the report of AGEC has concluded that there is an acceptable margin of safety, the appellants are not satisfied with the methodology used in that assessment and also note that no localised rainfall data was used to inform same.
- Hand field vane tests were used as an indicator of the strength of peat and it is important to note that the report of AGEC has accepted that caution should be used in placing reliance on this method.
- The analysis of peat stability by AGEC suffers from serious methodological flaws and limitations which invalidate its findings.

- The dominant trigger for most peat failures usually appears to be intense rainfall, however, the subject application does not include an adequate analysis of rainfall data.
- *'Factor of Safety Analysis'* is not regarded as a reliable indicator of peat stability.
- The Revised NIS does not include a local maximum daily rainfall figure nor has such a figure been employed in the design of the drainage and mitigation methods. This omission renders the entire consideration of mitigation void.
- The calculation of surface water runoff volumes with regard to the design of the proposed mitigation measures is almost totally absent from the Revised NIS.
- It is not accepted that the construction of 2 No. stilling ponds and 'vegetative filters' will be sufficient to prevent sediment-laden runoff from exiting the application site.
- Whilst the applicant has indicated that the design of the proposed drainage measures will be based on highly localised rainfall data, this data should have been provided in the first instance whilst the Revised NIS should have included details of the design of the proposed drainage measures at this stage of the application in order to allow all interested parties the opportunity to review the veracity of same.
- There is a possibility that the proposed defences will be overwhelmed, the consequences of which would be detrimental to habitats and species such as the Freshwater Pearl Mussel.
- It is a requirement of the Water Framework Directive that there be no reduction in water quality such as through the release of fine sediment / suspended solids which is detrimental to the survival of the Freshwater Pearl Mussel.
- There are populations of Freshwater Pearl Mussel within Lake Nambrackderg, the Sruhaunphadeen River and the Bealaphadeen River. The changes to the hydrological regime of the application site and beyond as a result of the proposed development pose a threat to these populations.
- The absence of a full survey of the Freshwater Pearl Mussel beds in the Bealaphadeen & Sruhaunphadeen Rivers renders the *'appropriate assessment'* incomplete and scientifically unsound.
- The nature of the proposed development is such that it will inevitably result in the release of fine sediments which poses a significant threat to species including the Freshwater Pearl Mussel.

- The Revised EIS has not addressed the previously identified shortcomings in the submitted bird survey.
- No consideration has been given to the White-Tailed Sea Eagle which is known to use a flight path along the Kealkil Valley and onwards to Shehy Mountain.
- There has been no bird survey of Lough Nambrackderg, with particular reference to establishing any over-wintering or migratory species.
- The Revised EIS has not addressed the concerns raised in the grounds of appeal as regards the inadequacy of the submitted noise assessment.
- There are inconsistencies in the Revised EIS and the additional documentation as regards the actual length of the proposed grid connection route.
- All of the watercourse crossings associated with the construction of the proposed grid connection have the potential to impact on downstream water quality.
- The evaluation of the proposed grid connection route has failed to identify the following issues:

    - Map 3.2 shows the public road in Cloghboola as part of the development infrastructure rather than as a public road.
    - There has been no reference to the use of the roadway as part of an amenity walking route linking the City with Gougane Barra and The Beara.
    - There has been no acknowledgement of the Old Coach Road – Bantry as a Heritage Route.

- The construction of the proposed development and the associated road closures will result in significant disruption / disturbance to local residents. and will also inhibit access for emergency services.
- There has been no evaluation of the structural integrity of the road networks and its ability to accommodate the construction of the proposed development.
- The proposed grid connection has the potential to sterilise lands along the route from future development.
- Although the selection of the subject site was initially justified on the basis of the availability of a grid connection, it has since emerged that the proposed underground cable will extend for up to 24km in order to connect to the national grid. There is no justification for such a proposal.

- The subject application has failed to consider the cumulative impacts of the development and no justification has been provided for the site selection.
- Whilst the applicant has sought to rely heavily on the National Renewable Energy Policy, on the basis of the ESB's own figures as regards the current level of energy generation derived from renewable sources, Ireland will easily exceed its quota of 40% by 2020.
- Notwithstanding the wider policy context, with particular reference to the National Renewable Energy Policy, there is a need to comply with the requirements of the EIA Directive etc. in full. In this regard it is submitted that the subject proposal is first and foremost a commercial development and the assertion that it may contribute to Ireland's renewable energy targets is not necessarily proven.
- The proposed development will have a detrimental impact on the character, heritage, and socio-economic value of the surrounding landscape.

4.2.2 Anthony Cohu:

- With regard to the judgement of the High Court in the case of *O'Grianna and Others v. An Bord Pleanala*, it is submitted that although the Court was correct in quashing the relevant decision of the Board which granted permission for a wind farm on the basis that inadequate information had been provided as regards the proposed grid connection (a practice known as 'project-splitting' which is in contravention of EU law), it was incorrect in allowing the revival of that application whereby the Board sought the required details by way of a request for further information. Instead, it is considered that the applicant should have been required to re-apply for planning permission to the Local Authority by way of a new planning application with an EIS prepared in respect of the entirety of the development project.

  In allowing the subject proposal the opportunity to address those issues arising as a result of *O'Grianna and Others v. An Bord Pleanala*, the Board has permitted the first stage of the planning process (whereby an application would have been made to the Local Authority) to be circumvented for a project which does not comprise Strategic Infrastructure Development. This gives rise to the likelihood of a legal challenge being undertaken to address the second aspect of the *O'Grianna* judgement (i.e. the decision to allow the remittance of the

application for further consideration by the Board) in order to prevent the Board from acting beyond its authority.

- The Board has erred in law by not determining the original (flawed) planning application i.e. the proposed Shehy More wind farm should have been refused permission on various grounds, including the absence of data pertaining to the connection to the national grid.
- The requirement for site notices to be erected when a further EIS has been requested by the Board is not as methodical as that required in respect of a normal planning application as there is no validation process for the logging of the EIS and the public notices which would serve to establish a date from which the period for the submission of third party observations would commence. Therefore, clarification is required as the period for public comment is already considered to be unduly restrictive given the volume of documentation submitted.
- The proposed underground grid connection is shown as running beneath the 'public road corridor', however, no evidence has been provided of either the Local Authority or private landowners (whose property boundaries may extend to the centreline of the public road) sanctioning such a proposal. It is unclear as to whether or not the Local Authority 'owns' the public roads in question or if it simply maintains same for public purposes as is the case with many minor local roadways. In any event, there is a need for a private utility to obtain consent in order to lay a grid connection along the roadway.

4.3 Response of the Observers:

4.3.1 Mr. Kevin Deering:

- Notwithstanding the provision of further information by the applicant which has included for the previously omitted grid connection, it is regrettable that the applicant has not taken account of those environmental concerns raised in the grounds of appeal.
- The subject application has repeatedly failed to address the issues relating to hydrology on site, with particular reference to the significance of having the site draining to the Bealaphuadeen River.
- No reference has been made to the hydrological links between the site and the Bandon River / Caha SAC and the River Lee catchment. In this respect it should also be noted that the Caha River is a salmonid river and that it drains much of the application site.
- The presence of Freshwater Pearl Mussel in the Bealaphuadeen has been confirmed, however, the submitted EIS has taken no account of this fact.

- There has been no meaningful consideration given to the direct and indirect impacts of site drainage on the surface water catchments of 2 No. Special Areas of Conservation.
- The construction of the proposed development will necessitate extensive works, including the excavation of up to 68,000m^3 of peat and the storage / distribution of spoil within the confines of the site, however, no account has been taken of the potential for sediment-laden runoff to enter local watercourses.
- No details have been provided of average daily rainfall rates in this area which has recently experienced several instances when one month's average rainfall was recorded in single day. Furthermore, the impact of any such rainfall events (i.e. the washing of spoil and the disturbance of sediment which will then enter local watercourses) should serve to militate against the scale of development proposed.
- The EIS does not provide for a meaningful or adequate survey of bird species. In this respect it should be noted that several species of conservation concern have been recorded in the area whilst inadequate consideration has been given to the probability of migratory species utilising the site.
- There has been no meaningful evaluation of the receiving environment in the planning application and the selection of the subject site in the first instance is indicative of the low value which has been attached to the area despite its significance in terms of natural heritage and landscape quality.
- No consideration has been given to the White-Tailed Sea Eagle which is known to nest at Glengarriff in Bantry Bay, and whilst this species has been sighted on Shehy More on a number of occasions, the most direct flight path for these birds would be along the Kealkil Valley onwards to Shehy Mountain.
- Hen Harrier and Golden Plover have been recorded on site. Indeed, Hen Harrier are known to breed on Shehy More.
- Despite the Lough Allua pNHA being located 1.4km from the study area, the applicant has consistently dismissed the potential for the proposed development to impact on same.
- Although the selection of the subject site was initially justified on the basis of the availability of a grid connection, it has since emerged that the proposed underground cable will have to follow a circuitous route of 18km or more in order to connect to the national grid.
- The proposed development is contrary to the principles of proper planning and sustainable development.

4.3.2 Russell W. Barnett:

- The Revised NIS has failed to establish a factual and relevant precipitation baseline for the application site in that whilst the hydrological section of the document has considered relatively local average monthly rainfall figures, the maximum daily rainfall figures for the site have been omitted in their entirety. This failing has clear consequences in terms of the accurate calculation of runoff rates and the subsequent design of drainage / mitigation measures.
- Whilst the applicant has sought to address the aforementioned deficiency by stating that *'The design of the drainage measures on site will in fact use highly localised rainfall data that will be sourced from Met Eireann'*, this statement serves to establish that the site drainage measures contained in the EIS have not been designed by referencing local daily rainfall data and thus they are not fit for purpose.
- The omission of daily rainfall maximums has serious implications as regards the potential for peat slippage.
- Despite having been presented with clear evidence of the presence of a significant colony of critically endangered Freshwater Pearl Mussel in the Bealaphadeen River immediately adjacent to the site, the applicant has failed to survey and report on same. Therefore, the Freshwater Pearl Mussel bed in the Bealaphadeen River remains un-surveyed and unaccounted for the EIS / NIS.
- At the time of its decision-making, the Planning Authority was not in possession of crucial evidence regarding the Freshwater Pearl Mussel bed in the Bealaphadeen River.
- In the absence of the required survey of the Freshwater Pearl Mussel bed in the Bealaphadeen River, it is not possible to undertake an 'appropriate assessment' of the proposed development pursuant to the requirements of the Habitats Directive and thus any grant of permission would be unsafe from a legal perspective.
- The greater part of the site catchment drains to the Bealaphadeen River wherein is situated a colony of Freshwater Pearl Mussel.
- There has been no bird survey of Lough Nambrackderg, with particular reference to establishing any over-wintering or migratory species.
- The Revised EIS has not addressed the concerns raised in the grounds of appeal as regards the inadequacy of the submitted noise assessment.
- The proposed development will give rise to unacceptable levels of noise and shadow flicker.
- Condition No. 5 of the notification of the decision to grant permission issued by the Planning Authority stated the following:

'Turbine No. T1 and Turbine No. T2 shall be replaced by one single turbine. Prior to the commencement of any development, a revised layout, including any stilling ponds, shall be submitted to be agreed in writing by the planning authority'.

The Revised NIS has failed to identify the position of the substitute wind turbine required by the Planning Authority. This raises concerns as regards the ability to undertake an appropriate assessment of the proposal.

- The safety area of any repositioned turbine may encroach upon the observer's land thereby posing a danger to him and his family.
- Having regard to the judgement of the High Court in the case of *O'Grianna and Others v. An Bord Pleanala*, it is clear that the practice of project splitting (as has occurred in the subject application) has deprived a great many affected people along the proposed grid connection route from having full access to the planning process. In effect, the inclusion of the grid connection route as an 'add-on' to the subject application has denied local residents the opportunity of 'active consultation' with the developers. Furthermore, it is highly questionable (and un-tested in law) as to whether the decision of the Bard to include the proposed grid connection route to an unlawful application at appeal stage (thereby removing a significant part of the project from consideration by Cork County Council) is supported by current planning legislation.
- The existing anemometry mast on site constitutes unauthorised development.
- Shehy More is the last wild and unspoilt upland area remaining in Co. Cork and its rich diversity of flora and fauna, which includes a number of endangered species, makes it highly unsuited to wind farm development.
- The applicant has failed to establish any over-riding public interest in the approval of the subject application.
- The EIS & NIS do not contain sufficient scientifically objective evidence that would permit an appropriate assessment of the proposal in the manner required by law.

4.4 New Observers:

4.4.1 Nigel De Haas:

- The invitation by the Board for public comment on a Revised Environmental Impact Statement that includes for the grid connection is a

flawed process that denies the public the protection afforded by the normal planning process.

- The purported reduction in greenhouse gas emissions attributable to the proposed development is not supported by either the submitted documentation or the National Renewable Energy Action Plan upon which it is based.
- The proposed pollution control measures for the operational phase of the wind farm do not include for the containment of any lubricating, cooling or hydraulic fluids emanating from the turbine nacelles in the event of facture of other damage.
- The issue of the safety of recreational and occupational users of lands in the vicinity of the proposed wind farm has not been adequately addressed.
- There has been no proper assessment of the impact of the proposed development on human health.
- The adverse impact on tourism, with particular reference to nature tourism in an area of unspoilt natural amenity, will be disproportionate to the claimed benefits of the proposed development.
- The proposed roadworks at Inchincurka Cross make no provision for permanent traffic calming to improve the safety of drivers turning onto the heavily trafficked R585 Regional Road.

4.4.2 Marie O'Sullivan:

- The wind turbines cause distress to animals / livestock and can contribute to instances of stampeding which poses a health and safety risk to those involved in agriculture etc.
- Concerns with regard to the health and safety implications of the noise emissions from the proposed wind turbines.

4.4.3 Kathy O'Sullivan:

- The proposed grid connection did not form part of the original planning application and its inclusion at this stage in the process is unlawful.
- Concerns regarding the health and safety implications of the proposed development, with specific reference to the noise levels from the proposed turbines.

4.4.4 Brendan & Sheila Madden:

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation.
- Interference with existing services along the proposed grid connection route.

- The construction of the proposed grid connection and the associated road closures will result in significant disruption / disturbance to local residents.
- Future difficulties in carrying out land improvement works and in obtaining planning permission for the development of third party lands.
- There were no site notices erected along the route of the proposed grid connection.

4.4.5 Jeff Agar & Carlien Croonenberg:

- The wind energy policy set out in the Cork County Development Plan, 2014 is fundamentally flawed for the following reasons:

    - The Government assertion that existing wind farms in Ireland are presently producing 2,380MW of energy and that there is a need to double this output in order to ensure that any such energy production satisfies 40% of the national demand is spurious given that the country has a population of less than five million and as peak demand is below 5,000MW. Therefore, wind farms are highly inefficient and the intention is to export surplus capacity.
    - The production of energy in remote locations and the transportation of same over large distances is objectionable given that it would be more prudent to invest in new technologies such as passive house and solar photovoltaic with battery storage. Furthermore, the exportation of renewable energy in order to try and mitigate against failures to make emissions reductions in other areas such as heat, transport and agriculture is undesirable as this does nothing to solve the core problems in those areas.
    - The development of wind energy is increasingly seen as an established technology and its continued promotion could serve to replace investment in more effective developing technologies.
    - There is currently no provision in the Development Plan whereby developers are obliged to provide share options in wind farms to local residents which is now being promoted as Government policy. In addition, the set-back distances applicable in Ireland are considered to be inadequate.

- The protection and maintenance of areas such as Shehy More in supporting biodiversity and the native wildlife outweighs any benefits derived from inefficient wind farms.
- There is an excessive proliferation of wind-energy related development in the surrounding area.

- Given the site's proximity to a future wind farm proposed at Carrigarierk Hill, it is submitted that the subject proposal involves project-splitting in contravention of the EIA Directive.

4.4.6 Alfonso F. Rouco:

- The proposed development will have a detrimental visual impact on the surrounding landscape.
- The cumulative impact of the various wind farms planned within this part of West Cork will be to the detriment of the tourism industry.
- The proposed development will give rise to unacceptable levels of noise and shadow flicker.
- The proposal poses a risk to avifauna.
- The disturbance of peatland during construction could result in the release of suspended solids and the associated siltation / sedimentation of watercourses thereby endangering aquatic species, including salmon and the freshwater pearl mussel.
- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation.
- Future difficulties in carrying out land improvement works and in obtaining planning permission for the development of third party lands.

4.4.7 Daniel O'Riordan & Others:

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation.
- The construction of the proposed development and the associated road closures will result in significant disruption / disturbance to local residents.
- Future difficulties in obtaining planning permission for the development of third party lands.
- The proposed development will give rise to unacceptable levels of noise and shadow flicker.
- The proposal will have a detrimental visual impact on the surrounding landscape.

4.4.8 Cornelius & Maura Lucey:

- Despite Condition No. 5 of the notification of the decision to grant permission issued by the Planning Authority having limited the proposed development to 10 No. wind turbines, the subject appeal continues to refer to the erection of 12 No. turbines.
- There are concerns as regards the proximity of the proposed turbines to the observer's property.

- The proposed wind turbines will have a detrimental visual impact on the surrounding landscape and tourism in the area.
- The proposed grid connection will pass through the observers' lands and will also cross their water supply.
- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation.
- Potential interference with services, land boundaries, fencing and drainage.
- Devaluation of property.

4.4.9 C.M. Tynan & David Bland:

- The proposed grid connection did not form part of the original planning application and its inclusion at this stage is inappropriate.
- Despite Condition No. 5 of the notification of the decision to grant permission issued by the Planning Authority having limited the proposed development to 10 No. wind turbines, the subject appeal continues to refer to the proposed erection of 12 No. turbines.
- The construction of the proposed development and the associated road closures will result in significant disruption / disturbance to local residents. and will also inhibit access for emergency services.
- The underlying geological conditions / presence of bedrock along the proposed grid connection route may serve to delay / prolong the construction process.
- Inadequate public consultation and the lack of site notices along the proposed grid connection route.
- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation, the potential contamination of water supplies, and the possible impact on livestock / other wildlife.
- Potential interference with services, land boundaries, fencing and drainage.
- Future difficulties in carrying out land improvement works and in obtaining planning permission for the development of third party lands.
- The proposed development will have a detrimental visual impact on the surrounding landscape.
- The disturbance of large quantities of peatland during the construction process could impact on downstream water quality due to the release of suspended solids and the associated siltation / sedimentation of watercourses could detrimentally impact on aquatic species, with

particular reference to Freshwater Pearl Mussel which is known to be present in the Bealaphadeen Stream.

- The proposed development poses a risk to avifauna.
- The proposed development will give rise to unacceptable levels of noise and shadow flicker.
- There are concerns that the proposed development poses an unacceptable of fire and other accidents.
- Devaluation of property.
- The cumulative impact of the development of multiple wind farms in this part of West Cork will be detrimental to the character of the surrounding landscape and will also negatively impact on tourism in the area.

4.4.10 Daniel Kelleher:

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation and the potential for contamination of the observer's water supply.

4.4.11 Marie Curtin:

- The proposed construction of further wind turbines will have a detrimental impact on the character, amenity and tranquillity of the surrounding area.
- The noise caused by wind turbines is distressing to animals / livestock and can contribute to instances of stampeding which poses a health and safety risk to those involved in agriculture etc.

4.4.12 Mary O'Sullivan:

- Concerns with regard to the health and safety implications of noise emissions from the proposed wind turbines.
- The noise caused by wind turbines is distressing to animals / livestock and can contribute to instances of stampeding which poses a health and safety risk to those involved in agriculture etc.

