

WOODLAND ENERGY PARK



COURTESY NEIGHBOUR PROJECT INFORMATION

June 2022

GDA Energy, an Irish infrastructure development company, is proposing to establish a new grid stabilisation and energy storage facility adjacent to two existing ESB / EirGrid substations at Woodland, north of Batterstown village in County Meath. The proposed Woodland Energy Park will be a low-carbon operation which will provide grid support services to the national grid to accommodate the greater use of renewable green energy along the east coast.

The Government's Climate Action Plan has set a target of increasing the proportion of electricity generated from renewable sources to 80% per annum by 2030. It is envisaged that offshore wind generation will play a major role in achieving that target with many sites proposed for the east coast.

However, there are times when the renewable energy that is currently available cannot be used because of limitations in the electrical transmission grid.

In those situations, the grid operator, Eirgrid, must curtail / turn down renewable generation and allow fossil fuel plants to supply any shortfall. The volume of renewable energy lost to this phenomenon last year was approximately 11%. By developing new grid stabilisation and energy storage facilities, such as those proposed for the Woodland Energy Park, we can enable the transition to even more renewable energy and lower our carbon emissions.



Siemens Synchronous Condenser demonstration model.

Grid Stabilisation

A Synchronous Condenser is a large indoor rotating machine which mimics the operation of the large turbines in traditional power plants and can balance the grid at times of power fluctuations. The Synchronous Condenser proposed for the Woodland Energy Park will allow increased amounts of renewable power like wind onto the electricity grid. A similar facility is currently being installed by the ESB at its Moneypoint facility in County Clare for the same purpose.

Traditional electricity generation plants have large spinning machines which give the national electricity grid inertia and these generators will continue to spin at times of need. A Synchronous Condenser will replace the need for these and allow the grid to operate more renewable's without losing grid stability.



Representative view of a storage facility.

Energy Storage

290MW energy storage facility proposed for the Woodland Energy Park will use a computerised system to control electricity drawn from the adjacent substations and stored in reserve, usually at times of peak renewable electricity generation. The electricity will be sent back to the grid through the substations, usually during times of peak energy demand.

Subject to planning approval, both of these grid support facilities will help EirGrid manage the grid with more renewable energy which is required to reduce our dependence on fossil fuels, reducing carbon emissions from electricity generation. Similar facilities will be needed across the power grid in the coming years in order to meet our 2030 target.



The Site

The XXha site is located XX meters southeast of the R154 Regional Road, north of Batterstown Village, off the Batterstown - Trim road. The site was chosen because it is adjacent to the 400 KV Woodland substation and the Portan HVDC station which connects to the UK electricity grid via an undersea cable.

A new access road will be built on the site and the existing entrance on the R154 will be upgraded. The site is XX meters from the road. This will minimise the visual impact. A landscaping plan is being drawn up to identify areas of the site that can be planted to improve screening.

Operation

Much like the existing substations adjoining the site, the Woodland Energy Park development will be remotely operated with only occasional visits required by monitoring and service personnel. The facility is designed to support the operation of the existing substations and no new overhead power lines will be required.

Project Benefits

- ▶ Facilitates the use of more renewable energy from offshore wind and solar
- ▶ Helps Ireland meet its 2030 emissions reduction targets and increase Ireland's energy security of energy supply
- ▶ Strengthens the energy infrastructure in the surrounding region
- ▶ Attracts more FDI investment in County Meath.

Next Steps

GDA is applying to Meath County Council for planning permission for the proposal. All the documents associated with the planning application will be available for the public to view. In the meantime, if you have any observations or queries in relation to the proposal, please contact us at projectinfo@gda-energy.ie.

Subject to planning approval, the proposed facility will be developed over the coming years. A construction traffic management plan will be included as part of the planning application.

GDA Energy

GDA Energy is an Irish based infrastructure development company investing in low carbon infrastructure projects. The management team has successfully delivered over 1 GW of low carbon projects across the UK, Ireland and Australia with a further 5GW in development.

Drawing on its experience of low carbon energy infrastructure development, GDA Energy is developing strategic sites to accelerate the transition to a low carbon future both in Ireland and internationally.

