

Bord na Móna Energy Park Derrygreenagh Power

Spring 2023

Bord na Móna



Introduction



Bord na Móna is an Irish, semi-state climate solutions company helping lead Ireland towards a climate neutral future. Bord na Móna has been serving communities for over 90 years, always rising to meet the needs of the day. It was founded in 1934 as The Turf Development Board to enhance national energy security through peat harvesting and became Bord na Móna in 1946.

Today, we have radically changed our approach to face an even greater challenge: climate change. We have ended peat harvesting and now our focus is developing climate solutions in renewable energy, sustainable waste management, carbon storage and biodiversity conservation.

Ireland has committed to ambitious climate goals and Bord na Móna's climate solutions are helping to achieve them. Our vision is to help Ireland reach net zero greenhouse gas emissions by 2050. This means helping to remove the same amount of greenhouse gases from the atmosphere that are released.

To power a net zero future, we are expanding our renewable energy infrastructure. We have been constructing and maintaining large-scale infrastructure for decades. Today, we are using that experience to build renewable energy developments across the country. These developments are transforming the way we generate and consume energy.

Ireland has committed to generating 80% of electricity from renewable sources by 2030. We are working across wind, solar, biomass and biogas to help achieve this target and to provide energy security for future generations.

It is recognised that to achieve these targets there is a requirement for gas-fired power stations in support of a high variable renewable electricity system as part of the transition to carbon net zero emissions by 2050. It is appropriate for Bord na Móna in its role in development of renewable energy projects up to 1.5 GW, that it would support variability in supply through development of efficient flexible gas-fired electricity supply. Gas-fired power generation will help ensure security and stability of supply to underpin demanding renewable targets and give investment certainty.

Development of modern thermal gas plant technology will also facilitate replacement of older less efficient conventional technology planned for removal from the system in the short to medium term.

Finally, there will be a sustainable transition of the proposed development to renewable fuels, such as Hydrogen, over the operational lifetime of the project.

We want to help create a brighter future where Ireland has reached net zero.

Frequently asked questions

1. What stage is the development at now?

Bord na Móna Energy Park, Derrygreenagh Power Project (hereinafter 'Derrygreenagh Power') is a consented thermal power plant development (granted 2010) with a total electricity generation capacity of 600 MW located on Bord na Móna lands between Rhode and Rochfortbridge, off the R400 and c. 2km from Junction 3 off the M6 Motorway.

There is a requirement to apply for necessary consents to facilitate connection of the development to the national gas and electrical grid infrastructure.

The project team is currently

- a) reviewing the existing planning consent granted in 2010 to ensure that it is compatible and reflective of current environmental and technical requirements
- b) developing a grid connection design to connect the consented site to the electrical grid infrastructure in accordance with Eirgrid requirements
- c) conducting a number of onsite surveys, including ecology surveys and ornithology surveys. Further ecological surveys, aquatic surveys, heritage surveys and site investigation works will be undertaken over the course of the next few months.

2. Where will the power from the Derrygreenagh Power Station go?

The electricity generated by Derrygreenagh Power Station will be transmitted directly onto Ireland's National Grid which is managed by EirGrid for transmission throughout the country.

3. When will a planning application be lodged?

It is envisaged that a planning application for connection of the power plant to the electricity grid will be lodged in the second half of 2023 for the proposed development. It is intended to submit the planning permission application

directly to An Bord Pleanála, under the provisions of Strategic Infrastructure Development (SID) set out in the Planning and Development Act as amended.

An initial approach is therefore being made to An Bord Pleanála seeking a determination in relation to the Strategic Infrastructure Development (SID) status, or otherwise, of the proposed development. For further information, please see section on 'Strategic Infrastructure Planning Process Explained'.

4. Will a similar application be required for a gas connection?

The connection from the Dublin-Galway national gas network to an above ground gas installation (AGI) onsite will be a separate consenting process led by Gas Networks Ireland under the Gas Act as amended. The connection to the gas grid infrastructure is integral to the development of Derrygreenagh Power and will be considered in environmental assessments of the Bord na Móna planning application.