4.4.13 Ann Fitzgerald:

- The proposed wind turbines will have a detrimental visual impact on the surrounding landscape and tourism in the area.
- Devaluation of property.
- The proposed turbines will give rise to unacceptable levels of noise and shadow flicker.
- Concerns regarding the health and safety implications of the proposed development, including any impacts on livestock and farming practice.

- The potential for interference with radio, television and broadband services.
- The possible detrimental impact on wildlife in the area.
- The lack of any survey work as regards Freshwater Pearl Mussel in the Bealaphadeen Stream.
- The construction of the proposed development and the associated road closures will result in significant disruption / disturbance to local residents.
- Interference with existing services along the proposed grid connection route during the construction phase.
- Potential interference with land boundaries, fencing, drainage etc.
- Future difficulties in carrying out land improvement works and in obtaining planning permission for the development of third party lands.

4.4.14 Jerry Murphy & Others:

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation.
- The proposed cabling will be laid at a depth of only 1.5m below unsuitable narrow country roads.
- The construction of the proposed grid connection and the associated road closures will result in significant disruption / disturbance to local residents.
- The construction of the proposed grid connection will disrupt the functioning of the local school.
- Interference with existing services along the proposed grid connection route during the construction phase.
- Future difficulties in carrying out land improvement works and in obtaining planning permission for the development of third party lands.
- Potential interference with land boundaries, fencing, drainage etc.
- There were no site notices erected along the route of the proposed grid connection.
- The proposed wind turbines will have a detrimental visual impact on the surrounding landscape.
- The disturbance of large quantities of peatland during the construction process could impact on downstream water quality due to the release of suspended solids and the associated siltation / sedimentation of watercourses which could have a detrimental impact on aquatic species, including salmon and the freshwater pearl mussel.
- The proposed development poses a risk to avifauna.
- The proposed development will give rise to noise and shadow flicker.

- The cumulative impact of the development of multiple wind farms in this part of West Cork will be detrimental to the character of the surrounding landscape and will also negatively impact on tourism in the area.

4.4.15 Finbarr Cotter & Others:

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation.
- Future difficulties in obtaining planning permission for the development of third party lands.

4.4.16 Aidan Curtin:

- Concerns regarding the health and safety implications of the proposed grid connection given its proximity to housing and local schools.

4.4.17 Nellie & Pat Sheehan:

- Concerns regarding the wider health and safety implications of the proposed development, including the emission of electro-magnetic radiation and sleep deprivation.
- The construction of the proposed development and the associated road closures will result in significant disruption / disturbance to local residents.

4.4.18 Nan O'Donovan & Others:

- There were no site notices erected along the route of the proposed grid connection.
- The proposed development will result in significant disruption / disturbance to local residents / the surrounding area.

4.4.19 Liam Tanner & Others:

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation.
- The proposed grid connection will detract from local walking routes.
- Devaluation of property.
- The construction of the proposed development will result in significant disruption / disturbance to local residents / the surrounding area.

4.4.20 Michael Dineen & Others:

- Whilst the cost of undergrounding electrical cabling is now considerably less than was previously estimated, any such undergrounding could potentially impact on the environment through the disturbance of soil whilst it is also unclear how the composition of the plastic cables

sheathing the wiring will affect soil quality. There are further concerns as regards the potential compensation of landowners whose lands may have to be excavated as part of the works as well as the impact on agriculture and the rural environment.

- The inaccessibility of underground cabling in the event of a fault / failure gives rise to more costly and time-consuming repair / replacement works.
- Given the expense involved in providing an underground grid connection for 12 No. turbines, it is queried whether or not the project is commercially viable.
- Further clarity is required as regards the specifics of the proposed underground cable construction. For example, problems associated with HPFF pipe-type underground transmission lines include maintenance issues and possible contamination of surrounding soils and groundwater due to leaking oil.
- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation.
- There continue to be concerns as regards the impact of the proposed turbines on landscape and tourism considerations in addition to the potential for shadow flicker and noise etc.

4.4.21 Michael Kelleher:

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation and the potential for contamination of the observer's water supply.

4.4.22 Denis Buckley & Others:

- In response to the implications of the ruling of the High Court in respect of *O'Grianna and Others v. An Bord Pleanala*, the Section 132 request issued by the Board with regard to the subject application has required the applicant to submit detailed proposals for connection of the proposed wind farm to the national grid. Accordingly, it would appear that the Board is of the opinion that it may not be able to complete an assessment of the submitted proposal in accordance with the EIA Directive in the absence of the aforementioned information. The Section 132 request also required consideration to be given by the applicant to the *'cumulative effects'* of the proposed wind farm and the proposed grid connection, in addition to some consideration of alternatives, whilst reference was further made to the requirement to submit a revised Habitats Directive screening and, if necessary, a revised Natura Impact Statement.

From a review of the Section 132 request, it would appear that the Board is of the view that it is within its powers to allow the applicant to address the defects that proved fatal to its previous decision in the *O'Grianna* case by proffering the invitation described above, however, it is submitted that the Board is mistaken in this regard and that its actions are *ultra vires*.

The EIA Directive requires a project of the type proposed to be assessed in an integrated manner prior to any decision being made on whether or not it should receive development consent.

After the enactment of the Planning and Development (Amendment) Act, 2010 and up until December, 2014, the Board approved the granting of planning permission for large scale wind farms despite not having information on the entire project. Now that the High Court has found that the Board acted unlawfully in those respects, it is submitted that the appropriate response of the Board would be to require applicants in cases before it currently to seek planning permission for those projects by applying to the relevant Local Authority, in ordinary cases, or to it directly in SID cases. That would be consistent with proper planning principles and would accord with the requirements of the Directive. However, in the subject case, the Board has instead chosen to give the applicant the opportunity to seek to 'mend its hand' by simply filing additional information on those environmental impacts that the project is likely to have along the grid connection route. In effect, the Board has consciously chosen not to require the grid connection route to be incorporated into the planning application and, therefore, it must follow that the Board is not entitled to assess the grid connection route in the planning context e.g. the Board would be unable to impose conditions with regard to the project insofar as those conditions would relate to the grid connection route.

Having regard to the implications of the *O'Grianna* judgement, it is submitted that the approach presently being employed by the Board in its determination of the subject appeal is legally flawed. The only lawful option open to the Board as regards the subject application is to refuse permission.

4.4.23 Michael Cotter & Others:

- Concerns regarding the health and safety implications of the proposed grid connection.

- The proposed development will result in significant disruption / disturbance to local residents / the surrounding area.

4.4.24 Eileen O'Sullivan:

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation.
- The noise and shadow flicker caused by wind turbines is distressing to animals / livestock and can contribute to instances of stampeding which poses a health and safety risk to those involved in agriculture etc.
- The disturbance of large quantities of peatland during the construction process could impact on downstream water quality due to the release of suspended solids and the associated siltation / sedimentation of watercourses which could detrimentally impact on flora and fauna, including aquatic species.
- There is a risk of peat slippage and flooding during the construction phase.
- The proposed development poses a risk to avifauna.
- The proposed works will have a detrimental impact on visual amenity and tourism in the area.

4.4.25 Padraig Corkery & Others:

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation and the potential for contamination of the observer's water supply.
- The construction of the proposed development will result in significant disruption / disturbance to local residents / the surrounding area.

4.4.26 Jerry Kelleher & Others:

- Concerns regarding the health and safety implications of the proposed grid connection.
- The construction of the proposed development will result in significant disruption / disturbance to local residents / the surrounding area.

4.4.27 Tirelton National School:

- Concerns regarding the health and safety implications of the proposed grid connection given its proximity to the school.

4.4.28 Michael O'Donovan:

- The proposed grid connection did not form part of the original planning application and its inclusion at this stage is an attempt to undermine the planning process and the interests of third parties.
- The subject proposal clearly involves project-splitting as the cumulative effects of the entire project have not been afforded due consideration through the normal planning process.
- No evidence / documentation has been submitted in respect of any previous agreement that may have been in place between the applicant and the ESB as regards a proposed grid connection in Dunmanway.
- The applicant has previously conceded that the 'permitted' substation at Barnadivane is not fit for purpose and thus the submitted proposal to connect to same gives rise to a considerable degree of uncertainty.
- No evidence has been provided to establish that the 'permitted' substation at Barnadivane does not comply with current Eirgrid standards.
- Significant works, including the removal of hedgerows, land reclamation, drainage improvements and the amalgamation of smaller fields, have been carried out on site since the lodgement of the initial planning application which could potentially have a detrimental impact on flora and fauns, with particular reference to bat species, whilst the alterations to the hydrological regime could also impact on downstream water quality.
- There has been no detailed study of the environmental impact of the proposed grid connection route despite its proximity to the Lough Allua SAC and the acknowledged botanical importance of the surrounding area given the presence of several notable plant species. Clearly, there is a need for a dedicated survey of flora and fauna along the proposed grid connection route.
- There would appear to be a clear contradiction between the proposals for the disposal of excess excavated material from the grid connection route etc. and the invasive species management plan in that the proposed movement of excess excavated material to the borrow pits within the site of the wind farm conflicts with the key principals of invasive species management. For example, there is a danger of introducing invasive species into the upper reaches of the water catchment and the montane and woodland habitats.
- No indication has been provided as to how long it will take to lay the proposed grid connection between the proposed Shehy More wind farm and the substation at Barnadivane.

- There has been an inadequate investigation of Red Grouse on site, particularly as there is an on-going Red Grouse conservation programme at Shehy More.
- Whilst it is understood that the applicant had previously indicated an intention to apply for a derogation licence in respect of any impacts on the Kerry Slug (an Annex IV protected species) or its habitat in order to facilitate the construction of the proposed development, it has since been stated that it is not necessary for the applicant to apply for any such licence, although there is no documentation on file to confirm same. Any decision to permit the destruction of the Kerry Slug or its habitat by the National Parks and Wildlife Service is beyond that organisation's remit as the order must be issued by the Minister. In this respect it is submitted that if the necessary licence is not obtained before an affirmative planning decision, then the Board may be exposed to challenge in the High Court by way of judicial review. Therefore, in the interests of clarity, and in order to avoid unnecessary litigation, the rationale and legality of the aforementioned decision must be established.
- The recently discovered Freshwater Pearl Mussel beds in the Ballaphedreen River is a very important colony and the NPWS is bound by EU law to implement a conservation plan, particularly as there is a forestry plantation in the catchment. Claims that the surrounding land is of low ecological value are not valid given the presence of an Annex IV species. Given the erosion of remaining freshwater pearl mussel beds elsewhere in the country through the continued sanctioning of wind farms, the Board should refuse permission for the subject proposal as there is no guarantee that any mitigation measures to be implemented will be entirely effective.
- There has been an inadequate investigation of fish species within both Loch Nambrackderg and those streams that drain the application site.
- The reliability of the bat surveys and the conclusions contained therein as regards the likely effects of the proposed development on bat species are considered to be questionable.
- Inadequate public consultation and the lack of site notices along the proposed grid connection route.
- There has been no proper environmental assessment of the proposed replacement forestry in Co. Roscommon.

4.4.29 Dromleigh National School & Others:

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation.

- Due to the underlying geological conditions / bedrock along the proposed grid connection route there are concerns that the cabling will be laid at a shallower depth than that detailed in the application documentation.
- The pipework for the school's wastewater treatment system has been laid beneath the public road between the national school and the post office.
- The construction of the proposed grid connection and the associated road closures will result in significant disruption / disturbance to both local residents and the functioning of the school whilst there are also concerns as regards the provision of access for emergency services during the course of any road closures / diversions.
- Interference with existing services along the proposed grid connection route during the construction phase.
- Future difficulties in carrying out land improvement works and in obtaining planning permission for the development of third party lands.
- Potential interference with land boundaries, fencing, drainage etc.
- Inadequate public consultation and the lack of site notices along the proposed grid connection route.
- Dromleigh National School recently received nationwide publicity for celebrating its 175th anniversary and as one of the oldest schools in the country there are concerns that the proposed grid connection will irreparably damage how the school is viewed by the parents of prospective pupils.

4.4.30 Caroline Giltinan & Others:

- The local community and any other interested parties have not been afforded sufficient time to research the potential impacts of the proposed grid connection for inclusion in an observation.
- The inclusion of the grid connection at this stage in the planning process is unacceptable and does not adhere to due process. Instead, a new planning application should have been lodged with the Planning Authority and a decision made on same in advance of any appeal to the Board.
- Inadequate public consultation and the lack of site notices along the proposed grid connection route.
- The subject proposal involves 'project-splitting' as the proposed grid connection should have been included in the original planning application for the development of the wind turbines.
- The proposed grid connection route is located along the public road and thus the subject proposal will allow a private business to profit from its usage of a public facility.

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation, and the need to investigate alternative routes / construction methodologies in order to minimise any such health risks.
- Current national policy as regards the development of wind energy is inadequate and fails to support the local community or protect the health of those parties living etc. in close proximity to wind turbines, grid connections or substations.
- Both local and national energy policy has significantly incentivised the development of wind energy to such an extent that it seriously impacts on the health of local communities. In this respect it should be noted that despite the increased height of new wind turbines, the recommended separation distance from residential properties has remained unchanged at 500m.
- It should be a requirement for the developers of wind turbines to undertake annual noise assessments (for a variety of wind speeds and directions) over the lifetime of a project in order to protect the local community from excessive noise levels.
- The development of wind turbines and related infrastructure will be detrimental to the local community in the long-term given the undesirability of living in close proximity to same and the likelihood that the local populace will encounter difficulties in the event they choose to sell their homes.
- The proposed grid connection will impede agricultural development such as the provision of cattle crossings and drainage works.
- Future difficulties in carrying out land improvement works and in obtaining planning permission for the development of third party lands.
- The land registry / folio details of Mr. James Cohalan indicate that his land ownership extends to the centreline of the public road and in this respect it is submitted that he has not given his consent for the proposed grid connection to pass through same.
- It would be preferable that the further development of wind energy be deferred pending the adoption of a new energy policy.
- The singular focus on wind energy in order to achieve national renewable energy targets is not considered to be the best model for either the taxpayer or for local communities. Other countries have sought to diversify their renewable energy policy by utilising different technologies on the basis that wind is not the most cost-effective or productive means of energy generation in terms of costs v. benefits.

4.4.31 John Galvin & Others:

- Concerns regarding the health and safety implications of the proposed grid connection given its proximity to the observer's property.
- Detrimental impact on the character and tranquillity of the surrounding rural area.

4.4.32 Peter Bosman & Others:

- Concerns regarding the health and safety implications of the proposed grid connection.
- The proposed development will give rise to noise and shadow flicker.
- Devaluation of property.

4.4.33 Patrick Manning:

- Concerns regarding the health and safety implications of the proposed grid connection.
- The proposed development will result in disruption of the observer's agricultural activities through interference with his water supply and electric fencing.
- The proposed development will have a detrimental impact on tourism and recreation in the surrounding area by reason of noise, shadow flicker and visual intrusiveness.

4.4.34 Tim Cotter & Others:

- Concerns regarding the health and safety implications of the proposed grid connection.
- The construction of the proposed development will result in significant disruption / disturbance to local residents / the surrounding area.

4.4.35 Stephen Murphy & Others:

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation.
- Due to the underlying geological conditions / bedrock along the proposed grid connection route there are concerns that the cabling will be laid at a shallower depth than that detailed in the application documentation.
- The construction of the proposed grid connection and the associated road closures will result in significant disruption / disturbance to local residents and will also hinder daily farming activities in addition to access for emergency services.
- Interference with existing services along the proposed grid connection route during the construction phase.

- Future difficulties in carrying out land improvement works and in obtaining planning permission for the development of third party lands.
- Devaluation of property.
- Potential interference with land boundaries, fencing, drainage etc.
- Inadequate public consultation and the lack of site notices along the proposed grid connection route.

4.4.36 Kitty Cotter & Others:

- The proposed wind turbines will have a detrimental visual impact on the amenity of the wider area.
- The noise emissions from wind turbines can result in sleep disturbance and can also impact on animals / livestock. In this respect particular reference is made to the sensitivity of horses to noise and the associated increased risk to handlers.
- The proposed development will give rise to 'shadow flicker' which will have an adverse impact on both humans and animals.
- Concerns regarding the health and safety implications of the proposed development.
- Devaluation of property.
- Future difficulties in obtaining planning permission for the development of third party lands.

4.4.37 Con Lehane:

- The proposed grid connection did not form part of the original planning application and its inclusion at this stage is an attempt to undermine the planning process and the interests of third parties.
- The submitted proposal will set a precedent for further development in the area.

4.4.38 Michael Bradley & Others:

- Concerns regarding the health and safety implications of the proposed grid connection, including the emission of electro-magnetic radiation.
- The proposed construction works along the public roadway will disrupt the observer's agricultural activities through interference with water services, electric fencing, drainage etc.
- The proposed development will contribute to the further deterioration of the road network in the area.
- The proposal will have a detrimental visual impact on a largely unspoilt landscape.

4.5 Other Parties:

4.5.1 An Taisce:

- Whilst the proposed development is not located within or close to a Natura 2000 site, it is located on an area of blanket bog, a habitat listed on Annex I of the EU Habitats Directive, and the proposed construction works could degrade, or even destroy, portions of this bogland. Any activity that alters the hydrology of the site could have a significant impact on this habitat. Therefore, in the event of a grant of permission, any conditions should include measures to minimise damage to the surrounding bog, including damage during the construction phase from heavy vehicles being driven over the bogs, as well as drainage.
- The surrounding area is known to support populations of bat species, including the Lesser Horseshoe Bat, a species listed on Annex II of the EU Habitats Directive. Wind turbines can be dangerous to bats, not only with regard to collisions, but also fatal barotrauma. Additionally, if the proposed development were to be approved, conditions should be included which will prohibit the use of lights at night as these inhibit the foraging ability of bats.
- The proposed development site is close to a Freshwater Pearl Mussel catchment (a species listed on Annex II of the EU Habitats Directive which is particularly sensitive to changes in water quality). There must be conditions attached to the project to ensure that sediment levels are monitored in the water and that any wastewater is disposed of appropriately. Furthermore, there have been previous incidents of similar operations causing damage to a nearby watercourse as a result of heavy vehicles being driven through the protective buffer zones around water. For example, once incident at Glaskeelan in 2011 resulted in serious damage to one of the top eight Freshwater Pearl Mussel catchments in Ireland. This is of particular concern as Freshwater Pearl Mussel are present near the subject application site. Therefore, measures must be put in place to ensure that watercourses are not impacted by the proposed construction activities.

5.0 RESPONSE OF THE APPLICANT TO THIRD PARTY SUBMISSIONS:

5.1 Response of the Applicant:

- The majority of the submissions lodged frequently refer to matters that have already been addressed in the application / appeal documentation and, therefore, in order to avoid unnecessary repetition and duplication,

the Board is referred to that documentation and the topics / responses contained therein.

- In relation to the concerns raised in the third party submissions as regards the possible health implications of the proposed grid connection, with particular reference to electro-magnetic fields, it should be noted that the proposed underground grid connection route will be via a 38kV cable which is not as high a voltage line as the large 110kV, 220kV & 400kV lines around which the majority of discussion on EMF is centred. Furthermore, the proposed grid connection will run entirely underground within the public road corridor.
- The provision of underground cabling such as that proposed does not give rise to specific health concerns and the development of same is common practice throughout Ireland. This is evidenced in the exempted development provisions of the Planning and Development Regulations, 2001, as amended, wherein a voltage limitation of 20kV is imposed on the provision of overhead lines to remain exempted development whereas no such voltage limitation has been placed on the exempted development provisions pertaining to underground electrical cables.
- The international scientific consensus is that there is no evidence to prove that EMFs can cause any harm.
- The consensus of current scientific studies is that research does not confirm any adverse health effects from EMF exposure. This opinion found support recently in the *'Overview of Scientific Assessments of Research on ELF EMF and Health, Epidemiologic Studies 2007-2015'* by Exponent. The Executive Summary of the findings of that report concludes as follows:

  'In 2015, the Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) issued its opinion report in which the Committee concluded that research published between 2009 and 2014 did not confirm any adverse health effects of EMF exposure. The conclusions of the 2015 SCENIHR review were consistent with the conclusions expressed in earlier reviews and with the conclusions of the DCMNR report and the Environmental Health Criteria report of the World Health Organisation. Overall, the SCENIHR report did not conclude that the evidence confirms the existence of any adverse health effects'.

