

An  
Bord  
Pleanála

## Inspector's Report ABP-319391-24

<b>Development</b>	Proposed development of 110kV 'loop in – loop out' electricity substation and approximately 8.5km of underground electricity line.
<b>Location</b>	Shankill and Ballygorteen, Co. Kilkenny, and Lacken, Baunreagh and Annagar, Co. Carlow.
<b>Planning Authority</b>	Kilkenny County Council & Carlow County Council
<b>Prospective Applicant</b>	White Hill Wind Limited
<b>Type of Application</b>	Pre-Application consultation under Section 182E of the Planning and Development Act, 2000, as amended
<b>Date of Site Inspection</b>	26 <sup>th</sup> June, 2024
<b>Inspector</b>	Robert Speer

## **1.0 Introduction**

- 1.1. The Board received a request on 25<sup>th</sup> March, 2024 from the prospective applicant, White Hill Wind Limited, to enter into pre-application consultations under Section 182E of the Planning and Development Act, 2000, as amended, in relation to the proposed development of a new 110kV 'loop in – loop out' electricity substation, 2 No. electrical control units, approximately 8.5km of underground electricity line, and associated development works to connect the White Hill Wind Farm to the existing 110kV Carlow – Kilkenny overhead line.
- 1.2. A single meeting was held remotely with the prospective applicant and its representatives on 27<sup>th</sup> June, 2024. Closure of the pre-application consultation was requested by letter dated 6<sup>th</sup> September, 2024.

## **2.0 Site Location and Description**

- 2.1. The proposed development site is located in eastern Co. Kilkenny and western Co. Carlow, approximately 14km northeast of Kilkenny City and 4km west of Bagnelstown (Muine Bheag), Co. Carlow, where it extends across two planning jurisdictions (through the rural townlands of Shankill and Ballygorteen, Co. Kilkenny, and Lacken, Baunreagh and Annagar, Co. Carlow) between the site of the permitted White Hill Wind Farm in the townland of Baunreagh, Co. Carlow, and the existing 110kV Carlow – Kilkenny overhead line at Shankill, Co. Kilkenny. It occupies a position on the lower slopes of the 'Castlecomer Plateau' where the prevailing topography generally slopes to the east / southeast towards the River Barrow while the wider surrounds are characterised by a rural landscape interspersed with commercial forestry, semi-natural woodland, farmsteads and piecemeal one-off housing.
- 2.2. The site itself includes the southernmost extent of the permitted wind farm where it adjoins the public road. It subsequently encompasses the route of the proposed underground electricity line which extends south-eastwards through private agricultural / forestry lands and along several sections of the public road while crossing the administrative boundary between Counties Kilkenny and Carlow on three separate occasions. The remainder of the site comprises an area of low-lying

agricultural pasture bounded by mature hedgerows situated approximately 70m west of the M9 Motorway.

### **3.0 Proposed Development**

- 3.1. The proposed development, as initially submitted with the pre-application consultation request, consists of the construction of a 110kV substation with an associated 'loop-in / loop-out' connection to the adjacent 110kV Carlow – Kilkenny overhead line via 2 No. interface masts; the laying of approximately 8.5km of underground cabling connecting the permitted White Hill Wind Farm to the proposed 110kV substation; the construction of 2 No. electrical control units at the site of the wind farm; and associated works, including a site entrance, the construction of an access track, site drainage infrastructure, and landscaping.
- 3.2. The proposed substation is to be located in the townland of Shankill, Co. Kilkenny, and will generally comprise the following:
- A compound with a hardcore surface enclosed by security fencing and gates containing electrical plant and equipment;
  - 2 No. electrical control buildings containing electrical plant and equipment;
  - 2 No. interface masts and 110kV underground electrical lines to facilitate connection to the existing Carlow – Kilkenny 110kV overhead transmission line;
  - A containerised energy storage system; and
  - Associated site development works, including a site entrance, the construction of an access track, site drainage infrastructure, and landscaping.
- 3.3. The route of the underground cabling connecting the wind farm to the proposed substation will pass through the townlands of Shankill, Annagar, Lacken, Baunreagh and Ballygorteen. It will be predominantly located within private agricultural / forestry lands with the cabling to be installed in ducts within a trench approximately 1.2m deep and 2m in width.
- 3.4. Within the townland of Baunreagh, it is proposed to install 2 No. modular electrical control units (with an appearance similar to that of shipping containers) to facilitate the connection of the wind farm electrical cabling circuits to the grid connection line.

