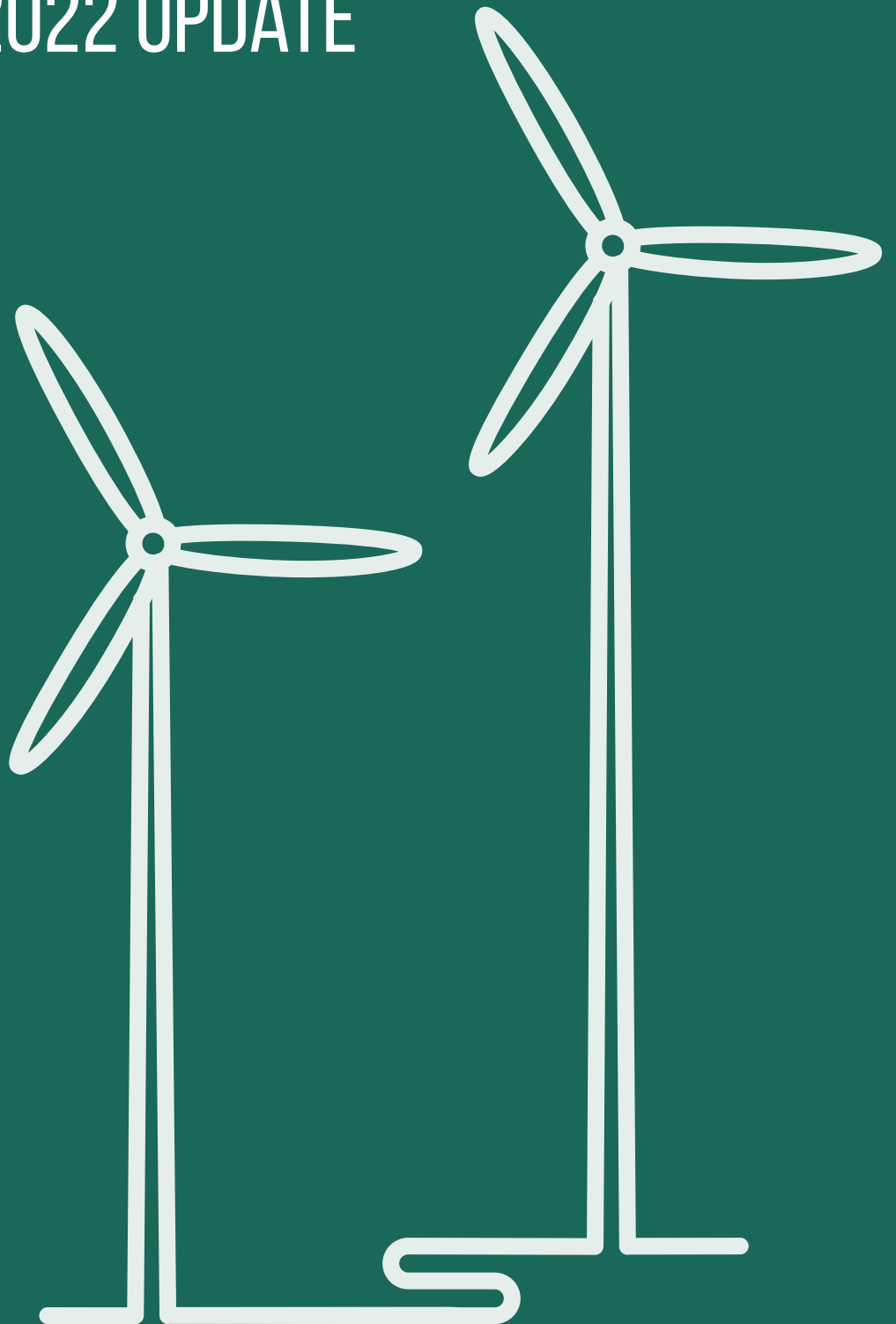


FIRLOUGH WIND FARM DEVELOPMENT

MARCH 2022 UPDATE





Mercury Renewables is a renewable energy company that is passionate about the renewable energy industry and the benefits it can bring to the West of Ireland.

We are a small team with a local presence in the West of Ireland and deep family connections in the region.

Our Community Liaison Team has been busy keeping in contact with local residents and land users in relation to the proposed Firlough Wind Farm and Green Hydrogen production development at Carrowleagh, Bonniconlon (known locally as Kilbride bog).

In support of preparing the environmental impact assessment report, we have engaged Jennings O'Donovan, a Sligo based engineering consultancy with a proven track record in wind farm development. We have also engaged Black & Veatch, a global engineering consultancy, to draw on their knowledge of hydrogen design and development.