- The proposed grid connection will be installed to Eirgrid / ESB Networks specifications and in line with all relevant health and safety requirements.

- The underground cable will comply with the relevant guidelines established by the International Commission on Non-Ionising Radiation Protection (ICNIRP) as updated in 2010 and the relevant EU guidance (Directive of the European Parliament and of the Council on the minimum health and safety requirements regarding the exposes of workers to the risks arising from physical agents (electromagnetic fields) 2013/35/EU).
- The electric and magnetic fields expected to be associated with the operation of the proposal fully comply with the ICNIRP and EU guidelines on exposure for the general public to ELF-EMF. Therefore, there will be no impact on properties (residential or other uses) as the ICNIRP guidelines will not be exceeded at any distance, even directly above the cables.
- With regard to the planning procedure undertaken in respect of the subject project, it is submitted that the applicant has at all times endeavoured to provide comprehensive details in relation to every aspect of the proposed development. In this regard the response to the Section 132 request includes a detailed submission as regards the proposed means of connecting the Shehy More wind farm to the national grid. The submitted EIS addendum is to be read in conjunction with the original EIS and has allowed third parties to focus on the cable route itself.
- In response to the suggestion that an inadequate number of site notices were erected and that the nature of the proposed development was unclear, it should be noted that 43 No. submissions were received from interested parties and that public notices were placed both on the site of the wind farm and at strategic locations along the grid connection route in order to maximise the consultation process. The significant further information was also advertised in 'The Southern Star' newspaper.
- In relation to the nature of the application process, it is acknowledged that the submitted updated cable route drawings have drawn a red line boundary around the proposed cable route. This has been done to highlight the location of the cable and to allow the Board to consider the overall project. The provision of the Section 132 response was also re-advertised in accordance with the requirements of the Board. It is fully acknowledged that the Board are considering this appeal on a *de novo* basis, however, this is framed within the content and scope of the application that was lodged with the Planning Authority and it is not intended to change the nature of the application at this stage. The Board will be the final arbiter on the application and will consider the proposed development on the basis of the full documentation that has been lodged. It is acknowledged that the Board must consider the cable route within its EIA and Habitats Directive Assessment.

6.0 DEVELOPMENT PLAN:

6.1 The Board is advised that since the compilation of the previous *'Inspector's Report',* the Cork County Development Plan, 2009 has been superseded by the *Cork County Development Plan, 2014* which was adopted by the elected members of Cork County Council on the 8th December, 2014 and came into effect on 15th January, 2015.

Cork County Development Plan, 2014:-

Chapter 9: Energy and Digital Economy:

Section 9.1: *Energy:*

- *ED 1-1*: Energy:
  Ensure that through sustainable development County Cork fulfils its optimum role in contributing to the diversity and security of energy supply and to harness the potential of the county to assist in meeting renewable energy targets

- *ED 1-2*: Future Development of the County's oil and gas reserves
  Ensure secure, reliable and safe supplies of electricity, gas and oil in order to maximize their value, maintain inward investment, support indigenous industry and create jobs.

Section 9.2: *Renewable Energy*

Section 9.3: *On-Shore Wind Energy:*

- *ED 3-1*: National Wind Energy Guidelines:
  Development of on-shore wind shall be designed and developed in line with the 'Planning Guidelines for Wind Farm Development 2006" issued by DoELG and any updates of these guidelines.

- *ED 3-2*: Wind Energy Projects:
  On-shore wind energy projects should focus on areas considered 'Acceptable in Principle' and Areas 'Open to Consideration' and generally avoid "Normally Discouraged" areas in this Plan.

- *ED 3-3:* Wind Energy Generation:
  Support a plan led approach to wind energy development in County Cork and identify areas for wind energy development. The aim in identifying these areas is to ensure that there are no significant

environmental constraints, which could be foreseen to arise in advance of the planning process.

- *ED 3-4:* Acceptable In Principle:
  Commercial wind energy development is normally encouraged in these areas subject to protection of residential amenity particularly in respect of noise, shadow flicker, visual impact and the requirements of the Habitats, Birds, Water Framework, Floods and EIA Directives.'

- *ED 3-5:* Open to Consideration:
  Commercial wind energy development is open to consideration in these areas where proposals can avoid adverse impacts on:

  - Residential amenity particularly in respect of noise, shadow flicker and visual impact;
  - Urban areas and Metropolitan/Town Green Belts;
  - Natura 2000 Sites (SPA and SAC), Natural Heritage Areas (NHA's) or adjoining areas affecting their integrity.
  - Architectural and archaeological heritage;
  - Visual quality of the landscape and the degree to which impacts are highly visible over wider areas.

- *ED 3-6:* Normally Discouraged:
  Commercial wind energy developments will be discouraged in these areas which are considered to be sensitive to adverse impacts associated with this form of development (either individually or in combination with other developments). Only in exceptional circumstances where it is clear that adverse impacts do not arise will proposals be considered.

- *ED 3-7:* Other Wind Energy Development:
  The Council will consider proposals where it can be shown that significant impacts on;

  - Residential amenity particularly in respect of noise, shadow flicker and visual impact;
  - Urban areas and Metropolitan/Town Green Belts;
  - Sites designated for nature conservation, protected species and habitats of conservation value;
  - Architectural and archaeological heritage and;

- Visual quality of the landscape and the degree to which impacts are highly visible over wider areas can be avoided.

Section 9.6: *Transmission Network:*

- *ED 6-1:* Electricity Network:
  Support and facilitate the sustainable development, upgrade and expansion of the electricity transmission grid, storage and distribution network infrastructure.

  Support the sustainable development of the grid including strategic energy corridors and distribution networks in the region to international standards.

  Facilitate where practical and feasible infrastructure connections to wind farms and other renewable energy sources subject to normal proper planning considerations.

  Proposals for development which would be likely to have a significant effect on nature conservation sites and/or habitats or species of high conservation value will only be approved if it can be ascertained, by means of an Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected.

- *ED 6-2:* Transmission Network:
  Proposals for new electricity transmission networks need to consider the feasibility of undergrounding or the use of alternative routes especially in landscape character areas that have been evaluated as being of high landscape sensitivity. This is to ensure that the provision of new transmission networks can be managed in terms of their physical and visual impact on both the natural and built environment and the conservation value of European sites.

  Proposals for development which would be likely to have a significant effect on nature conservation sites and/or habitats or species of high conservation value will only be approved if it can be ascertained, by means of an Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected.

Chapter 13: Green Infrastructure and Environment:

Section 13.5: *Landscape*

Section 13.6: *Landscape Character Assessment of County Cork*
Section 13.7: *Landscape Views and Prospects*

Skibbereen Electoral Area Local Area Plan, 2011, (2nd Ed. January, 2015):-
Section 1: *Introduction to the Skibbereen Electoral Area Local Area Plan*
Section 2: *Local Area Strategy*

7.0 FURTHER ASSESSMENT:

From my reading of the file, inspection of the site and assessment of the relevant local, regional and national policies, I conclude that the key issues raised by the additional information provided in response to the Section 132 Notice and the associated responses to same are:

- Procedural issues
- The principle of the proposed development
- Environmental impact assessment
- Appropriate assessment
- Other issues

These are assessed as follows:

7.1 Procedural issues

7.1.1 Concerns with regard to 'Project-Splitting':

7.1.1.1 At the outset, and for the purposes of clarification, I would advise the Board that the proposed development for which permission has been sought pursuant to the subject application is as set out in the plans and particulars previously lodged with the Board and considered in my earlier inspector's report. In this regard, I would stress that development consent has not been sought for the grid connection aspect of the overall project as part of the subject application, but rather that details of the proposals for the provision of a grid connection have been provided in order to permit a robust environmental impact assessment and the appropriate assessment of the cumulative impacts of both the subject proposal and the future grid connection.

7.1.1.2 It is of further relevance to note that I propose to assess the subject application in conjunction with ABP Ref. No. PL88.246915 on the basis of the inter-relationship between the respective development projects i.e. the proposed development of the Shehy More Wind Farm and the proposed connection of same to the national grid. In this respect I would advise the Board that whilst the

applicant has provided 'indicative' details of the proposed grid connection in response to the Section 132 Notice issued for the subject application and that it is necessary to give consideration to same in the determination of the subject appeal in order to ensure a robust assessment of the environmental impacts, including any cumulative impacts arising as a result of the overall project, it should be noted that the planning application presently under consideration pursuant to ABP Ref. No. PL88.246915 provides a greater level of detail as regards the 'final' proposed grid connection and thus could reasonably be considered to supersede the 'indicative' proposals in terms of its relevancy to the assessment of cumulative / in-combination impacts. Furthermore, whilst I would acknowledge that the additional information provided by the applicant in respect of the subject proposal details a grid connection which is essentially indicative, in my opinion, it is clear that the proposed Shehy More wind farm is reliant on the grid connection sought under ABP Ref. No. PL88.246915 and that neither of these respective developments is likely to proceed in isolation from the other. In effect, both the subject application and ABP Ref. No. PL88.246915 are inherently related to one another and could be further linked by way of condition in the event of a grant of permission for both developments. Accordingly, in the interests of conciseness and in order to avoid unnecessary repetition, I would advise the Board to take due cognisance of my concurrent assessment of ABP Ref. No. PL88.246915.

7.1.1.3 With regard to the concerns raised in the third party submissions that the subject application involves *'project-splitting'* on the basis that it amounts to the assessment of a proposed wind farm in isolation from the future provision of a grid connection and thus is in conflict with the findings of Mr Justice M. Peart in the judgement of the High Court in the case of *O'Grianna & Ors. v. An Bord Pleanala [2014] IEHC 632* as delivered on 12th December, 2014, it is necessary to consider a number of factors.

7.1.1.4 The term *'project-splitting'* can be used to describe a number of scenarios that may arise during the planning / development consent process. For example, it would be appropriate to use the term 'project-splitting' in reference to a scenario whereby a single larger development project has been purposely split into a series of smaller *'sub-threshold'* planning applications in order to avoid the mandatory preparation of an Environmental Impact Statement, however, this is not the case in the subject application. Instead, it is clear that in this instance the third party submissions are referring to the findings of the High Court in respect of *O'Grianna & Ors. v. An Bord Pleanala* wherein, *inter alia*, it was held that the connection of a wind farm to the national grid formed an integral part of the

overall development of which the construction of the turbines is the first part; and that the cumulative effects of the construction of the turbines and the connection to the national grid must be assessed in order to comply with the EIA Directive.

7.1.1.5 Whilst I would acknowledge the concerns raised as regards the allegation of 'project-splitting' and the assertion that the subject proposal conflicts with the judgement of the High Court in the case of *O'Grianna & Ors. v. An Bord Pleanala*, I am not of the opinion that such a scenario has arisen in this instance given the circumstances of the applications. In this regard I would advise the Board that the ruling in the case of *O'Grianna* effectively necessitates the consideration of all the cumulative impacts of all the integral parts of a particular development proposal in the decision-making process and that this can be achieved in the subject instance through consideration of the additional information received pursuant to the Section 132 Notice issued by the Board and ABP Ref. No. PL88.246915. In effect, I would suggest that by assessing both the subject application and ABP Ref. No. PL88.246915 in tandem, the Board can undertake a satisfactory environmental impact assessment of the cumulative effects of both the proposed wind farm and the grid connection as part of an informed singular and concurrent decision-making process (*N.B*. In this particular instance, there would seem to be little merit in requiring the re-submission of a single planning application for the overall development project given that the available information already provides for an adequate assessment of cumulative impacts). Furthermore, it should be noted that in the *O'Grianna case*, the High Court directed that the decision in question should be remitted to the Board for further consideration on the basis of fairness and justice given that the Board itself was of opinion that the situation could be reasonably expected to be remedied and that it would be in a position to carry out a new EIA in the light of the Court's judgment (*N.B.* The Court acknowledged that if the Board was not of the foregoing view then it would make no sense for it to seek such a remittal). Therefore, the Board has previously adopted a position whereby it is satisfied that an environmental impact assessment of the cumulative effects of a proposed development when taken in conjunction with other existing, permitted and planned developments can be undertaken in circumstances when sufficient details of the 'planned' development (i.e. the grid connection) have been provided, notwithstanding that the said 'planned' development does not form part of the application under consideration. The key consideration is the requirement to undertake a satisfactory assessment of the cumulative effects.

7.1.1.6 On the basis of the available information, and having considered the implications of the judgement of the High Court in respect of *O'Grianna & Ors. v.*

An Bord Pleanala, it is my opinion that the Board has sufficient information before it to undertake a comprehensive and robust environmental impact assessment (and appropriate assessment) of the subject proposal, including consideration of the cumulative effects associated with the construction of the proposed grid connection, and thus any concerns as regards 'project-splitting' have been addressed.

7.1.1.7 At this point, I would reiterate to the Board that the subject application should be determined in conjunction with ABP Ref. No. PL88.246915 on the basis of the inter-relationship between the respective development projects i.e. the proposed development of the Shehy More Wind Farm and the associated connection to the national grid. In addition, consideration should also be given to the parallel assessment of the foregoing applications with PA Ref. No. 14557 / ABP Ref. No. PL04.244439 as it is my understanding that the decision issued in respect of same was the subject of judicial review proceedings [2016 614 HR] and that the Board subsequently consented before Mr. Justice Seamus Noonan of the High Court on 1st November, 2016 to orders quashing its decision and remitting the appeal for reconsideration.

7.1.2 The Validity of the Planning Application:

7.1.2.1 With regard to the suggestion that the subject application should be invalidated on the basis that the initial proposal as lodged with the Planning Authority failed to provide for any consideration of the necessary grid connection in the accompanying Environmental Impact Statement, it is my opinion that applicant's response to the Section 132 Notice issued by the Board serves to satisfactorily address any such concerns. Furthermore, the approach taken by the Board in this instance corresponds with that applied for PA Ref. No. 12/5270 / ABP Ref. No. PL04.245082 in response to the O'Grianna judgement.

7.1.3 The Adequacy of the Public Consultation / Participation Procedures

7.1.3.1 In relation to complaints as regards the extent / adequacy of the public consultation process undertaken by the applicant prior to the lodgement of the subject application, I would suggest that such matters are beyond the remit of the Board given that they are not expressly provided for under existing legislative provisions. Indeed, whilst the '*Wind Energy Development, Guidelines for Planning Authorities'* advocate the merits of public consultation with regard to the development of wind energy and actually recommend that the developers of wind energy projects should engage in active consultation and dialogue with the local community at an early stage in the planning process, ideally prior to the submission of a planning application, this is not a mandatory requirement.

Instead, it must be accepted that the submission of the subject application and the applicant's response to the Section 132 Notice issued by the Board accorded with the regulatory provisions of the Planning and Development Regulations, 2001, as amended, included those requirements pertaining to statutory public notification, and that any interested parties were entailed to lodge submissions / observations on the application / appeal within the appropriate period and subject to the payment of the prescribed fee.

7.2 The Principle of the Proposed Development:

7.2.1 The provisions of the Cork County Development Plan, 2014 are generally in favour of the development of renewable energy, including wind energy, and acknowledge the economic and environmental benefits which can be derived from same. In this regard particular consideration should be given to the potential for the development of wind energy to aid in the achievement of Ireland's international, European and national commitments as regards the reduction of greenhouse gas emissions and the provision of energy from renewable sources. Accordingly, the Development Plan advocates a plan-led approach with regard to the development of on-shore wind energy in accordance with the recommendations of the *'Wind Energy Development, Guidelines for Planning Authorities'* and includes a Wind Energy Strategy Map (Figure 9.3) which (having taken account of a number of key policy considerations including the pattern of population distribution, the location of all existing and proposed wind energy developments and their cumulative impacts, the availability of access to the electricity distribution grid, the implications of any important or high value landscapes, the location of nature conservation sites (including Natura 2000 sites), and the provisions of the Sustainable Energy Ireland (SEI) Wind Atlas, 2003) has identified, in broad strategic terms, three categories of *'Wind Deployment Area'* for large scale commercial wind energy developments i.e. *'Acceptable in Principle'*, *'Open to Consideration'*; and *'Normally Discouraged'*.

7.2.2 Having reviewed the Wind Energy Strategy Map as set out in the Cork County Development Plan, 2014, it can be confirmed that the entirely of the proposed development site (i.e. that area identified for the proposed construction of the wind turbines etc.) is located entirely within an area which has been identified as *'Open for Consideration'* for the development of large-scale commercial wind energy schemes. Furthermore, with regard to the identified grid connection route, which is specifically intended to connect the proposed Shehy More Wind Farm to the National Grid via either the permitted substation at Garranareagh (PA. Ref. No. 11/6605 / ABP Ref. No. PL04.219620) or the 'proposed' substation at Barnadivane (Kneeves) (PA Ref. No. 14/557 / ABP Ref.

No. PL04.244439), it is of relevance to have regard to the fact that the more centrally located and westernmost extents of the indicative grid connection route are situated within areas which have been identified as *'Open to Consideration'* in the Wind Energy Strategy Map contained in the Development Plan whilst the easternmost extent of the cable route (which generally corresponds with that section to the southeast of the village of Teerelton) is in an area where large scale commercial wind energy developments are deemed to be *'Acceptable in Principle'*. Therefore, on the basis of the foregoing, and having regard to the planning history of both the application site and the wider area where a considerable number of wind energy-related developments have been approved by either the Planning Authority or An Bord Pleanala, it is my opinion that the development of the wind farm and grid connection at the locations shown are certainly *'Open to Consideration'* and thus I propose to assess the subject proposal from first principles in order to establish its wider environmental impact and to determine whether or not the application site is an acceptable location for same.

7.2.3 In terms of the wider debate as regards the overall merits of developing wind energy from both an economic and environmental perspective, in my opinion, it is not within the remit of the Board to undertake an in-depth analysis of such matters which pertain to the formulation of national, European and international policies and programmes, including the National Renewable Energy Action Plan. Instead, I would suggest that it is a function of the Board to ensure that physical development and major infrastructure projects in Ireland respect the principles of sustainable development, including the protection of the environment, in line with adopted policy programmes. In effect, it is presently Government policy to pursue the development of wind energy and therefore it is entirely appropriate to assess the subject proposal in this context.

7.3 Environmental Impact Assessment:

7.3.1 With regard to the *'Addendum to the Environmental Impact Statement'* submitted by the applicant in response to the Section 132 Notice issued by the Board, it should be noted at the outset that the principle purpose of this documentation (and the additional supplementary information) is to provide the Board with sufficient information to enable it to complete an 'Environmental Impact Assessment' of the overall development proposal, including the grid connection, with particular reference to the consideration of cumulative impacts. In this respect, and in the interests of clarity, I would advise the Board that development consent has not been sought for the grid connection as part of the subject proposal, but rather the details provided are intended to ensure that the

impacts of such a connection are considered by the Board for the purposes of EIA and AA. Accordingly, I propose to focus my assessment of the submitted additional information on those aspects of the 'proposed' grid connection which could be likely to give rise to cumulative / in-combination impacts when taken in conjunction with the proposed development of the Shehy More Wind Farm (i.e. the development for which permission has been sought as part of the subject application) and any other development projects. In this regard I would request the Board to take cognisance of the contents of my earlier inspector's report on the proposed development, which remain relevant in the context of this assessment in order to avoid unnecessary repetition, and also to consider my parallel assessment of ABP Ref. No. PL88.246915 which concerns a planning application for the construction of a 38kV underground electricity cable which is intended to connect the proposed Shehy More Wind Farm to the National Grid via either the permitted substation at Garranareagh (PA. Ref. No. 11/6605 / ABP Ref. No. PL04.219620) or the 'proposed' substation at Barnadivane (Kneeves) (PA Ref. No. 14/557 / ABP Ref. No. PL04.244439). At this point it should also be noted that ABP Ref. No. PL88.246915 provides for a greater level of detail as regards the 'final' proposed grid connection and thus could reasonably be considered to supersede the 'indicative' proposals provided as part of the subject application in terms of relevancy to the assessment of cumulative / in-combination impacts. Therefore, I would suggest that in the interest of conciseness, particularly as part of a parallel assessment of the aforementioned applications, the Board should have regard to the contents of the inspector's report prepared in respect of ABP Ref. No. PL88.246915.

