Media release
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Electricity operators promote safety for UAV (drone) users

Owner and operator of the National Grid, Transpower and local distribution company, Northpower today are reminding UAV operators to take particular care when operating unmanned aircraft near overhead transmission and distribution lines.

The prompt follows two incidents in the last week where UAVs (otherwise known as drones) have been operated at an unsafe proximity to electricity lines; one striking a high voltage transmission line in the Upper South Island and the other contacting an overhead line on Northpower’s distribution network in Northland.

Transpower’s General Manager Grid Performance, Jim Tocher highlighted the importance of maintaining safe distances from electricity lines at all times.

“We would advise that UAV operators use their aircraft well away from high voltage transmission lines and substations as they have the potential to put the public, our staff and contractors at risk and disrupt power supply.”

“The UAV that struck a high voltage line recently had to be removed by experienced line crews while keeping the transmission line in service to avoid potential power outages and disruption to the area that those lines supply,” he said.

“Positively in this situation, the owner of the UAV contacted us immediately, didn’t try to remove the aircraft himself, and stayed on site until our personnel arrived. We commend the owner for his approach which helped to keep the site safe and enabled quick identification and removal of the UAV,” he said.

Northpower’s Public Affairs Manager Steve MacMillan stressed the importance of UAV operators being fully aware of powerlines and encouraged operators to plan their flights so that a separation of at least 20 metres from overhead electrical infrastructure is maintained.

“Large carbon fibre UAVs tend to be used with DSLR cameras and these larger video cameras are a serious hazard to electrical infrastructure and should not be flown at all near powerlines.

“The UAV that connected with our line caused a flashover which resulted in the UAV breaking up and falling to the ground. Fortunately no one was injured and the line did not come down, but this risk could have been avoided had the operator been aware of the lines and complied with minimum safety distances. Around 200 commercial and industrial businesses had to stop work over that period and we suspect a loss of at least 1000 man-hours of productivity for the businesses affected - a very significant cost.”

“Anyone operating an unmanned aircraft that has accidentally come into contact with electricity or transmission lines should not attempt to retrieve the aircraft, but call the relevant electricity company for assistance,” he said.

Information about the safe operation of unmanned aircraft can be found at www.caa.govt.nz or at www.airshare.co.nz. Information about keeping safe around electricity networks can be found at www.transpower.co.nz/safety/unmanned-aircraft-and-drones or www.northpower.com/network/safety/around_the_network.

For further information, please contact:
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Additional information
Two UAV strikes

The Transpower incident
A UAV lost communications and automatically returned to base. During its return journey (usually part of an unmanned aircraft settings), it struck the 220 kV Roxburgh-Islington transmission line, approximately 5km from Waimate.

The UAV operator did not try to retrieve the drone, but contacted Transpower immediately.

A live line crew were dispatched immediately and, after undertaking switching to put the line into a safe configuration, were able to recover the UAV - three hours later.

UAV operators should check the settings of their aircraft to ensure that the automatic ‘return to home’ functions are undertaken at an appropriate altitude so as not to conflict with electricity transmission and distribution lines.

The Northpower incident
This incident occurred when a relatively large carbon fibre. UAV accidentally contacted the overhead 11 kV distribution lines while taking aerial photographs of a commercial property in an industrial area.

The contact with the line caused a flashover, making the circuit to ‘trip’ and caused a loss of supply to the local area. The UAV broke up and fell to the ground.

Fault crews were dispatched to make repairs. Before they arrived, the UAV operator had left the scene, although has later been identified.

The outage affected more than 200 commercial and industrial customers, and was 19 minutes in duration.