

# Energia Renewables



**Energia Renewables** are part of the wider Energia Group, which includes Power NI, Northern Ireland's leading electricity supplier.

We are committed to our customers and trusted by thousands of homes and businesses across the island of Ireland to meet their needs in an evolving energy environment.

We are a leading developer and operator of 15 onshore wind farm sites, generating over 300MW of green electricity.

The Group's ongoing €3bn 'Positive Energy' investment programme is developing onshore and offshore wind, solar, battery storage, bioenergy and green hydrogen production. It is anticipated that this renewable energy programme will add 1.5 GW of additional renewable capacity to the system by 2030, facilitating the achievement of Climate Action targets.



We pride ourselves on our reputation for being a responsible developer and good neighbour in the communities where we operate.

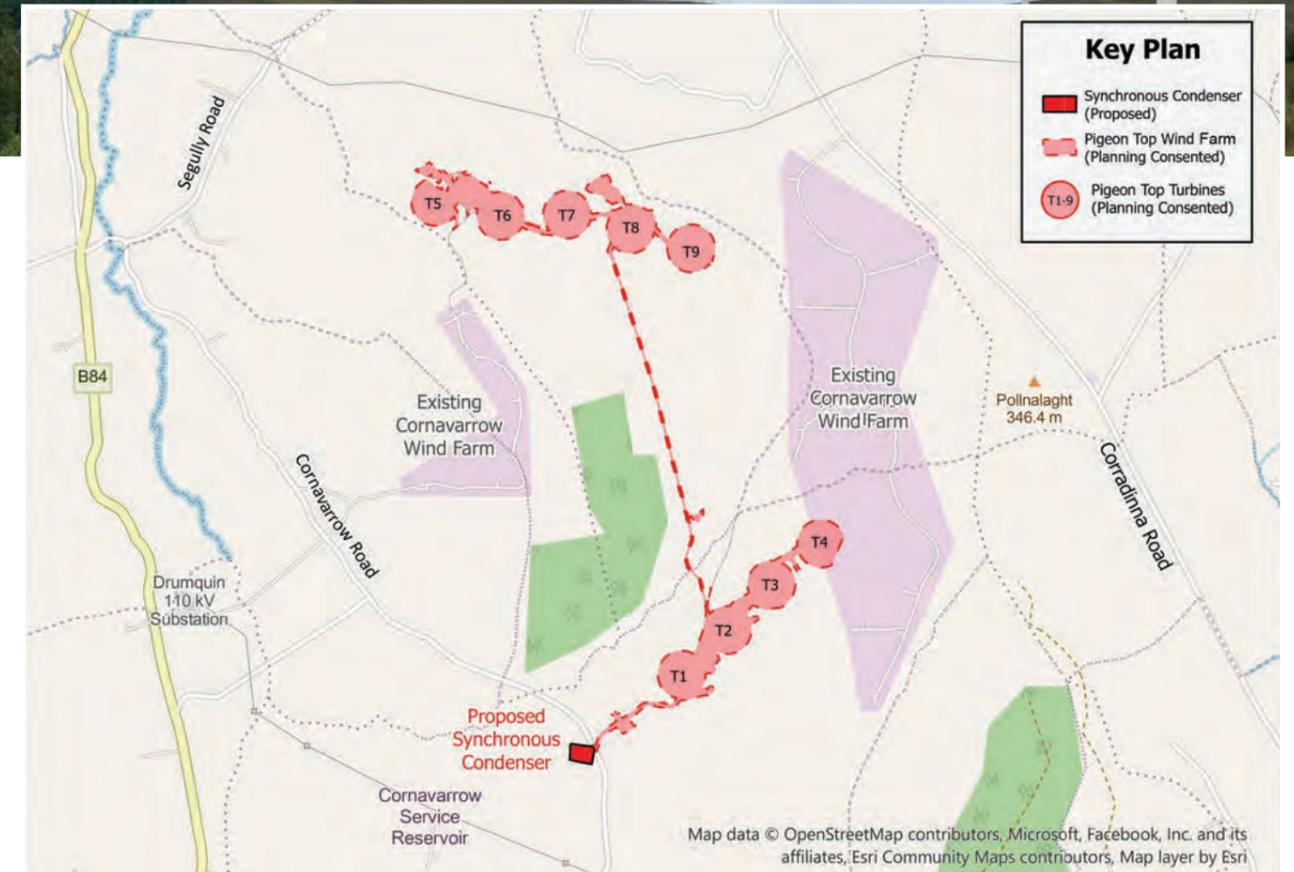
To find out more about Energia Group and our renewable energy projects and community benefit funds, visit our website: [www.energiagroup.com](http://www.energiagroup.com)