7.3.2 It is of further relevance to note that the *'Addendum to the Environmental Impact Statement'* (and the additional supplementary documentation) also includes consideration of the *'temporary junction accommodation works'* which will likely be required along the 2 No. turbine delivery route options in addition to the proposal to provide new re-planting lands / off-site afforestation at Tully, Co. Roscommon, in order to enable the Board to complete an Environmental Impact Assessment of the wider development proposal taking cognisance of these aspects, with particular reference to the consideration of cumulative impacts.

7.3.3 Outline of Process:

In accordance with the requirements of Article 3 of the European Directive 85/337/EEC, as amended by Council Directives 97/11/EC and 2003/35/EC and Section 171A of the Planning & Development Acts, 2000-2015, this process requires the Board, as the competent authority, to identify, describe and assess in an appropriate manner, in light of each individual case and in accordance with

Articles 4 to 11 of the Environmental Impact Assessment Directive, the direct and indirect effects of the proposed development on the four indents listed in Article 3 of that Directive as set out below:

a) human beings, flora and fauna,
b) soil, water, air, climate and the landscape,
c) material assets and the cultural heritage, and
d) the interaction between the factors mentioned in paragraphs (a), (b) and (c).

This assessment also requires consideration to be given to, where relevant, the indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the proposal, including those which arise during the construction phase, which are essentially short-term and temporary, as distinct from the likely long-term effects arising from the operational phase.

The Environmental Impact Statement which accompanied the original planning application generally follows a grouped format structure with each environmental topic presented in a separate chapter. It includes a generally satisfactory description of the receiving environment, the proposed development, its impacts and proposed mitigation measures, and has been accompanied by a non-technical summary. The *'Addendum to the Environmental Impact Statement'* follows a similar format and includes indicative details of the proposed grid connection including a description of the receiving environment / study area, the route of the proposed cabling, the likely construction methodology to be employed, and the likely impacts associated with the grid connection in addition to the proposed mitigation measures. Similarly, the document considers the 'temporary junction accommodation works' required along the turbine delivery route options and the proposed re-planting lands / off-site afforestation at Tully, Co. Roscommon.

The combination of these documents as a singular Environmental Impact Statement can be described as 'satisfactory' in that it accords with the requirements of Schedule 6 of the Planning and Development Regulations, 2001, as amended, and is sufficient to comply with Section 172 of the Planning and Development Act, 2000, as amended, and Article 94 of the Regulations.

In general, this part of my assessment of the subject application is informed by the contents and conclusions of the EIS, including the addendum to same, and

also by information provided during the various stages of the application / appeal process in relation to the likely effects of the development on the environment and its likely consequences for the proper planning and sustainable development of the area in which it is proposed to be situated. My assessment also has regard to potential mitigation measures, including those indicated in the EIS, and any others which might reasonably be incorporated into any decision to approve the development through the attachment of conditions.

7.3.4 Consideration of Alternatives:

Schedule 6 of the Planning and Development Regulations, 2001, as amended, requires an EIS to include *'An outline of the main alternatives studied by the developer and an indication of the main reasons for his or her choice, taking into account the effects on the environment'.* In this respect I would refer the Board to Section 3.6.1 of the *'Addendum to the EIS'* which states that the applicant has considered various alternative grid connection routes and construction methodologies with a view to complying with the foregoing requirement.

More specifically, Section 3.6.1.1 of the document submits that any alternative grid connection route may be longer than that presently proposed and could involve crossing open fields / forestry thereby giving rise to the potential for greater impacts. In this regard I would refer the Board to ABP Ref. No. PL88.246915 wherein it has been asserted that the same grid connection route represents the shortest and most accessible pathway between the proposed Shehy More Wind Farm and the Barnadivane substation using the public road corridor and that although there are alternative routes available along the public road network, these would be of a longer distance and thus have an increased potential to give rise to environmental impacts from the associated ground disturbance. Furthermore, I would accept that whilst an alternative and more direct route would be theoretically possible 'cross-country', any such route would involve crossing open fields / forestry (i.e. not availing of the established public road corridor and through lands not within the control of the applicant) and would therefore also have the potential for greater environmental impacts to arise.

In terms of alternative construction methodologies, the *'Addendum to the EIS'* has referenced the possible use of a network of overhead transmission lines as an alternative connecting technology to the national grid (other than the proposed underground grid connection), however, it was concluded that such an arrangement would not be optimal as it could give rise to additional landscape and visual impacts that would otherwise be mitigated through the provision of an underground connection. I would also advise the Board to consider the

alternative construction methodologies that may be employed for watercourse crossings along the proposed underground cable route.

With regard to the proposed delivery routes and the temporary junction accommodation works planned along same, it is noteworthy that 2 No. route options have been detailed in the submitted documentation and that both are considered to present viable and direct access to the proposed wind farm site. It has also been submitted that the junction improvements outlined are considered to represent the minimum necessary interventions based on the standardised delivery techniques currently in use in Ireland and that any alternative routes would require more significant works. In this regard the submitted details can be held to represent a 'worst-case' scenario in terms of the level of junction accommodation works that would be required to facilitate abnormal load access to the site and that the impact could potentially be mitigated to some extent through the use of improved delivery systems that are currently available elsewhere on the continent (e.g. the use of a blade adapter based delivery system).

In relation to the proposed forestry replanting, in the event this is not undertaken on the identified lands in Tully, Co. Roscommon, it has been submitted that the required replanting will be carried out at a similar alternative site elsewhere in the State in line with the published policy of the Forestry Service on the granting of felling licences for wind farm developments whereby those areas cleared of forestry for turbine bases, access roads, etc. have to be replaced by replanting either within the area felled under licence or at an alternative location.

Having considered the location, nature and context of the proposed junction accommodation works, it is my opinion that they will not give rise to any significant impacts when taken in conjunction with the proposed grid connection works and the remaining aspects of the proposed Shehy More wind farm or those other wind energy-related projects planned in the wider area.

At this point it is of relevance to note that the *'Guidelines on the information to be contained in Environmental Impact Statements'* published by the Environmental Protection Agency in March, 2002 acknowledge the existence of difficulties and limitations when considering alternatives in the context of Environmental Impact Assessment. In this respect it should be noted that whilst EIA is confined to the assessment of the environmental effects which influence the consideration of alternatives, it is important to acknowledge that other non-environmental factors may have equal or overriding importance to the developer such as project

economics, land availability, engineering feasibility and planning considerations. Similarly, the consideration of alternatives also needs to be set within the parameters of the availability of land or the need for the project to accommodate demands or opportunities which are site specific.

Having regard to the foregoing, and following a review of the available information, including the consideration of alternative grid connection proposals as set out in the submitted 'Addendum to the EIS', in my opinion, the investigation of alternatives complies with the requirements of the Regulations insofar as the applicant has provided a satisfactory examination of the main alternatives studied with regard to the project in addition to a reasoned explanation for the consideration of the submitted proposal.

7.3.5 Human Beings:

7.3.5.1 In terms of assessing the potential impact of the wider development project on human beings I would refer the Board to Chapter 4 of the *'Addendum to the EIS'* which focuses attention on employment potential, health and safety, land-use, tourism, noise, dust and traffic. Regard should be also had to the detailed assessment of the potential impacts of the proposed grid connection as set out in my assessment of ABP Ref. No. PL88.246915.

7.3.5.2 Employment Potential:

7.3.5.2.1 In terms of employment, it is anticipated that during the construction phase of the overall project there will be a short-term beneficial impact on the area as the majority of workers and materials will be sourced locally thereby sustaining employment in the relevant sectors. This injection of capital in the form of salaries and wages is also likely to comprise a short-term positive impact as regards supporting local business and contributing to household incomes.

7.3.5.3 Health and Safety:

7.3.5.3.1 Particular concerns have been raised in the grounds of appeal as regards the potential health implications associated with the emission of electro-magnetic radiation from the proposed grid connection, however, it is my understanding that the low frequency (ELF) electric and magnetic (EMF) fields expected to be associated with the operation of the proposed cable connection will be required to fully comply with the international guidelines set by the International Commission on Non-Ionising Radiation Protection (ICNIRP), as well as EU guidelines for human exposure to EMF. In this regard I would further advise the Board that exposure to electromagnetic fields (EMF) is commonplace and that it is my understanding that the magnetic field associated with the grid

connection will be mitigated due to the undergrounding of same with the EMF decreasing rapidly with distance as the ground absorbs it.

7.3.5.3.2 Whilst I would acknowledge the appellants' concerns given the proximity of the proposed grid connection to nearby housing and local schools etc., I am not in a position to undertake an extensive in-depth analysis of the wider debate as regards the alleged impact of electric and magnetic (EMF) fields on human health nor do I consider it to be within the remit of the Board to undertake such an exercise. In addition, I would draw the Board's attention to the *'Proposed Revisions to the Wind Energy Development, Guidelines for Planning Authorities: Targeted Review in relation to Noise, Proximity and Shadow Flicker'* published by the Department of the Environment, Community and Local Government in December, 2013 and, in particular, to the introduction to same which expressly states that *'Concerns of possible health impacts in respect of wind energy infrastructure are not matters which fall within the remit of these guidelines as they are more appropriately dealt with by health professionals'*. This would seem to suggest that matters pertaining to the alleged impact of wind energy infrastructure, including grid connections, on human health are outside of the remit of the planning system. Accordingly, it is my opinion that the Board is restricted to considering the subject proposal in the context of the applicable current guidance and in this respect any grid connection will be required to comply with the international guidelines set by the International Commission on Non-Ionising Radiation Protection (ICNIRP), as well as EU guidelines for human exposure to EMF. Therefore, in my opinion, it would not be reasonable to refuse permission on public health grounds in this instance.

7.3.5.3.3 With regard to the construction, maintenance and any future decommissioning / dismantling of the grid connection or the temporary junction accommodation works, any associated potential health and safety impacts can be satisfactorily mitigated through adherence to all relevant health and safety requirements.

7.3.5.4 Land Use:

7.3.5.4.1 The indicative grid connection route extends in an easterly direction across a total of 26 No. townlands and generally follows the corridor of various minor public roadways, although it will also extend along a short section of the R587 Regional Road within the village of Kilmichael. The overall level of residential development within the immediate site surrounds is generally low and characteristic of this upland rural location in that its primarily comprises one-off rural housing developed along the roadside, with the exception of smaller

concentrations of housing within the villages of Kilmichael and Teerelton. The current land uses on site are transportation and commercial forestry as the proposed works will be restricted to existing road infrastructure and forestry tracks, although lands adjacent to the route and within the wider area are generally used for agricultural and forestry purposes with intermittent instances and localised concentrations of individual farmsteads and one-off rural housing in addition to the presence of local schools and some commercial services (e.g. post office, public house etc.) within the villages of Kilmichael and Teerelton.

7.3.5.4.2 Whilst I would acknowledge that the construction phase of the overall development project will result in a localised and temporary increase in activity in the wider area, this will not have any significant impact in terms of the composition of the local population or on settlement patterns. Furthermore, given the nature of the proposed grid connection works, with particular reference to the reinstatement and resurfacing of the carriageway, the existing land use of the transport / road corridor will likely continue both upon completion of that element of the overall development and also to some extent during the wider construction works, although admittedly with some degree of temporary disruption arising from possible road closures, diversions and other traffic management measures. In this respect I am inclined to suggest that the level of disruption expected to be generated during the construction stage in terms of access for local residents etc. will be both limited in extent and duration given the nature of the works proposed. More specifically, I would accept that the limiting of individual active construction areas to an approximately 100m-150m stretch of roadway at any one time will serve to limit the temporary impact at any one location thereby reducing the potential for on-going or longer-term disturbance and / or disruption at specific locations e.g. individual dwelling houses (*N.B*. In the interests of completeness, the Board is advised that ABP Ref. No. PL88.246915 states that individual active construction areas will be limited to an approximately 300m stretch of roadway at any one time, with a separation of two to three kilometres to be maintained between any such areas in instances where multiple crews are installing ducting along the route, and that the grid connection works will be undertaken at a rate of c. 150m of cable being laid daily over the course of a 12-month period of construction. Whilst I would accept that these details do not directly coincide with those set in the subject application, I am nevertheless satisfied that they will not give rise to any undue impact).

7.3.5.5 Tourism:

7.3.5.5.1 From a tourism perspective, the study area is located within the South-West Region and it is notable that in terms of visitor numbers and revenue, this

region places second highest after the Dublin Region whilst I would also advise the Board that Section 8.2: *'Protection of Tourist Assets'* of the Development Plan identifies both the Lee River Valley (with its important recreational amenity and fisheries areas) and the Shehy Mountains (an important centre for walking, cycling, and adventure related activities) as *'nationally significant tourism assets'*. In this regard it is clear that the wider area is known as an important centre for walking and cycling activities etc. In addition to the foregoing, it is notable that there are two Scenic Routes along the indicative grid connection route (i.e. Scenic Route Nos. S32 & S36), although it is not located within a 'High Value' landscape as identified in the Development Plan.

7.3.5.5.2 Having considered the available information, it is my opinion that the operational impact of the proposed grid connection works on tourism considerations will be negligible given the underground nature of the works and the proposed road reinstatement measures, however, it is clear that the construction phase and the associated disruption arising from the necessary traffic restrictions will have a short-term negative impact on local tourism and amenity. The extent of this constructional impact can be mitigated in part through the implementation of a suitable traffic management plan which will provide for local access with appropriate diversions and alternative routes where necessary, and whilst I would accept that the works in question will inevitably give rise to a slight negative impact, this will be of a short-term duration, particularly as the impact at any one location will be limited due to the continued completion of individual sections of the grid connection thereby reducing the potential for on-going or longer-term disturbance and / or disruption at specific locations.

7.3.5.5.3 Similarly, it is my opinion that the operational impact of the proposed junction accommodation works on tourism considerations will be negligible given the limited scale and extent of same whilst the short-term negative impact likely to arise during the construction stage can be satisfactorily mitigated.

7.3.5.6 Shadow Flicker:

7.3.5.6.1 In relation to concerns with regard to the potential for shadow flicker, I would refer the Board to the assessment of same as set out in my previous inspector's report. Furthermore, given that shadow flicker is only associated with the proposed wind turbines, it is clear that the proposed grid connection and junction accommodation works will have no impact as regards same.

7.3.5.7 Noise, Dust & Traffic:

7.3.5.7.1 In the interests of conciseness, and in order to avoid unnecessary repetition, I would refer the Board to my assessment of these potential impacts as detailed elsewhere in this report.

7.3.5.8 Construction, Operational & Decommissioning Impacts:

7.3.5.8.1 It is evident from the available information, and the foregoing assessment, that the principle impact of the development project on human beings will arise during the constructional phase as a direct result of the inevitable disruption / disturbance associated with such works. However, the very nature of construction works is inherently temporary and of limited duration thereby reducing the significance of the impact whilst the implementation of suitable mitigation measures through adherence to a Construction and Environmental Management Plan and best work practice will further serve to ameliorate any potential impacts. Therefore, on balance, it is my opinion that the short-term negative impact of the construction works on the human environment by reason of noise, dust, traffic and general disturbance etc. does not warrant a refusal of permission.

7.3.5.8.2 With regard to the operational phase of the grid connection and junction accommodation works, I would concur with the applicant that no potential impacts on human beings will arise at this stage given that the grid connection will be sited underground with the route corridor of same having been reinstated whilst the junction accommodation works will have been completed in their entirety at this stage.

7.3.5.8.3 In terms of future decommissioning, the likelihood is that the proposed grid connection will become a permanent part of the electricity transmission network, however, in the event of any future need for decommissioning, this will only involve the removal of the cables which can be carried out via the joint bays with minimal excavation required to expose the joint bays and the cables subsequently being pulled from the ducts using cable pulling equipment. This is a relatively simple operation and any impacts arising during same such as traffic restrictions would be short-lived and negligible.

7.3.5.8.4 The proposed junction accommodation works will entail the excavation of overburden within the affected area until a competent stratum is reached which will subsequently be overlain with granular fill and finished in a final surface running layer. Upon completion of the turbine delivery phase it is envisaged that the granular fill and final surface running layers will be left *in situ*

which will allow for these areas to be used again in the future should it be necessary (e.g. at decommissioning stage for turbine removal or in the unlikely event of having to swap out a blade component during the operational phase), although they will be permitted to revegetate naturally whilst any boundary walls or hedgerows that were removed will be reinstated by creating earthen stone berms.

7.3.5.8.5 Having considered the location, nature and context of the proposed junction accommodation works, it is my opinion that they will not give rise to any significant impacts when taken in conjunction with the proposed grid connection works and the remaining aspects of the proposed Shehy More wind farm or those other wind energy-related projects planned in the wider area.

7.3.5.9 Cumulative Impacts with Other Projects:

7.3.5.9.1 In terms of the potential for cumulative impacts on human beings between the subject proposal and the other developments, I have had particular regard to the following projects:

- The proposed Shehy More wind farm grid connection – PA Ref. No. 16/256 / ABP Ref. No. PL88.246915 (i.e. the planning application to develop the grid connection indicatively detailed in the subject proposal).
- The permitted Barnadivane Wind Farm – PA Ref. Nos. 055907 (ABP Ref. No. PL04.219620) & 11/06605
- The permitted Barnadivane Wind Farm - PA Ref. No. 14/6760
- The permitted Barnadivane Substation – PA Ref. No. 14/557
- The proposed Carrigarierk Wind Farm – PA Ref. No. 15/730 / ABP Ref. No. PL04.246353
- The permitted Barnadivane access road – PA Ref. No. 14/6803

7.3.5.9.2 Having considered the available information, it is my opinion that the proposed development is unlikely to result in any significant cumulative impacts when taken in conjunction with other projects in the wider area. Whilst I would concede that there is the potential for some cumulative impacts to arise during the construction phase of the proposed development in the event it were to proceed in tandem with the construction of one or more of those other wind energy-related projects in the area, most notably in the form of disruption / disturbance related to the imposition of traffic restrictions and the generation of noise and dust emissions during the construction works, due to the limited extent and duration of the subject works, including the gradual progression of the grid

connection along the route corridor, in addition to the implementation of suitable mitigation through the use of best practice construction management measures, I am inclined to conclude that any such cumulative impact would be of limited significance and would not warrant a refusal of permission.

(*N.B.* Although there are other developments proposed within the wider area, the nature and proximity of the projects is a key factor in assessing the potential for cumulative impacts, particularly as the separation distance from other projects serves to reduce / mitigate the potential for any in-combination impacts).

7.3.6 Flora and Fauna:

7.3.6.1 In the first instance, and in order to avoid unnecessary repetition, I would advise the Board that the study area is not subject to any European designation and that my assessment of the impact of the development project on the qualifying interests of Natura 2000 sites in the surrounding area pursuant to Article 6 of the Habitats Directive, is set out elsewhere in this report (and my last report) under the section entitled *'Appropriate Assessment'*. Accordingly, I propose to focus the following aspect of my assessment on the broader environmental impact of the proposed development on the remaining ecological considerations (i.e. including those aspects of flora and fauna which are not subject to a requirement for 'appropriate assessment').

