

City of Las Cruces Engages Johnson Controls in Performance Contracting Improvements



Contract Term
20 years

Construction Period
2018 to 2021

Guaranteed Project Benefits
\$38.1 million

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The challenge: *Accelerate the implementation of an Advanced Metering Infrastructure (AMI) program for 81,000 water and gas meters*

Las Cruces is the first STAR Community to be recognized in New Mexico as a sustainable community that includes a healthy environment, a strong economy, and the well-being of the people. Located in southern New Mexico at the foot of the Organ Mountains and along the banks of the Rio Grande, Las Cruces enjoys 350 days of sunshine a year. The City is home to more than 95,000 residents, making it the second largest city in the State of New Mexico.

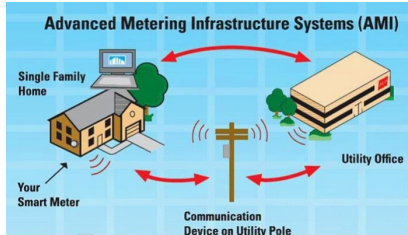
In 2013, the Las Cruces Utilities (LCU) Board instructed staff to move forward with the initial conversion of manually read water and gas meters to Automated Meter Reading (AMR) technology. In 2016, the LCU Board also approved a pilot project to implement an Advanced Metering Infrastructure (AMI) solution for 2,884 water meters and 2,681 natural gas meters. The LCU Board then engaged Johnson Controls in 2017 to expedite the completion of the AMI solution and implement other self-funded infrastructure improvements.

The solution: *A comprehensive program of self-funded infrastructure improvements and water conservation*

The first step was to complete an Investment Grade Audit (IGA) to identify the recommended improvements. Johnson Controls develops solutions *with* its customer, not *for* its customer. This partnership approach ensured that the City of Las Cruces' concerns and requirements were identified at each step along the performance contracting process.

Once the IGA was completed, the LCU Board members unanimously supported the decision to move forward with the installation phase.

The overall project includes an AMI solution for all City water and gas meters, new more accurate water meters, an automatic leak detection system, and a customer web portal.



New AMI system:

- Installation of the Itron ChoiceConnect AMI system for 81,000 water and natural gas meters
- Eliminate mobile and manual meter readings and substantially reduce operating costs
- Utility staff can proactively maintain utility revenue streams with the data analytics software

New accurate water meters:

- Replacement of 29,000 water meters with new more accurate, longer lasting meters
- Superior accuracy at low flow rates translates into increased billable water and sewer revenues
- 20-year warranty

Automatic leak detection system:

- Installation of 18,000 Itron leak sensors immediately upstream of customer water meters
- Continuously identifies, prioritizes and maps probable and possible leak sites
- Utility staff can proactively reduce water losses

Customer web portal:

- User-friendly web portal for all water and gas customers
- Real-time consumption analysis (history and trends)
- Alerts and notifications (leaks, high usage)

To pay for this project without increasing utility rates, Johnson Controls helped the City obtain low interest revenue bonds.

Results and Benefits

The infrastructure improvements will increase utility revenues by approximately \$450,000 per year and reduce operating costs by more than \$900,000 per year. Johnson Controls is guaranteeing \$38.1 million in benefits over the 20-year term. The City also accelerated the implementation by using State Pricing Agreement 15-000-14-05759AA with the General Services Department.

The City of Las Cruces leadership has identified a truly sustainable solution that will have a positive impact on the community, the economy, and the environment.