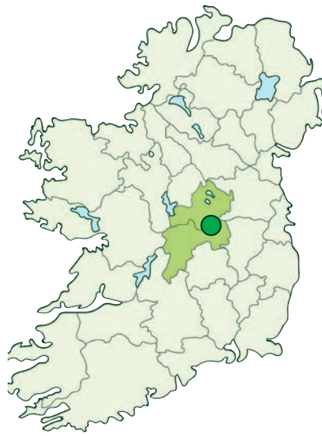
Bord na Móna Energy Park

Autumn 2021 | Information Booklet

Bord na Móna

We’re expanding our renewable energy infrastructure.

The Bord na Móna Energy Park will be developed across approximately 3,000ha of our landbank in counties Offaly, Westmeath and Meath.
With direct access to Ireland’s main motorway and fibre networks, this sustainable development will co-locate a range of low to zero carbon energy generation assets with industrial-scale high demand energy users, reducing costs and emissions while ensuring energy resilience and security.



To be located in counties Offaly, Westmeath and Meath.

Helping Ireland Reach Net Zero

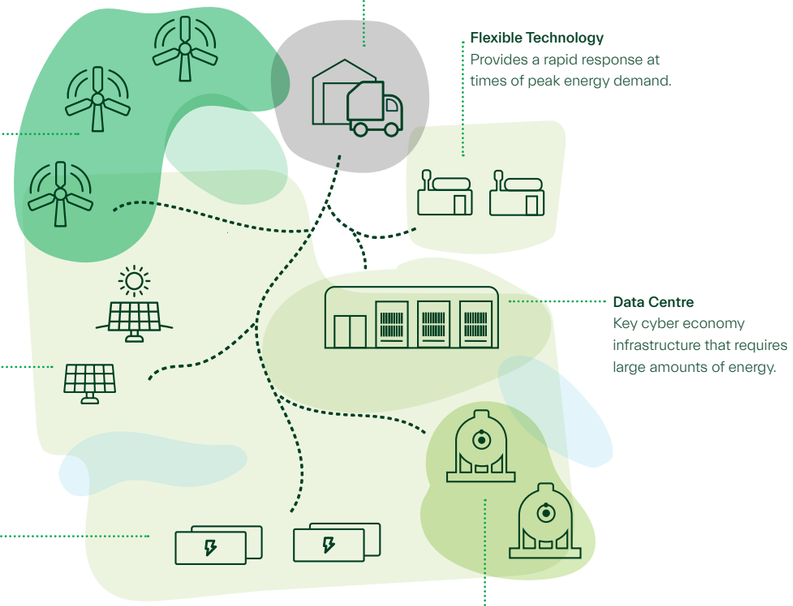
The climate emergency is the greatest challenge we face today. In response, the world’s governments have set ambitious climate goals.

Bord na Móna is an Irish semi-state climate solutions company dedicated to helping achieve those goals by providing solutions in renewable energy, sustainable waste management, peatlands carbon storage, and biodiversity conservation.

To power this net zero future, we’re expanding our large-scale renewable energy infrastructure, and embracing new approaches to how we generate and consume energy.

What is an Energy Park?

An Energy Park is a site housing a range of low to zero carbon energy generation and storage assets. This diagram shows an example of the technologies being considered.



Distribution Centre
Large user of energy that requires energy, land and access to the national motorway network.

Flexible Technology
Provides a rapid response at times of peak energy demand.

Wind Energy
Using Ireland's abundant wind resources to generate renewable energy.

Data Centre
Key cyber economy infrastructure that requires large amounts of energy.

Solar Energy
Solar photovoltaic panels using direct and indirect sunlight to generate electricity.

Battery Energy Storage
Excess renewable energy stored for use when required.

Hydrogen
Electrolyzer powered by renewable energy creates clean renewable gas, a largescale energy storage solution.

3,000ha

of peatland allows co-location of renewable energy assets and users.

