

# EMPower

## Dyrick Hill Wind Farm Proposal

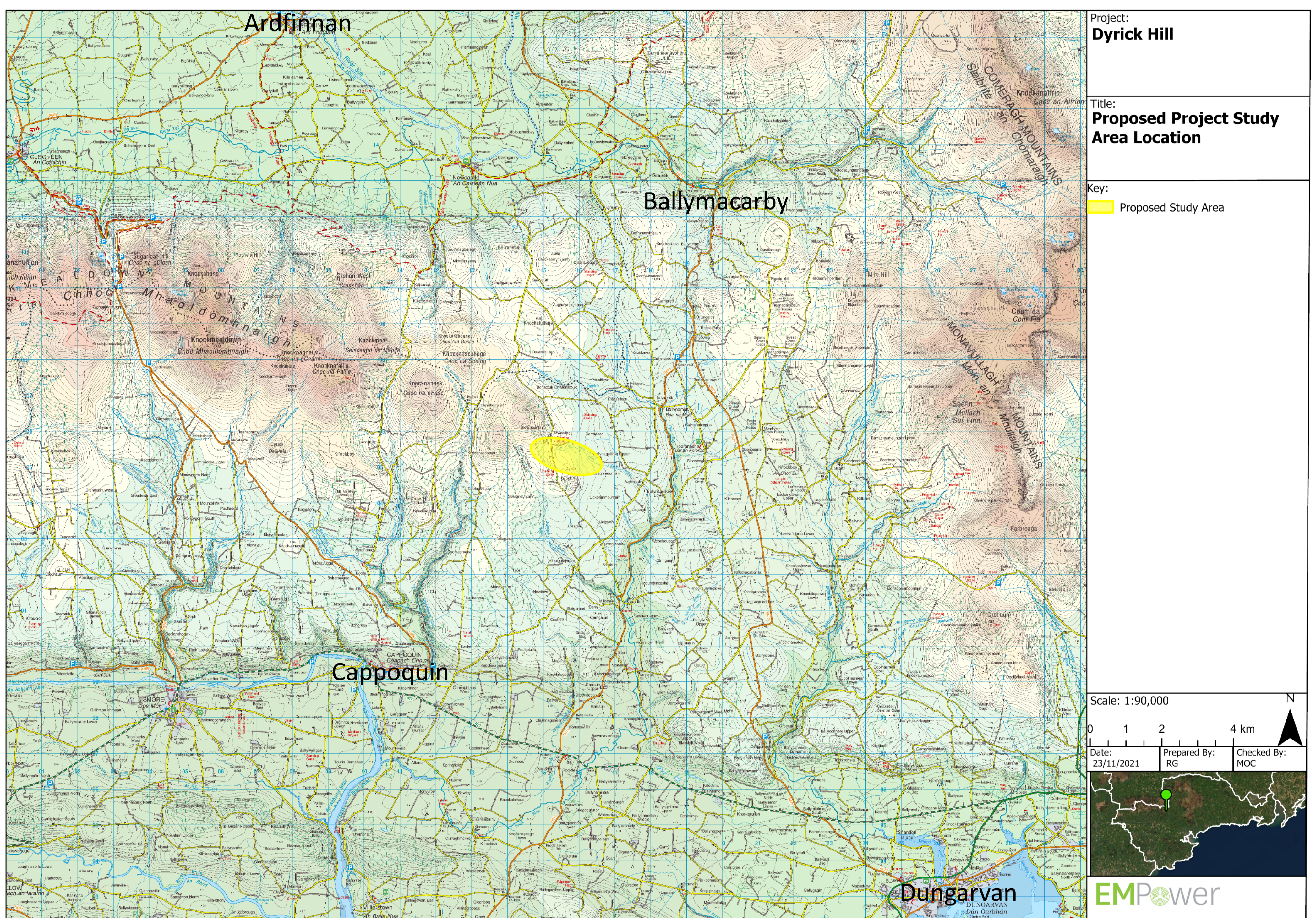
13 Turbines

80.6 MW

185m Tip Height

The Study Area for the proposed Dyrick Hill Wind Farm project Study Area consists of over 400 acres owned by local landowners and is located in Co. Waterford. Measured in a straight-line direction, the Project's Study Area is located approximately 16km northwest of Dungarvan and 8.5km southwest of Ballymacarby. Subject to environmental impact assessment and planning permission, EMPower are proposing a 13 wind turbine project, at an overall maximum blade tip height of 185 metres. The proposed Dyrick Hill project will be capable of providing enough clean, affordable, indigenous energy to power over 47,575 average Irish homes (SEAI 2018). The project is currently assessing a number of grid connection options to the electricity network including a connection to Dungarvan Sub-Station. The project's Turbine Delivery Route assessments centre around delivery of wind turbine components from Waterford City port.

