

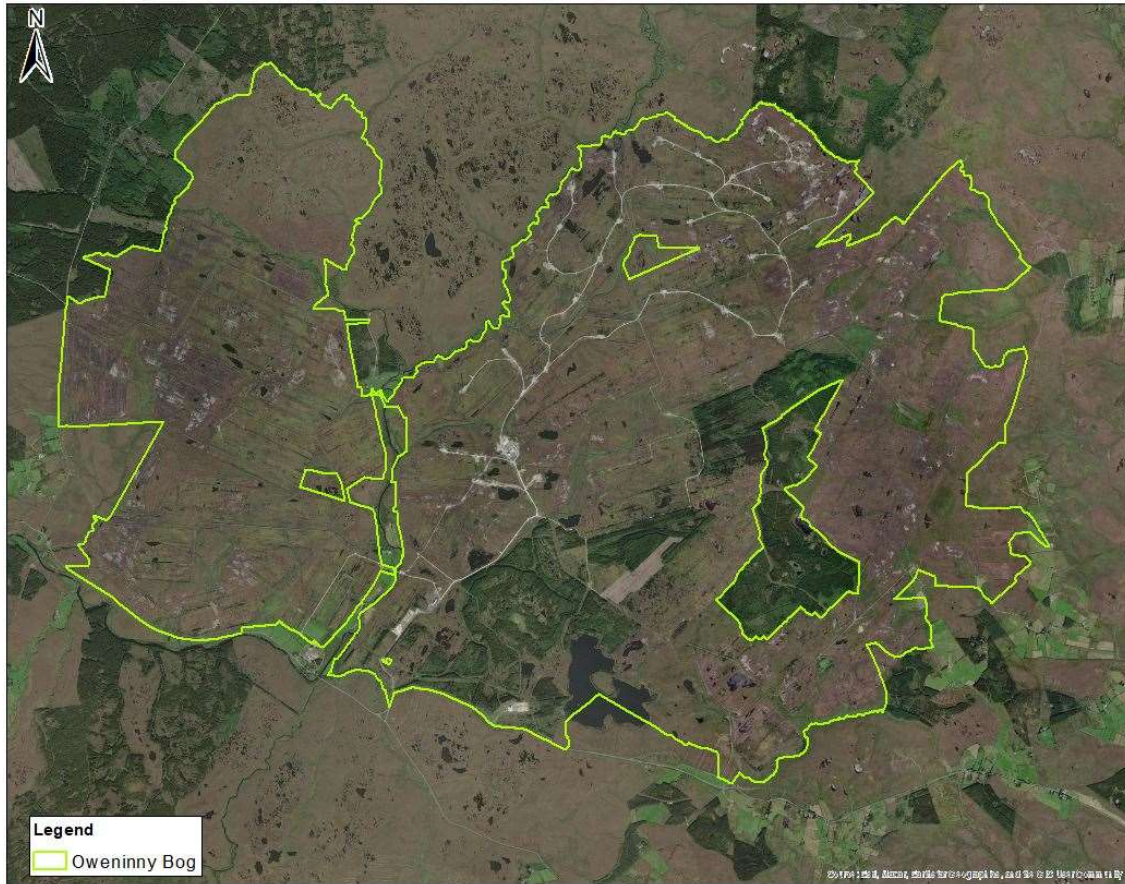
## 2.0 BACKGROUND TO THE PROPOSED DEVELOPMENT

### 2.1 SITE HISTORY

#### *2.1.1 Historical Peat Harvesting on the Oweninny Bog Complex*

The site is owned by Bord na Móna Energy Ltd. and comprises cutover, cutaway and rehabilitated bog. Since its establishment, Bord na Móna has acquired and developed approximately 80,000 hectares of bogland nationally which, in turn, has supported a range of communities across the midlands and the west coast. Over 5,140 hectares of Bord na Móna owned bogland forms the Oweninny Bog, of which approximately 3,250 hectares were used for the production of milled peat to supply the ESB Bellacorick power station.

Industrial scale peat production operations began at Oweninny Bog in the 1950s and continued for over half a century to supply the ESB Bellacorick peat burning power station. Initial drainage works commenced on Oweninny Bog in 1951, however, it took nine years to develop the bog characteristics to enable its first milled peat harvest. This was followed by the commissioning of the power station in 1962 to which milled peat was supplied until the station was decommissioned.

