



MAJOR STORM TESTS INCIDENT COMMAND SYSTEM AND CALLOUT CAPABILITY



Avista Corporation (Gas & Electric)

OVERVIEW

On November 17, 2015, a Pacific Northwest storm bringing near hurricane-force winds blew off roofs, toppled trees, grounded airplanes and severed power to about 180,000 people, or about half of the total electric customers of Spokane-headquartered Avista Utilities. The storm that struck Spokane and eastern Washington was the largest in Avista's 126-year history.

CHALLENGES

- Within six hours of the storm striking Spokane, 75 percent of Avista's customers in the most populous counties had lost power.
- The storm tripped 111 of 300 circuits, damaged 58 out of 300 substations and knocked 29 transmission lines out of service.
- Toppled trees ripped out gas lines and smashed gas meters and regulator stations, which simultaneously resulted in 63 orders related to blowing-gas or gas odor; in past emergencies, Avista might experience two such calls at the same time.
- Avista normally has 10 line crews in Spokane. But for this storm, the utility needed to bring in and quickly assemble 132 crews as well as activate storm roles for employees.

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Bryan Cox Director of
Transmission, Western
Electric Operations Utilities

SOLUTION

Under usual circumstances, Avista's dispatchers will assign crews based on the damage at a particular location. But Avista's Incident Command System (ICS) team decided to focus its dispatchers on simply monitoring circuits and authorizing energization of them when it was determined the area was safe. Field commanders were dispatched to feeders and told to start at a substation with Avista crews and contract crews and work 16 hours on and eight hours off until they repaired the feeder. The ICS gave field commanders unprecedented operations control to manage the workload as a master clearance holder and restore power.

Avista recognized that simply marshalling resources in the face of a broad emergency wasn't enough; the way crews and resources were brought to bear mattered, too. Avista made sure its fully automated call out solution – the system used to locate and assemble crews for major or unplanned events – assigned and archived storm roles for every employee.

“The call out solution, developed by ARCOS LLC, helped Avista track each crew’s location and how long they had been working,” said Bryan Cox, director of Transmission, Western Electric Operations, at Avista Utilities. “As part of Avista’s emergency preparations, any employee who was not tagged as part of a crew in the call out system was given a storm role ranging from incident commander to damage assessor.”

For example, someone who normally works as a designer might be called out as a damage assessor in the wake of a storm, and the call out solution located this person and tracked not only this employee but also anyone else who was working the event.

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Once Avista activated its emergency operations center (EOC), the utility sent an initial notification to employees listed in the call out system informing them to take on their storm roles. Upon reporting for storm duty, the call out system showed each person as working that role.

RESULTS

With a well-oiled ICS and EOC in place, Avista coordinated communications with police, fire, local elected officials and county agencies. In other storms it had faced, Avista was trying to restore electricity. But the November 2015 storm felt more like trying to restore civilization, since not only electric service had been broken but also gas, water and sewer service on a wide scale. Hundreds of volunteers and line crews were called in for help.

One way to gauge performance is through the lens of mutual aid. In other words, looking at how long people sit idly by as commanders determine where to put them to work. It's easier sometimes to get resources than put them to use effectively. But the crews that were brought in by Avista to help remarked how fast they were briefed, issued a radio and guided to their appointed worksite. After the November 2015 storm, 90 percent of customers were restored in seven days, and the remaining 10 percent took two more days. No employees or contractors were injured during the work. And ultimately Avista's customers, employees and mutual aid crews knew that they were dealing with people who listened and cared.