## Project Location



## The Project Study Area

The Study Area for the proposed Dyrick Hill project is located in the townlands of Dyrick, Ballynaguilkee Upper, Broemountain and Lisleghmountain in Co. Waterford. The Study Area and Buildable Area consists of over 400 hectares and 115 hectares, respectively. Generally, the Study Area is comprised of farmland, forestry and upland heath with soils and subsoils present consisting predominantly of shallow bedrock with minor peat pockets and minor glacial till and podzols in lowland areas. The geology of the Study Area consists mainly of upper Devonian age sandstone and mudstone.

The Project's Study Area is not located within a Natura 2000 site (European Site) or a National Heritage Area. A number of European designated sites do occur within the wider area surrounding the project's Study Area. Some of these sensitive locations within 15 kilometres of the project's Study Area are listed below. All nearby sensitive habitats will be considered in detail for the final project's overall design.

- Blackwater River Special Area of Conservation and National Heritage Area to the southwest;
- Lower River Suir Special Area of Conservation to the north;
- Nier Valley Woodlands Special Area of Conservation and National Heritage Area to the northeast;
- Glendine Wood Special Area of Conservation (south) and Glenboy Wood National Heritage Area (north).

A number of grid connection options are currently being assessed for the proposed project. The nearest existing substation is Dungarvan 110kV substation which is located approximately 15 kilometres south. Consultation with Eirgrid and ESB will also dictate the eventual connection point chosen for this proposed project.

If the project is consented the seaports of Waterford or Cork provide the most likely port of entry for the project's wind turbine components. Delivery route surveys are currently underway in order to select the most viable access route. The final Environment Impact Assessment Report, including all studies and assessments, will be submitted with the project's planning application and will be available to the public for viewing and comment

The final Environment Impact Assessment Report, including all studies and assessments, will be submitted with the project's planning application to the consenting authority. The final report and planning application will also be made available to the public for viewing and comment.