CONTACT US

We encourage and welcome your input and comments on the content of this newsletter and all aspects of the proposed Firlough development.

You can contact us by email at info@mercuryrenewables.ie or you can contact a member of our Community Liaison team directly:

Anna Gallagher

Community Liaison Officer
agallagher@mercuryrenewables.ie
0870979700

Caitlin Duffy

Community Liaison Officer
cduffy@mercuryrenewables.ie
0870979700

WHAT IS IRELAND'S CLIMATE TARGET?

The Government's Climate Action Plan 2021 proposes a target of increasing renewable energy as a proportion of total electricity to at least 80% — with a view to achieving a 51% reduction in greenhouse gas emissions by 2030 and achieving a net-zero carbon energy system by 2050.

The Plan commits to:

- Assessing the potential for energy system integration between the electricity and gas networks, including the production, storage and use of green hydrogen;
- Carrying out further feasibility tests into the injecting of green hydrogen into the national gas grid;
- Developing a policy roadmap for green hydrogen usage in the natural gas grid.

HOW WILL THIS DEVELOPMENT BENEFIT THE LOCAL COMMUNITY?

Local Suppliers: Where possible, we will look to local material and service suppliers during the construction period and throughout operations.

Apprentices: We are committed to using this development to foster learning and skills development in the green hydrogen industry that is set play a major role in helping Ireland achieve its Net Zero commitments. We would also like to hear from people with experience in providing or establishing apprenticeship programmes. We are also looking for two summer interns for 2022, so please reach out if you are studying in a related discipline or have an interest in green hydrogen.

Community Fund: Upon the completion of the development, we will establish a local community benefit fund which will ultimately aim to promote local businesses and charities — as well as developing local tourism activities. Further details about this Fund will be made public towards the latter end of this development.

Job Creation: We plan on employing a team of locally based and experienced HGV drivers that will move the green hydrogen from the site to staging depots strategically located within the West of Ireland.

PUBLIC CONSULTATION FEEDBACK

In December 2021, we commenced our first virtual public consultation for the revised layout of the Firlough Windfarm and its potential to produce green hydrogen on the site.

The consultation is still available to view at <https://www.innovision.ie/firlough> and provides a platform for interested parties to examine and comment on our vision for the project. To date, we have received feedback from the community through all channels available including the virtual consultation feedback form, our website and engagement directly with our locally based community liaison officers.

We have taken this feedback into consideration throughout the development of the project. The map below shows the proposed land parcel identified for the production of green hydrogen.

SITE SELECTION

From the outset and throughout the development of the wind farm and green hydrogen electrolyser, we have been mindful of considering alternatives. These include:

1. Alternative Locations
2. Alternative Layouts
3. Alternative Designs
4. Alternative Processes

Further detail of the site selection process in particular, is currently being prepared as part of the environmental impact assessment report and will be made available in our upcoming public consultations.

The site shown on the map has been selected for the hydrogen electrolyser. Several alternative sites were considered within and around the windfarm perimeter as well as further afield.

ACCESS TO KILBRIDE BOG

We have made a commitment to local peat harvesters that their access and turbary rights will be maintained at all times, both during construction and once the project is complete. During construction, to ensure the health and safety of those working and accessing the site, there will need to be certain work areas that cannot be accessed by the general public. But this will not affect access to turbary plots. We intend to work in partnership with owners of turbary plots to ensure access is maintained.

SAFETY

The safe production and transportation of hydrogen has also been raised through feedback. Our health and safety consultant Risktec is due to complete a robust safety risk assessment in relation to the design of the hydrogen plant. This will assess production, storage and transportation of the green hydrogen and will be included in our planning application. This will ensure that the highest standards of safety are followed throughout development, construction and operational phases of the project.

VISUAL IMPACT OF THE HYDROGEN ELECTROLYZER

The hydrogen electrolyser is proposed to be housed within a building, similar to those used for storing agricultural equipment. It is our intention that the façade of the building will be such that it blends in with the natural surroundings. Furthermore, sympathetic landscaping including natural tree screening will be employed to ensure the visual impact of the facility is limited.

LIGHT EMISSION

Given the rural setting of the proposed development, we will design the required lighting in such a way as to limit the impact on the night sky. This will include downward facing lights, soft-toned LEDs and sensors to reduce constant lighting needs.

WATER

Producing green hydrogen requires water as one of the main feedstocks in the electrolysis process, the other being renewable electricity supplied by the proposed wind farm. The volume of water required in the process depends on the size of the electrolyser and the utilization rate or how often the electrolyser is producing hydrogen every year.

