



TECHNOLOGY

is taking safety to **new heights**

For businesses that are health-and-safety-conscious, it's always a priority to remove workers from dangerous situations. In certain cases that could mean adding new procedures; in others it could mean using new tools that move workers out of harm's way.

ENWIN Utilities Ltd., an electricity distribution company that serves the city of Windsor, is now able to do both with its unmanned aerial vehicles (UAVs), which are commonly known as drones.

After working with Transport Canada for six months, ENWIN received a standing Special Flight Operations Certificate to fly UAVs for use in infrastructure inspection and maintenance.

The utility can now begin to use multi-rotor unmanned helicopters equipped with cameras to routinely check transformers, powerlines, and other infrastructure that is necessary to maintain the safety

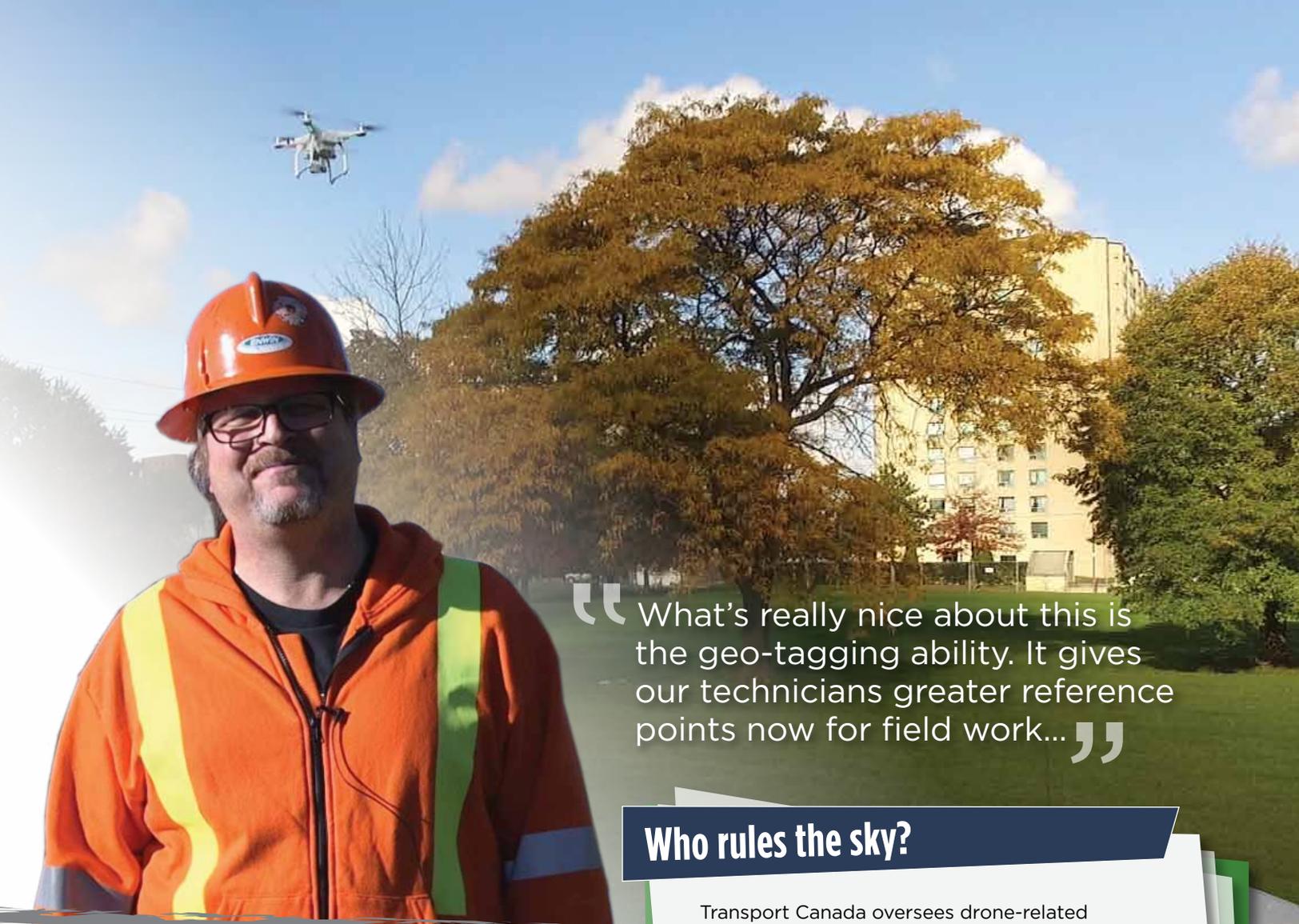
and reliability of the local distribution system.

Jean Pepin, who is the lead UAV pilot for ENWIN, sees a lot of potential for this kind of equipment.

"It's a great tool to have in the toolbox," said Pepin, who just completed a reclosure inspection program cataloguing data from 100 inspections.

"What's really nice about this is the geo-tagging ability. It gives our technicians greater reference points now for field work, and we can use UAVs to analyze things like the cleanliness of the insulators and connection points, and we hope to add infrared cameras in the future."

ENWIN also has a long record of working with first responders in the Windsor area, including Windsor Fire and Rescue Services and Windsor Police Services. When a tornado ripped through Windsor this past fall, Pepin was on site using the UAV for emergency hazard assessment.



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Who rules the sky?

Transport Canada oversees drone-related regulation in the country. The federal department can provide information on the “Do’s and don’ts” for using an unmanned air vehicle (UAV) as well as the various legal requirements for their use.

As well Transport Canada has created a drone use reporting tool to keep track of any incidents.

Visit <http://www.tc.gc.ca/eng/civilaviation/opssvs/drone-incident-report-form.html> to learn more.

“The August 24 tornado gave us a chance to see ENWIN’s drone in action for the first time,” said Windsor Fire Chief, Bruce Montone. “They have capabilities that can help prevent, assess, and manage fires, as well as enhance our community emergency management in the event of a declared City emergency.”

When the power is out after a storm and working conditions may be dangerous, an aerial assessment of a large area can be done in about 15 minutes.

“After the storm came through, it was hard to see what we were working with from the ground,” Pepin said. “Once I had the drone in the air, we could see the actual path of the tornado and recognize hazardous debris; we could see damage that needed to be addressed, and we could see where the lines were lying.”

For a utility, there are many benefits to working with drones—it costs less to inspect infrastructure;

service can be assessed, repaired, and restored more quickly; and ultimately workers can be removed from dangerous situations.

“Having a UAV can definitely make work processes more efficient; it can even create jobs through being able to see things we wouldn’t normally be able to see. But like any tool we have at our disposal, it will come down to how we incorporate it into our tool box.”