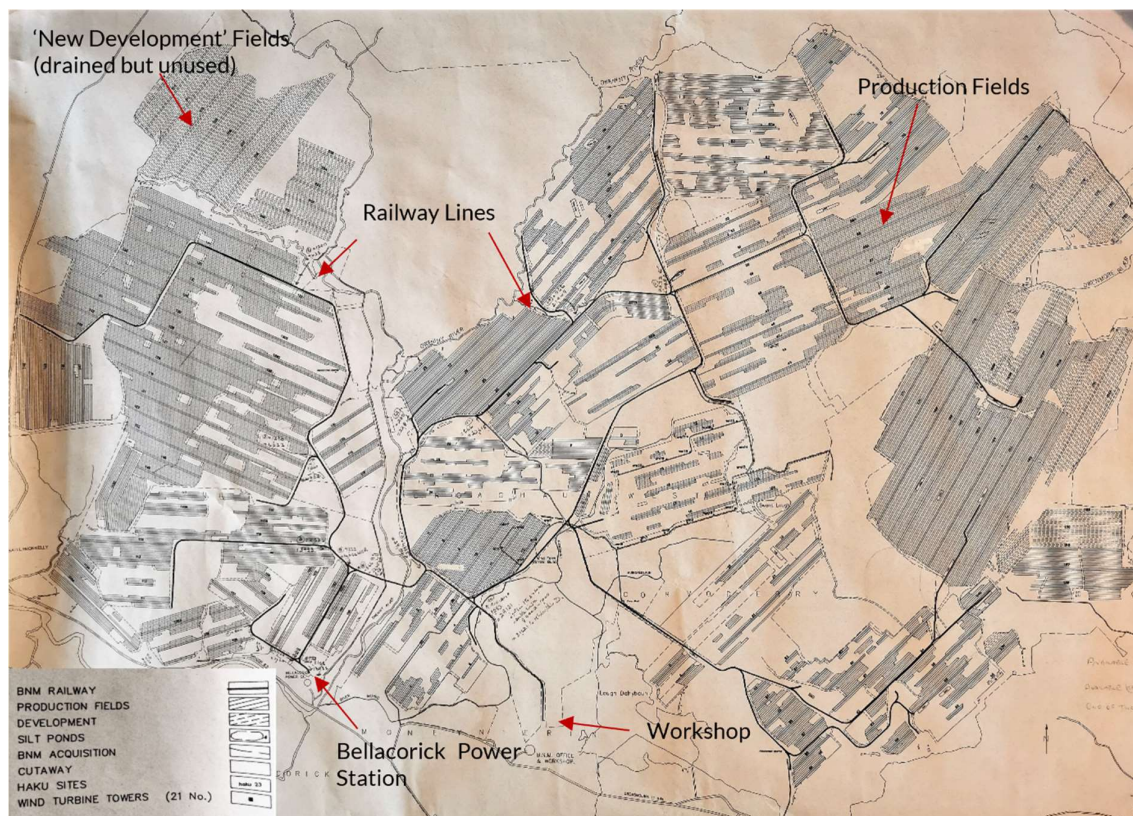


*Figure 2.1: Oweninny Bog Complex*

Oweninny Bog was used historically to produce milled peat to supply the ESB Bellacorick peat-fired power station. The overall area of Oweninny Bog is approximately 5,140 hectares, all of which comprised primarily of cutaway bog railway lines and areas of upland and undeveloped bog during the operational phase.

The bog is made up of peatlands and a facility workshop (known as Oweninny Works), which includes administration offices and a workshop, at Bellacorick. This workshop was originally used for peat operations, it is now used as a service building for the Bellacorick wind farm.

During production, the peatlands consisted of four production areas serviced by several railway lines and production/tea centres. A site layout drawing from 1998 illustrates the operational set up and this can be seen in Figure 2.2.



*Figure 2.2: Production Survey Drawing 1998 (Source: Bord Na Móna Workshop)*

The peatlands were made up of large production fields (700 to 1800m in length) which were separated by drainage channels 15m apart. At the end of each production field there was a 21m turning ground. The outline of these fields can still be seen today.