7.3.6.2 Chapter 5 (*'Flora & Fauna'*) of the EIS Addendum is based on a desk-top assessment of the available resources and field surveys. In this respect it is of particular relevance to note the lack of habitat diversity at the locations of the various junction accommodation works and the fact that the entire grid connection route, save for a small section that runs through private lands (i.e. the forestry / access tracks within the site of the proposed wind farm), is within the curtilage of the existing public road network.

7.3.6.3 Habitats:

7.3.6.3.1 Habitats along the cable route have been identified in accordance with the *'Guide to Habitats in Ireland (Fossitt, 2000)'*. Accordingly, all roads and tracks within / adjacent to the cable route have been classified as *'Buildings and Artificial Surfaces (BL3) / Spoil and Bare Ground (ED2)'* whilst it has been established that the verge areas bordering same predominantly support *'Dry Meadows and Grassy Verges'*. Also present along much of the road, outside of the proposed working area, are *'Hedgerows (WL1)*', *'Treelines (WL2)'*, *'Earth Banks (BL2)'*, *'Scrub (WS1)'*, *'Stone Walls (BL1)'* and some buildings *'(BL3)'*, although these habitats are unlikely to be disturbed during the proposed works.

The proposed route extends in an easterly direction from an upland area where the dominant roadside habitats include upland pasture classified as *'Wet Grassland (GS4) / Acid Grassland (GS3)'*, *'Exposed Siliceous Rock (ER1)'*, *'Dry Siliceous Heath (HH1)'*, *'Degraded Wet Heath (HH3)'*, patches of *'Scrub (WS1)'* and *'Conifer Plantations (WD4)'*. Upon continuing eastwards the adjacent habitats become increasingly dominated by *'Improved Agricultural Grassland (GA1)'* whilst the roadside verge also becomes less species-rich. Additional habitats adjacent to the roadside include *'Mixed Broadleaved Woodland (WD1)'*, *'Mixed Broadleaved / Conifer Woodland'* and *'Oak Birch Holly Woodland (WN1)'* and *'Degraded Heath (HH)'.*

7.3.6.3.2 In addition to the foregoing, the Board is advised that a number of rare or unusual plant species have previously been recorded within the relevant hectads in which the grid connection route is situated (W16, W26 & W36), as were a number of species listed within the Irish Red Data Book (please refer to ABP Ref. No. PL88.246915).

7.3.6.3.3 The proposed grid connection route will also necessitate a total of 41 No. watercourse / culvert crossings which will employ either of the following methodologies: Piped culvert crossings, flatbed formation over culverts or at road level, or directional drilling. No in-stream works are required at any of the watercourse crossings.

7.3.6.3.4 In relation to the proposed junction accommodation works, the affected lands are dominated by the following habitat classifications which are of limited ecological significance:

- *Dry meadows and Grassy Verge (GS2)*
- *Scrub (WS1)*
- *Hedgerow (WL1)*
- *Improved Agricultural Grassland (GA1)*

7.3.6.3.5 With regard to the significance of the foregoing, it is of relevance to note that none of the habitats recorded within the study area correspond to habitats listed within Annex I of the EU Habitats Directive, although it is acknowledged that some habitats with links to Annex I habitats *'Wet Heath (4010)'* and *'Dry Heath (4030)'* were recorded adjacent to the proposed grid connection route towards the western extremity of same. In addition, the riverine habitats recorded at Watercourse Crossings Nos. 27 & 29 have links *to 'Floating River Vegetation (3260)'* whilst the fragments of oak woodland encountered adjacent to the route

may also have links *to 'Old Sessile oak woodland with Ilex and Blechnum in the British Isles (91A0)'.*

7.3.6.3.6 Whilst the installation of the grid connection and the completion of the junction accommodation works will inevitably result in the loss of some roadside habitats / vegetation primarily consisting of grassy verges due to the excavation works etc., these habitats are not of any particular ecological significance given that they are commonplace and of limited value from a biodiversity perspective. It is also worth considering the likelihood that a considerable amount of the works will take place along the roadway itself and thus will simply involve the excavation and reinstatement of existing artificial surfaces. In relation to the potential impact of the proposed watercourse crossings along the grid connection route, although the watercourses themselves are of ecological significance as they could act as a conduit for pollution of downstream habitats of ecological sensitivity, no in-stream works are proposed at any crossing point and best practice construction measures will serve to obviate the risk of any potential pollution / contamination incidents. Therefore, it is my opinion that the proposed development will not have any significant impact on habitats.

7.3.6.4 Natural Heritage Areas:

7.3.6.4.1 Neither the grid connection route nor the junction accommodation works traverse any Natural Heritage Area (proposed or otherwise) and thus will not directly impact on the integrity of same. Furthermore, whilst the proposed grid connection route will necessitate the crossing of various streams and drainage channels which drain towards the Lough Allua proposed Natural Heritage Area (at a distance of 0.5km downstream), it is reiterated that no in-stream works are proposed at any crossing and that the implementation of suitable mitigation measures during the construction phase will prevent any potential contamination incidents thereby avoiding any deterioration in water quality within the pNHA.

7.3.6.5 European Sites:

7.3.6.5.1 It has already been stated that my assessment of the impact of the subject works on the qualifying interests of Natura 2000 sites in the surrounding area pursuant to Article 6 of the Habitats Directive, is set out elsewhere in this report under the section entitled *'Appropriate Assessment'*.

7.3.6.6 Fauna:

7.3.6.6.1 In terms of avifauna, it should be noted at the outset that the proposed grid connection route does not pass through any Special Protection Area designated pursuant to the provisions of the EU Birds Directive. Furthermore,

whilst a variety of bird species were observed during the course of field surveys, none of these are listed on Annex I of the Birds Directive, although it is accepted that larger watercourses within the study area could potentially provide for such species e.g. the Kingfisher. The EIS Addendum also acknowledges that overwintering species are likely to occur in the wider landscape, but proceeds to state that these are unlikely to be impacted on given the limited extent and temporary nature of the proposed works. Notably, a detailed bird survey was not conducted as part of the submitted ecological assessment, seemingly on the basis of the nature of the proposed works and the site context, however, it has been submitted that the species assemblage recorded during the site visit would be typical of the survey effort and habitats present within the study area whilst a greater variety of species is likely to occur within the wider landscape.

7.3.6.6.2 Having considered the available information, it is my opinion that, given the site context, the level of survey work carried out for the wider project is adequate for the purposes of establishing if the works in question would have any significant impact on avifauna. Furthermore, whilst the construction of the proposed grid connection and the junction accommodation works will result in the loss of a limited area of habitat that may be frequented by certain bird species and will also give rise to some level of disturbance, any such impacts will be limited in duration (and extent) due to the temporary nature of the construction works and the intention to reinstate excavated areas along the roadway. In addition, considering that the study area is not the subject of any statutory designation as regards the protection of bird species, the fact that no species listed on Annex I of the Birds Directive were recorded in the area, and as any displacement of local avifauna will be both temporary in nature and will likely be compensated through the use of comparable habitats within the wider landscape, I am satisfied that the works in question will not result in any significant impact on bird species.

7.3.6.6.3 In relation to other fauna, the EIS has detailed that an otter survey was conducted at each of the proposed watercourse crossings along the grid connection route with the only evidence of otter activity being recorded in the form of prints at Watercourse No. 18 and in this regard it is considered likely that the watercourses are being used by otter as a feeding area / commuting corridor. However, as the proposed works will be limited to within the curtilage of the existing roadway, and given the absence of any proposals for in-stream works, in addition to the fact that constructional works in any one location will be of a short duration, I would consider that the development works would be unlikely to impact on otter or any suitable otter habitat.

7.3.6.6.4 No reptiles or amphibians were recorded, but it is acknowledged to be likely that the Common Frog occurs in the habitats adjacent to the grid connection route and that Smooth Newt is present in the wider area although no significant impacts on these species are anticipated.

7.3.6.6.5 With regard to bats, it has been asserted that as the proposed cabling will be installed either within the road surface or via directional drilling at any bridge crossings along the route (thereby avoiding any works to the structure of those bridges) there will be no impact on any potential bat roosts at those locations. In addition, it is my opinion that the proposed works will not involve any significant loss or alteration of trees, hedges or any other features that may be of significance to bats.

7.3.6.6.6 Whilst other common species such as Fox and Irish Hare are most likely present in the wider landscape, I would concur with the EIS Addendum that these species are unlikely to be significantly impacted as a result of the works. I would also advise the Board that the documentation supplied in respect of ABP Ref. No. PL8.246915 states that no suitable habitat for either the Marsh Fritillary Butterfly or the Kerry Slug was recorded within the proposed grid connection route corridor.

7.3.6.7 The Aquatic Environment:

7.3.6.7.1 In terms of the aquatic environment, the entirety of the proposed grid connection route is located within the River Lee surface water catchment with the majority of those watercourses that require crossing flowing directly into Lough Allua or the River Lee. In this regard it should be noted that the Freshwater Pearl Mussel is listed under Annex II of the EU Habitats Directive and that the majority of the grid connection route is located within the *Lee Upper Margaritifera Sensitive Area* where extant populations of the species are known to be found in the River Lee and Lough Allua, although this catchment has not been afforded protection by way of designation as a Special Area of Conservation (*N.B.* The nearest such site is located along the Bandon River c. 6.2km south of proposed grid connection route within the Bandon River catchment). Accordingly, any deterioration in surface water quality within tributaries / watercourses draining to the river system consequent on the proposed grid connection could potentially have a significant indirect impact on both the Freshwater Pearl Mussel and other downstream species and habitats. For example, potentially negative impacts during the construction stage of the proposed development on the wider aquatic environment and fisheries would include:

- The pollution of watercourses with suspended solids due to runoff of soil from construction areas.
- Excessive nutrient release due to runoff of soil from construction areas.
- The contamination of surface waters during construction works through the accidental release or discharge of hydrocarbons or other contaminated site runoff.

7.3.6.7.2 Similarly, the construction of the proposed junction accommodation works could also impact on downstream water quality in the absence of suitable mitigation.

7.3.6.7.3 In respect of the foregoing, it should be noted that the inherent design of the proposed grid connection and accommodation works is such that it will serve to mitigate the aforementioned risks as no in-stream works are proposed. In addition, a series of mitigation measures are proposed to protect surface water quality whilst the adoption of best practice techniques will also serve to ensure that the risk of any sediment release and the potential for pollution during the construction phase is minimised. Accordingly, it is my opinion that the risk of a detrimental impact on downstream water quality and the consequences of same on aquatic ecological considerations can be satisfactorily mitigated both through the nature / design of the works proposed and the implementation of an appropriate programme of pollution control measures which are effectively tied into good construction and site management practice

7.3.6.8 Invasive Species:

7.3.6.8.1 A number of invasive species have been recorded within those hectads through which the indicative route of the proposed grid connection will pass (Japanese Knotweed, Himalayan Balsam, Himalayan Knotweed, Rhododendron, New Zealand Pygmy Weed, Canadian Waterweed, and Nuttal's Waterweed) and this is supported by the field survey which identified a number of instances of Japanese Knotweed and Rhododendron along the grid connection route. Therefore, there is the potential for the movement of construction machinery and plant during the excavation works required for the grid connection to result in the introduction or spread of these invasive species along different sections of the route. In order to mitigate this potential impact any treatment or control of such species should adhere to the guidance issued by the National Roads Authority – *'The Management of Non-Native Invasive Plant Species on National Roads'*, and the Environment Agency's *'Knotweed Code of Practice: Managing Japanese Knotweed on Development Sites'*. Further mitigation will involve the

implementation of those measures set out in the Invasive Species Management Plan contained in Appendix 9 of the EIS Addendum.

7.3.6.9 Construction, Operational & Decommissioning Impacts:

7.3.6.9.1 It is evident that the principle impact of the proposed grid connection and junction accommodation works on flora and fauna will arise during the constructional phase as a direct result of the inevitable disruption / disturbance associated with such works. However, I would reiterate that any such impacts are inherently temporary and of limited duration thereby reducing the significance of same whilst the implementation of suitable mitigation measures, including adherence to a Construction and Environmental Management Plan and best work practice, will further serve to ameliorate any potential impacts.

7.3.6.9.2 With regard to the operational phase of the proposed development, I would concur with the applicant that no potential impacts on flora or fauna will arise at this stage given that the grid connection will be sited underground with the route corridor of same having been reinstated whilst the accommodation works will also have been completed.

7.3.6.9.3 Finally, in the event of any future need for decommissioning of the grid connection, this will involve minimal excavation with the cables subsequently pulled from the ducts using cable pulling equipment and, therefore, any impacts would be short-lived and negligible.

7.3.6.10 Cumulative Impact with Other Projects:

7.3.6.10.1 Whilst I would concede that there is the potential for some cumulative impacts to arise during the construction of the proposed wind farm, grid connection and junction accommodation works, in the event they were to proceed in tandem with the construction of one or more of those other wind energy-related projects identified in the EIS, most notably in the form of increased disturbance to fauna, due to the limited extent and duration of the subject works, including the gradual progression of same along the route corridor, in addition to the implementation of suitable mitigation through the use of best practice construction management measures, I am inclined to conclude that any such cumulative impact would be of limited significance and would not warrant a refusal of permission.

7.3.6.10.2 I would also specifically state that although the proposed wind farm will necessitate account to be taken of possible impacts on other avifauna as set out in my earlier report (given the acknowledgement that bird species of

conservation significance could possibly be present on the wind farm site and could fly at heights at which they could collide with the blades of a wind turbine e.g. Hen Harrier, Merlin, Peregrine Falcon, White-Tailed Eagle, Chough and wintering Golden Plover), in my opinion, the specifics of the grid connection and the road works given the context of same will not give rise to any cumulative impacts as regards those bird species.

7.3.6.10.3 In conclusion, it should be acknowledged that most forms of development will invariably impact on ecological considerations to some degree, however, in this instance, I am satisfied that on balance the residual impacts of the proposed development are both localised and of such limited significance and influence as not to warrant a refusal of permission. Accordingly, having considered the available information, in my opinion, the impact of the proposed development on flora and fauna on site is within tolerable limits.

7.3.7 Soils and Geology:

7.3.7.1 With regard to the dominant bedrock geology underlying the indicative grid connection route and the temporary junction accommodation works, reference to the GSI database indicates that the lands are underlain by Devonian Old Red Sandstone which comprises different combinations of sandstone, mudstone and siltstones that are regularly cross-bedded in areas. This geological resource is considered to be of 'low' importance.

7.3.7.2 In respect of the overlying soils and subsoils, mapping available from the Environmental Protection Agency has confirmed that the predominant soil types in the area are peaty podzols and lithosols. Podzols are predominantly shallow soils derived from non-calcareous rock with a peaty surface horizon. Poorly drained peaty gleys have also been mapped in the lower lying valley areas and adjacent to watercourses. Along the existing road sections of the proposed grid connection, soils are predominantly absent except along some verges. The temporary junction accommodation works at Route Option No. 1 (Locations 'D' & 'G') and at Route Option No. 2 (Location 'AA') are mapped as acid brown earths / podzolics. Location 'E' is mapped as peaty podzols and lithosols while Location 'F' is shown as blanket peat and Location 'H' is mapped as poorly drained peaty gley soils. The subsoils map compiled by the GSI also shows that mineral subsoils are absent or thin over much of the proposed grid connection within the proposed Shehy More Wind Farm site whilst it is also notable that no peat was encountered along that section of the route. The distribution of subsoils along the remainder of the grid connection route is described as being characterised by sandstone tills in the lower lying valley areas which become thin or absent on the

more elevated sections of the route. These soil and subsoil deposits along the proposed route are also considered to be of 'low' importance from a geological perspective. The temporary junction accommodation works at Locations 'D', 'G' and 'AA' are mapped as Sandstone Till Devonian whilst Locations 'E', 'F' & 'H' are shown as areas where mineral subsoils are either absent or thin.

7.3.7.3 Potential negative impacts on the underlying soil / geology arising as a result of the grid connection works etc. will include the direct physical impact of excavations carried out during the construction stage and the possible contamination of subsoils and surface / ground waters due to accidental spillages / leakages. No operational impacts will arise whilst the impact of any decommissioning works will be less than those encountered during the initial construction phase, particularly as it will involve the excavation of previously disturbed ground.

7.3.7.4 Although the proposed excavations will have a direct and permanent residual impact, it is clear that the geological resource affected is of low importance and that the proposed backfilling / reinstatement works along the grid connection route will serve to mitigate same with the result that the overall effect will be of little significance. Similarly, it is noteworthy that there are no sites of geological heritage significance along the proposed grid connection route or in the vicinity of the temporary junction accommodation works. Furthermore, in order to minimise the potential constructional impacts arising from the development, it is proposed to implement a series of mitigation measures set out in Section 6.1.1.1.2 of the EIS Addendum which includes various mechanisms intended to minimise the accidental release or discharge of hydrocarbons.

7.3.7.5 In terms of the potential for cumulative impacts, it is of relevance to note that the grid connection will connect the proposed Shehy More Wind Farm to either the permitted substation at Garranareagh (PA. Ref. No. 11/6605 / ABP Ref. No. PL04.219620) or the proposed substation at Barnadivane (Kneeves) (PA Ref. No. 14/557 / ABP Ref. No. PL04.244439) (*N.B.* At this point, I would reiterate to the Board that its decision to grant permission for ABP Ref. No. PL04.244439 was the subject of judicial review proceedings [2016 614 HR] and that it subsequently consented before Mr. Justice Seamus Noonan of the High Court on 1st November, 2016 to orders quashing its decision and remitting the appeal for reconsideration). In this respect the EIS has stated that the differential in the overall length of the proposed cable route is c. 850m, although the construction of each cable connection will be completed in the same manner.

7.3.7.6 In addition to the foregoing, it is of particular relevance to note that the indicative grid connection will be partially located along the same roads as the cable route serving the Carrigarierk Wind Farm which was recently granted on appeal under ABP Ref. No. PL04. 246353 (PA Ref. No. 15730). In this respect I would refer the Board to my assessment of ABP Ref. No. PL88.2467915 wherein it has been indicated that the cable connections for both projects are to be facilitated within the same trench from the point where they would meet in the townland of Terranassig as far as the Barnadivane substation. Accordingly, in the event of favourable consideration being given to the Shehy More Wind Farm, it is anticipated that the grid connection for both the Shehy More and Carrigarierk Wind Farms will be facilitated within the single trefoil formation connection to Barnadivane substation thereby minimising the potential for cumulative impacts.

7.3.7.7 Having considered the various existing, proposed and planned wind energy-related projects in the wider area, with particular reference to the Carrigarierk Wind Farm, in addition to the Barnadivane substation, and in light of the limited scale and nature of the subject works, I am satisfied that the construction, operation and any decommissioning of the overall development project should not give rise to any significant cumulative or in-combination impacts in terms of soil and geological considerations on site.

7.3.8 Hydrology and Hydrogeology:

7.3.8.1 Chapter 7 (as supported by Appendix 11) of the EIS Addendum focuses on the likely hydrological and hydrogeological impacts arising as a result of the development project. It states that the proposed grid connection cable route is located entirely within the surface water catchment of the River Lee and in this respect it is of particular relevance to note that the route shown will necessitate a total of 41 No. watercourse crossings (including 15 No. streams) comprising a combination of natural streams and drains, all of which have an existing culvert in place. It is proposed to install the grid connection cable either over the existing culverts, below the existing culverts by means of an excavated trench, or through the use of trenchless technology (i.e. directional drilling). No in-stream works will be required at any of the proposed watercourse crossings and thus it has been submitted that there will be no potential for any direct impact on surface waters. Designated sites downstream of the grid connection route include The Gearagh SAC & pNHA and the Lough Allua pNHA which can be considered to be very sensitive due to the presence of Annex II species whilst other non-designated downstream surface waters such as the River Lee are also sensitive to potential contamination.