5. How can I provide feedback on the proposed development to Bord na Móna?

We encourage feedback through a number of channels including:

- Through the Community Liaison Officer, Colm (see section on 'How you can get in touch' for further details)
- Submission of a Feedback Questionnaire (please see section on 'Community Engagement' for further details)
- Via the project's dedicated email address: energypark@bnm.ie
- You can also request to be kept informed of all updates by signing up to our project mailing list. Please visit the project website to complete the sign-up form: www.bnmenergypark.ie



About Derrygreenagh Power

Derrygreenagh Power Plant is a Strategic Infrastructure Development (SID) consented project, with planning permission granted from An Bord Pleanála in 2010.

The location for the consented Derrygreenagh Power Plant is shown on page 6. The site is located on Bord na Móna lands off the R400 road between the villages of Rochfortbridge and Rhode, in Co. Offaly. The power plant consists of two generating units located on the site at Derrygreenagh; a flexible combined cycle gas turbine unit (CCGT) and a reserve/peaking open cycle gas turbine unit (OCGT) with a total electricity generation capacity of 600MW.

The location of national electrical grid infrastructure is known in context of the consented development. Connection to the power grid will require a 220kV substation on the consented site, hybrid tail fed transmission technology to connect to a new loop-in 220/400kV substation at the 400kV line.

The map on pages 8 and 9 shows the consented development and the indicative section of route that will be overhead line. Average span between columns is c.320m depending on local landscape

features and topography. The transmission route will be a hybrid of overhead lines and underground cable and this will be facilitated by an interface compound. The remainder of transmission route will be via underground cable, the route will be dependent on finalising location of the substation at the 400kV line.

Bord na Móna's peatlands offer a number of advantages for facilitating connection of the consented development, which include:

- Significant scale, and are present in large blocks
- Industrial, brown-field sites, suitable for redevelopment
- Open, unenclosed landscapes
- Linked by rail or road passageways, suitable for cable connection
- Generally flat and well drained, with minimal dangers of land slippage

In selecting the route for connecting the consented development to the 400kV line, there are a number of criteria that must be considered. Based on these criteria some corridors are more suitable than others. The main criteria that we consider include:

- Location of the Power Grid with respect to the consented development
- Access to the sites
- Flooding Risk
- Proximity to Dwellings
- Cumulative Impact
- Supporting Infrastructure
- County Development Plan
- Environmental and Ecological Sensitivities