Black & Veatch are examining the volumes of water required and we are in the process of assessing the feasibility of local water aquifers providing suitable volumes and purity of water. As part of these assessments, we have focused on the impact extracting water for the Firlough site would have on downstream environments. We are also exploring harvesting rainwater from the buildings that will house the electrolyser componentry. Further information on the volume and sources of water will be provided in future public consultations.

TRANSPORT

The green hydrogen produced at the Firlough site will be transported to local and regional staging depots. We have identified several potential routes and are conducting transport surveys to assess the impact of additional traffic on people living on or using the roads identified. The studies will also consider the impact on the roads themselves and the need for road upgrades, passing bays, etc due to increased traffic flow. We will be contacting residents on these roads directly as we progress these studies.

The employment of a locally based team of drivers will mean that only our drivers will be travelling the local road network directly from the site, increasing driver accountability. The number of trailers expected to leave the site is currently under investigation by Black & Veatch. Further detail will be provided in our next public consultation.

NOISE

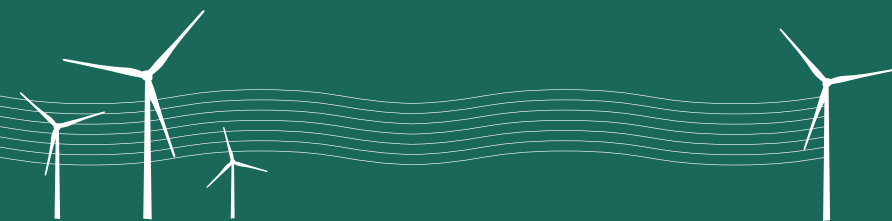
In addition to industry standard noise studies, we are conducting specific noise monitoring campaigns at locations within the community. We have located our proposed wind turbines beyond the minimum setback distances from residences as set out in national development guidelines. Findings of these studies will be presented in the final public consultation.

At a distance of approximately five metres, a hydrogen electrolyser is expected to produce somewhere in the region of 60-75db – or roughly the same amount of noise as a household washing machine. However, our electrolyser will be housed within a suitably soundproofed building to ensure that this equipment cannot be heard from public spaces.

HYDROGEN USE

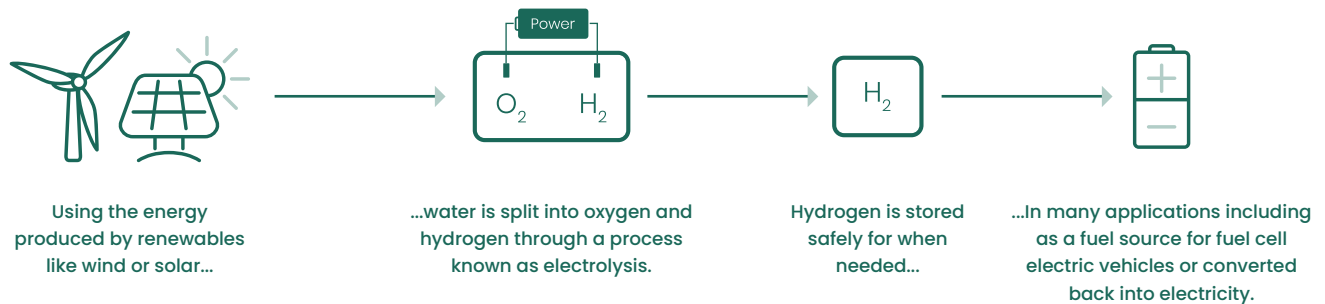
This will focus on heavy goods vehicles (“HGVs”), buses and agricultural machinery as hydrogen fuel-cell vehicles do not emit environmentally harmful substances, thereby improving air quality in local communities. We want to see as much of our hydrogen used as close to the source of production as possible. By incorporating a local staging depot into our business plans, we can more readily facilitate demand from the West of Ireland.

In addition to decarbonizing transport, green hydrogen can also be used in manufacturing processes and industry that requires high heat. In parts of Northern England, hydrogen is beginning to be used in home boilers.