## Contact details

For further information, please call our Community Liaison Officer on **078 804 32201** or email us at [clo@energia.ie](mailto:clo@energia.ie)

## Proposed Synchronous Condenser Stabilising the Electricity Grid

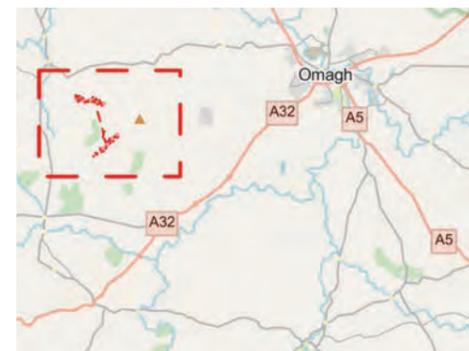
Townland of Cornavarrow, Drumquin, Co. Tyrone



**Energia Renewables** are developing plans for a synchronous condenser, or sync condenser, in the townland of Cornavarrow, Drumquin, Co. Tyrone.

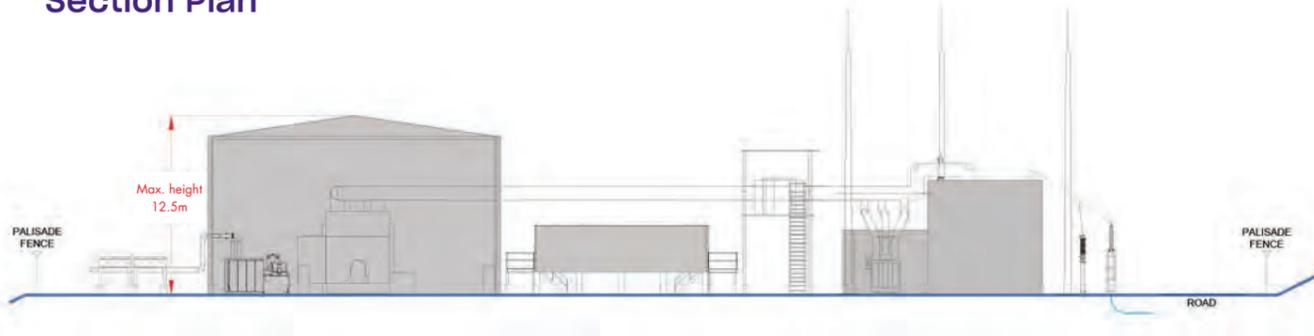
The proposed development will connect into the local electricity network via the same planned underground cable connection for the consented Pigeon Top Wind Farm 110 kV substation.

**This facility will support the stabilisation and resilience of the electricity grid and help Northern Ireland achieve its Climate Action goals by increasing the amount of renewable energy we use and reducing our dependence on carbon-intensive power generation.**