- 3.5. The purpose of the substation and grid connection is to allow the permitted White Hill Wind Farm to connect to the national electricity network via the existing Carlow - Kilkenny 110kV overhead line.
- 3.6. During the course of the meeting held with the prospective applicant and its representatives on 27<sup>th</sup> June, 2024, updated proposals were presented which detailed an amended layout for the proposed substation and battery energy storage system along with revisions to the associated access arrangements.
- 3.7. The request for closure of the pre-application consultation dated 6<sup>th</sup> September, 2024 was also accompanied by a revised project design that is described as including for minor alterations to the precise siting and characteristics of the proposed infrastructure in response to the identification of localised environmental constraints and for technical civil and electrical engineering reasons. The primary revisions include the omission of the containerised energy storage system (which will no longer form part of the prospective development) and the replacement of the 2 No. electrical control units at the site of the permitted wind farm with a single unit. There are no substantive alterations to the proposed route of the underground electricity line or the location of the electricity substation from those described at the meeting with the Board.
- 3.8. The prospective development as amended in the request for closure can be described as follows:
- A 110kV 'loop-in / loop-out' Air-Insulated Switchgear (AIS) electricity substation including 2 No. single-storey control buildings, transformers, busbars, insulators, circuit breakers, and lightning poles;
  - 2 No. lattice-type interface mats, each of which will be 16m in height, to facilitate connection of the electricity substation to the existing Kellis-Kilkenny 110kV overhead electricity transmission line;
  - Approximately 320m of underground electricity line between the electricity substation and the interface masts;
  - A new site entrance from the L6673 local road and approximately 1.1km of access track to facilitate access to the electricity substation;
  - Electrical control unit located at the permitted White Hill Wind Farm;

- A new site entrance from the L7117 local road and approximately 250m of access track to facilitate access to the electricity control unit;
- Approximately 8.5km of underground electricity line between the electricity substation and the electrical control unit; and
- All associated and ancillary site development, excavation, construction, landscaping and reinstatement works; including a temporary construction compound and the provision of site drainage infrastructure and surface water protection measures.

## 4.0 Relevant Planning History

### 4.1. On Site:

#### 4.1.1. Co. Carlow:

ABP Ref. No. ABP-315365-22. Was granted on 21<sup>st</sup> November, 2023 permitting White Hill Wind Limited permission for a proposed development comprising the following:

- 7 No. wind turbines with hub height of 104m, a rotor diameter of 162m and an overall tip height of 185m;
- All associated turbine foundations and crane hardstanding areas;
- All associated underground electrical and communications cabling;
- Construction of internal wind farm access tracks;
- Construction of a site entrance from the L3037 local road and upgrades to 2 No. existing agricultural entrances from the L7122 local road;
- 1 No. guy-wired meteorological mast with an overall height of 30m;
- 1 No. temporary construction compound;
- 3 No. borrow pits which, when exhausted, will be utilised to permanently store excess excavated material;
- The storage, as required, of excavated material at 2 No. further dedicated spoil deposition areas;
- Change of use of existing residential dwelling to wind farm site office;

- Felling of 15 No. hectares of commercial forestry plantation to facilitate the construction of wind farm infrastructure;
- The construction of a temporary access track (150m in length) between the N78 National Road and L1834 Local Road;
- Carriageway strengthening works at 'Black Bridge' on the L1835 and L3037;
- All associated and ancillary site development, excavation, construction, landscaping and reinstatement works, temporary works to public roads along the turbine component haul route, the provision of site drainage infrastructure and environmental mitigation measures; and,
- A 35-year operational life from the date of commissioning of the entire proposed development.

All within the townlands of Ridge, Knocknabranagh and Knockbaun, and Agharue, Co. Carlow; and Coolcullen, Cloneen, and Coan East, Co. Kilkenny.

#### 4.1.2. *Co. Kilkenny:*

PA Ref. No. 18296. Was granted on 1<sup>st</sup> August, 2018 permitting Roland Forestry Ltd. permission for the construction of a forestry road and a bellmouth entrance adjoining the public road (and ancillary works), to facilitate occasional access to an existing forestry plantation, at Ballygorteen, Co. Kilkenny.