7.3.8.2 With regard to the junction accommodation works, Locations 'E', 'F', 'G', 'H' & 'AA' are stated to be located within the surface water catchment of the River Lee whilst Location 'D' is within the Bandon River surface water catchment.

7.3.8.3 With regard to flooding, Section 7.3.5 of Appendix 11 of the EIS Addendum states that the OPW's indicative river and coastal flood mapping does not identify any recurring incidences of flooding along the indicative cable route, although it is acknowledged that further downstream of the route, the Bealaphadeen Stream has reports of recurring flooding upstream of Allua Lough as does the River Lee downstream of Allua Lough. Having reviewed the data available from the *'National Flood Hazard Mapping'* prepared by the Office of Public Works, the Predictive Flood Maps contained in the Lee Catchment Flood Risk Assessment and Management Study, and the mapping undertaken for the Preliminary Flood Risk Assessment, I would concur with the EIS Addendum that there are no recorded instances of significant flood events along the route of the grid connection. Furthermore, having regard to the actual nature of the works which will involve the laying of an underground cable and the subsequent reinstatement of the overlying roadway, it is my opinion that this aspect of the wider proposal will not give rise to any additional surface water runoff and will not contribute to any increased flood risk. In addition, given the nature, scale and extent of the proposed junction accommodation works, any surface water runoff arising as a result of same is likely to be of minimal significance.

7.3.8.4 It has already been set out elsewhere in this report that any deterioration in surface water quality within tributaries / watercourses draining to the River Lee catchment consequent on the development could potentially have a significant indirect impact on populations of Freshwater Pearl Mussel and other downstream species and habitats whilst the proposed junction accommodation works at Location 'D' could also potentially impact on downstream water quality within the Bandon River surface water catchment. For example, potentially negative impacts during the construction stage of the development on the wider aquatic environment and fisheries would include the pollution of watercourses with suspended solids due to runoff of soil from construction areas and the contamination of surface waters through the accidental release or discharge of hydrocarbons or other contaminated site runoff.

7.3.8.5 In this respect I would reiterate that the intended design of the grid connection is such that it will serve to mitigate the aforementioned risk as no in-stream works are proposed. Section 7.1.1 of the EIS Addendum also details a series of mitigation measures proposed to protect surface water quality during

the construction phase, including the identification and implementation of a constraints zone at watercourse crossings which is intended to:

- Avoid physical damage to surface water channels;
- Provide a buffer against hydraulic loading by additional surface water runoff;
- Avoid the entry of suspended sediment and associated nutrients into surface water from excavation and earthworks; and
- Provide a buffer against direct pollution of surface waters by pollutants such as hydrocarbons.

7.3.8.6 Further mitigation is to be provided by way of adherence to best practice and the implementation of *'General Pollution Prevention Measures'*.

7.3.8.7 In relation to the groundwater resource it has been submitted that the proposed cable route is partially underlain by Devonian sandstones which are predominantly classified by the GSI as a *'Locally Important Aquifer'* whilst the Devonian siltstones and mudstones which underlay other sections of the route are considered to comprise a *'Poor Bedrock Aquifer'*. Similarly, the proposed junction accommodation works overlay either *'Locally Important'* or *'Poor Bedrock'* aquifers. Groundwater vulnerability along the study area is considered to be variable, although it is acknowledged that the majority of route is rated as *'Extreme'* by the GSI which indicates that the depth of subsoils varies between 0.0m - 3.0m and that rock is at or near the ground surface.

7.3.8.8 With regard to the potential for the works in question to impact on groundwater quality, I am inclined to concur with the EIS that due to the shallow nature of the excavations required to facilitate the underground grid connection and the junction accommodation works, the primary risk to groundwater is likely to be from the spillage / leakage of hydrocarbons or other contaminants during the construction phase which can be satisfactorily mitigated through adherence to an appropriate programme of pollution control measures as has been set out in the EIS Addendum.

7.3.8.9 In relation to concerns as regards the potential impact of the proposed works on private wells / water supplies in the vicinity of the site, at the outset I would refer the Board to Section 7.3.14 of Appendix 11 of the EIS Addendum which states that a search of the GSI well database has not identified any private wells within 300m of the grid connection route, although it is acknowledged that

the database is not exhaustive and that it is likely there are some private wells along the proposed route.

7.3.8.10 At this point I would draw the Board's attention to my assessment of ABP Ref. No. PL88.246915 which has addressed specific concerns raised in that appeal with regard to several private wells / water supplies which have since been identified in the vicinity of the grid connection route. For example, in respect of the bored well located within the grounds of Dromleigh National School, due to its location within the playground area, there is no risk of the grid connection directly impacting on same due to the shallow nature of the construction works. Furthermore, on the basis that this private supply is registered as a borehole, it is considered that the excavation of a cable trench c. 1.2m in depth will not impact on deeper groundwater flows toward the bored well in terms of water quality or groundwater levels.

7.3.8.11 It is evident that the principle impact of the grid connection works etc. on hydrological and hydrogeological considerations will arise during the constructional phase as a direct result of the inevitable disruption / disturbance associated with such works. However, any such impacts are inherently temporary and of limited duration thereby reducing the significance of same whilst the implementation of suitable mitigation measures, including adherence to a Construction and Environmental Management Plan and best work practice, will further serve to ameliorate any potential impacts. Furthermore, there will be no impact on water resources / quality etc. during the operational phase of the works as the grid connection will be sited underground with the route corridor of same having been reinstated whilst the junction works will be left *in situ* and allowed to re-vegetate naturally. Finally, any excavation works required to decommission the cable will be minimal with any risk of water impacts etc. likely to be significantly less than those associated with the initial construction phase.

7.3.8.12 In terms of the potential for cumulative impacts I would refer the Board to Section 7.1.4 of the EIS Addendum which acknowledges that 7 No. of the proposed turbines, the grid connection route, and the junction accommodation works proposed at Locations 'E', 'F', 'G', 'H' & 'AA' are located within the surface water catchment of the River Lee (*N.B.* Location 'D' is within the Bandon River surface water catchment) before stating that any cumulative impacts arising from the construction of the foregoing are expected to be negligible for the following reasons:

- The proposed Shehy More surface water management plan will ensure that all surface water runoff leaving the site and its access / delivery routes will be of the highest quality and therefore impacts on the downstream River Lee are not anticipated; and
- The potential for surface water quality impacts arising during the construction of the grid connection are expected to be negligible as no in-stream works are proposed and also the majority of the proposed route is along existing roads.

7.3.8.13 The EIS Addendum proceeds to assert that although all of the Barnadivane wind farm site, including its turbines and related infrastructure, is located within the catchment of the River Lee, the majority of the site drains to the River Bride with the remainder draining to the River Lee Reservoir via the River Cummer. Accordingly, it has been submitted that the potential for the Barnadiavne wind farm to contribute to hydrological cumulative impacts along with the Shehy More wind farm project is negligible as there is no direct hydrological link between the Barnadivane scheme and the River Lee channel itself. It is also stated that both the River Lee Reservoir and the River Bride are significant hydrological features and thus any 'slight' hydrological impacts that may occur at the Barnadivane site would be attenuated by water bodies before reaching the receptor i.e. the River Lee downstream of both the River Bride and the River Lee Reservoir.

7.3.8.14 In reference to the permitted Carrigarierk wind farm, I would advise the Board that the turbines proposed within that development are located within the Bandon catchment and thus there is no potential for significant cumulative hydrological impacts associated with same whilst any proposal to co-locate sections of the grid connection intended to serve both the Shehy More and Carrigarierk wind farms will actually reduce the potential for cumulative impacts pertaining to those elements of the respective projects.

7.3.8.15 On balance, it is my opinion that the risk of a detrimental impact on hydrological and hydrogeological considerations associated with the construction, operation and decommissioning of the wider development project can be satisfactorily mitigated to within acceptable limits due to both the nature / design of the works proposed and the implementation of an appropriate programme of pollution control measures which are effectively tied into good construction and site management practice.

7.3.9 Air and Climate:

7.3.9.1 During construction of the development project the principle impact on air quality will most likely arise from a combination of fugitive dust emissions emanating from the on-site construction activity, with particular reference to excavation works and to the movement of traffic and materials along the local road network, and exhaust fumes from construction traffic and machinery.

7.3.9.2 In relation to dust emissions, a series of measures are proposed to be implemented on site in order to militate against the potential release of dust during the construction phase. These include the minimisation of any excavated areas and the use of dust suppression measures such as the dampening down of loose surfaces to minimise the movement of dust particles to air. In this respect I would suggest that further mitigation may be achieved through the regular cleaning of roadways as necessary and by requiring any transportation of any soils or other materials with the potential to generate dust to be undertaken in covered vehicles.

7.3.9.3 With regard to exhaust emissions, it should be a requirement that all construction machinery is maintained in good operational order thereby minimising emissions, and in this regard I would suggest that any adverse impact on air quality as a result of same would be short-term and of no significance.

7.3.9.4 Whilst I would acknowledge that there is the potential for cumulative impacts in relation to the generation of dust and air emissions in the event the construction of the subject proposal were to proceed in tandem with the construction of other nearby developments, with particular reference to the Carrigarierk and Barnadivane wind farms, given the overall limited scale and type of the proposed works and the mitigation measures to be undertaken, it is my opinion that any cumulative impact is likely to be negligible.

7.3.9.5 Having reviewed the foregoing, given the inherent temporary duration and impact of the proposed construction works, coupled with the implementation of suitable measures to ensure best practice site management and dust minimisation, I am satisfied that the construction of the wider development project will not result in any significant impact on air quality in the surrounding area. Similarly, given the nature of the development proposed, there will be no detrimental impact on air quality during the operational phase.

7.3.9.6 Whilst the construction of the development project will invariably result in the emission of some greenhouse gases, these will be of little consequence

when taken in context and can be mitigated by adherence to best practice site management including the shutting off of equipment during periods of inactivity and the implementation of a traffic management plan. Accordingly, in my opinion, the impact of any such emissions, including when taken in conjunction with the construction of other developments in the immediate area, on climatic considerations will be minimal.

7.3.9.7 With regard to the operational impact of the overall development project, I would concur with the findings of the EIS that the generation of renewable electricity by wind turbines will have a wider positive impact on climatic considerations in terms of reducing carbon emissions thereby contributing to the achievement of national and international emission reduction objectives through the displacement of traditional methods of energy generation by the unsustainable combustion of fossil fuels such as coal and oil.

7.3.10 Noise and Vibration:

7.3.10.1 In relation to the likely noise impacts arising during construction of the grid connection and the junction accommodation works, it must be acknowledged that due to the nature of the construction activity to be conducted there is an inherent potential for the generation of increased levels of noise. Similarly, the flow of traffic transporting material to and from the site is also likely to be a potential source of increased noise.

7.3.10.2 In this respect Section 9.1.1.2 of the EIS Addendum outlines a series of best practice mitigation measures which will be employed to reduce the noise and vibrational impacts arising during the construction stage including a requirement that all construction operations will comply with the guidance set out in *'BS5338: Code of Practice for Noise Control on Construction and Demolition Sites'* and *'BS5228: Part 1: 1997: 'Code of Practice for Noise and Vibration Control on Construction and Open Sites'* (as amended). In addition to the foregoing, I would suggest that, in the event of a grant of permission, a condition should be imposed whereby a Construction Method Statement / Management Plan be agreed with the Planning Authority prior to the commencement of development. This Plan should detail the various means of reducing noise impacts during the construction period and I would envisage that any such document should include mitigation measures such as the use of mobile machinery with an inherently low potential for noise generation fitted with effective well-maintained silencers and the restriction of construction activity to day-time hours in order to minimise any noise impact arising during unsociable hours.

7.3.10.3 Furthermore, whilst I would acknowledge that the construction of the development project will inevitably impact to some degree on those noise sensitive receptors located in the immediate vicinity of the grid connection route, with particular reference to housing and school buildings within the villages of Kilmichael and Teerelton, considering that the construction works will be of a temporary nature and that the gradual progression of same along the proposed route will serve to limit the noise impact thereby reducing the potential for on-going or longer-term disturbance at any one location, I am satisfied that the short-term noise impact arising from same will be of limited significance and can be satisfactorily mitigated by way of condition and adherence to best practice site management so as to avoid any undue impact on the amenities of nearby dwelling houses (*N.B.* In this respect I would reiterate that it is anticipated that the works will be undertaken at a rate of c. 150m of cable being laid daily).

7.3.10.4 Due to the nature of the grid connection etc. no noise impacts will arise during the operational phase whilst any impacts associated with works required as part of any future decommissioning of the cabling will be relatively minor and of a limited duration.

7.3.10.5 From a cumulative impact perspective, whilst I would acknowledge that there is the potential for in-combination noise impacts in the event the construction of the grid connection etc. were to coincide with that of other development projects in the area, including the Carrigarierk and Barnadivane wind farms, this will be limited to those areas located in closer proximity to the active construction sites and will be of a temporary nature due to the gradual progression of works along the grid connection route and the associated dissipation of the noise arising from the other 'static' / 'location-bound' construction works. In addition, the proposal detailed in ABP Ref. No. PL88.246915 to locate part of the grid connection for both the Shehy More and Carrigarierk wind farms within a single trench will serve to reduce the overall construction noise impact by obviating the need for each project to require individual excavation of a grid connection route.

(*N.B.* The issue of turbine noise during the operational phase of the proposed wind farm has already been considered in my earlier report and I do not propose to comment further on same).

7.3.10.6 With regard to the potential for vibrational impacts during the construction of the proposed grid connection and the temporary junction

accommodation works, I am inclined to suggest that the impact of same will be inherently limited due to the shallow depth of the excavations required whilst further mitigation can be provided by way of best practice construction management and adherence to *BS5228: Part 1: 2009+A1: 2014: 'Code of Practice for Noise and Vibration Control on Construction and Open Sites'.* In addition, any such impact will be of a temporary nature and limited duration at any given location along the proposed grid connection route. At this point, I would also note that concerns have been raised as regards the limited depth to bedrock along sections of the cable route, however, I would suggest that the impact of any necessary rock-breaking will be both temporary and limited in scope and that it could be mitigated further through adherence to a Construction Management Plan which would detail an agreed methodology for any such works (e.g. by only permitting the use of rock-breaking equipment at certain hours of the day and by prohibiting the use of blasting). Furthermore, the potential for any cumulative vibrational impacts is likely to be temporarily limited to areas in the immediate proximity of other construction works (similar to my assessment of cumulative noise impacts) and will also dissipate with distance. No vibration impacts are likely to arise during either the operational or decommissioning phases of the grid connection and junction accommodation works.

7.3.10.7 Therefore, considering that the construction works will be temporary in nature, I am satisfied that the short-term noise and vibration impacts arising from same can be satisfactorily mitigated by way of condition and adherence to best practice site management so as to avoid any undue impact on the amenities of nearby properties.

7.3.11 Landscape and Visual:

7.3.11.1 The indicative grid connection extends across a total of 26 No. townlands between Cloghboola and Garranareagh, Co. Cork, and originates at the Shehy More Wind Farm on the north / north-eastern slopes of Shehy More on the eastern fringe of the Shehy Mountains whereupon it passes through uplands to the east, which are bounded to the north by the Upper Lee River Valley, before terminating at the site of the connecting Barnadivane substation. The actual cable route will traverse the internal access roadways serving the proposed Shehy More Wind Farm before extending along the corridor of the public road through the villages of Kilmichael and Teerelton and onto the Barnadivane substation.

7.3.11.2 In terms of assessing the landscape / visual impact, it is also of relevance in the first instance to note that the indicative grid connection route will

pass through a total of 3 No. *'Landscape Character Types'* (i.e. *'Fissured Fertile Middleground'*, *'Valleyed Marginal Middleground'* & *'Ridged and Peaked Upland'*) as identified in the landscape character mapping set out in the County Development Plan, 2014 and that further refinement of these designations is provided in the Landscape Character Assessment of Co. Cork which indicates that the proposed route lies within the following *'Landscape Character Areas'*:

- LCA 33 – Lough Allua (Composite Middle Valley of Rugged Scrub, Mosaic and Marginal Land)
- LCA 55 – Cappeen (Upland of Intimate Rolling Farmland Mosaic with Scrub Outcrops)
- LCA 60 – Kilmichael (Broad Middle Valley of Rugged Scrub and Marginal Land).

7.3.11.3 Notably, although the indicative grid connection route is not located within a designated *'High Value'* landscape, it will extend in part along 2 No. Scenic Routes with the views from same having been listed for preservation in the Development Plan pursuant to Objective GI 7-2: *'Scenic Routes'* whilst Volume 2: '*Heritage and Amenity'* 'of the Plan states that these views are in areas of *'Medium'* and *'Low'* overall landscape value respectively:

- S32 (Local Roads from South Lake Road – Inchigeela and Ballingeary, via Curraheen to Tullagh: Views of Lough Allua & the surrounding mountains).

- S36 (Local Roads adjoining Teerelton to the east - Views of valleys & rugged mountainous landscape).

7.3.11.4 Whilst the route of the proposed grid connection will pass through a number of landscape designations of varying sensitivity, in my opinion, the critical consideration in the assessment of the landscape / visual impact of this element of the wider proposal is the actual visibility of the development works and in this respect it is of the utmost relevance to note that the proposed cabling will be laid underground and that upon completion of the necessary construction works and the associated reinstatement of the road surface, the only visible imprint of the works will most likely be limited to some minor tracking / scarring of the carriageway which will not detract from the fundamental defining landscape and amenity characteristics of the wider area.

7.3.11.5 None of the proposed junction accommodation works are located within a designated *'High Value'* landscape or along a Scenic Route and the limited

scale and nature of these works does is unlikely to give rise to any significant impact, particularly as they will be allowed to revegetate naturally with any hedgerows etc. to be reinstated upon completion of the wider development project.

7.3.11.6 Accordingly, given the short-term, localised and transient nature of the proposed construction works, I am satisfied that the overall visual impact of the grid connection and the junction accommodation works will be minimal and that it will not give rise to any significant cumulative impacts when taken in combination with the proposed turbines or other projects in the surrounding area.

7.3.12 Archaeology and Cultural Heritage:

7.3.12.1 Architectural Heritage:

7.3.12.1.1 Following a review of the available information, and in light of the absence of any protected structures in the immediate vicinity of either the indicative grid connection or the junction accommodation works, I am satisfied that those aspects of the overall project are unlikely to give rise to any significant impact on items of built heritage.

7.3.12.2 Archaeological Heritage:

7.3.12.2.1 In terms of the archaeological heritage implications of the indicative grid connection and the junction accommodation works, Section 11 (and Appendix 12) of the EIS Addendum has identified the following 3 No. recorded monuments within 100m of the proposed grid connection route:

- *CO093-006: Megalithic tomb - wedge tomb*
  Townland: Cornaire
  Description: On small bog-covered platform on steep S-facing slope at head of Sruhaunphadeen valley, to NE of Douce Mountain. Comprises gallery (L 3.4m; Wth 1.1m at SW end) open to SW, represented by two sidestones to N, three to S and inset backstone at E end; two outer-wall stones stand beyond N side. Traces of mound to S and W of gallery. Wedge-tomb (6393) stands c. 300m to W in Cloghboola townland. (de Valera and Ó Nualláin 1982, 26-7, Co. 37).

  Distance from cable route: 40m.