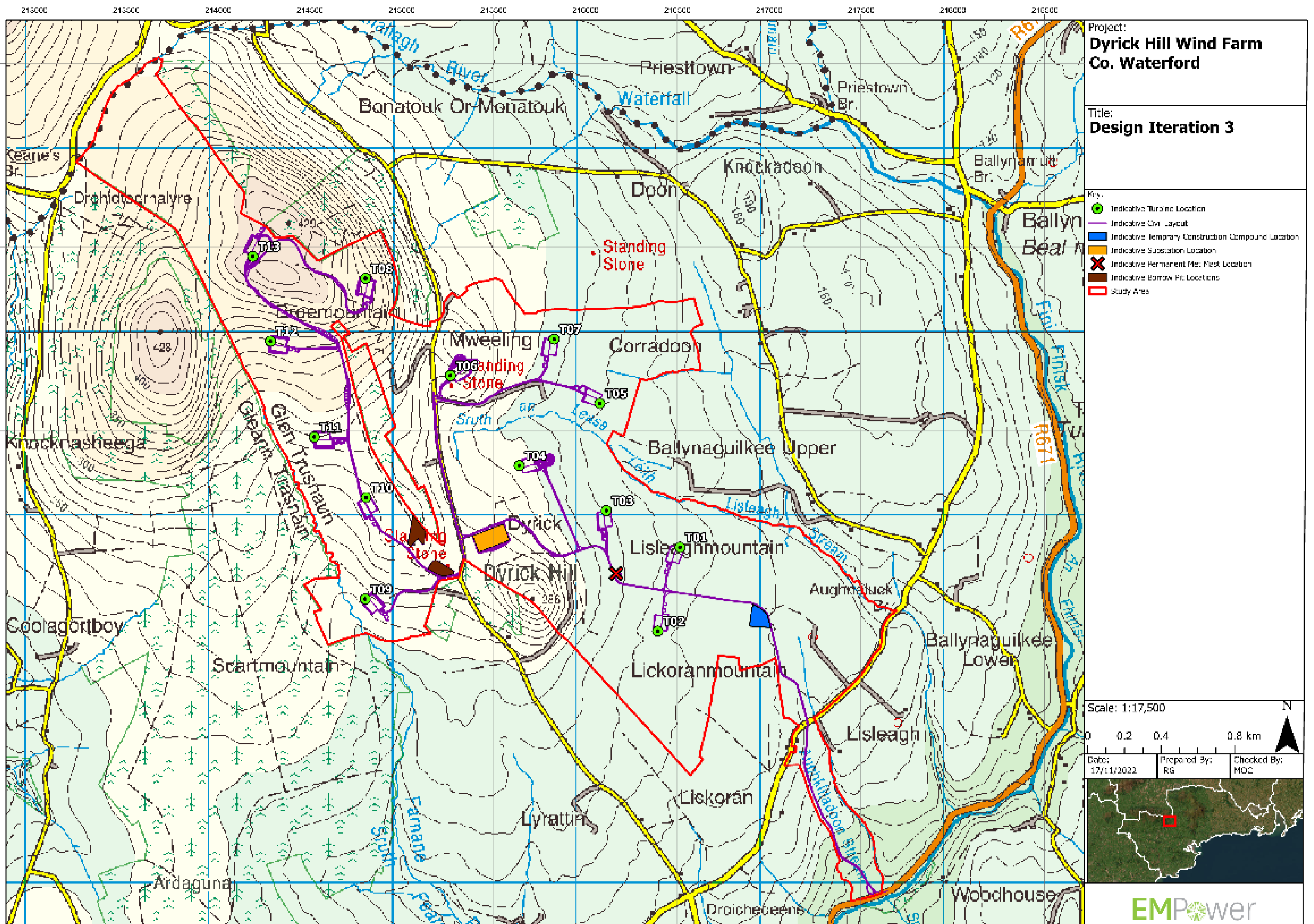
## The Proposed Dyrick Hill Project

- 13 Turbines
- Tip Height 185m
- 80.6 MW
- On-Site 110KV Substation
- Access From N72
- Grid Connection Options Nearby
- Clean Power For Over 47,575 Irish Homes



Typical upland Irish wind farm, Co. Cork

# Project Design Iteration 3



# Project Schedule

Proposed Dyrick Hill Schedule	2020				2021				2022				2023				2024				2025				2026				2027				2028			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Ornithology Studies																																				
Planning Consultant (EIAR)																																				
Stakeholder Consultation																																				
Wind Measurement (Met Mast)																																				
Planning Submission & Consideration																																				
Grid Connection Application																																				
Detailed Project Design																																				
Project Construction																																				
Project Operational																																				

Note: Q1, Q2, Q3 and Q4 in the above schedule represent yearly quarters. For example, Q1 represent the first quarter of that year

# Who We Are

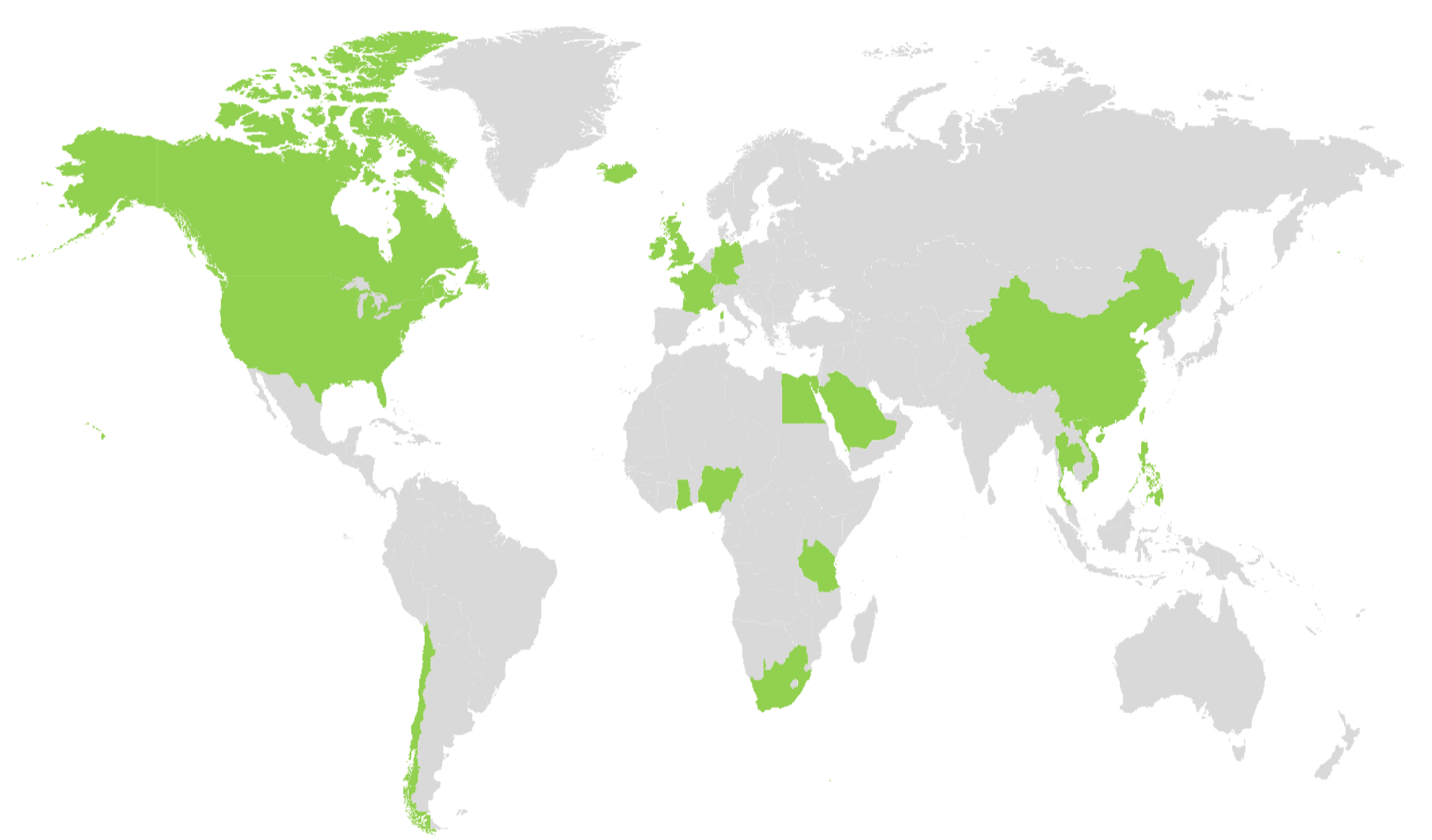
EMPower was established to serve the growing Irish and European electricity demand while creating the minimum environmental, ecological and social impact. Our vision is to provide low carbon, ecologically non-invasive, affordable energy to facilitate Ireland's expanding economy and sustainable energy targets.