#### 4.2. **On Adjacent Sites:**

- 4.2.1. PA Ref. No. 1436 / ABP Ref. No. PL01.243364. Was refused on appeal on 15<sup>th</sup> September, 2014 refusing Gaeltech Energy Developments Limited permission for the erection of 21 No. wind turbines each with a hub height of up to 99m and rotor diameter of up to 82m, maximum tip height of 140m and all associated site development works including 1 No. temporary site compound, turbine foundations, crane hard-standing area, site access roads, underground cabling, upgrading of 4 No. site entrances, creation of 7 No. new site entrances, 2 No. road upgrades, 99m anemometer mast, 110kv substation consisting of: substation building with a floor area of 221.37m<sup>2</sup> and substation compound with all associated equipment and permanent compound area enclosed by a 2.4m palisade fence, to be known as Valleyview Wind Farm, all at Knocknabranagh and Knockbaun Ridge, Baunreagh and Lacken, Co. Carlow.

- Having regard to the nature and character of the receiving upland “ridge” landscape which forms the backdrop to a vast expanse of low-lying lands, it is considered that a wind farm development of the scale proposed would create a significant visual intrusion in this landscape by reason of the height, spatial extent and configuration of the proposed turbines, some of which are located outside the preferred area for wind energy set out in the Carlow County Development Plan 2009-2015. The proposal would also detract from a designated scenic route in the said development plan. The proposed wind energy development would, therefore, seriously injure the visual amenities of the area, would be contrary to the provisions of the Wind Energy Development Guidelines, Guidelines for Planning Authorities issued by the Department of Environment, Heritage and Local Government in June 2006, and would be contrary to the proper planning and sustainable development of the area.
- It is considered that there is a deficiency in the information submitted in support of the application including;
  - the absence of a detailed geotechnical assessment,
  - the absence of a full bat survey,
  - inadequate consideration of the impacts on the character of local roads,
  - inadequate assessment of the impact on residential amenity, and
  - inadequate detail on the protection of surface water in the area.

Having regard to these deficiencies the Board is not satisfied that it has sufficient information to complete an Environmental Impact Assessment. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area.

#### **4.3. Other Relevant Files in the Surrounding Area:**

- 4.3.1. PA Ref. No. 22340 / ABP Ref. No. ABP-318295-23. On 25<sup>th</sup> September, 2023 the Planning Authority issued a notification of a decision to grant Boolyvannanan Renewable Energy Ltd. permission for the erection of 5 No. wind turbines with a turbine blade diameter of 117m and an overall height to tip of 136.5m; 1 No.

permanent meteorological mast; access road and internal tracks; electricity substation; temporary construction compound; turbine laydown area; control building; 1 No. borrow pit; crane hardstanding; underground cabling; up to approximately 18 hectares of forestry felling; and all associated site works, with an operation lifetime of 30 years, all at Bilboa Wind Farm, Land at Boolyvannanan & Coolnakisha, Bilboa, Co. Carlow. This decision has since been appealed with no determination to date.

## **5.0 Precedent Cases**

### **5.1. Referenced in the Pre-Application Consultation:**

- 5.1.1. ABP Ref. No. ABP-306018-19. Was determined on 16<sup>th</sup> April, 2020 with the Board deciding that the proposed development of a 110kV loop-in/loop-out substation, including a substation compound, associated electrical plant and apparatus, at Newbliss, Co. Monaghan, was strategic infrastructure development within the meaning of Section 182A of the Act.
  - 5.1.2. ABP Ref. No. ABP-313693-22. Was determined on 19<sup>th</sup> May, 2023 with the Board deciding that the proposed development of a 110kV substation with connection to the national grid via an existing 110kV overhead line and associated works at Chancellorstown, Co. Tipperary, was strategic infrastructure development within the meaning of Section 182A of the Act.
  - 5.1.3. ABP Ref. No. ABP-315128-22. Was determined on 19<sup>th</sup> May, 2023 with the Board deciding that the proposed development of a 110kV electrical substation and grid connection at Trascaun & Clondoolusk, Portarlinton, Co. Offaly and the provision of passing bays in the public road within the townlands of Clondoolusk, Trascaun, Bishopswood, Tinacrannagh and Droughill, Co. Offaly & Co. Laois, was strategic infrastructure development within the meaning of Section 182A of the Act.
- ### **5.2. Other Relevant Cases:**
- 5.2.1. ABP Ref. No. ABP-317173-23. Was determined on 15<sup>th</sup> September, 2023 with the Board deciding that the proposed development of a 110kV Air Insulated Switchgear (AIS) loop-in substation and associated grid connection in the townland of



Rathcoursey East, Co. Cork, was strategic infrastructure development within the meaning of Section 182A of the Act.

