City of Alamo City Hall, Photo by City of Alamo



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CITY HALL

CITY MANAGER ROBERT SALINAS CHAMPIONS IMPROVING WATER METERING AND LIGHTING EFFICIENCY, RECOUPING \$94K IN LOST REVENUE, AND SAVING \$39K IN ENERGY COSTS IN THE FIRST YEAR

BY MATTHEW CHESTER

he City of Alamo is a humble and hard-working city in the southern region of Texas, a vibrant community situated in Hidalgo County. It is renowned for its cultural heritage and agricultural industry. In recent years, the City of Alamo has sought to set itself apart and take the right action in its support of the United Nations Sustainable Development Goals (SDGs).

Efforts to upgrade infrastructure and focus on future goals have been spearheaded by proactive leaders like City Manager Robert (Bobby) Salinas with the support of former Mayor Diana Martinez and current Mayor J.R. Garza. The City has prioritized initiatives to address aging water and sewer systems, improve transportation networks, and enhance public utilities. These upgrades are laying the foundation for sustainable growth and economic development in Alamo.

Salinas assumed the position of City Manager in June 2019. He brought a well-respected wealth of experience and dedication to his role. He has a deep understanding of urban planning, political science, and public service. Salinas previously served as the City's Planning Director.

Known for his leadership and commitment to progress, Salinas and his team at City Hall have made modernization efforts a personal mission. His proactive approach and focus on leveraging technology to meet the evolving needs of residents reflect his dedication to fostering innovation and sustainable growth within the community. Salinas aims to position Alamo as a technologically advanced and forward-thinking municipality.

Energy Services Media (ESM) discussed the project with Salinas to understand its genesis and why the City chose to leverage an Energy Savings Performance Contract (ESPC) with Schneider Electric to execute an Advanced Metering Infrastructure (AMI) and lighting retrofit project.



Robert Salinas, City Manager, City of Alamo Photo by Crystal Rodriguez

ESM: What led the City of Alamo to pursue an infrastructure modernization project?

Salinas: One of my goals was to progress the City into considering modern technology ideas. For example, when I came on as City Manager, we did not have an online payment platform. My hope was to bring some efficiencies to our city operations and city residents with the implementation of modern technology, like paperless online bill pay and using online forms—simple things.

We received positive feedback as changes were made, so when we started to experience many issues with our water meters, I took the same approach: How can the City raise the performance standards for our residents?

We had 20+ year-old mechanical water meters out in the field. The meters did not provide accurate measurements, and we often ran into issues finding replacement parts because of how dated they were. We had water loss because they did not perform well, and residents did not have the ability to see in real-time how much water they were using. We routinely ran into issues with the pace of billing; if a technician could not physically go out into the field and read the meters, we wouldn't be able to complete the meter reads on time. Overall, it was a significant problem faced by the City and a point of frustration for Alamo residents.

After the smart meters were installed, getting a read is literally by a touch of a button. It's very easy, and billing is automated. I'm not getting complaints anymore.

ESM: Was the lighting upgrade part of this project's initial scope, or was that an opportunity identified after the project started to develop?

Salinas: Our primary focus was on implementing smart water meters. The LED lighting project came about as the project developed. When we started to explore the automated water meter project, we were unaware that we could fold the lighting upgrade into the project. As we partnered with Schneider Electric, they brought to our attention that adding the lighting upgrade was possible, and the savings from the lighting upgrade would help pay for the overall project.

We saw this as very beneficial to the City, reducing the lighting utility bill and the amount of energy being used. The lighting upgrade took place at a very large sports complex that has four baseball fields. It was a win-win: the City is saving money and energy, and the sports complex now has high-performing lighting.

ESM: Were you aware of how the City would fund the project?

Salinas: As I started in my role, the City was working through how the project would be funded. Schneider Electric approached us about the prospect of executing the project with an Energy Savings Performance Contract (ESPC).

Before we committed to any project scope, Schneider Electric offered to complete an Investment Grade Audit (IGA). They looked at our infrastructure as a whole and provided a comprehensive report that included all upfront costs, energy savings, and operations and maintenance costs.

