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Drone inspections for Ballarat power network

Powercor has used the Ballarat region as a testbed for new drone technology to inspect powerlines faster and in greater detail than ever before, in flights over areas to the city's south.

Remotely piloted drones have inspected more than 30 kilometres of powerlines around Ross Creek, Cambrian Hill, Napoleons, and parts of Buninyong in recent weeks.

The work is in addition to Powercor's ongoing continuous program of asset inspections, which are also being conducted by crews in vehicles, on foot and by helicopter.

A specialist team is trialling the Matrice 300 RTK - a powerful industrial drone platform with an advanced flight controller system, six-directional sensing, real-time video transmission, thermal imaging and obstacle-detection systems.

This trial follows a trial of a similar technology in the [Otways last September](#), with results from the new Ballarat trial to inform whether the technology is suitable for inclusion in Powercor's continuous inspection program.

Powercor Head of Network Asset Management John Mifsud said the drone inspections had covered a large area, quickly, with high definition cameras used to capture the condition of powerlines quickly and easily.

Mr Mifsud said the area south of Ballarat was chosen due to its topography and environmental factors, as well as network characteristics that make the location a good trial site.

The drone trials also compliment extensive foot patrols in the area earlier this year, following reliability issues over summer for customers south of Ballarat.

"This trial is about finding new ways to keep our network operating safely and reliably," Mr Mifsud said.

"While these drones won't replace our existing inspection methods, we're looking at whether they have a permanent role in our program in the future."

Powercor manages its network of almost 90,000km of powerline and 588,000 poles through a rigorous inspection and maintenance program, on top of a network-wide vegetation management program clearing trees and shrubs well away from powerlines.

Drone fast facts

- Model: Matrice 300 RTK
- Dimensions: 810x670x430 mm (LxWxH)
- Weight: Approx. 3.6 kg (without batteries) and 6.3kg (with two TB60 batteries)
- Max Speed: 83km/h
- Average operation speed: 3km/h
- Max Ascent Speed: 6 m/s
- Max Descent Speed (vertical): 5 m/s
- Max height of operation: 5000 m
- Operational height above powerlines: 4 m
- Max Flight Time: 55 min

For more information call Powercor's media line on (03) 9683 4342



Background – Powercor

Powercor moves electricity to and from more than 843,000 homes and businesses across the western suburbs of Melbourne and through central and western Victoria to the South Australian and New South Wales borders.

Our network is made up of almost 90,000 kilometres of wires and more than 588,000 poles and associated infrastructure, and supports 11,200 medium, commercial and industrial businesses and 106,500 small businesses.

Powercor is playing a critical role in supporting Victoria's clean energy transition. More than 1765MW of solar, wind and other renewable generation is connected to our network, which is home to four of Victoria's Renewable Energy Zones, while 21 per cent of Powercor's residential customers are benefitting from rooftop solar.

We are at the forefront of finding innovative ways to support Victoria's energy transition through projects and trials investigating community batteries, smart charging for electric vehicles, and microgrids and other community energy projects.

Our teams operate from 13 depots, our Bendigo-based customer contact centre and our CBD headquarters, to deliver reliable, safe and affordable electricity by operating, managing and maintaining all network assets and metering services. This means managing a network that is reliable and safe, particularly in relation to bushfire risks.

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