Archaeology

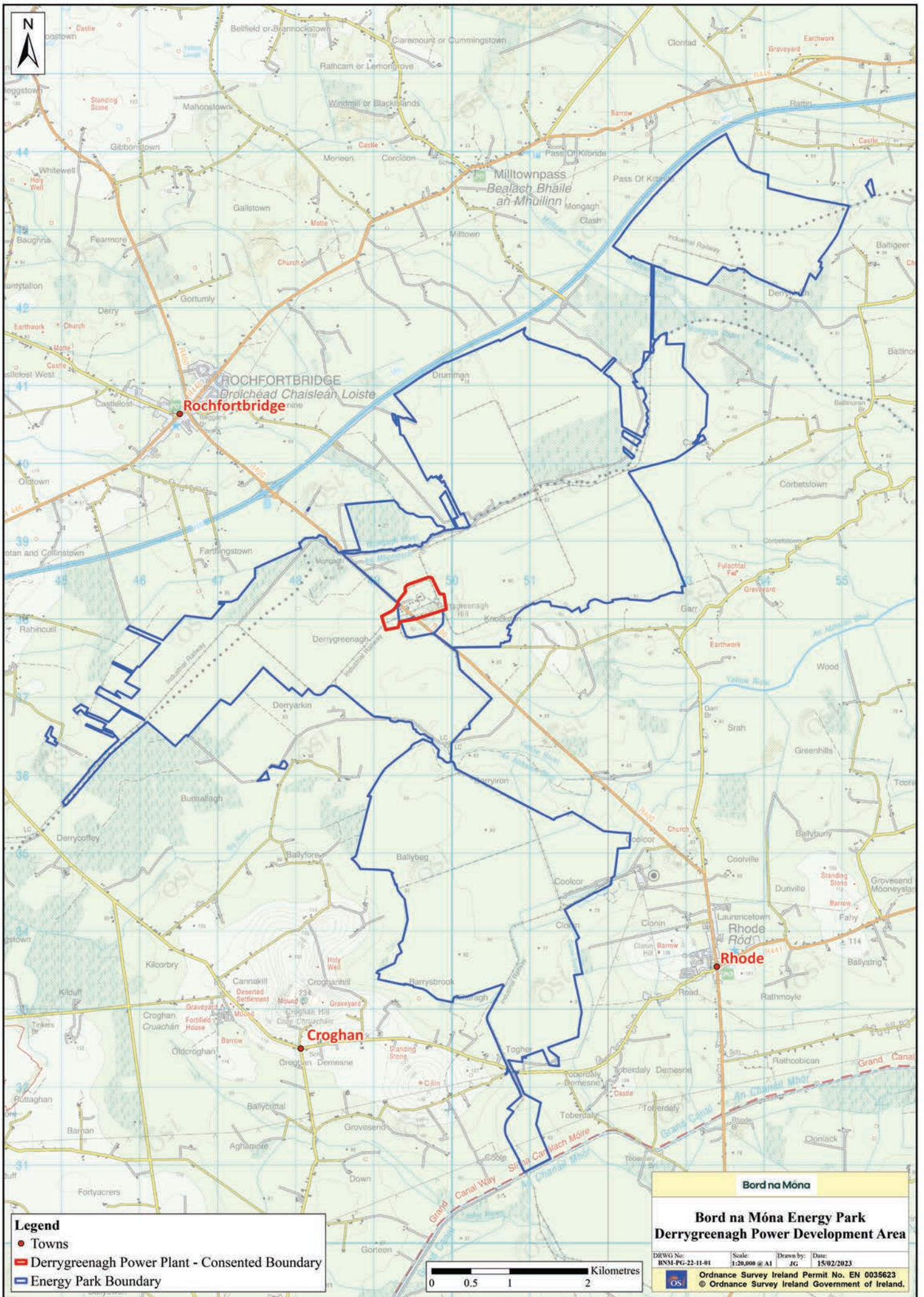
Peatlands have been a very important source of archaeological material in Ireland. Artefacts found both under and within peatland deposits have provided detailed information about communities who lived in the early periods of our history as well as about the food, clothes and tools which were used from the Stone Age to recent times. This Bog Group that will support this project and the surrounding areas have a rich archaeological history which will be taken into account during all stages of the project. The heritage of these bogs and the surrounding areas will be addressed in the Environmental Impact Assessment Report (EIAR) that will accompany the planning application, in particular the following chapters: Archaeological, Architectural and Cultural Heritage; and Landscape and Visual.

Biodiversity

Extensive surveys are ongoing to determine the habitats and species that occur within the site and the wider hinterland area. Features that are sensitive from a biodiversity perspective are constrained out at design stage. The surveys include breeding and wintering bird surveys, habitat surveys, bat, mammal and aquatic surveys, amongst others. A full description of the biodiversity of these bogs and the surrounding area required to support the development will be addressed in the EIAR that will accompany the planning application for the proposed development, in particular the chapter on Biodiversity.

To minimise environmental disturbance, access is generally through the local public road network, with subsequent access through existing entrances and tracks (rail or road passageways) wherever possible. In peatland areas, access is achieved by using wide tracked low ground pressure vehicles to minimise damage to ground, and in sensitive areas may be combined with bog mats and temporary access tracks. Where extremely sensitive habitats occur or where access is particularly challenging, materials can be airlifted to the respective work site(s) using a helicopter.





National need for Derrygreenagh Power

The Programme for Government 2020 details how energy will play a central role in the creation of a strong and sustainable economy over the next decade. The reliable supply of safe, secure, and clean energy is essential to deliver a phase-out of fossil fuels.