- 5.2.2. ABP Ref. No. ABP-317988-23. Was determined on 1<sup>st</sup> February, 2024 with the Board deciding that the proposed development of a 110kV substation and loop-in connection associated with an approved solar PV development at Stokesquarter, Painestown, Killary, Ricetown, Castletown K.P., Navan, Co. Meath, was strategic infrastructure development within the meaning of Section 182A of the Act.
- 5.2.3. ABP Ref. No. ABP-317901-23. Was determined on 2<sup>nd</sup> February, 2024 with the Board deciding that the proposed development of a 220kV loop-in substation to connect to the Eirgrid transmission network and an underground grid connection to a proposed solar farm at Mulhussey Townlands, Kilclone, Co. Meath, was strategic infrastructure development within the meaning of Section 182A of the Act.
- 5.2.4. ABP Ref. No. ABP-319140-24. Was determined on 18<sup>th</sup> July, 2024 with the Board deciding that the proposed development of a 110kV substation and underground 110kV transmission line looping into the existing Derryiron – Timahoe 110kV circuit at Oldcourt Solar Farm, Co. Kildare, was strategic infrastructure development within the meaning of Section 182A of the Act.

## **6.0 Prospective Applicant's Case**

- In recent comparable cases (e.g. ABP Ref. Nos. ABP-306018-19, ABP-315128-22 & ABP-313693-22), the Board has determined that similar 'loop-in loop-out' electricity substations constitute Strategic Infrastructure Development.
- Having regard to the provisions of Section 182A of the Planning and Development Act, 2000, as amended, the characteristics of the prospective development, and relevant precedent decisions taken by the Board, the prospective applicant is of the view that:
  - i) The prospective development comprises high voltage electricity lines and electrical plant with a capacity of 110kV; and
  - ii) The proposed electricity substation would form an integral part of, and a new node on, the national transmission network given that all

electricity passing along the existing Carlow – Kilkenny 110kV overhead transmission line would be directed through the electricity substation.

Therefore, it is submitted that the prospective development falls within the scope of Section 182A of the Act and constitutes Strategic Infrastructure Development thereby necessitating that a planning application be made directly to the Board.

## 7.0 Legislative Provisions

- 7.1. **Section 2(1)** of the Planning and Development Act, 2000, as amended, defines '*strategic infrastructure*' as including, inter alia: (d) any proposed development referred to in section 182A(1).
- 7.2. **Section 182A(1)** of the Act (inserted by section 4 of the 2006 Act) provides that where a person, (thereafter referred to as the 'undertaker') intends to carry out development comprising or for the purposes of electricity transmission (hereafter referred to in this section and section 182B as 'proposed development'), the undertaker shall prepare, or cause to be prepared, an application for approval of the development under section 182B and shall apply to the Board for such approval accordingly.
- 7.3. **Subsection 182A(9)** states that '*transmission*' in relation to electricity, shall be construed in accordance with section 2(1) of the Electricity Regulation Act, 1999 but, for the purposes of this section, the foregoing expression, in relation to electricity, shall also be construed as meaning the transport of electricity by means of:
- a) a high voltage line where the voltage would be 110 kilovolts or more, or
  - b) an interconnector, whether ownership of the interconnector will be vested in the undertaker or not.
- 7.4. **Section 2(1) of the Electricity Regulation Act, 1999, as amended**, includes the following definitions:
- 7.4.1. **"Transmission"**: is defined as:
- 'The transport of electricity by means of a transmission system, that is to say a system which consists, wholly or mainly, of high voltage lines

and electric plant and which is used for conveying electricity from a generating station to a substation, from one generating station to another, from one substation to another or to or from any interconnector or to final customers but shall not include any such lines which the Board may, from time to time, with the approval of the Commission, specify as being part of the distribution system but shall include any interconnector owned by the Board'.

7.4.2. **"Distribution"** is defined as:

'The transport of electricity by means of a distribution system, that is to say, a system which consists of electric lines, electric plant, transformers and switch gear and which is used for conveying electricity to final customers'.