Since 2003, all peat production in the bog ceased and a rehabilitation programme was implemented. To date the rehabilitation programme has resulted in the recolonisation of the peatlands with typical bog species such as the *Sphagnum*. Since the cessation of works, all equipment associated with peat extraction works including rail tracks and tea centres within the peatland area have been decommissioned and a programme of sedimentation pond decommissioning has been completed on ponds near roads and access points.

The peatlands are located within the Owenmore, Moy and Killala Bay Hydrometric Catchment Areas. The majority of the bog is drained into the Muing and Owenmore Rivers (also known as the Owenniny River). The eastern sections of the peatlands are drained by the Fiddaunagosty and Shanvolahan Rivers.

Much of the bog is made up of cut-away peatlands, Atlantic blanket bog and glacial tills exposed in places. During production and at the time the rehabilitation plan was introduced, the bog was broken down into the following bog conditions outlined in **Error! Reference source not found..** This information was recorded in the rehabilitation plan.

*Table 2.1: Breakdown of Oweninny Bog Conditions (Source: Cutaway Bog Rehabilitation Plan 2003)*

Bog Condition	Description	Hectares
Production	Production bog is where peat was still being harvested ( <i>Note: this is no longer in production</i> )	1303
New development	New development refers to areas of Atlantic blanket bog that were ditched, but the surface vegetation was never removed. In general, these areas have begun to rewet again through the natural in-filling in of drainage channels.	646
Cutaway	Cutaway bog refers to peat fields that have been economically exhausted of their peat resource. These areas have been out of production for a period of up to 20 years. Part of the cutaway bog was planted predominantly with conifers. This area is on a 60-year lease to Coillte (since 1988)	1946
Forestry	Forested areas under Coillte stewardship.	682
Bog Remnants	The bog remnants represent vestiges of the former Atlantic blanket bog complex that pre-existed	374

Bog Condition	Description	Hectares
	industrial development at the site, these areas are recognised as important seed sources and wildlife corridors.	
Other Areas	Other areas include watercourses, workshops, silt ponds, railway lines, etc.	89 approx
<b>Total Area</b>		<b>5140</b>

The areas that were intensively utilised for peat extraction, required the greater amount of rehabilitation work. Intact bog remnants and new development areas required minimal interface.

During production of the peatlands in the latter years, Bord na Móna Energy was actively developing new uses for the peatlands, including the development of a wind farm and Coillte forestry on the lands. This began the shift away from peat extraction activities to supply energy and a focus towards developing more sustainable energy methods such as wind energy.

Some areas of Coillte forest plantation on Bord na Móna owned lands are present on the site. Extensive areas were forested in the 1980s and are currently under long-term lease to Coillte. These are located mainly adjacent to, and to the northwest of Lough Dahybaun. The site also encompasses 192 hectares of private forest plantation land at Corvoderry, an area for which planning permission for a wind farm development was granted in 2012. Planning permission for that wind farm expired in October 2022.

Since 2000, the entirety of Oweninny Bog Group is licensed by the Environmental Protection Agency (EPA) under an Integrated Pollution Control (IPC) Licence (Reg. No. P0505-01), under Part IV of the EPA Act 1992. Peat production activities ceased in 2003 and since then an ongoing programme of decommissioning and rehabilitation has been carried out in compliance with Condition 10 of the Oweninny IPC Licence. The decommissioning of the Oweninny Bog commenced in 2003 and continued over a four-year period to 2007. This included the decommissioning and removal for disposal/recovery of any materials, buildings, plant equipment, substances or any other matter that may result in environmental pollution.

## 2.2 BORD NA MÓNA STRATEGY FOR PEATLANDS

### *2.2.1 Strategic Framework for The Future Use of Peatlands*

In 2011, Bord na Móra published a 'Strategic Framework for The Future Use of Peatlands'. The strategy establishes a framework for the on-going assessment of the company's approximately 80,000 hectares total land bank and provides for the formulation of appropriate strategies, policies and actions. The development of wind energy as an after use for cutaway peatlands is clearly indicated in this strategy.