- *CO093-007: Megalithic tomb - wedge tomb*

Townland: Cornaire
Description: On small platform on steep N-facing slope of Sruhaunphadeen valley to NE of Douce Mountain. Comprises ruined gallery (L c. 3.5m; Wth 0.5m at E end), aligned ENE-WSW, irregularly constructed of small stones and surrounded by closely-set outer walling. Two fallen stones at W end may be remains of facade. Incorporated in mound on edge of which lie two slabs, possibly displaced roofstones. (de Valera and Ó Nualláin 1982, 24-5, Co. 34).

Distance from cable route: 46m.

- *CO081-013: Mass-rock*
  Townland: Curraheen (Muskerry West By., Inchigeelagh Par.)
  Description: Roadside. Flat slab raised above another slab by two small pillars; lower slab atop plinth of coursed stones. Roughly incised cross on lower slab; upper slab adorned with quartzite pebbles and flowers. Plaque reads "Altar of Penal Times - Mass was said here 1640-1800".

  Distance from cable route: 15m.

7.3.12.2.2 No recorded monuments are located either on or in close proximity to the proposed junction accommodation works. However, I would advise the Board that there are 2 No. recorded monuments to the east of the accommodation works proposed to be undertaken at Location 'AA', although the works themselves will be confined to the western side of the roadway whilst the archaeological features are located on the opposite side of the carriageway.

7.3.12.2.3 Having considered the available information, I would concur with the findings of the EIS Addendum that due to the separation distances between the aforementioned recorded monuments and the proposed grid connection and junction accommodation works (in addition to the confinement of the cabling works to within the corridor of the public road), there is no potential for any significant adverse impacts on the foregoing items of archaeological significance. However, as a precautionary measure, I note the proposal to erect fencing around RM No. CO081-013: *'Mass-rock'* in order to avoid any potential direct damage to the monument or its setting during construction works whilst further mitigation is to be provided through the archaeological monitoring of all cable

works within the vicinity of the 3 No. aforementioned recorded monuments. Therefore, on the basis of the foregoing, I am satisfied that the proposed development, subject to the implementation of suitable mitigation measures, is unlikely to have any significant impact on items of archaeological interest.

7.3.12.3 The Gaeltacht:

7.3.12.3.1 The westernmost extremity of the proposed grid connection route is located within the culturally distinct Múscrai Gaeltacht area which requires special treatment in order to protect its linguistic and cultural heritage without hindering development. Therefore, I would refer the Board to Objective HE 5-3: *'Gaeltacht Areas'* of the Cork County Development Plan, 2014 which seeks to protect the linguistic and cultural heritage of the Gaeltacht areas by:

a) Encouraging development within the Gaeltacht, which promotes, facilitates or complements the cultural heritage, including Irish language use;
b) Encouraging development within the Gaeltacht, which provides employment or social facilities, especially, but not exclusively, where these are of relevance to local young people;
c) Resisting development within the Gaeltacht, which would be likely to erode the cultural heritage (including the community use of Irish language), unless there are overriding benefits for the long term sustainability of the local community or for the proper planning and sustainable development of a wider area;
d) Ensuring that where the County Council erects signs within the Gaeltacht, these have Irish as their primary language, unless there are positive and overriding reasons for doing otherwise;
e) Discouraging the exhibition of advertisements within the Gaeltacht which do not use Irish as their primary language;
f) Considering the desirability of demanding linguistic impact analyses with planning applications for particular major developments. These would be cases where the potential impact of the development on the use of Irish as the community language is not immediately apparent and pivotal in the determination of the application.

7.3.12.3.2 In response to the foregoing, Section 1.5.1.10 of Appendix 12 of the EIS Addendum acknowledges that the introduction of some large scale industrial / commercial / residential developments into Gaeltacht areas can result in an influx of mono-linguistic English speakers which may impact on the Irish Language, however, with regard to the subject proposal, it has been submitted that the low staffing numbers employed during the construction phase of the

project, in addition to the temporary nature of these works, will serve to obviate any erosion of local cultural heritage, including the community use of the Irish Language. Nevertheless, the EIS Addendum proceeds to recommend that any signage associated with the proposed development which is to be erected within the Gaeltacht area should be in both Irish and English.

7.3.12.3.3 On balance, I am inclined to concur with the applicant that given the nature of the proposed works, and the limited timeframe during which construction works will be carried out within the Gaeltacht, any impact on the integrity of the Irish Language community is likely to be minimal. Furthermore, whilst I would also accept the applicant's proposal to erect signage in both Irish and English, I would suggest that any such signage within the Gaeltacht should have Irish as its primary language in keeping with the provisions of Objective HE 5-3: *'Gaeltacht Areas'* of the Development Plan.

7.3.12.4 Cumulative Impacts:

7.3.12.4.1 In terms of the potential for cumulative impacts on features of archaeological and cultural significance, the EIS Addendum notes that all of the cultural heritage sites within the proposed Shehy More Wind Farm have been designed out of the proposed layout and grid connection route. In this respect it can be confirmed that all recorded monuments are located outside of the proposed works area and that the potential for unknown sub-surface archaeological features within the actual Shehy More Wind Farm site can be addressed through the archaeological monitoring of all ground works under license from the Department of Arts, Heritage and the Gaeltacht. With regard to other wind energy projects in the area, the Addendum has indicated that these were consulted and no direct archaeological or cultural impacts were identified whilst any potential impact on unknown archaeological features would be effectively mitigated against by archaeological monitoring of ground works at the construction stage of the respective developments. Furthermore, given the underground nature of the proposed grid connection and the limited extent of the junction accommodation works, there is no potential for any significant cumulative detrimental visual impacts on features of cultural heritage.

7.3.12.4.2 Therefore, on the basis of the foregoing, I am satisfied that the proposed development, subject to the implementation of suitable mitigation measures, is unlikely to have any significant impact on items of archaeological or cultural interest and that any residual impacts will be low to negligible.

7.3.13 Material Assets:

7.3.13.1 Traffic:

7.3.13.1.1 The construction of the grid connection within the curtilage of the public road and the various junction accommodation works will inevitably impact on local traffic movements by way of time delays arising as a result of the necessary road works and the time spent undertaking local diversions in addition to the distance travelled as a result of any diversions (*N.B.* In this respect I would advise the Board that ABP Ref. No. PL88.246915 includes an estimate of the likely delays and additional distances expected to be travelled by local traffic due to works associated with the ground excavations and cable laying along identified sections of the proposed grid connection route).

7.3.13.1.2 Having considered the available information, in my opinion, the likely increase in traffic volumes associated with any such construction works will be minor and does not give rise to such an impact as to warrant a refusal of permission. Furthermore, whilst there will clearly be some degree of nuisance and disruption to local residents and road users associated with the construction of the grid connection etc., this will be of a limited duration and will also be mitigated through the implementation of an appropriate programme of traffic management which will provide for suitable alternative routes in the event of road closures and minimal delays in passing through any 'Stop and Go' systems in place alongside areas of active construction works. It should also be noted that the overall impact of construction traffic may be lessened further in the event that cable laying works are undertaken simultaneously at various locations along sections of the proposed route, for example, at the eastern and western extremities of the connection, which could potentially reduce the construction period by up to half.

7.3.13.1.3 In relation to the concerns raised by the Local Authority Area Engineer in ABP Ref. No PL88.246915 that the grid connection works would involve breaking up recently completed surfacing works in the villages of Dromleigh and Teerelton and that alternative routes should be considered, in my opinion, this is not a sufficient basis on which to reject the application or to legitimise the potentially increased wider impacts associated with any alternative or elongated grid connection route. Furthermore, given that any grant of planning permission would be for a period of 10 No. years, the possibility arises that the proposed works may not be undertaken for a number of years. In any event, it would be possible to attach a condition to any grant of planning permission requiring the lodgement of a bond for the reinstatement of any damage caused to the public road network during the construction works.

7.3.13.1.4 No traffic impacts will arise during the operational phase of the proposed grid connection etc. whilst any impacts associated with the future decommissioning of same will be relatively minor and of a limited duration.

7.3.13.1.5 In terms of the potential for cumulative traffic impacts with the construction of other projects, including the proposed Carrigarierk and Barnadivane wind farms and the associated grid connections, it has been submitted that any such impacts will be short-term with a slight to moderately negative effect on those days which coincide with concrete foundation pouring, site preparation works, and also when general materials are delivered to the individual development sites by conventional HGVs. In this respect it should be noted that these impacts will be restricted to the proposed haul routes for the various wind farms and that the proposed grid connection routes do not overlap with the majority of the proposed haul routes thereby minimising the potential for cumulative impacts. The EIS Addeddum proceeds to acknowledge the significant potential for traffic impacts on those days when the turbine blades, towers and nacelles will be delivered to the respective sites, although it has been suggested that this will be reduced as these deliveries will generally be undertaken at night. The Board is also advised to take cognisance of the assertion in ABP Ref. No. PL88. 246915 that the turbine delivery phases of the proposed Shehy More, Carrigarierk and Barnadivane wind farms will not occur simultaneously and thus no cumulative impacts will arise in this respect. Similarly, the overlapping of the proposed Shehy More and Carrigarierk grid connections will reduce the overall potential cumulative impact.

7.3.13.1.6 Whilst I would accept that a co-ordinated construction traffic management plan will serve to minimise the extent and duration of any cumulative traffic impacts, there will be a need to ensure that any cable laying works for the proposed grid connection are not in progress along those sections of the route which coincide with the turbine haul routes at the time of the delivery of the turbine blades, tower sections etc.

7.3.13.1.7 On balance, although the construction of the proposed development will impact on traffic movements on the surrounding road network, I am satisfied that these impacts can be mitigated to within acceptable limits.

7.3.13.2 Telecoms and Other Services:

7.3.13.2.1 The construction of the proposed grid connection will not affect any above ground telecommunications networks, however, it is acknowledged that

there is the potential for underground services to be affected by the construction activities. In this respect I would accept that any such impacts can be satisfactorily mitigated by way of specific measures to be incorporated into the Construction and Environmental Management Plan as set out Appendix 3 of the EIS Addendum, for example:

- Any area where excavations are planned will be surveyed and all existing services will be identified prior to the commencement of any works.

7.3.13.2.2 There will be no impact on telecoms or other services during the operational phase of the grid connection whilst any impacts associated with works required as part of any future decommissioning will be minimal. Similarly, I am satisfied that any potential cumulative impacts can be addressed by way of adherence to the construction methodology set out in the EIS addendum as regards the crossing and clearance to existing services in addition to the Construction and Environmental Management Plan.

7.3.14 Interaction of the Foregoing:

7.3.14.1 With regard to the inter-relationships between several of the foregoing factors / impacts, in my opinion, these interactions have been satisfactorily addressed throughout the EIS Addendum.

7.3.15 In-combination / Cumulative impacts:

7.3.15.1 Having considered the available information, in my opinion, the provision of the indicative grid connection and the proposed junction accommodation works will not give rise to any significant cumulative impacts when taken in conjunction with the development and subsequent operation of the proposed Shehy More wind farm. Furthermore, in terms of the wider potential for in-combination / cumulative impacts with other developments in the surrounding area, with particular reference to wind-energy related projects, in my opinion, it is clear that any such impacts will generally be limited to the construction stage of the proposed development and that those impacts will be of a limited duration and, subject to the implementation of an appropriate programme of mitigation measures (including adherence to best practice construction methodologies, the agreement of a Construction and Environmental Management Plan, and the development of a suitable traffic management plan), will not be of such significance as to give rise to such a detrimental effect as to warrant a refusal of permission.

7.4 Appropriate Assessment:

7.4.1 From a review of the available mapping, including the data maps from the website of the National Parks and Wildlife Service, it is apparent that whilst the proposed wind farm, indicative grid connection route and the planned junction accommodation works are not located within any Natura 2000 designation there are a number of protected sites in the wider area, including the Bandon River Special Area of Conservation (Site Code: 002171) and The Gearagh Special Area of Conservation (Site Code: 000108) and Special Protection Area (Site Code: 004109). In this respect it is of relevance to note that it is the policy of the planning authority, as set out in Objective No. HE 2-1: *'Sites Designated for Nature Conservation'* of Chapter 13 of the Cork County Development Plan, 2014, to protect all natural heritage sites, both designated or proposed for designation, in accordance with National and European legislation. In effect, it is apparent from the foregoing provisions that any development likely to have a serious adverse effect on a Natura 2000 site will not normally be permitted and that any development proposal in the vicinity of, or affecting in any way, the designated site should be accompanied by such sufficient information as to show how the proposal will impact on the designated site. Therefore, a proposed development may only be authorised after it has been established that the development will not have a negative impact on the fauna, flora or habitat being protected through an Appropriate Assessment pursuant to Article 6 of the Habitats Directive.

7.4.2 Stage 1: Screening:

7.4.2.1 In screening the subject proposal for the purposes of appropriate assessment, I would refer the Board at the outset to the screening exercise undertaken by the applicant as set out in Section 5 of the Revised Natura Impact Statement which has identified the following 6 No. European Sites within a 15km radius of the proposed works pursuant to the advice contained in the *'Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities (Rev. 2010)'* published by the Department of Environment, Heritage and Local Government:

- Bandon Special Area of Conservation (Site Code: 002171)
- Derryclogher (Knockboy) Bog Special Area of Conservation (Site Code: 001873)
- The Gearagh Special Area of Conservation (Site Code: 000108)
- The Gearagh Special Protection Area (Site Code: 004109)
- St. Gobnet's Wood Special Area of Conservation (Site Code: 000106)
- Mullaghanish to Musheramore Mountains Special Protection Area (Site Code: 004162)

7.4.2.2 In addition to the foregoing, using the precautionary principle, consideration was also given to those Natura 2000 sites located outside of the defined 15km radius (e.g. the Killarney National Park Special Protection Area: Site Code: 004038), however, as no potential pathways for any significant impacts on those sites could be established (such as by way of hydrological connectivity), it was determined that there was no potential for any impacts on those Natura 2000 sites located outside the 15km buffer.

7.4.2.3 Accordingly, having considered the available information, I would concur with the findings of submitted screening exercise that consideration for the purposes of appropriate assessment should be focused on the following Natura 2000 Sites:

European Site:	*The Gearagh SAC (Site Code: 000108):*
Distance & Direction:	2.6km north
Qualifying Interests:	[1355] Otter *Lutra lutra* [3260] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3270] Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91E0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)
Conservation Objectives:	To maintain the favourable conservation condition of Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation in The Gearagh SAC. To maintain the favourable conservation condition of Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation in The Gearagh SAC. To maintain the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum in the British Isles in The Gearagh SAC.

	To maintain the favourable conservation condition of Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) in The Gearagh SAC. To maintain the favourable conservation condition of Otter in The Gearagh SAC.
European Site:	*Bandon SAC (Site Code: 002171):*
Distance & Direction:	6.2km south
Qualifying Interests:	[3260] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [91E0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) [1029] Freshwater Pearl Mussel *Margaritifera margaritifera* [1096] Brook Lamprey *Lampetra planeri*
Conservation Objectives:	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.
European Site:	*Derryclogher (Knockboy) Bog SAC (Site Code: 001873):*
Distance & Direction:	9.9km west
Qualifying Interests:	[7130] Blanket bogs
Conservation Objectives:	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.
European Site:	*St. Gobnet's Wood SAC (Site Code: 000106):*
Distance & Direction:	11.9km north
Qualifying Interests:	[91A0] Old sessile oak woods with Ilex and Blechnum in the British Isles

Conservation Objectives:	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.
European Site:	*The Gearagh SPA (Site Code: 004109):*
Distance & Direction:	3.8km north
Qualifying Interests:	[A050] Wigeon *Anas penelope* [A052] Teal *Anas crecca* [A053] Mallard *Anas platyrhynchos* [A125] Coot *Fulica atra*
Conservation Objectives:	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. To maintain or restore the favourable conservation condition of the wetland habitat at The Gearagh SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.
European Site:	*Mullaghanish to Musheramore Mountains SPA (Site Code: 004162):*
Distance & Direction:	11.4km north
Qualifying Interests:	[A082] Hen Harrier *Circus cyaneus*
Conservation Objectives:	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

7.4.2.4 In terms of assessing the potential direct, indirect or secondary impacts of the proposed development on the conservation objectives of the aforementioned Natura 2000 sites, it should be noted at the outset that due to the location of the proposed works outside of any Natura 2000 designation, in addition to the separation distances involved, it is clear that the subject proposal will not directly impact on the integrity of any European Site (such as by way of habitat loss or reduction), however, I would accept that consideration should be given, in particular, to the potential for the proposal to indirectly impact on the qualifying interests of some of the identified sites as a result of any deterioration in water quality which could be attributable to the proposed works due to the hydrological connectivity / links between the application site and those European sites.

Therefore, in the interests of conciseness, and in order to avoid unnecessary repetition, I would refer the Board to my earlier environmental impact assessment of the proposal, and, in particular, to the hydrological and hydrogeological aspects of same, including the potentially negative impacts on downstream water quality which could arise during the construction stage of the proposed development due to the pollution of watercourses through the release of suspended solids or the discharge of hydrocarbons / other contaminants, and those measures which have been incorporated into the design of the proposal to mitigate said risks (e.g. the absence of any in-stream works associated with the grid connection) as supplemented by a series of mitigation measures including adherence to best practice construction methodologies and the implementation of *'General Pollution Prevention Measures'*.

7.4.2.5 On the basis of the ecological and hydrological / hydrogeological assessments conducted as part of the EIS, the EIS Addendum and the Further Information Responses, and in light of the potential for hydrological connections between the application site / study area and downstream Natura 2000 sites, Table 5.6 of the Revised Natura Impact Statement proceeds to summarise the potential impacts of the proposed development on those Natura 2000 Sites where significant effects cannot be excluded as follows:

- *The Gearagh SAC:*
  There will be no direct impacts as the SAC is located c. 11.3km from the proposed wind farm site and 2.6km from the associated grid connection cable route.

  Potential pathways for impact have been identified in the form of a hydrological connection from the proposed wind farm development to the SAC. In the absence of the consideration of mitigation measures (e.g. site management and drainage design measures), there is minor potential for negative or indeterminate impacts (potential for emissions to surface water from the site, in particular during the felling and ground works phase of the construction of the turbines and associated roadways), thus the potential for significant effects on this European Site cannot be excluded and will require further assessment by way of Natura Impact Statement.

- *The Bandon River SAC:*
  There will be no direct impacts as the SAC is located approximately 6km from the proposed wind farm and 5.7km from the associated grid connection cable route.

Potential pathways for impact have been identified in the form of a hydrological connection from the proposed wind farm development site to the SAC, in particular during the felling and ground works phase of the construction of the turbines and associated roadways. In the absence of more detailed consideration of mitigation measures (e.g. site management and drainage design measures), there is minor potential for negative or indeterminate impacts (potential for emissions to surface water from the site) and thus the potential for significant effects on this European Site cannot be excluded and will require further assessment by way of Natura Impact Statement.

- *The Gearagh SPA:*
  There will be no direct impacts as the SPA is located approximately 12.9km from the proposed wind farm and 3.7km from the associated grid connection cable route.

  Potential pathways for impact have been identified in the form of a hydrological connection from the proposed development site to the SPA. Although there was no evidence of the Special Conservation Interest species at the site during site surveys, *'Wetlands'* is also an SCI of this SPA. In the absence of more detailed consideration of design / mitigation measures (e.g. site management and drainage design measures), there is minor potential for negative or indeterminate impacts (potential for emissions to surface water from the site, in particular during the felling and ground works phase of the construction of the turbines and associated roadways) and thus the potential for significant effects on this European Site cannot be excluded and will require further assessment by way of Natura Impact Statement.

7.4.2.6 The remaining 3 No. European Sites within a 15km radius of the proposed works were screened out as follows:

- *The Derryclogher (Knockboy) Bog SAC:*
  Due to the distance to the SAC (9.2km from the proposed development and the associated grid connection cable route) and absence of any complete impact source-pathway-receptor chain (i.e. no hydrological link or similar mechanism for effecting impact) between the SAC and the proposed wind farm site, and the nature of the qualifying interest of the site (blanket bog), it was considered that significant impacts on the European Site in question could be screened out.