7.4.3. **"Electric plant"** is defined as:

'any plant, apparatus or appliance used for, or for the purposes connected with, the generation, transmission, distribution or supply of electricity other than –

- a) An electric line.
- b) a meter used for ascertaining the quantity of electricity supplied to any premises, or
- c) an electrical appliance under the control of the consumer'.

## 8.0 **Assessment**

8.1. The documentation initially submitted with this pre-application consultation concerns the proposed development of a new 110kV substation with an associated 'loop-in / loop-out' connection to the adjacent 110kV Carlow – Kilkenny overhead line via 2 No. interface masts; a containerised energy storage system; the laying of approximately 8.5km of underground electricity cabling connecting the permitted White Hill Wind Farm to the proposed 110kV substation; the construction of 2 No. electrical control units at the site of the wind farm; and associated works, including a site entrance, the construction of an access track, site drainage infrastructure, and landscaping. However, for the purposes of clarity, the Board is advised that following

a meeting with the prospective applicant and its representatives on 27<sup>th</sup> June, 2024, the letter subsequently received requesting closure of the pre-application consultation dated 6<sup>th</sup> September, 2024 was accompanied by a revised project design that includes for minor alterations to the precise siting and characteristics of the proposed infrastructure; the omission of the containerised energy storage from the prospective development; and the replacement of the 2 No. electrical control units at the site of the permitted White Hill Wind Farm with a single unit.

Section 182A(9) of the Planning and Development Act, 2000, as amended, states that '*transmission*', in relation to electricity, is to be construed in accordance with Section 2(1) of the Electricity Regulation Act, 1999, which broadly defines the transmission system as consisting, wholly or mainly, of high voltage lines and electrical plant for conveying electricity, however, it is also to be construed as meaning the transport of electricity by means of a high voltage line where the voltage would be 110kV or more. In this regard, I am satisfied that the proposed 110kV substation comprises 'electric plant' as defined by Section 2(1) of the Electricity Regulation Act, 1999, as it consists of plant used for the purposes of conveying electricity from a generating station to a substation and / or facilitating connection to the national grid via an existing overhead line. Moreover, the new substation and associated infrastructure will enable electricity generated by the permitted White Hill Wind Farm to be stepped up to a voltage of 110kV for direct transmission to the national grid.


- 8.2. It is of further note that the proposed 'loop-in / loop-out' grid connection arrangement will result in electricity transmitted via the existing 110kV Carlow – Kilkenny overhead line being diverted into the proposed substation and back out again via the interface towers with the effect that the new 110kV substation will become an operational 'node' on the transmission network i.e. the substation will remain *in situ* as a functioning and operational part of the wider electricity transmission network.
- 8.3. Parallels may also be drawn between the subject works and other comparable proposals put before the Board for pre-application consultation under Section 182E of the Planning & Development Act, 2000, as amended, which were held to constitute strategic infrastructure development within the meaning of Section 182A of the Act.

- 8.4. Therefore, on the basis of the available information, it is my opinion that the proposed substation and the associated works fall within the scope of Section 182A of the Planning and Development Act, 2000, as amended, thereby necessitating that a planning application be made directly to the Board.

## 9.0 Recommendation

- 9.1. It is recommended that the prospective applicant, White Hill Wind Limited, be informed that the proposed development consisting of a 110kV 'loop in – loop out' electricity substation and approximately 8.5km of underground electricity line, at Shankill and Ballygorteen, Co. Kilkenny, and Lacken, Baunreagh and Annagar, Co. Carlow, as set out in the plans and particulars received by An Bord Pleanála on 25<sup>th</sup> March, 2024, fall within the scope of section 182A of the Planning and Development Act, 2000, as amended, and that a planning application should be made directly to the Board.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

  
\_\_\_\_\_  
Robert Speer  
Senior Planning Inspector

9<sup>th</sup> October, 2024

## **Appendix A: Prescribed Bodies**

The following is a list of prescribed bodies considered relevant by the Board:

- Minister for Housing, Local Government and Heritage
- Minister for the Environment, Climate and Communications
- Carlow County Council
- Kilkenny County Council
- Transport Infrastructure Ireland
- An Taisce
- Fáilte Ireland
- The Heritage Council
- An Chomhairle Ealaíon
- Uisce Éireann (Irish Water)
- Commission for Regulation of Utilities
- EirGrid
- ESB
- Inland Fisheries Ireland

Further notifications should also be made, where deemed appropriate.