To date, Bord na Móra has developed a number of wind farms in the Mayo area that are supplying energy to the National Grid including Bellacorick Wind Farm and Oweninny Wind Farm Phase 1 (a joint venture with ESB) situated in Oweninny Bog. In addition, Bord na Móra currently has Oweninny Wind Farm Phase 2, under construction.

### *2.2.2 Cessation of Peat Extraction*

Since 2018 Bord na Móra has been actively pursuing a *Brown to Green* strategy, transitioning away from peat extraction and focusing on delivering low carbon energy, security of energy supply and climate solutions.

Peat production on the Oweninny Bog Complex ceased in 2003 and the peat fired power station was subsequently decommissioned in 2005 with the power station's cooling tower demolished in 2007. In January 2021 Bord na Móra announced that it had ceased all peat extraction nationally and was wholly focused on climate energy solutions

Bord na Móra is a now commercial semi-state company delivering climate solutions for Ireland leading Ireland toward a carbon neutral, sustainable future. Over the past number of years Bord na Móra has been focused on the Brown to Green strategy effectively transitioning the company from being the largest fossil fuel producer to the largest climate solutions company.

In facing the climate crisis of today, including energy market volatility and security of supply issues, Bord na Móra's Renewable Energy Business is seeking to accelerate its' strategy to deliver renewable energy infrastructure supporting the delivery of the State's decarbonisation targets for 2030 and beyond. The company has made significant progress as an independent power producer and Bord na Móra will play an important role in decarbonising the Irish economy. Bord na Móra is undertaking several highly significant actions in support of climate

---

and energy policy in support of the company strategy as a climate solutions company leading Ireland towards a climate neutral future. Renewable Energy is one of the key drivers of growth in Bord na Móna, providing very significant market opportunities to leverage the company land assets, project development skills and technical experience in operating renewable energy assets.

Bord na Móna made an application to An Bord Pleanála for leave to apply for Substitute Consent in respect of the historical peat extraction on the Oweninny Bog, which ceased in 2003 and this application is expected to be submitted in 2023.

### ***2.2.3 Forestry***

In the latter years of peat extraction on the Oweninny Bog, Bord na Móna actively sought new uses for the peatlands, including forestry. There are currently some areas of Coillte forest plantation on Bord na Móna owned lands on the site. Extensive areas were forested in the 1980s and are currently under long-term lease to Coillte. These are located mainly adjacent to, and to the northwest of Lough Dahybaun, comprising mainly Sitka Spruce and Lodgepole Pine. This began the shift away from peat extraction activities to supply energy and a focus towards developing more sustainable energy methods.

The site also encompasses 192 hectares of private forest plantation land at Corvoderry, an area for which planning permission for a wind farm development was granted in 2012. Planning permission for that wind farm expired in October 2022.

## **2.3 RENEWABLE ENERGY PROJECTS ON THE OWENINNY BOG**

### ***2.3.1 Bellacorick Wind Farm***

In 1991 Bord na Móna joined with a group of developers to establish a wind farm in County Mayo. The country's first commercial wind farm, a 21-turbine development known as the Bellacorrick Wind Farm, has been operational on this site since 1992 (see Figure 2.3 below). This wind farm is currently owned and operated by Renewable Energy Ireland Limited. It has operated successfully since 1992 with an installed capacity of 6.45 MW. Twenty of these turbines are rated at 300 kW and the other is rated at 450 kW. The total output of this existing wind farm is sufficient to meet the needs of approximately 3,000 households. Bord na Móna has operated and maintained the wind farm since its commissioning and is the majority shareholder since 1997. The 300 kW turbines are 46.5m high to the uppermost tip of a vertical blade, while the 450 kW turbine is 53.5m high to the uppermost tip of a vertical blade. The spacing of the turbines varies somewhat and is typically 235 m.

If it is still operating at the time that the proposed wind farm commences construction, this existing wind farm will be decommissioned and new turbines forming part of the (3rd) final phase of the Oweninny Wind Farm project will be installed near where the existing turbines are located. As described later, this application includes the decommissioning of the Bellacorick wind farm turbines and associated infrastructure.