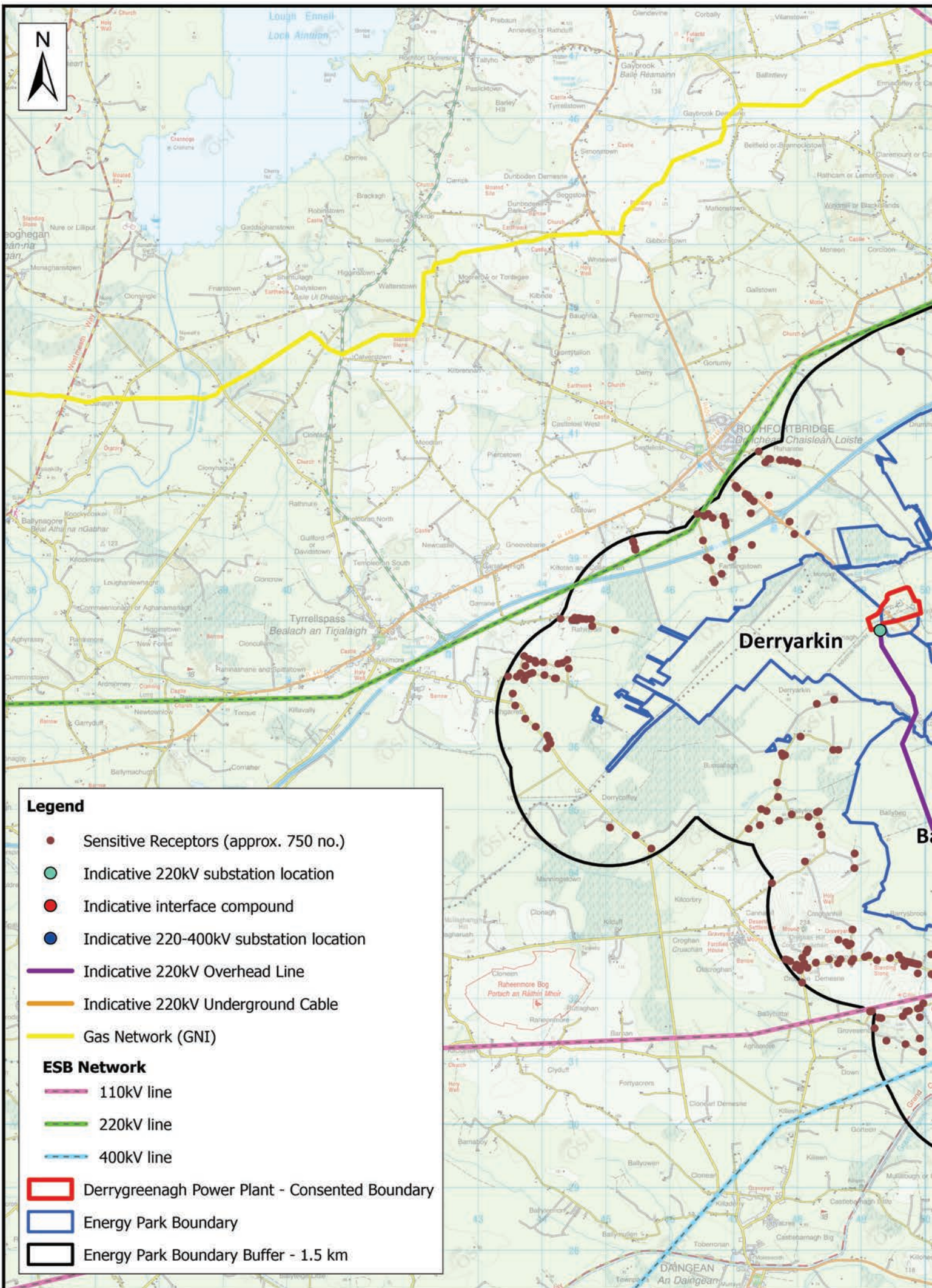
To reduce emissions in both heat and transport, more reliance on a decarbonised electricity supply will play an important role in ensuring Ireland meets emission targets. This will create rapid growth in demand for electricity which must be planned and delivered in a cost-effective way.

Ireland has committed to ambitious climate goals and Bord na Móna is to the fore in designing innovative solutions to help achieve them. In committing to delivering low and zero carbon generation solutions to assist Ireland meet its climate goals, Derrygreenagh Power in particular will facilitate Ireland and the European Union's renewable energy targets by supporting the high variable renewable electricity supply, in the phase out of less efficient conventional technology and by utilising hydrogen as a zero carbon substitute for fossil fuels in the coming years. It will also contribute to increasing the security of Ireland's energy supply.

