





## Who are SONI – and what do we do?

SONI (System Operator for Northern Ireland) operates the electricity grid. We bring electricity to every part of Northern Ireland, and plan ahead for future growth. A better energy supply means greater prosperity in the years ahead.

At SONI, we want everyone to share in that brighter future. From our control centre in Belfast, we develop, manage and operate the electricity transmission grid. The transmission grid brings power from where it is generated to where it is needed throughout Northern Ireland. We match supply and demand for power, every second of everyday. We also power Northern Ireland Electricity Networks' distribution grid. This supplies electricity to homes, farms and businesses.

SONI works in cooperation with NIE Networks to develop the electricity grid infrastructure. Investing in and improving the grid is essential to make your supply of electricity more reliable and cost effective. It also supports economic growth and enables competition.

Finally, we need to develop the grid so it can connect to new sources of energy including renewables.



# What is the Agivey Cluster Project and why is it needed?

# SONI is obliged to connect parties who request a connection to the electricity network, subject to the applicant meeting certain conditions.

When it comes to connecting wind farms and other sources of power to the transmission grid, SONI is responsible for elements such as site selection and planning consent. These happen before a project moves into the construction phase.

NIE Networks is responsible for building and maintaining the infrastructure.

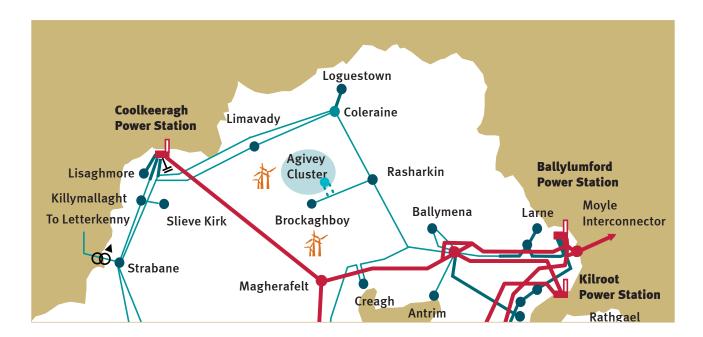
Wind farms in the Craiggore, Smulgedon and Evishagaran areas have planning permission. In order to connect these wind farms to the transmission system, we are working with NIE Networks to build what is known as a cluster substation.

This will allow the energy generated by the wind farms to be carried on the network and transferred to where it is needed.

The cluster substation will then connect to the recently constructed Brockaghboy – Rasharkin 110kV overhead line. To do this, SONI is seeking planning permission for the following:

- A new 33/110kV cluster substation
- Two new 110kV power lines to connect the new cluster substation to the Brockaghboy Rasharkin 110kV overhead line

The cluster connection policy to connect wind farms located in close proximity was developed by NIE Networks and approved by The Utility Regulator.



### Proposed site location

During our first round of consultation events, we presented potential zones in the Glenullin area where we could locate the new substation. These were considered by SONI to be the least environmentally constrained zones within the wider study area.

Based on a number of factors, including public feedback, environmental and technical considerations, we are now proposing a specific site for the substation development.

It is located at the Drumbane Road, as shown below.



The proposed site has been chosen for a number of reasons, including:

- Extensive environmental and technical studies show this to be the best available site
- Avoids any adverse impact of a substation in a nearby Area of Outstanding Natural Beauty (AONB)
- Naturally flatter piece of land with mature trees on two sides minimising the visual impact of the new substation; and
- Its close proximity to the Brockaghboy Rasharkin 110kV overhead line means the new infrastructure required to connect the substation can be kept to a minimum. This reduces visual and environmental impact.

It was also clear from the feedback received during the first phase of consultation events that local people view the Drumbane Road location as preferable to any potential site located off the Temple Road. This is because the Drumbane Road location will have the least visual impact and will not require power lines crossing the Glen.

# What is a Cluster Substation and what does it look like?

The Agivey Cluster Substation will receive electricity from each of the newly approved windfarms at Craiggore, Smulgedon and Evishagaran. The proposed substation will then be connected to the existing Brockaghboy - Rasharkin 110kV overhead line via two additional 110kV overhead lines.

The substation site will have a perimeter fence of approximately 100 metres x 90 metres and the tallest structure on the site is expected to be approximately 10 metres. These sizes are subject to change as the project progresses, but we will keep you informed.

We have commissioned an image of how the Agivey Cluster Substation may look.

This is to provide an indication of the scale of the proposal. So that you can clearly see the substation, we have not shown screening in this image\*.

Screening includes the planting of hedgerows and trees (mature and young) around the infrastructure to minimize any visual impact. SONI will ensure screening is included as part of the planning application.



This image above is a representation of how the substation would appear if viewed west facing from the Drumbane Road\*.



The image above is a representation of how the substation would appear facing south west from the Glen Road, near the primary school car park.

# Public safety is a key consideration for SONI on all our projects

Electric and magnetic fields surround all things that generate, transmit or use electricity, meaning exposure to electric and magnetic fields are common in modern life.

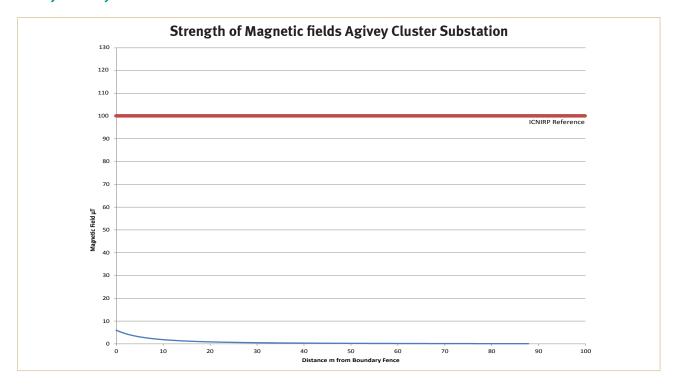
For the Agivey Cluster Project, we have undertaken a detailed study of magnetic field strengths from the proposed substation and associated power lines. This is to ensure they comply with international guidelines.

The results show that electric and magnetic fields from the project and it's infrastructure will be well below UK, EU and international public guideline limits.

The graph below illustrates the strength of the magnetic fields (known as magnetic flux density) at key distances from the project. Guidelines set by The International Commission on Non-Ionising Radiation Protection (ICNIRP) has set the public reference level - at 100 micro tesla. Our studies show that the highest public exposure from the proposed substation is 6.02 micro tesla (at the boundary fence of the substation).

## Our safety promise

We obey all laws, and meet all applicable health and safety standards. We work for the benefit and safety of every citizen in Northern Ireland.



Location	Magnetic Flux Density (μΤ)
At boundary fence	6.02
10m from boundary fence	1.86
20m from boundary fence	0.88

## Next steps

The Agivey Cluster project is still in the community consultation stage.

This means we are gathering as much feedback as possible to help us prepare a final proposal. We will host a third phase of consultation events in the latter part of 2018. This will provide you with the opportunity to view advanced plans. Your feedback from our previous consultation events will have shaped these plans.

We hope to submit a planning application to Causeway Coast and Glens Borough Council in late autumn 2018.

At this point the local community can have another opportunity to have their say, by submitting their views to the council.

We hope the council would reach a decision in 2019.



# Your feedback is important to us

We evaluate all the feedback we receive and try our best to develop the project around your views.

Please visit our website to find out when and where our next consultation event will take place. Please find our contact details on the back of this brochure if you want to get in touch with us directly.

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