LINKING UTILITIES AND CONTRACTORS FOR EFFICIENT, FASTER RESTORATION

"ONCE UTILITY MANAGERS AND CONTRACTORS LEARN HOW TO USE RA, IT'S PROBABLY ONE OF THE MOST VALUABLE ARCOS PRODUCTS FOR EFFICIENCY AND STANDARDIZATION"

- **West Coast Utility manager**

CHALLENGE:

- Utilities manually call on their RMAG to match resource requests for big events and update rosters by hand.

SOLUTION:

- Utilities are turning to ARCOS to digitally connect to contractor resources and expedite restoration.

RESULTS:

- Utilities can view where all their resources are, respond to requests, input information about crews, pre-build crews and swap crew members.

As work, shopping, and socializing become increasingly digitized and distilled into clicks, an "I-want-it- now" mindset permeates life. For utilities, this point of view poses challenges and opportunities. One challenge is expecting patience from consumers who are largely unaware of how utilities make, transmit, and distribute power to their office and home. They expect utilities to restore power almost as quickly as its lost.

According to data from ARCOS, a utility with one million customer outages can require, on average, 3,200 resources for restoration. During major events, a large utility can spend the equivalent of eight person days manually managing and documenting restoration work. Safely restoring power takes analysis and time. That said, utilities are increasingly giving consumers some of what they want: Immediate reports on the status of restoration. The other part of what consumers want is speedier restoration. To do that, there are now behind-the-scenes tools to better peg ETRs and, most importantly, make restoration work streamlined, safer, and swifter.

Many utilities across North America provide text messages and portals informing consumers of outages and restoration work. But some utilities are using another type of portal—ARCOS Resource Assist. The technology isn't something consumers would see. But it's critical for marshaling crews, equipment and materials for efficiently reconnecting

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circuits and repairing infrastructure. FirstEnergy and a large West Coast IOU are two utilities that have adopted Resource Assist. The Resource Assist portal clarifies and automates the manual process of determining the number of available contractors and equipment for restoring utility services and securing commitments for these resources, during major events or blue-sky work.

AN AUTOMATED LINK

FirstEnergy's 10 regulated electric distribution companies make up one of America's largest investor- owned utilities, serving six million customers in the Midwest and Mid-Atlantic regions. Stretching from the Ohio-Indiana border to the New Jersey shore, the companies operate a vast infrastructure of more than 269,000 miles of distribution lines. Getting the right resources in place in an efficient, organized manner is crucial to timely power restoration when significant weather events occur.

To support that effort, FirstEnergy launched the Resource Assist portal to bring together the utility's storm response team with nearly 100 energy contractor companies that supply crews for power restoration. Since launching the portal, FirstEnergy has electronically made and filled tens of thousands of requests for contract crews. This has expedited restoration, eliminated data-entry errors, and sped up reconciliation and payment of invoices.

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Before Resource Assist, FirstEnergy manually called on its regional mutual assistance group, or RMAG, to match resource requests for big events; the RMAG would, in turn, link needs with available crews.

Contractors would provide FirstEnergy with a roster, which the utility's storm team staff would manually update and maintain as conditions changed. Keeping track of all the information by hand introduced challenges each time revised lists came in, as skill sets and equipment might change and crews were shuffled.

With Resource Assist, FirstEnergy now makes a request for contractor resources, and the contractors feed their available crews into the portal. FirstEnergy and its contractors can view where all their resources are, respond to requests, input information about crews, pre-build crews and even swap crew members in the event a worker with a particular skill is needed elsewhere or becomes sick. Since updating Resource Assist happens electronically, any change contractors make is an immediate update for FirstEnergy. Instead of hours-long exchanges to clarify and build crews, rosters take shape right away, and FirstEnergy begins assigning work inside 10 minutes of receiving responses.