*Figure 2.3: Existing Bellacorick Wind Turbines*

### ***2.3.2 Oweninny Wind Farm***

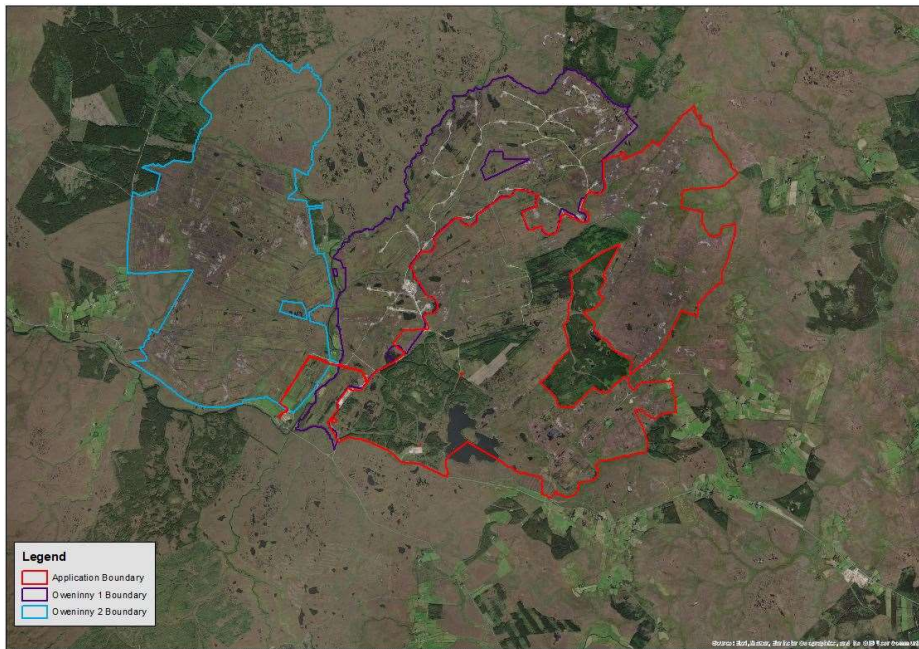
In June 2016, An Bord Pleanála granted planning permission (An Bord Pleanála Ref PA0029) for the development of Oweninny Wind Farm consisting of 61 turbines with an overall tip height of up to 176m.

The Oweninny Wind Farm has been developed to date in two phases.

- Oweninny Wind Farm Phase 1 is located immediately west / northwest of the proposed development site. This wind farm consists of 29 turbines (93 MW) and was commissioned in 2019.
- Oweninny Wind Farm Phase 2 is located west of the proposed development site. This wind farm consists of 31 turbines (99 MW) and is currently under construction (due to be commissioned in 2023).

This application is for the wind farm referred to as Oweninny Wind Farm Phase 3. The proposed Oweninny Wind Farm Phase 3 study area is shown in Figure 2.4. The site boundaries of Phases 1 and 2 of Oweninny Wind Farm are also shown for reference.





*Figure 2.4: Study Area*

### ***2.3.3 Corvoderry***

The Corvoderry wind farm is also on Oweninny Bog and is fully surrounded by the application site. Planning permission was granted to Corvoderry Wind Farm Ltd. for 10 turbines (23 MW) with a tip height of 100m under planning reference 11838. Planning permission for this development expired in October 2022.

---

## 2.4 RENEWABLE ENERGY PROJECTS IN PROXIMITY TO THE OWENINNY BOG

### *2.4.1 Sheskin*

The Sheskin wind farm lies 6km north-west of the Oweninny Wind Farm Phase 3 site and consists of 8 turbines (33 MW). This wind farm was consented under planning reference 19457 and construction commenced on the development in early 2023.

### *2.4.2 Dooleeg*

Planning permission has been granted for a single wind turbine, with a 180m tip height, at Dooleeg, 600m south of the Oweninny Wind Farm Phase 3 site, under planning ref. 20467.

### *2.4.3 Killala*

The Killala wind farm lies 16km north-east of the Oweninny Wind Farm Phase 3 site and consists of 6 turbines (18 MW) with a 126m tip height. This wind farm was consented under planning reference 17619.