We knew exactly how much it would be and were confident in the ESPC model. I felt very confident moving forward. If the savings figures they presented and committed to were wrong, they would be responsible for paying for the difference because Schneider Electric contractually guaranteed the energy savings.

Again, it's a win-win. It just made sense to us.

"We knew exactly how much it would be and were confident in the ESPC model."

- ROBERT SALINAS, CITY MANAGER, CITY OF ALAMO

- ESM: Was a third-party engineer (not associated with Schneider Electric) involved in evaluating the proposed project costs and savings prior to the City signing the contract?
- Salinas: Yes, we did have a 3rd party engineer review everything prior to signing the contract.
- ESM: Were there any change orders completed after the contract was signed?

Salinas: No.

- ESM: What were some takeaways or challenges from this project that could be shared with other municipalities interested in a project like this?
- Salinas: Thankfully, we did not run into any major issues outside general challenges during COVID-19.

Really, our largest hurdle was just communication. As a municipality, our constituents are our bosses. We are here to serve them, and transparency is critical. If we are going to be spending millions of dollars on a project, we better have a good reason why. We put a large effort towards a communication and media plan.

As much as possible, we inform. For example, if you walk into our lobby today, you'll see a banner sign that shows the savings that we have already gained and the savings we will achieve over the next 20 years.

We also educated our residents on the new customer portal, where they can see their water usage and what they are spending. We want people to look at everything that's being sent regarding their water usage. If they aren't home and the data shows that no water is being used, that's a good thing that means there are no leaks.

Another thing to take into consideration is the impact of installing new technology. We had to retrain our staff, and these meters were completely different from traditional mechanical meters.

With the completion of the infrastructure modernization project in the summer of 2022, Schneider Electric and the City of Alamo were able to address outdated water meters, upgrade lighting systems, and implement technology solutions. Bundled together, these efforts resulted in improved efficiency, reduced water loss, and significant energy savings for the City.

Following the completion of the project, AEP Texas, an energy delivery company serving South and West Texas, rewarded the City of Alamo with a \$38,575 check for savings from its energy efficiency upgrades. The reward was part of the AEP Texas Commercial Standard Program, which offers incentives for the peak electric demand & energy reduction associated with new, highly efficient installations, such as LED lights.

Project implementation does not mark the end of the work, as the City of Alamo has ensured continuous monitoring and optimization of systems for efficiency and effectiveness. The success of this City modernization project can be attributed to transparent communication and citizen engagement, as well as the key partnership with a reputable Energy Service Company (ESCO) to deliver results for the Alamo community. Alamo's Infrastructure Modernization Project is an encouraging example for other municipalities to pursue similar projects for modernization and efficiency gains.

PROJECT IMPACT



PROJECT STATS

Total Contract Value [*]	\$4,470,121
Term	20 years
Average Guaranteed Savings Per Year	.\$330,018/yr
Total Guaranteed Savings	\$6,600,376
*Procured through the city's membership with The Interlocal Purchasing System (TIPS)	้า

PROJECT TIMELINE

Initial conversations with Schneider Electric regarding the infrastructure project commence

Investment Grade Audit kickoff by Schneider Electric

OCTOBER **2020**

MAY

2021

FEBRUARY

2020

MID-2020

> Completion of the investmentgrade audit by Schneider Electric, providing detailed analysis and cost projections for the project

DECEMBER The Cirmove f

The City receives approval to move forward with the project

FEBRUARY 2021 Initiation of the project implementation phase, including the installation of smart water meters and lighting upgrades

Lighting upgrades completed

Smart meters installed



"This partnership is an example of what forwardthinking leadership can accomplish. The City of Alamo is distinguishing itself as a smart, innovative city, and Schneider Electric is proud to support their vision to build a sustainable infrastructure that will serve their community for generations to come."

AARON GARCIA,
SENIOR ACCOUNT EXECUTIVE,
SCHNEIDER ELECTRIC