200MW+

low to zero carbon electricity. Sources may include wind, solar and gas.

Project Overview

Due to the size of Bord na Móna's landbank, industrial-scale, high-demand energy users such as data centres can co-locate with these assets, reducing their energy costs and carbon emissions while guaranteeing a secure and reliable source of power.

The Bord na Móna Energy Park will generate 200 MW+ of low to zero carbon electricity from sources which may include wind, solar and gas, and will house energy storage facilities which may include battery and hydrogen. An extensive 400, 220 and 110kv grid network is easily accessible from the Bord na Móna landbank. This lowers set-up costs and reduces the need for significant grid extension work.

The proposed Energy Park also enjoys direct access to Ireland's main motorway and fibre infrastructure networks, ensuring frictionless physical and data connectivity.

Bringing a range of economic and other benefits

Local Level

- Direct employment created through temporary construction jobs as well as long-term jobs in operations and maintenance
- Indirect employment created through the sub-supply of a wide range of products and services by local communities
- Substantial rates paid to the relevant Local Authority
- Upgrading of essential road infrastructure in the vicinity as required

Regional Level

- Improved supply of renewable energy to match growing regional demand
- Support for renewed economic growth and energy-consuming activity in the Midlands region
- Creation of regional employment through the supply of services and materials to the Bord na Móna Energy Park

National Level

- Helps achieve Ireland's climate goals by contributing significantly to the national renewable electricity production and carbon emissions reduction targets by 2030
- Supporting a growing economy and population
- Significant contribution to the public purse through payment of taxes from the project, and dividends from Bord na Móna to the State
- Improved integration of renewable energy assets with the National Grid
- Reduced cost of renewable energy generation
- Reduced reliance on national grid infrastructure and increased local grid resilience

Amenities

As part of the ongoing studies for the proposed development, Bord na Móna will also be exploring the opportunity to include amenity facilities as part of the proposed development. More information on this aspect of the development will be provided in early 2022.

Proposed Location

The Bord na Móna Energy Park will be built across four bogs in the Derrygreenagh Bog Group, in counties Offaly, Westmeath and Meath. The study area for the Energy Park covers approximately 3,000 hectares. The proposed development is adjacent to the communities of Milltownpass, Rhode, Rochfortbridge and Tyrellspass.

Milltownpass

Rochfortbridge

Tyrellspass

Kinnegad

Castlejordan

Rhode

Derryhinch

Drumman

Derryarkin

Ballybeg

Legend

- Towns
- Derrygreenagh Works
- Proposed Development Study Area

0 1 2 3 4 km

Bord na Móna

Bord na Móna Energy Park Development Study Area

DRWG No.	Scale:	Drawn by:	Date:
BNM-PG-EP-01	1:40,000@A2	RM	24/09/2021

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Powering the future with clean energy technology

There are a number of different energy generation and storage technologies being considered for inclusion at the Bord na Móna Energy Park. The park may also house a number of large-scale energy users.