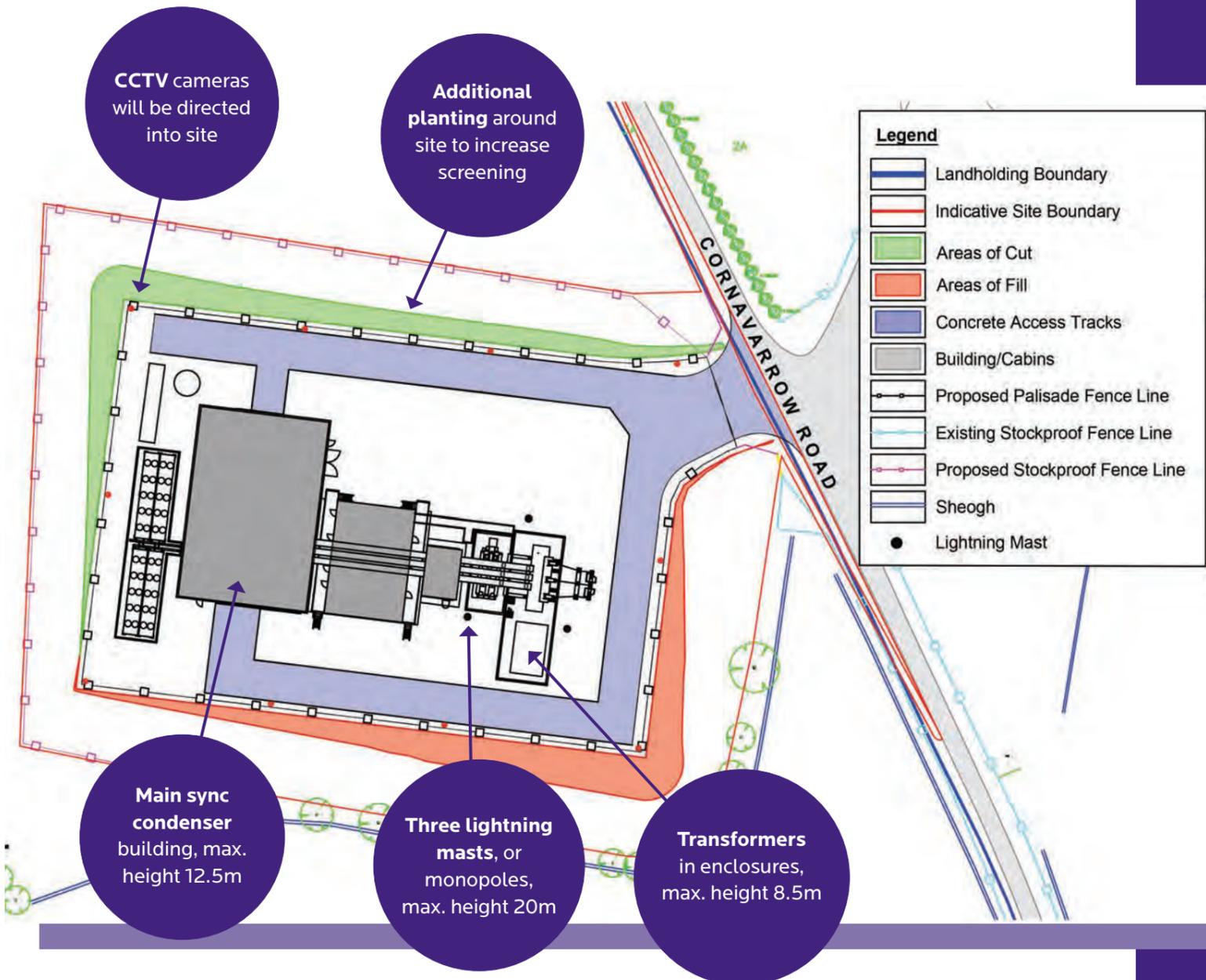


# Proposed Pigeon Top Sync Condenser

## Section Plan



## Site Plan - Aerial View



# Sync Condenser FAQs

## What is a sync condenser?

A synchronous condenser is a rotating electrical motor that resembles a generator, fitted with a flywheel. It is connected to the electricity network via a substation and its purpose is to provide stability to the grid when required, rather than providing power like a normal generator. Sync condensers do not generate or store electricity on site.

## Why is this project important?

Wind farms and solar developments do not provide a constant source of power, which is why we still rely on carbon-intensive power generation to stabilise the electricity network. The Pigeon Top sync condenser will provide stability to the transmission network and enable SONI, the System Operator for Northern Ireland, to increase the uptake of renewable energy, whilst balancing supply and demand.

## Why has this location been chosen?

The proposed site is located within an area that SONI has identified as in need of grid stability services. The sync condenser will share the planned underground connection to the NIE Drumquin 110 kV substation with the consented Pigeon Top Wind Farm.

## How big is the site?

The overall application site area covers just under 1 hectare with the hardstand area covering approx. 90 x 60m.

## What about visual impact?

The visual impact of the project on the character of the surrounding landscape will be minimised by maintaining the existing hedgerow boundaries along the perimeter of the site and additional planting post construction.

## How long will construction last?

Construction times for a sync condenser project can last between 12 – 15 months.

## Will there be an increase in traffic?

A traffic management plan will be in place, setting out how we will manage traffic during

construction. Once operational, sync condenser units require limited maintenance access.

## Will the sync condenser create audible sound?

The sync condenser will be housed within a building designed to minimise both internal and any external noise. Whilst transformers can generate a low frequency hum, this sound will be barely audible at the perimeter fence. Noise surveys and reports are completed as part of the planning application.

## Do sync condensers pose a health risk?

Some people have concerns about the electric and magnetic fields (EMFs) found near electricity lines and cables. When electric current flows, EMFs are produced but register in the extremely low frequency end of the electro-magnetic spectrum. They occur in the home, in the workplace, or anywhere we use electricity. Natural sources of EMFs include the earth's geomagnetic field and storm clouds. The consensus from health and regulatory authorities is that extremely low frequency EMFs do not present a health risk.

## What safety measures will be in place?

The substation will be built to SONI and NIE Network standards and will be subject to a rigorous design process. Safety is at the core of the development, construction and operation of all our projects.

## What security measures will be used on site?

The sync condenser facility will be enclosed by fencing, approx. 2.4m high with strategically positioned CCTV cameras in operation.

## What are the next steps?

Once submitted, planning application documents will be available to view at the following locations:

- Fermanagh and Omagh District Council planning offices
- NI Planning Portal
- Energia Group website: [www.energiagroup.com](http://www.energiagroup.com)