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Outlined below is some of the most recent relevant Irish Government Policy:

- **Energy White Paper** – “Ireland’s Transition to a Low Carbon Energy Future 2015–2030”
- **Climate Action and Low Carbon Development Act 2015** – a landmark national milestone in the evolution of climate change policy in Ireland. The purpose of the act is pursuing the transition to a low carbon, climate resilient and environmentally sustainable economy.



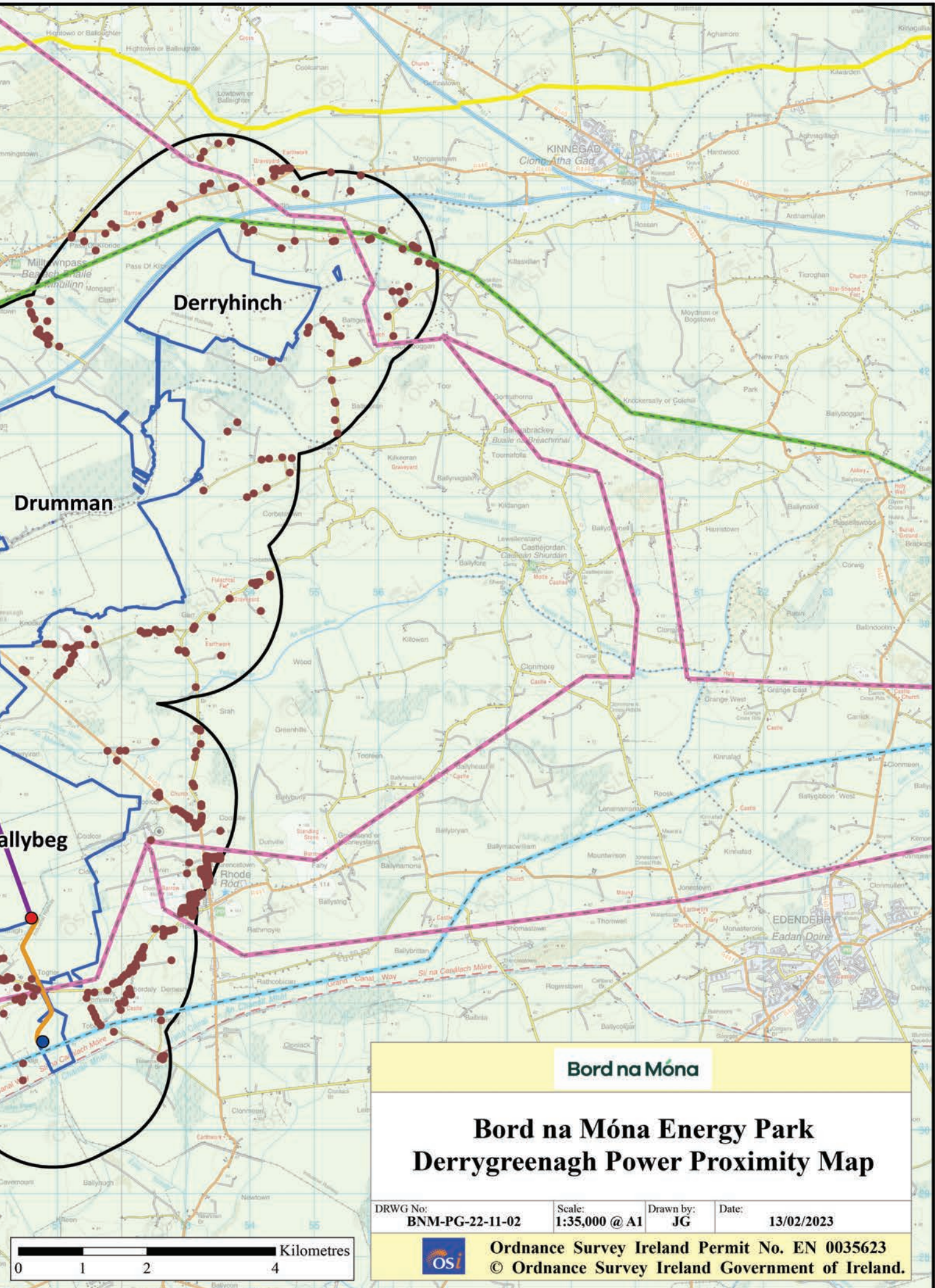
Legend

- Sensitive Receptors (approx. 750 no.)
- Indicative 220kV substation location
- Indicative interface compound
- Indicative 220-400kV substation location
- Indicative 220kV Overhead Line
- Indicative 220kV Underground Cable
- Gas Network (GNI)