- *The St. Gobnet's Wood SAC:*
  Due to the distance to the SAC (11.8km from the proposed development and the associated grid connection cable route), the nature of the qualifying interest of the designated site and the location of same on a hill (i.e. above any hydrological connection with the development site), it was considered that significant impacts on the European Site in question could be screened out.

- *Mullaghanish to Musheramore Mountains SPA:*
  Due to the distance to the SPA (13.8km from the proposed wind farm and 11.3km from the associated grid connection cable route), the low usage of the development site by the SCI of the SPA as evidenced by bird surveys at the site study area (Hen Harrier was recorded [a minimum of two single birds on three occasions on two dates] at the study area during the winter / spring of 2011/2012. No Hen Harrier were noted during the breeding season at this site), it was considered that significant impacts on the European Site in question could be screened out.

7.4.2.7 Accordingly, having reviewed the available information, and following consideration of the 'source-pathway-receptor' model, I would concur with the findings of the screening exercise undertaken by the applicant and thus it is my opinion that, in accordance with the precautionary principle, it is not possible to rule out the likelihood of the proposed development significantly impacting on a Natura 2000 site and that particular consideration needs to be given to the likelihood of the proposal to have a significant effect on the conservation objectives of The Gearagh SAC, The Gearagh SPA and the Bandon River SAC due to the potentially significant impacts on water quality which could arise from any runoff of sediment and / or pollutants into those sites during the construction of the proposed development thereby threatening the qualifying interests of same. Therefore, it is reasonable to conclude on the basis of the information available, which I consider adequate in order to issue a screening determination, that the likelihood of the proposed development significantly and negatively affecting the aforementioned Natura 2000 sites cannot be objectively ruled out and therefore it is necessary to proceed to 'Appropriate Assessment (Stage 2)'.

7.4.3: Stage 2: 'Appropriate Assessment':

7.4.3.1 With regard to the Stage 2 Appropriate Assessment as set out in the Revised Natura Impact Statement, I am generally satisfied that it has adequately identified the key characteristics of the potential impacts arising as a result of the

proposed development which would be likely to undermine the stated conservation objectives of the designated sites. These include the potential for contaminated ground and surface waters to impact on the integrity of the identified Natura 2000 sites and their qualifying interests. The NIS has subsequently concluded that, subject to adherence to a series of specified mitigation measures, there would be no significant effects on hydrology and, therefore, no significant adverse effects on the integrity of those downstream Natura 2000 sites as a result of the proposed development.

7.4.3.2 In order to avoid unnecessary repetition, I would refer the Board to my earlier comments with regard to the hydrological and hydrogeological implications of the proposed development as set out in my environmental impact assessment of the subject application (including that contained in my earlier inspector's report). In my opinion, this outlines how the design of the proposed development, when taken in combination with specified mitigation measures, will not impact on the integrity of the various European Sites and thus will not compromise their qualifying interests.

7.4.3.4 With regard to the potential for in-combination / cumulative impacts with other plans or projects, I am also satisfied that the proposed development, subject to suitable mitigation, would not be likely to give rise to any in-combination / cumulative impacts with other plans or projects which would significantly affect the integrity of any Natura 2000 sites and would not undermine or conflict with the Conservation Objectives applicable to same.

7.4.3.4 Therefore, I consider it reasonable to conclude, on the basis of the information available, that the proposed development, when taken individually and in combination with other plans or projects, will not adversely affect the integrity of The Gearagh SAC, The Gearagh SPA and the Bandon River SAC in view of the sites' conservation objectives.

7.5 Other Issues:

7.5.1 The Adequacy of the Permitted 'Barnadivane Substation':

7.5.1.1 Concerns have been raised that the permitted substation at Garranareagh (PA Ref. No. 11/6605 / ABP Ref. No. PL04.219620) does not comply with the current requirements of Eirgrid. In this regard I would advise the Board that the Environmental Report which accompanied PA Ref. No. 14557 / ABP Ref. No. PL04.244439 specifically states that the replacement substation proposed as part of that application is needed *'in order to meet current Eirgrid standards in substation design and will replace the currently permitted substation*

that is not yet constructed'. This is further corroborated by the response of the applicant to a request for further information issued in respect of that application wherein it is stated that since the grant of permission issued for the original substation under ABP Ref. No. PL04.219620, the role of the Transmission System Operator has passed from the ESB to Eirgrid with the latter having adopted substantially changed substation requirements.

7.5.1.2 Having reviewed the available information, at the outset I would suggest that the specific technical requirements of the TMO are beyond the remit of the Board and that it would be inappropriate to comment on same, particularly as any grid connection will ultimately have to comply with the requirements of Eirgird, however, notwithstanding the details provided as part of ABP Ref. No. PL04.244439, consideration must be given to the fact that there is an extant grant of permission for a substation and that the applicant has submitted that the proposed Shehy More wind farm can be accommodated by same. Furthermore, in the event that there is a need to revisit the specific design of the permitted substation it may be possible to resolve same as an amendment of the extant grant of permission and in this regard the Board may wish to consider if parallels can be drawn between any such proposal and the ruling of the High Court in the case of *South-West Shopping Centre Promotion Association Ltd. and Stapleyside Company v. An Bord Pleanala*.

7.5.1.3 At this point I would also reiterate that the remittance of ABP Ref. No. PL04.244439 to the Board for reconsideration provides it with the opportunity to undertake a comprehensive assessment that development.

7.5.2 Land Ownership / Consent Issues:

7.5.2.1 With the exception of that section of the indicative grid connection cable route which will extend along existing forestry / site roads within the site of the proposed Shehy More Wind Farm, the entirety of the grid connection works will be undertaken within the corridor of the public road from its westernmost point within the townland of Cloghboola and onwards through the villages of Kilmichael and Teerelton before terminating at Barnadivane substation. In this respect it has been suggested that there is a degree of uncertainty as to whether or not the Local Authority retains ownership of the public road under which the cable connection will pass or if it simply maintains the carriageway for the benefit of the general public i.e. whether Cork County Council has the authority to permit the proposed works to be undertaken within the 'public road'.

7.5.2.2 Having reviewed the submitted information, in my opinion, it is clear that Cork County Council as both the Planning Authority and, more particularly, as the relevant Road Authority with responsibility for the maintenance etc. of the public road network in the area, has sufficient interest within that part of the public road corridor under which it is proposed to lay the grid connection to consent to the works in question.

7.5.2.3 In relation to the issue of land ownership and concerns pertaining to the possible encroachment / trespass of third party lands, including the potential for interference with services, drainage etc., I would also suggest that any such disputes are essentially civil matters for resolution between the parties concerned and in this regard I would refer the Board to Section 34(13) of the Planning and Development Act, 2000, as amended, which states that *'A person shall not be entitled solely by reason of a permission under this section to carry out any development'.*

7.5.3 Devaluation of Property:

7.5.3.1 Whilst I would acknowledge the concerns raised by third parties that the mere presence of a grid connection along the public road could potentially impact on the monetary value of adjacent properties, no evidence has been submitted to support such a proposition and I would further suggest that the laying of electrical, telecommunications and other service cables within public roads (both in rural and urban locations) in relatively close proximity to housing etc. is not in itself an unusual occurrence. Accordingly, given the nature of the grid connection works, which will be underground, and the proposal to reinstate the roadway to its original condition, I am satisfied that said works would be unlikely to result in any devaluation of property. Furthermore, given that the entirety of the subject development will be carried out within the confines of the application site whilst the indicative grid connection will extend along the public road corridor, I am unconvinced that the proposal will have any undue impact on the future development potential of third party lands.

7.5.4 Disposal of Excavated Material:

7.5.4.1 Concerns have been raised that excess material arising from the excavation of the proposed grid connection will be removed to the wind farm for restoration of the borrow pits. In this regard I would refer the Board to my assessment of ABP Ref, No. PL88.246915 wherein I have concluded that it would appear to be the intention of the applicant to dispose of any excess excavated material arising at an appropriately licensed waste recovery facility. In

any event this is a matter which could be satisfactorily addressed as a condition of the relevant grant of permission.

7.5.5 Haul Route Accommodation Works:

7.5.5.1 Having considered the location, nature and context of the proposed junction accommodation works, it is my opinion that they will not give rise to any significant impacts when taken in conjunction with the grid connection works and the remaining aspects of the proposed Shehy More wind farm or those other wind energy-related projects planned in the wider area.

7.5.6 Further Concerns as regards the Proposed Shehy More Wind Farm:

7.5.6.1 With regard to those third party submissions which have sought to reiterate earlier grounds of objection to the proposed wind farm development (e.g. turbine noise, peat stability etc.), in the interest of conciseness and in order to avoid unnecessary repetition, I would refer the Board to my previous report which has already given consideration to such matters.

8.0 RECOMMENDATION

Having regard to the foregoing, in addition to my earlier inspector's report, I recommend that the decision of the Planning Authority be upheld in this instance and that permission be granted for the proposed development for the reasons and considerations and subject to the conditions set out below:

Reasons and Considerations:

Having regard to:-

a) national policy with regard to the development of alternative and indigenous energy sources and the minimisation of emissions of greenhouse gases,

b) the provisions of the "Wind Energy Development Guidelines for Planning Authorities" issued by the Department of the Environment, Heritage and Local Government in 2006,

c) the policies set out in the Regional Planning Guidelines for the South-West Region 2010-2020,

d) the policies of the planning authority as set out in the Cork County Development Plan 2014, including the Cork County Council Wind Energy Strategy contained therein,

e) the character of the landscape in the area and the absence of any ecological designation on or in the immediate environs of the site,

f) the characteristics of the site and of the general vicinity,

g) the pattern of existing and permitted development in the area, including other wind farms,

h) the distances from the proposed development to dwellings or other sensitive receptors,

i) the range of mitigation measures set out in the documentation received, including the Environmental Impact Statement and the Natura Impact Statement, as revised,

j) the planning history of the site and its surrounds, and

k) the submissions and observations made in connection with the planning application and the appeal, including submissions in relation to the environmental impacts of the proposed development;

it is considered that, subject to compliance with the conditions set out below, the proposed development would not have a significant adverse effect on the landscape or the visual or residential amenities of the area, would not adversely affect the natural heritage or the integrity of any European site, including Natura 2000 sites or any protected species and would be acceptable in terms of traffic safety and convenience. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

CONDITIONS

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application as amended by the further plans and particulars submitted the 2nd day of April, 2014, and by the further plans and particulars received by An Bord Pleanála on the 18th day of September, 2015, except as may otherwise be required in order to comply with the following conditions. Where such conditions require points

of detail to be agreed with the planning authority, these matters shall be the subject of written agreement and shall be implemented in accordance with the agreed particulars.

Reason: In the interest of clarity.

2. All of the environmental, construction and ecological mitigation measures set out in the Environmental Impact Statement, the Natura Impact Statement, as revised, and other particulars submitted with the application and in the further information submitted to the planning authority the 2nd day of April, 2014, and in the further plans and particulars received by An Bord Pleanála on the 18th day of September, 2015, shall be implemented by the developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this order.

   Reason: In the interest of clarity and the protection of the environment during the construction and operational phases of the development.

3. The proposed development shall be amended as follows:

   a) Turbine No. T12, and its associated access road and ancillary works, shall be omitted from the development,

   b) Turbine No. T6 shall be relocated a distance of 70 metres to the south of the location shown on the submitted drawings.

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

   Reason: In the interests of visual and residential amenity.

4. This permission shall not be construed as any form of consent for the proposed grid connection, which shall be the subject of a separate planning application.

   Reason: In the interest of clarity, and to ensure that the cumulative effects on the environment and any in-combination impacts on European sites, of

the grid connection associated with the proposed wind farm, are subject to necessary assessments.

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

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

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

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

7.
   a) The permitted turbines shall have a maximum tip height of 131 metres. Details of the turbine design, height and colour shall be submitted to, and agreed in writing with, the planning authority, prior to commencement of development.
   b) Cables from the turbine to the substation shall be run underground within the site.
   c) The wind turbines shall be geared to ensure that the blades rotate in the same direction.
   d) Transformers associated with each individual turbine and mast shall be located either within the turbine mast structure or at ground level beside the mast.
   e) No advertising material shall be placed on or otherwise affixed to any structure on the site without a prior grant of planning permission.
   f) The access tracks within the site shall be surfaced in suitable material, acceptable to the planning authority, and shall not be hard topped with tarmacadam or concrete.
   g) Roads, hard-standing areas and other hard-surfaced areas shall be completed to the written satisfaction of the planning authority within three months of the date of commissioning of the windfarm.
   h) Soil, rock and other materials excavated during construction shall not be left stockpiled on site following completion of works. Excavated areas including the borrow pits and areas of peat

placement shall be appropriately restored within three months of the date of commissioning of the wind farm, to details to be submitted to, and agreed in writing with, the planning authority.

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

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

   Reason: In the interest of air traffic safety.

9. Noise mitigation measures outlined in the environmental impact statement and in the further information submitted to the planning authority shall be carried out in full. The following conditions shall be complied with:

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

      - 5dB(A) above background noise levels or
      - 43dB(A)$L_{90,10min}$

      when measured externally at dwellings or other sensitive receptors.

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

Reason: In the interest of resiliently amenity.

11.

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

Reason: In the interest of residential amenity.

12. Prior to the commencement of development, the developer shall agree a protocol for assessing any impact on radio or television or other telecommunications reception in the area. In the event of interference occurring, the developer shall remedy such interference according to a methodology to be agreed in writing with the planning authority following consultation with other relevant authorities and prior to commissioning of the turbines.

Reason: In the interest of residential amenity.

13. Any signage for the proposed development located within the Múscrai Gaeltacht shall be in both Irish and English with Irish as its primary language.

Reason: Having regard to the location of the site in the Gaeltacht area.

14.

a) Full details of the upgrading works to the existing site accesses and the associated road improvement works to be undertaken along the public road at the access points, including any road widening and strengthening, designed to facilitate the proposed development shall be submitted to and agreed in writing with the planning authority prior to the commencement of development.
b) Prior to the commencement of any other development works on the application site, the developer shall have completed, to the written satisfaction of the planning authority, the upgrading works to the existing site access arrangements and the associated road improvement works along the public road in accordance with condition (a) above.
c) The provision of the required upgrading of the existing site access arrangements and the associated road improvement works on the public road at the accesses shall be undertaken at the expense of the developer.

Reason: In the interest of proper planning and sustainable development and in the interest of pedestrian and road traffic safety.

15.

a) Prior to commencement of development, details of the following shall be submitted to, and agreed in writing with the planning authority:

    i) a Transport Management Plan, including details of the road network/haulage routes, the vehicle types to be used to transport materials on and off site, and a schedule of control measures for exceptional wide and heavy delivery loads.
    ii) a condition survey of the roads and bridges along the haul routes to be carried out at the developer's expense by a suitably qualified person both before and after construction of the wind farm development. This survey shall include a schedule of required works to enable the haul routes to cater for construction-related traffic. The extent and scope of the survey and the schedule of works shall be agreed with the planning authority/authorities prior to commencement of development.
    iii) detailed arrangements whereby the rectification of any construction damage which arises shall be completed to the satisfaction of the planning authority/authorities.

iv) detailed arrangements for temporary traffic arrangements/controls on roads.
v) a programme indicating the timescale within which it is intended to use each public route to facilitate construction of the development.

b) All works arising from the aforementioned arrangements shall be completed at the developer's expense, within 12 months of the cessation of each road's use as a haul route for the proposed development.

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

Reason: To protect the public road network and to clarify the extent of the permission in the interest of traffic safety and orderly development.

16. On full or partial decommissioning of the wind farm or if the wind farm ceases operation for a period of more than one year, the masts and the turbines concerned shall be removed and all decommissioned structures shall be removed, and foundations removed or covered with soil to facilitate re-vegetation, within three months of decommissioning.

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

17. The construction of the development shall be managed in accordance with a Construction Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including:

a) Location of the site and materials compound(s) including area(s) identified for the storage of construction refuse;
b) Location of areas for construction site offices and staff facilities;
c) Details of site security fencing and hoardings;
d) Details of on-site car parking facilities for site workers during the course of construction;
e) Details of the timing and routing of construction traffic to and from the construction site and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the site;

f) Measures to obviate queuing of construction traffic on the adjoining road network;
g) Measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network;
h) Alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public road or footpath during the course of site development works;
i) Provision of construction hours, including deliveries of materials to the site;
j) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;
k) Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater;
l) Off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soils, including peat;

A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan shall be kept for inspection by the planning authority.

Reason: In the interest of amenities, public health and safety.

18.

a) Prior to commencement of development, a detailed Environmental Management Plan for the construction stage shall be submitted, generally in accordance with the Environmental Impact Statement and the submissions made in accordance with the planning application and the appeal, for the written agreement of the planning authority.

b) The Environmental Management Plan shall incorporate the following:

i) a detailed construction programme,
ii) detailed method statements for construction, including a method statement for the excavation of rock from the borrow pits. In the event that blasting is used for the excavation of rock, the vibration levels from blasting shall not exceed a peak particle velocity of 12 millimetres/second, when measured in any three mutually orthogonal directions at any sensitive location. Blasting shall not give rise to air overpressure values at sensitive locations which are

in excess of 125dB(Lin)max peak with a 95% confidence limit. No individual air overpressure value shall exceed the limit value by more than 5dB(Lin). Blasting operations shall take place only between 1000 hours and 1700 hours, Monday to Friday, and shall not take place on Saturdays, Sundays or public holidays. Monitoring of the noise and vibration arising from blasting and the frequency of such blasting shall be carried out at the developer's expense by an independent contractor who shall be agreed in writing with the planning authority.

iii) a site drainage management plan, in accordance with the submissions made in the Environmental Impact Statement and the further information, incorporating a detailed silt management plan and pollution prevention plan, and including appropriately-sized silt traps and/or settlement ponds as required, to be prepared by a suitably qualified drainage engineer or equivalent professional, with experience of drainage design in forest environments, to the satisfaction of the planning authority.

iv) a programme for the on-going monitoring of water quality during the construction period,

v) a construction waste and demolition management plan, and

vi) an emergency response plan.

c) The Environmental Management Plan shall be subject to ongoing independent audit (all costs of which shall be borne by the developer) in accordance with the requirements of the planning authority.

Reason: In the interest of protection of the environment and sustainable waste management.

19. All site development works shall be carried out to a standard not below the minimum specified in "Best Practice for Wind Energy Development in Peatlands" issued by the Department of the Environment, Heritage and Local Government.

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

20. Drainage arrangements shall comply with the requirements of the planning authority for such works and services.

Reason: In the interest of public health and to ensure a proper standard of development.

21. The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the developer shall –

    a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,
    b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works, and
    c) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove.

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

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

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

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

23. Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to

secure the satisfactory reinstatement of the site upon cessation of the project, coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: In the interest of orderly development and visual amenity and to ensure satisfactory reinstatement of the site.

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

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

25. The developer shall pay to the planning authority a financial contribution as a special contribution under section 48(2) (c) of the Planning and Development Act 2000, as amended, in respect of works to the public road in the vicinity of the site which are required to facilitate the proposed development. The amount of the contribution shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to the Board for determination. The contribution shall be paid prior to the commencement of the development or in such phased payments as the planning authority may facilitate and shall be updated at the time of payment in accordance with changes in the

Wholesale Price Index – Building and Construction (Capital Goods), published by the Central Statistics Office.

Reason: It is considered reasonable that the developer should contribute towards the specific exceptional costs which are incurred by the planning authority which are not covered in the Development Contribution Scheme and which will benefit the proposed development.

Signed: _____ Date: _____

Robert Speer
Inspectorate