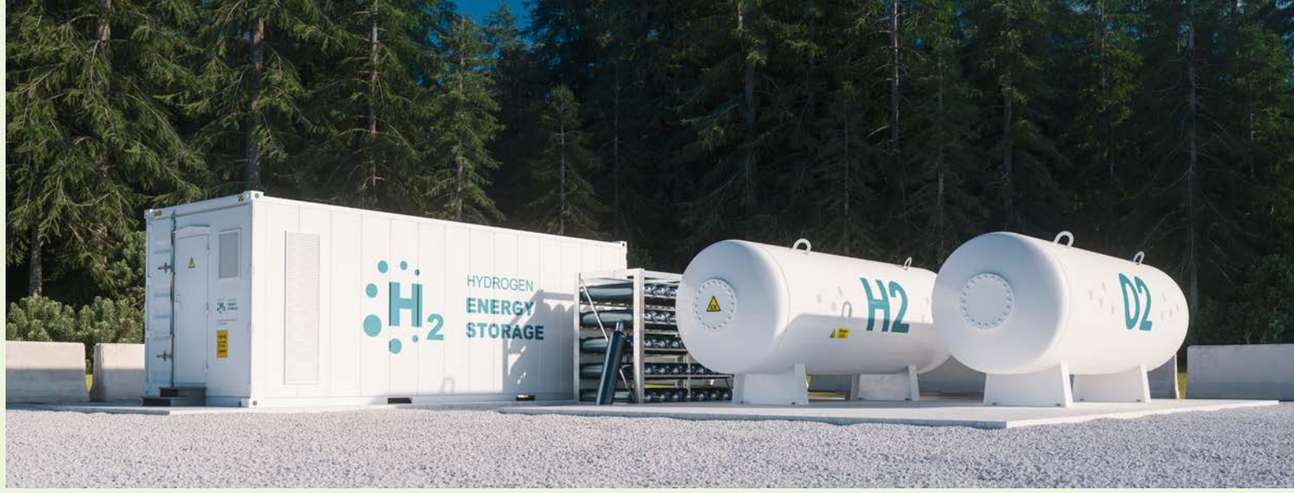
What is a Renewable Energy Asset?
Renewable energy is energy that can be replenished from natural sources, such as the wind, sun and trees. This energy is generated with either little or no carbon footprint.

Energy generation

Wind Energy
Wind is Ireland's largest contributing resource of renewable energy. Energy is generated when wind spins the blades of a wind turbine. A generator then converts this energy into electricity. Bord na Móna has a strong record of siting, designing and delivering wind farms across its peatlands, including Bellacorick, Bruckana, Mountlucas and Oweninny Wind Farms. These lands were once harvested for peat but are now being rehabilitated for renewable energy infrastructure, biodiversity and local public amenities.

Solar (PV) Energy
Solar panels that produce electricity are known as solar photovoltaic (PV) modules. Made from semiconducting materials, they can be used to generate electrical current from daylight — even on cloudy days.
A solar farm is a large-scale renewable energy facility where large numbers of solar photovoltaic (PV) panels are used to generate renewable electricity from the sun. Bord na Móna, in conjunction with the ESB has been granted planning permission to develop the Timahoe Solar Farm in Co. Kildare.

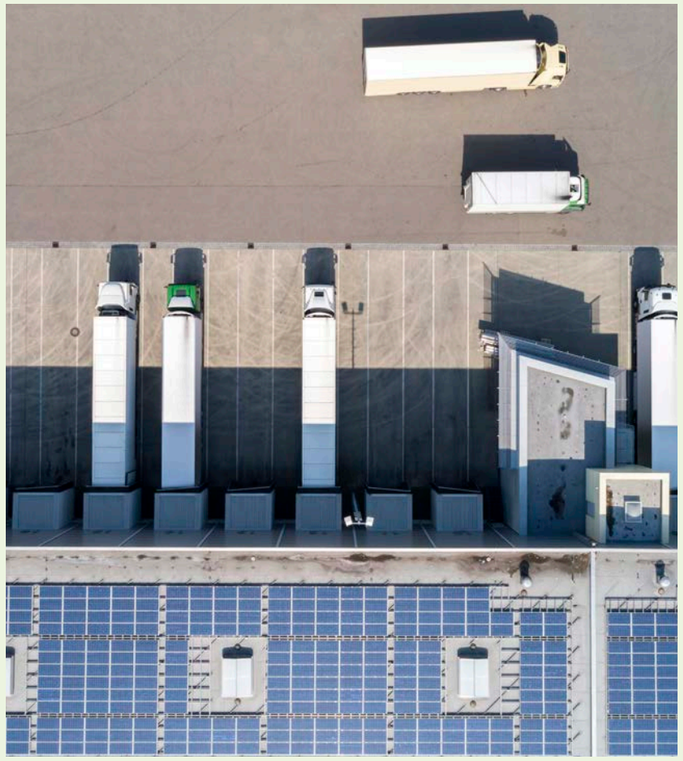
Flexible Technology
'FlexTech' or flexible technologies refer to various technologies which will assist the electricity network of the future meet the challenges it faces. Examples include hydroelectric power, large utility scale batteries (and similar forms of short-term storage), demand side management (the ability to reduce large demand users at times of peak demand) and renewable gas fired power plants. Bord na Móna currently owns and operates the 116 MW Cushaling Power Plant in Co. Offaly. It consists of two open cycle gas turbine (OCGT) units that are fuelled by distillate oil.