ESB Network

- 110kV line
- 220kV line
- 400kV line

- Derrygreenagh Power Plant - Consented Boundary
- Energy Park Boundary
- Energy Park Boundary Buffer - 1.5 km



Derryhinch

Drumman

Ballybeg

Bord na Móna

**Bord na Móna Energy Park
Derrygreenagh Power Proximity Map**

DRWG No: BNM-PG-22-11-02	Scale: 1:35,000 @ A1	Drawn by: JG	Date: 13/02/2023
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- **Climate Action and Low Carbon Development (Amendment) Act 2021.** Legislation designed to put Ireland on a path to net zero emissions, no later than 2050 and a 51% reduction in emissions by the end of the decade.
- **The Climate Action Plan 2021** – This plan identifies how Ireland will achieve its 2030 targets for carbon emissions and puts the country on a trajectory to achieve net zero carbon emissions by 2050.

The plan outlines that Ireland will move to 80% renewable electricity by 2030. In Ireland, total electricity demand over the next ten years is forecast to grow by between 19% and 50%, largely driven by new large energy users, based on existing policies and strategies. In the high demand scenario outlined in the Programme for Government, electricity demand will almost double by 2030, while electricity emissions are to be reduced by 60–80% at the same time.

The plan recognises that renewable electricity supply requires improvement in areas such as power system stability, network loading and constraints. It has built in to the 2030 targets that it is essential to deliver at least 2GW of additional gas generation capacity by 2030 to ensure security of supply, underpin our increased renewable targets, and give investment certainty.

Biomethane and Green hydrogen has been identified as having the potential to support decarbonisation across several sectors, and in particular, in high-temperature heat for industry and in electricity generation. Green hydrogen, produced from renewable energy, has a significant role to play in sector coupling (the increased integration of energy end-use and supply sectors with one another), and minimising the overall cost of decarbonisation across all sectors.

- **Climate Action Plan 2023**
This plan implements carbon budgets and sectoral emissions ceilings and sets out actions required to accelerate response to the climate crisis, putting climate solutions at the centre of

Ireland’s social and economic development. The updated plan continues to recognise flexible gas-fired power generation as a requirement to deliver and accelerate a flexible system to support renewables and in phase out and end to coal and peat electricity generation.

- **Security of Electricity Supply 2021**
The development of new conventional generation (including gas-fired and gasoil/distillate-fired generation) is a national priority and should be supported in order to ensure security of electricity supply and support the growth of renewable electricity generation. It is appropriate for additional natural gas transmission and distribution grid infrastructure to be permitted and developed in order to support security of electricity supply. Additional electricity transmission and distribution grid infrastructure, as well as additional electricity interconnection and electricity storage, should be permitted and developed.
- **Developing a Hydrogen Strategy for Ireland 2022**
Hydrogen has potential to play a significant role in sector coupling (the increased integration of energy supply and end-use sectors), and in minimising the overall cost of decarbonisation across all sectors. The plan supports the technical feasibility to safely inject hydrogen blends in the gas grid system, integrate decarbonising electricity supply with gas networks, and provisioning for the production, storage and use of hydrogen. The plan will build on the EU policies ‘A Hydrogen Strategy for a Climate Neutral Europe’ and ‘Hydrogen and Decarbonised Gas Market Package’ to create conditions for a shift from fossil natural gas to renewable and low-carbon gases, in particular biomethane and hydrogen, to strengthen the resilience of the gas system. Ireland’s distribution network is comprised of polyethylene pipes and early indications are that it is already capable of transporting hydrogen or hydrogen / natural gas blends.

Strategic Infrastructure Planning Process Explained



For most large projects, a key issue is whether a development is Strategic Infrastructure Development (SID) or not?

