



CASE STUDY

City of Glendale, AZ

Glendale, AZ Reduces Outdoor Streetlight Outages to Less Than One Percent with ROAM

In 2006 and 2007, the City of Glendale, AZ was experiencing major headaches with street lighting system maintenance and outages.

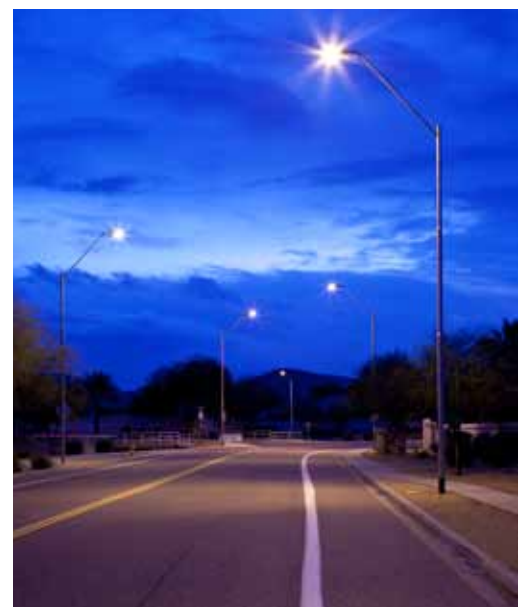




Glendale Puts Streetlight Monitoring Technology to the Test

Ultimately, the City agreed Acuity Brand's ROAM was the best solution. Glendale's City Council approved the installation and ROAM smart photocontrols (nodes) were installed on 18,500 streetlights covering 55 square miles. This was the first time a municipality had used ROAM or any outdoor lighting monitoring system on such a broad scale.

ROAM nodes were installed on each streetlight fixture. During the installation, specific information about the streetlight, including latitude and longitude location, fixture type, and wattage was entered into the ROAM system through use of a bar code scanner.



The main purpose of the nodes is to ensure the lights turn on and off appropriately and to document the

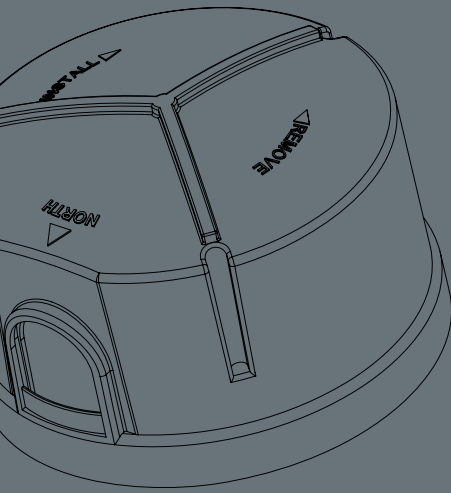
The City had more than 18,000 streetlights and, due to excessive outages and customer complaints, determined a new approach to manage streetlight repairs was needed.

Until that decision was made, Glendale struggled with significant challenges to achieve public safety and customer service goals. First, the city's streetlight maintenance contractor worked during the day when the lights were not on. Second, conducting nighttime checks of



the lighting system only occurred twice per year, providing significant time for outages to go un-repaired. Third, the condition of streetlights, due to aging, exposure to extreme weather and even vandalism is constantly changing – a light that is working today may not be working tomorrow. Fourth, relying on residents to report outages frequently resulted in the wrong light or location being identified.

A City of Glendale employee learned about streetlight monitoring technology, and the City evaluated Acuity Brands ROAM as a potential solution. ROAM is a remote streetlight monitoring and management solution that combines photocontrol technology capable of diagnosing lighting problems with remote monitoring and control capabilities to accurately manage and maintain outdoor street lighting systems.



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light's performance every 30 minutes. Data from the nodes is transmitted wirelessly to the ROAM system in Atlanta. The streetlight data is then sent to Glendale through a secure website.

The reports generated from the ROAM system provide the Glendale staff with valuable streetlight data 24-hours a day, seven days a week. City staff can access reports at any time to see whether a light is working, the number of times the light cycled off and on, what time of day it turned off and on, the wattage, and the electric supply voltage to each fixture.

Since the conversion to ROAM, Glendale has reduced the number of malfunctioning streetlights to less than a half of a percent.

The City also takes full advantage of ROAM's Work Order Management module. This provides the work orders to the service technicians and tracks the job until it is completed and the ROAM system validates the repair was successful. Service technicians are also provided with the exact location of every streetlight that needs repair, significantly reducing drive time, fuel and the repair cycle time.

"The primary benefit of ROAM is it provides us with the accountability we need," said Mike Sills-Trausch, Street Lighting Program Manager for the City of Glendale. "Any municipality that manages its own streetlight system should have the accountability of a streetlight monitoring system."

ROAM Delivers Efficiency the City Needed

Data from the ROAM system enabled the City to quickly reduce streetlight outages. The City's service contractor also benefited with more detailed information on the nature and location of streetlight problems, which helped to increase repair efficiency. The information also provided the City with the ability to hold their repair contractor and utility companies accountable for technical repairs and power supply problems.

"The ROAM system has made a huge difference in efficiency of operations," said Sills-Trausch. "Its remote monitoring functionality allows us to identify a light outage before residents call it in. Since we know the exact location, our repair technician knows the correct light to work on. With ROAM's diagnostic information, the technician also has the necessary information to identify which component likely needs replacement. "Another critical benefit we received from ROAM is the ability to establish accountability for new repairs and delayed repairs. The reporting is so accurate, even small changes in repair service are noticeable by City staff." The project was completed in January 2008. Since the initial installations, the City has steadily increased the number of streetlights with ROAM to 19,604.





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"Every new light gets entered into the ROAM system," said Sills-Trausch. "It is a fairly simple process. Once the repair technician is up in the bucket, the process only takes about five minutes to install the node and scan the streetlight specifications into the ROAM system."

Since the conversion to ROAM, Glendale has reduced the number of malfunctioning streetlights to less than a half of a percent. Additionally, ROAM helped the city improve public safety, reduce calls from citizens, efficiently manage streetlight maintenance, and hold contractors and utility companies more accountable.

"It is nearly impossible for us to get the operation rate to 100 percent because streetlights malfunction on a daily basis," said Sills-Trausch. "But that doesn't keep us from trying to do as much as we can to approach 100 percent operability. Our City Council's decision to implement the ROAM system was key to the turnaround we've experienced. Better yet, the effective management of streetlight repairs has created a positive feedback loop allowing our City staff more time to focus on other value added functions for which we are also responsible." < >



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