CALLS FOR HELP EVOLVE FROM MANUAL TO AUTOMATED

Before implementing ARCOS Resource Assist, a West Coast IOU kept track of its contractors with spreadsheets and a flurry of phone calls and emails to request help, confirm acceptances and investigate discrepancies in work orders, time logs, and/or invoices. The process, say managers, was "a laborious and manual one." It's a familiar story for many utilities. Even before purchasing Resource Assist, the utility was looking for ways to root out the inconsistencies in tracking the activities of and communicating with contractor companies and crews. To standardize its internal crew- building processes, the West Coast utility managers purchased ARCOS Crew Manager. Utilities use Crew Manager to not only see where, what, and how long their service and construction crews are working but also to create a digital snapshot of which crews and equipment are available minutes, hours or even weeks in advance. Crew Manager is an evolution from the *ARCOS Callout and Scheduling* Suite, which the West Coast company first rolled out in 2013. ARCOS callouts use algorithms to call crews in the order the utility's business processes dictate.

During normal business hours, managers at the West Coast utility use Crew Manager alongside work and outage management systems to keep tabs on crews' field work and customer appointments. Crew foremen begin their shift and enter the status of crew members into Crew Manager. The software then logs and computes hours worked, breaks and availability—all on a dashboard for managers to see.

To manage resources for a forecasted storm, the utility accesses a visual display of the status, skill sets and location of crews and equipment in Crew Manager via color-coded icons. Managers drag and drop icons across the utility's territory to create different restoration scenarios. If a scenario shows a gap because, say, a crew will have worked too many hours or there aren't enough resources to cover a set of circuits, the utility can reorder its plans in Crew Manager and quickly see an alternative or know precisely how many contractors to call on.

Soon after buying the solution, the West Coast power company began importing the details on its contractor crews into Crew Manager, too, so headquarters staff would know which contractors were on its property. Importing the data into Crew Manager, however, was still heavily dependent on utility managers getting spreadsheets in a timely way from contractors. Once managers received the rosters, the attributes for the contractor crews had to be parsed and matched to align with the nomenclature the utility used for its native crews.

In 2019, the West Coast utility opted for Resource Assist and linked it to its Crew Manager system. Initially, the San Francisco-based utility's contractors felt Resource Assist would cause them more work, and they resisted using it. But as managers unveiled the portal by helping contractors create their crews inside the system, contractors saw the ease with which rosters could be loaded and how the portal slashed administrative time and boosted accuracy. For its part, the West Coast company's administrators saw up to an 80 percent reduction in the time required to request and manage contractor crews and rosters. "Once utility managers and contractors learn how to use RA, it's probably one of the most valuable ARCOS tools for efficiency and standardization," said a manager who recently retired from the West Coast utility and served as the ARCOS Implementation Team Lead for the utility.

According to the West Coast utility, which uses Resource Assist for storms and blue-sky days, the system's accuracy and consistency are the primary advantages it offers when compared to traditional, manual crewing processes. Simply put, contractors can't make a mistake when sending rosters into the Resource Assist portal

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because the data fields align exactly with the nomenclature the utility uses to describe native crews and equipment. Within seconds, the utility's daily operations or storm center teams can tell managers and executives how many contractors are on the property. When requested by the West Coast utility, contractors can, in turn, move crews, route them to a new location and provide an estimated time of arrival, which shows up in Crew Manager through an integrated link.

Each morning at 9 a.m., the utility requires its contractor companies to go into Resource Assist and confirm which crews are on the property. Managers say this is a critical aspect to accounting for approximately 200 T&D contractor crews each day. The attributes in Resource Assist mirror those in Crew Manager, so when contractor companies move their crews, route them, or provide an ETA, the utility can see it in real-time via the link to Crew Manager.

BUILDING A BUSINESS CASE FOR SENIOR LEADERSHIP

According to its most ardent supporters, the best way to build a case for Resource Assist is to calculate how much time a utility spends onboarding contractors over the course of a month, quarter, or year. Imagine cutting that time by 50 percent or more. For a major event, the West Coast utility might stand up half a dozen or more base camps with thousands of contractors. Once the contractors tap into Resource Assist to input which workers are available to help, the utility can begin budgeting for meals, lodging, and fuel. That's possible because the responsibility of inputting rosters and updating the status of crews falls to the contractors. The contractors' impetus for getting it right, say utility managers, is quick, efficient payment of invoices for hours worked unlike the time-consuming, manual invoicing that can stretch out for weeks or months. And for utilities, the incentive is slashing administrative time and refocusing effort to restore service faster for consumers who have an always-on expectation for power.

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