Energy infrastructure which is considered SID* includes:

- Thermal power station or other combustion installation with a total energy output of 300 megawatts or more (as consented); and transmission of electrical energy by overhead cables, where the voltage would be 220 kilovolts or more
- Electricity transmission lines where transport of electricity by means of voltage 110 kilovolts or more, or by means of an interconnector

At this stage of the project, Bord na Móna estimate that the output of the proposed Derrygreenagh Power development will be approximately 600MW and the grid infrastructure will be of a voltage of 220kV. Consequently, Bord na Móna will need to go through a pre-planning consultation process with An Bord Pleanála to determine with certainty who the consenting authority will be.

Irrespective of the Consenting Authority, it is our view that an Environmental Impact Assessment Report will be required as supporting documentation to the planning application.

SID Projects	Non-SID Projects
Planning Application to An Bord Pleanála	Planning Application to Local County Council
Environmental Impact Assessment Mandatory	Environmental Impact Assessment Mandatory in some cases

* (as outlined in the Seventh Schedule, infrastructure developments for the purposes of Sections 37A and Section 182A with respect to electricity transmission lines, of the Planning and Development Act As amended)

What is included in an Environmental Impact Assessment Report (EIAR)?

Due to the nature and scale of the proposed development an Environmental Impact Assessment (EIA) will need to be carried out. As part of this process, an environmental baseline for the proposed development site will be established through fieldwork and other baseline surveys.

All of this information will be described and documented in an Environmental Impact Assessment Report (EIAR) (formerly known as an Environmental Impact Statement (EIS)) which will accompany the planning application documentation submitted to the appropriate Consenting Authority for consideration. The EIAR will comprise the following chapters as a minimum:

1. Introduction
2. Background to the Proposed Development/ Need for the Proposed Development
3. Reasonable Alternatives Considered
4. Planning and Policy Context
5. Project Description
6. Draft Construction and Environmental Management Plan

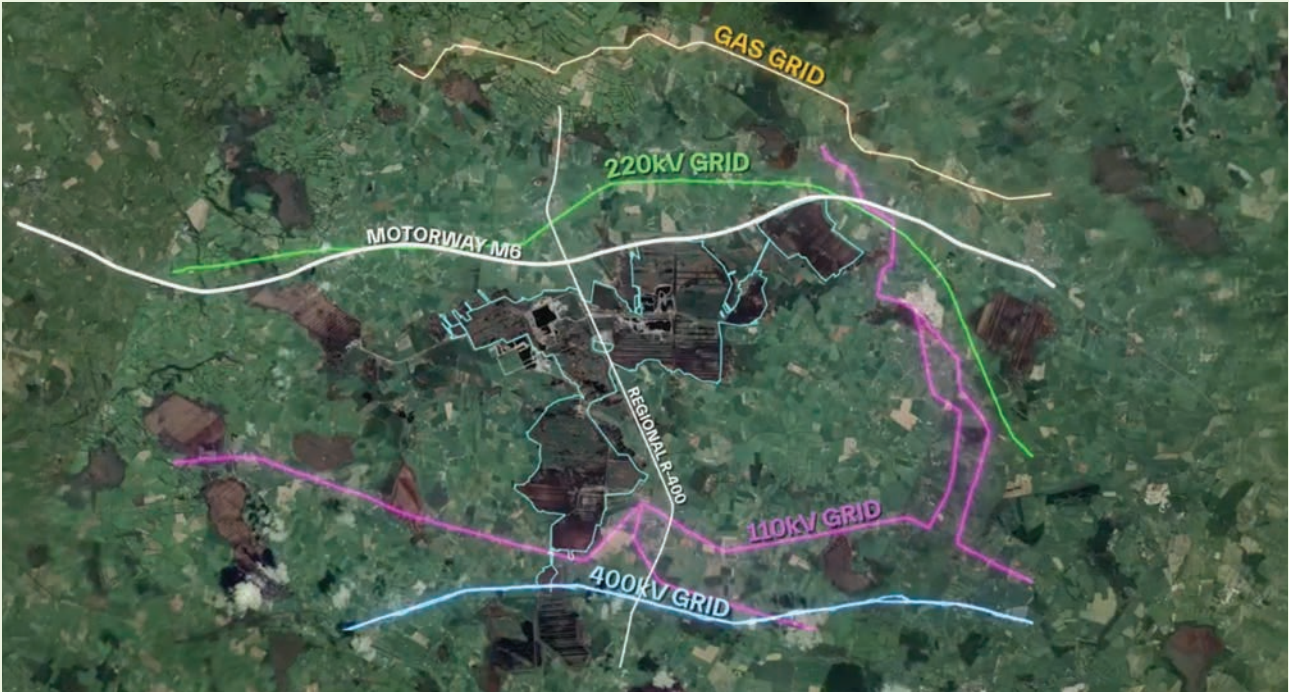
7. Biodiversity
8. Archaeological, Architectural and Cultural Heritage
9. Hydrology and Hydrogeology
10. Soils, Geology, Geotechnics and Ground Stability
11. Air Quality and Climate
12. Noise and Vibration
13. Landscape and Visual
14. Material Assets
15. Traffic and Transportation
16. Population and Human Health
17. Major Accidents and Disasters
18. Interaction of the Foregoing

