



# Media release

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## nbn trial to harness wind power during emergencies

Early results from a trial underway at a **nbn** fixed wireless site near the Victorian city of Geelong indicate the potential for using wind power to help communities and emergency services stay connected to the **nbn** network during emergencies.

The proof-of-concept trial is a first for **nbn** and began in January, using three micro wind turbines to assess the use of wind as an alternative renewable energy solution to help extend the battery life of **nbn**'s temporary network infrastructure in an environmentally sustainable way.

To help **nbn** fixed wireless sites to operate for lengthy periods of time without a connection to the power grid, **nbn** deploys temporary assets such as the innovative Hybrid Power Cube, an environmentally friendly power generation unit combining solar panels, compact diesel generator technologies and sodium nickel batteries – which are an environmentally friendly alternative to traditional battery energy storage systems.

Adding the wind turbine solution aims to extend this battery life even further, which will be vital to keeping communities and emergency services connected during an emergency or natural disaster.

**John Parkin, nbn Chief Engineering Officer, said:**

“While there is still much more to do, the trial has been a success. From a sustainability perspective, we are investigating and validating new renewable energy solutions to power our network – which reduces our dependence on the grid and drives down emissions and operational costs.

From a resilient network perspective, we have determined it is possible to use wind generation to extend the battery life of temporary assets or a site during an emergency event – supporting communities and emergency services with connectivity when they need it most.

And from an innovation perspective, we can see how critical Australian innovation is to solving shared sustainability challenges. This wind power solution has been a long time in the making and it's exciting to be able to evaluate it in real time on our network.”



The trial uses innovative Australian small wind technology, which was designed in Newcastle, developed in Port Stephens by Australian start-up Diffuse Energy, and brought to life in partnership with Decon Technologies.

Decon Technologies was recognised in **nbn**'s 2022 Supplier Summit Awards for their development of the Hybrid Power Cube as a compact alternative power system that operates independently of a larger power grid and delivers a broad and flexible range of network resilience, cost, sustainability and customer benefits.

Many network outages during emergencies are a result of mains power outages in affected communities. Alternative renewable energy sources will help both strengthen the resiliency of the network and **nbn**'s commitment to becoming a more sustainable business.

Renewable electricity generation is a significant part of **nbn**'s Science Based emission reduction targets<sup>1</sup>. This work will play an important part not only in the near-term, but over the long-term as **nbn** plans to deliver on its commitment to meet or exceed the Australian Government's 2050 Net-Zero commitment.

## Notes

1. See page 35 of the **nbn** [2023 Corporate Plan](#).
- Decon Technologies (<https://www.deconcorp.com.au/>) is an Australian owned and operated provider of core telecommunications and electrical infrastructure services. Specialising in manufacturing, construction, installation and network maintenance to Australia's major telco carriers with a major focus on renewable energy technologies.
  - Diffuse Energy (<https://diffuse-energy.com/>) was founded in 2018 with the aim to commercialise new small wind technology that allows Australian people and businesses to harness the wind's never ending energy supply and produce their own energy.

## Resources

- Video (3 min): [The winds of change powering a more sustainable network - YouTube](#)

## Enquiries

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