Ballynahone Energy Storage

FutureEnergy Ireland

Proudly powering the nation

Ballynahone Energy Storage

Newsletter 1

January 2024

Introduction

Think about the electricity we use every day and take for granted. From the buzz of your alarm clock and switching on the light, to taking a shower and sipping on a morning cup of coffee while you send Whatsapps or scroll the news on your phone. The list goes on. We need a reliable, ecofriendly, economic source of electricity to ensure that daily life runs smoothly – and that's before we even leave the house. Hospitals, businesses, schools, public transport and water sanitation all rely heavily on a reliable electricity supply.

Ballynahone Energy Storage has the capacity to support our energy needs. While this project is at an early stage of development, here at FuturEnergy Ireland, we believe in communicating with our neighbours right from the start. This introductory newsletter launches our engagement process with the community who live closest to this renewable energy project.

About FuturEnergy Ireland

FuturEnergy Ireland is exploring the potential for a battery energy storage project located southwest of Buncrana town, directly adjacent to Trillick Substation.

FuturEnergy Ireland is a joint venture company owned on a 50:50 basis by Coillte and ESB that launched in November 2021. By combining the assets and expertise of these two leading commercial semi-state companies, FuturEnergy Ireland is strongly positioned to tackle climate change and improve energy security on behalf of the people of Ireland.

Our ambition is to develop more than 1GW of renewable energy capacity and a supporting network of energy storage systems by 2030. In doing so, FuturEnergy Ireland will make a significant contribution to Ireland's commitment to produce 80% of electricity from renewable sources by the end of the decade.

Meet the team

Fionn McDonagh
Project manager

Civil engineer Fionn worked in infrastructure design before completing a Masters degree in energy engineering and joining the FuturEnergy Ireland team. He finds renewables a fast-paced and exciting sector, and he enjoys helping to make a difference and improve Ireland's energy system.

Shane Lowry
Community Engagement Manager

Shane is your point of contact for this project. As an experienced Community Engagement Manager, he feels strongly that individuals and communities should be continually kept up to date on a local project and have ease of access in contacting the team.

Project details

The proposed location for Ballynahone Energy Storage is beside Trillick Substation on the Gransha Road, southwest of Buncrana town. The site study area is shown in the map below.

What is a battery energy storage system?

A battery energy storage system (BESS) is best summarised a set of rechargeable batteries that works with renewable energy sources such as solar and wind, which are housed in large containers. When the sun is shining or the wind is blowing, these sources generate electricity, but sometimes they produce more than we need at that moment.

Instead of wasting that extra electricity, we can store it in a battery energy storage system and save it for later. Then, when the sun isn't shining or the wind isn't blowing and we need electricity, the battery system can release the stored energy to power our homes, industries, transport, devices and critical services.

This project is proposing to use an iron-air battery capable of storing energy for up to 100 hours. This new form of multi-day storage is made from the safest, cheapest and most abundant materials on the planet: low-cost iron, water and air. The principle is reversible rusting: while discharging, the battery breathes in oxygen from the air and converts iron metal to rust; while charging, the application of an electrical current converts the rust back to iron and the battery breathes out oxygen.

How does it work?

Renewable Energy
Windy or sunny days can generate more energy than we need or more than the grid can accommodate

Energy in
Excess green energy charges utility-scale batteries

Energy Storage
Batteries store excess renewable energy

Energy out
Batteries release the stored renewable energy when it is needed

More Green Power
Released energy powers our homes, businesses and transport

What are the benefits?

Battery energy storage systems are a positive step towards a more sustainable, resilient and prosperous energy future for us all.

Maximising renewable energy

Sometimes we have more wind energy available in a region than the electrical lines can carry or more than the system demand requires. Battery energy storage systems provide this energy with a place to go, where it can be stored and called upon when needed. This stops potential energy going to waste.

Grid reliability

Storing excess energy during times of high supply and low demand and releasing it during times of low supply and high demand ensures a consistent, reliable power supply. This capability reduces power fluctuations, improves power quality and helps the overall stability of our grid.

Environmental responsibility

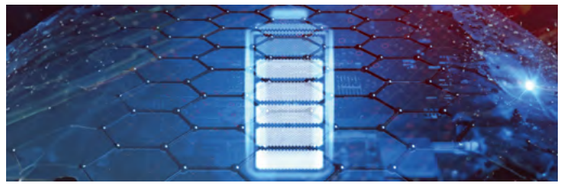
By reducing the country's reliance on fossil fuels, we actively contribute to the reduction of greenhouse gas emissions. This will help the Government to reach its target of becoming carbon neutral by 2050. This positive impact on our environment creates a cleaner, healthier country for generations to come.

Financial savings

Energy storage systems can lead to significant cost savings for us all. They help to lower electricity costs by optimising energy usage and reducing our dependence on expensive fossil fuel, power generation.

Energy security

Ireland imports most of its gas and is vulnerable to global gas price volatility. Battery energy storage systems reduce both our reliance on fossil fuel imports and our economy's exposure to geopolitical events such as the war in Ukraine.



Safety

Iron-air battery technology is inherently safe. The cells consist of non-toxic electrodes and iron anodes submerged in a water-based, non-flammable electrolyte, similar to what you find in AA batteries.

What do battery storage sites look like?

The iron-air batteries will be housed in weatherised containers and installed on level concrete foundations.

As part of the planning design, the project will be surrounded by enclosed fencing, and where necessary and appropriate, will include landscaping and planting along site boundaries.

This is a computer-generated image of a generic battery storage site. A biodiversity plan to include screen planting will be designed specifically for the proposed Ballynahone Energy Storage project. A Ballynahone site layout will be shared in the next newsletter.

Next steps

All information, timelines and contact details are available on the dedicated website www.ballynahoneenergystorage.ie and will be updated as the project progresses.

Winter 2024

Frequently Asked Questions
A comprehensive list of FAQs has been published at www.ballynahoneenergystorage.ie.

Community Information Hub
Thursday February 8th, 5pm-8pm, Inishowen Gateway Hotel, Railway Road, Railway Road, Buncrana. Find out more about the project and meet community engagement manager Shane Lowry.

Spring 2024

Newsletter 2
Further information and updates, including project timelines, site maps and visuals.

Local community engagement clinic
An opportunity to meet the project team and ask any questions you may have.

Spring/Summer 2024

Estimated planning submission
A planning application will be submitted to the relevant authority. We will give the local community advance notice before any planning application is submitted.

The planning application will be uploaded onto the project website www.ballynahoneenergystorage.ie.

Contact Us

We welcome your feedback and engagement.

You can email, call or text our Community Liaison Officer (CLO) Shane Lowry to obtain information, ask questions and request to be kept up to date.

Call
087 210 5889

Email
ballynahone@futurenergyireland.ie

Alternatively, you can send us a message via the Contact Us section of the website

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