The EIAR will include a non-technical summary in a similar format to the main EIAR but shorter, easy to follow and describing the project, existing environment, effects, mitigation measures and other relevant detail.

A schedule of mitigation and monitoring measures will be drawn together and included in the EIAR.



Benefits of the Development



The application for connection to the electrical grid is necessary to facilitate Derrygreenagh Power. Derrygreenagh Power brings a number of benefits:

1. The Power Plant will be developed out to modern and efficient plant technology standards, operating to best available techniques in accordance with Large Combustion Plant Industry*.
2. It will facilitate replacement of older, less efficient, higher emitting conventional generating plant with fast acting and stable power supply.
3. Support a high variable renewable electricity system and facilitate contribution to national targets in the Climate Action Plan.
4. The plant will be designed to be capable of hydrogen co-firing; with potential for synergy to renewable energy generation where biogas production or utilisation of excess renewable electricity through hydrogen production could be used. This will ensure the sustainability of the development over its proposed 30 year operational lifetime.
5. The development will contribute to principles of a just transition, by delivering new jobs, new skills, new investment opportunities, and the chance to create a more productive and resilient economy.
6. The development will bring a significant number of jobs in the construction phase, in operating and maintenance staff and other jobs in the supply of services and materials.
7. Good power links are necessary for industry and the presence of a power station could help attract industry to the region.

* In accordance CID (EU) 2021/2326 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants and European Union (Large Combustion Plants) Regulations 2012 (S.I. No. 566/2012).



Community Engagement

Bord na Móna understands the importance of community engagement in the development of Derrygreenagh Power. It is the intention to hold public consultations sessions in Rhode, Croghan and Rochfortbridge in the near future for the new planning application that will allow for connection of the development to the national electrical grid infrastructure. Details of dates and locations shall be advertised via radio and printed media.

In addition, house-to-house visits will be completed to those residents closest to the development as the project develops. (See map, pages 8 and 9 - local residents). We continue to update, innovate and adapt our communications channels to ensure the public are informed about the development. This means continuing to use our traditional methods of communication in addition to interactive online tools to ensure we engage with the community on an ongoing basis through the following:

Community Liaison Officer

Bord na Móna has appointed a dedicated Community Liaison Officer (CLO) for the development - Colm Dempsey. The role of CLO is a very important one as it is an effective and efficient process for maintaining continuous channels for communication, consultation and engagement between Bord na Móna, stakeholders and the community at large. Colm can be contacted during office hours on 087 4143305 or via email at energypark@bnm.ie

A Feedback Questionnaire

Should you wish to submit any comments/ suggestions on the development, a feedback questionnaire can also be completed on the project website. For your convenience, we have included a paper-based copy of the questionnaire and a freepost envelope within this project information pack.

How you can get in touch



Derrygreenagh Power will benefit from participation by all interested parties through the stages of the development. There are a few ways you can get in touch with us:

Call us

If you wish to make a comment or require further information about the Derrygreenagh Power development, please call our **Community Liaison Officer, Colm (087 4143305)***

Email us

Email us any comments or queries via:

energypark@bnm.ie

Write to us

Derrygreenagh Power Communications Team,
Bord na Móna, Main Street, Newbridge, Co. Kildare,
W12 XR59

Join our mailing list

Keep informed of all development updates by signing up to our mailing list. Please visit the Bord na Móna Energy Park, Derrygreenagh Power website to complete the sign-up form: **www.bnmenergypark.ie**

*9am to 5pm Monday to Friday excluding bank holidays.

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