EMPower is a private limited company owned by GGE Ireland Limited, Wind Power Invest A/S and EMP Holdings Limited. We are currently preparing planning documents including a comprehensive Environmental Impact Assessment Report for a planning submission to An Bord Pleanála, in Q4 2022. This planning pathway is a legal requirement for all proposed wind energy applications which are being designed to generate above 50MW of energy.

Our primary business is the development of appropriately positioned and scaled greenfield wind and solar energy power plants. EMPower will utilise the considerable international project development experience of our management team, coupled with the market leading technical expertise of our partners, to deliver clean energy assets in a cost effective and environmentally responsible manner.

EMPower is headquartered in Dublin with over 700 MW in development in Europe and Africa. EMPower's senior management team has a combined 95 years' experience delivering projects from conception to operation across five continents. The senior management team comprises five Irish professionals, highly experienced in the fields of renewable energy project management, corporate legal, finance and wind measurement.

EMPower commenced project development in Ireland in 2018 following the government announcement of the Renewable Energy Support Scheme (RESS) and Ireland's revised target of 80% renewables by 2030. This will require an additional 4,000 MW of new onshore wind to be installed by 2030.



## 95 Years

Combined Experience of EMPower Management Team across 5 continents

# Why Dyrick Hill?

Identifying a project Study Area suitable for a wind farm considers many different inputs. The suitability of the Study Area for this project can be attributed, in part, to the following characteristics:

- The Study Area is not directly within a Special Area of Conservation (SAC), a Special Protection Area (SPA) nor a Natural Heritage Area (NHA).
- The Study Area is in an accessible location for connection to the National Electricity Grid via existing electrical substations and transmission lines in the local area.
- Good annual average wind speeds in the Study Area.
- Setback distances from houses can be achieved to align with the latest government guidance. The project design team has designed to a setback of 740 meters between a dwelling and a proposed turbine location.

# What We Do

EMPower follows Equator Principles and IFC Performance Standards throughout all stages of development in order to ensure the protection of our local ecology and communities. In selecting a suitable Study Area, we examine housing density, wind resource, land use, topography, ecology, archaeology, cultural heritage, and existing infrastructure (roads and electricity grid). Once a feasible Study Area is identified, development may progress with the establishment of land agreements and more thorough investigations such as wind measurement, an environmental and social impact assessment and a grid integration study. Upon completion of all required studies, and assuming all relevant permits are secured, a typical construction period for a project such as Dyrick Hill would typically last for 18-24 months.

- Land Agreements
- Environmental Analysis
- Wind Analysis
- PPA (RESS Auction)
- Grid Connection (ECP)
- Construction
- Operation
- Decommission

Commercial wind farms today have an operating lifetime of 30 - 40 years, after which they can be decommissioned, restoring the landscape to its original condition.