Energy storage

Hydrogen
Renewable energy technologies now generate large amounts of our electricity. Because much of this energy is intermittent, effective energy storage solutions are increasingly important. Hydrogen is a clean fuel that, when consumed in a fuel cell, produces only water. It is increasingly seen as a major solution for long-term, large-scale storage of energy. We can produce Hydrogen from water using renewable-powered electrolyzers. The hydrogen is then stored and can be used as fuel for piston engines, gas turbines, or hydrogen fuel cells.

Battery Storage
As wind and solar energy are dependent on weather conditions they are an intermittent form of energy. This means energy is not necessarily generated at times of peak demand. In order to balance energy generation and demand, power system operators must be able to store excess energy until it is required. Battery storage is one of several technology options that can enhance power system flexibility and enable high levels of renewable energy integration.



Energy users

Data Centres
Data centres are high-demand energy users and will account for a large proportion of the Annual Electricity Demand in Ireland in the coming years. A reliable, high-capacity energy supply is essential for data centres, and sites which have multiple independent fibre and electricity grid connections are preferred. Both Government policy and EirGrid are now seeking to move data centres outside of the Dublin area in order to spread demand across the national grid.

Distribution Centres
A distribution centre is a product storage and shipping building that stores and ships goods. They are a key part of the distribution chain for products. Depending on the goods a distribution centre stores, they may use large amounts of energy: refrigeration is common for perishables, while other goods may be heated. As well as energy, distribution centres require significant land and access to the national motorway network.

It is important to us that local communities have the opportunity to provide feedback.

Working with communities

Bord na Móna plan to provide more detailed information on the proposed development in early 2022. The company will then schedule and hold Community Information Sessions in the vicinity of the proposed development (subject to Covid-19 restrictions).

As the project is at a very early stage, the proposed technologies which will form part of the proposed development have not yet been determined.

Over the coming months Bord na Móna will be examining a range of low to zero carbon energy generation assets along with energy storage assets for inclusion in the proposed development.

Stay Informed

At every stage of the project, it is very important to us that local communities have the opportunity to provide feedback to the project team to help inform the design of the proposed Energy Park. You can stay up to date and input as follows:

- Completing the **Project Feedback Questionnaire** included with this Project Information Pack
- Visiting our dedicated project website at **www.bnmenergypark.ie**
- Talking to one of our **Community Liaison Officers** (see details below)

In addition, a Project Information Pack will be delivered by door to door house calls in the vicinity of the proposed development.

Stephen
Community Liaison Officer
+353 (0)87 348 6624

James
Community Liaison Officer
+353 (0)87 708 7022

Get in touch

If you have any questions about the proposed development or simply want additional information, please get in touch with us.

Call Us

Our **Community Liaison Officers** are available to talk during normal working hours.

Stephen
+353 (0)87 348 6624

James
+353 (0)87 708 7022

Email Us

Email us any comments or queries via:
energypark@bnm.ie

Write to Us

Bord na Móna Energy Park,
Communications Team,
Bord na Móna,
Main Street, Newbridge,
Co. Kildare

Join our Mailing List

Keep informed of all project updates by signing up to our project mailing list.

Please visit the project website to complete the sign-up form: **www.bnmenergypark.ie**