### *2.4.4 Sheskin South*

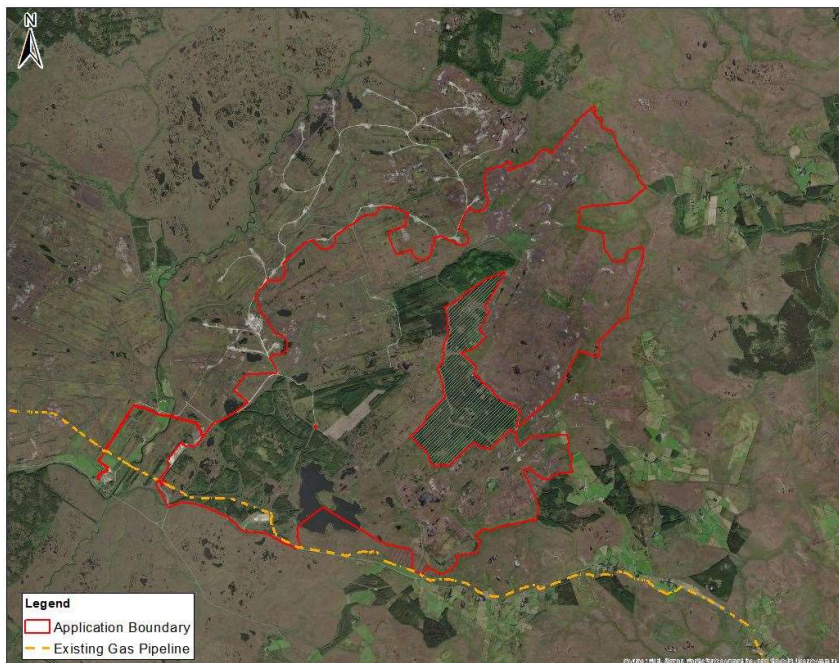
The Sheskin South wind farm is proposed by SSE Renewables and FutureEnergy Ireland, within an area of Coillte forestry 8km northeast of Bangor Erris. The site is approximately 4.5km west of the proposed Oweninny Wind Farm Phase 3. The proposed layout for the development includes 21 turbines with a proposed tip height of 200m, hub height of 115m and rotor diameter of 170m. The overall capacity of the proposed wind farm is 136MW. A planning application was made to An Bord Pleanála for this development on 1<sup>st</sup> March 2023 (ref: ABP-315933-23).

## 2.5 OTHER RELEVANT DEVELOPMENTS

In addition to the operational and consented wind farm developments described above, a number of other planned developments are of relevance to this application and have been taken account of in the assessment for the proposed development.

A 13-turbine wind farm development, known as the Kilsallagh Wind Farm, is planned by EDF Renewables approximately 8km south-west of the proposed Oweninny Wind Farm Phase 3. The developers have stated that they plan to submit a planning application for the development in 2023.

A high-pressure gas transmission pipeline runs close to N59 along the southern boundary and has been taken account of in the assessment for the proposed development. It crosses into the site to the east of Lough Dalybaun and travels along the southern section of the site, before crossing the existing entrance to Oweninny Wind Farm Phase 2. The gas pipeline then proceeds in a north-westerly direction away from the site and through the lands upon which the Oweninny Phase 2 wind farm is under construction. The route of this gas pipeline is shown in yellow below.



*Figure 2.5: Route of Existing Gas Transmission Pipeline*

A planning application was made to Mayo County Council (ref: 22/502) for a hydrogen electrolysis plant along Shranakilla Road, close to the western boundary of the development

---

site. The proposed hydrogen electrolysis plant comes under the remit of the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations SI 209 of 2015, which covers safeguarding public safety and ensuring emergency preparedness.

- A planning application was made to Mayo County Council (ref: 23/60028) for a 114MW gas fired peaking power plant (which will be capable of running on a mix of natural gas and hydrogen). The electricity generating station will comprise of 2 no. open cycle gas turbine (OCGT) generators.

There are a number of sensitive receptors located within 2km of the bog boundary including residential and commercial properties and recorded architectural heritage sites. The total number of residential sensitive receptors within 2km of the nearest turbines is 9.

Planning applications for a number of other developments, including mainly one-off housing, have also submitted to the study area, as listed in Chapter 5. These have been considered in the assessment but are not outlined here in detail.