



BANGO WIND FARM

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HELLO AND HAPPY 2022 TO ALL!

2021 was a challenging year with unseasonable weather events (above average rainfall along with significant periods of high wind affecting construction activities) and the ever-changing COVID-19 situation and lockdowns.

Despite these challenges we still managed to install 32 turbines and pass a number of AEMO hold points with approval to now feed just over 100 MW into the grid.

The issues of 2021 have impacted Bango Wind Farm in much the same way as most other businesses. The wet weather impeded deliveries, movement of equipment around the site, and some of the civil works.

The often very strong winds prevented cranes from lifting turbine components into place. As for COVID-19, supply chain interruptions along with ensuring site personnel and community stayed safe led to additional measures being put in place and continue to be in place.

On a brighter note, in partnership with GE Renewables we were proud to host the 2021 Christmas Light-Up competitions in both Yass and Boorowa; and with BOOM Logistics, to provide toys and cash donations to St Vincent de Paul Conference in both towns.

I look forward to bringing you more positive information throughout the coming year.

DR. BRENDAN MCAVOY
Head of Construction

CONSTRUCTION UPDATE

ALL 21 TURBINES IN THE WESTERN CLUSTER ARE NOW FULLY CONSTRUCTED.

In the eastern cluster:

- 12 wind turbines are fully constructed
- 3 wind turbines are awaiting installation of blades
- 10 wind turbine installations remain.

The next three months will see:

- Lifting of and installation of components to the 10 remaining wind turbines in the eastern cluster will be completed;



Construction in the eastern cluster continues.

- Energisation, commissioning and hold point testing of wind turbines will continue, with turbines progressively commencing generation and export to the grid; and
- Rehabilitation and remediation works nearing completion across all parts of the project.

COMMUNITY

DESPITE COVID-19 RESTRICTIONS, BWF WAS ABLE SUPPORT THE LOCAL COMMUNITIES THROUGH CHRISTMAS DONATIONS AND THE CHRISTMAS LIGHT-UP COMPETITION.

CHRISTMAS DONATIONS

Accepting the donations from Bango Wind Farm and BOOM Logistics, Judith Williams, President St Augustine's Conference in Yass said:

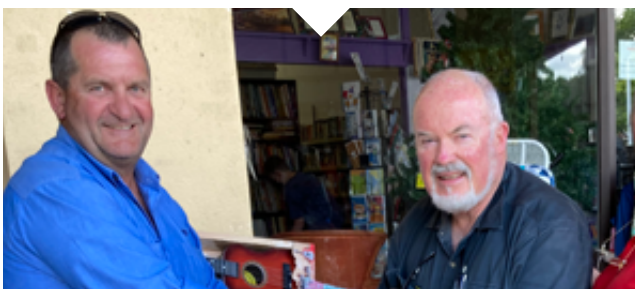
"These donations will help to put food on the table for struggling families during the festive season and help to brightening up children's Christmas with new toys that they'd otherwise have missed out on."



Andrew Rowe, BOOM Logistics, Judith Williams, SVdP, Lyn Diskon, BWF

Deacon Patrick Whale, President Vinnies Conference in Boorowa, when accepting the donations said:

"Your generous donations send a message to those in the community that need support – a message that tells them that someone else does care."



Andrew Rowe, BOOM Logistics and Patrick Whale, SVdP



One of the prize-winning entries.

CHRISTMAS LIGHTS

CWP Renewables and GE Renewable Energy once again hosted the Yass & Boorowa Christmas Light-Up competitions with a noticeable increase in entries this year.

Judging was difficult but entries were judged on:

- Presentation, general appearance layout and design
- Light – use of colour, form and composition, variety and repetition
- Creativity, innovation and passion
- Reflection of the spirit of Christmas

The biggest winner of all was the local community.

So, it's never too early to start planning your display for Christmas 2022!

TUPPENCE THE ORPHAN TURBINE

Keep reading [Tuppence the Orphan Turbine. Chapter 6 – Turbines After Wind Farms](#) is now available.

CWPR VALUES



SAFETY FIRST

We prioritise the health and well-being of our employees, our customers and our community.



INTEGRITY

We behave ethically, fairly and openly in all that we do.



QUALITY

We use our experience, skills and resources to set the industry standard of excellence.



TENACITY

We seek continuous improvement with diligence and persistent determination



COLLABORATION

How we get things done is as important as what we achieve. Our success is driven by our ability to build relationships, be innovative and connect across teams, functions and geographies.



RESPECT

We value diversity and recognize the worth and contribution of every person.

SAFETY FIRST

HEALTH AND SAFETY IS PARAMOUNT FOR CWPR AND IS INTEGRATED INTO OUR VALUES, "CWPR PRIORITISES THE HEALTH AND WELL-BEING OF THEIR EMPLOYEES, CUSTOMERS AND COMMUNITIES".

CWPR has a dedicated health and safety team ensuring it remains a key focus with the company's commitment to delivering to the highest standard, with this being reflected in the ISO accreditation for our health and safety management system.

During the 2020-2021 financial year, CWPR employees and contractors worked just under one (1) million hours across our construction, operational, development sites, offices and remote development locations.

On each construction and operational site, daily "pre-start" sessions are held for all workers outlining not just the hazards associated with their tasks, but also focusing on health and safety while working on site and away from site. This includes COVID-19 safety measures.

CWPR has implemented strict COVID-19 protocols to help our workforce, families and regional communities stay safe during this challenging time.



These measures, in line with advice from NSW Health to minimise the risk of COVID-19 in communities, include:

- Implementation of working from home policies
- Additional cleaning and sanitation facilities
- Implementation of social distancing in crib rooms and other indoor areas
- Restrictions on personnel and visitors from hotspot areas

In addition, CWPR is continually monitoring on-site personnel, including mandatory sign-in upon site entry, temperature checks and undertaking PCR or rapid antigen tests for access to site.

We acknowledge that the current environment is ever changing, and we are continually assessing and revising controls in response.

FAQS

WHAT WORK IS REQUIRED FOR WIND TURBINE GENERATOR (WTG) MAINTENANCE?

Wind turbines obviously have moving parts, which means they sustain normal wear and tear from regular operation and require regular maintenance.

Components needing regular servicing include:

- **Gearbox Oil** – when it is time to change the oil in a gearbox, service technicians use service trucks with specially designed pumping systems. Oil filters are often replaced on a yearly basis.
- **Gearbox** – a full replacement requires the use of a crane, however some gears in a gearbox are small and accessible enough that a technician can replace them up-tower.
- **Brake** – brake pads are checked regularly and replaced depending on frequency of use. Once a year pad replacement is common.
- **Main Bearing** – in a turbine’s lifetime, a critical component such as this may need repair or even replacement. Some issues can be repaired on site however some may require dismantling for specialist repair.
- **Blade Edge** – repairs generally result from gradual erosion of the leading edge of the blade particularly if it is in contact with ice or sand or sometimes from lightning strikes. Most blade repairs can be performed up-tower using a platform or rope access. Many wind farms are now using drones to inspect blades.
- **Generator** – bearings wear out and brushes conducting power can move out of alignment, weakening power output. Both can be replaced or repaired up-tower.
- **Pitch Control and Yaw Control Motors** – grease lubricates the mechanical gearing in pitch-control and yaw-control motors. The grease wears out and dissipates over time. What remains can be clouded in dirt and gets wiped away with new grease re-applied.

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PLEASE GET IN TOUCH USING THE CONTACT DETAILS BELOW.

CONTACT US

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