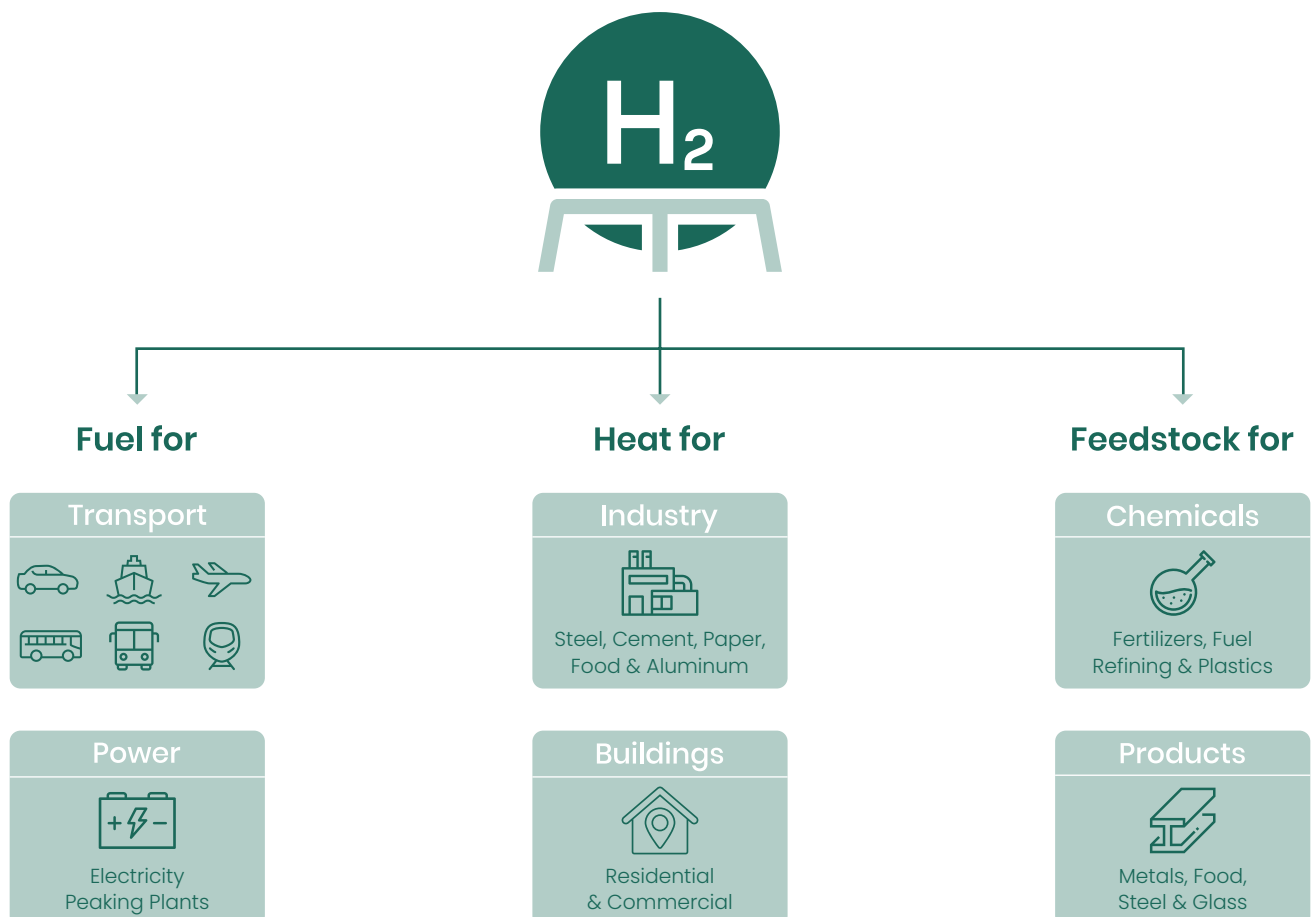
WHAT IS GREEN HYDROGEN?

The West of Ireland has an opportunity to become a hub of green hydrogen production due to access to water, abundant land, and a world-class wind resource. Our project represents a significant step forward in establishing an Irish Green Hydrogen economy — putting Mayo at the forefront.



Green electricity will be produced by the wind turbines and passed through water in a process called electrolysis. This process splits water into hydrogen and oxygen. No fossil fuels are used throughout this process —hence the product is known as green hydrogen More importantly, the process does not result in any environmentally-harmful carbon emissions.

Green hydrogen can help decarbonise sectors such as shipping and transportation, where it can be used as a fuel, as well as in manufacturing industries across Ireland and Europe. Our intention is to see Firlough produced green hydrogen being used to this effect.





FURTHER ENGAGEMENT

Open and transparent engagement with the local community is important to us.

We are pleased to inform you that we are planning on issuing a further newsletter as development progresses. We will shortly commence our second virtual public consultation, which will include further information—including drawings, layouts, and preferred transportation routes.

We also intend to host an in-person public information event for the local community. Information regarding location, date and time of future consultations will be widely advertised in local newspapers, radio and on our website.

