



City of Milpitas

Delivering a Comprehensive Smart City Energy and Water Savings Program

About the City of Milpitas

With a growing population of over 80,000, the City of Milpitas lies in Santa Clara County in California's Silicon Valley. Milpitas' leaders are dedicated to enhancing the quality of life for its residents and ensuring the community is healthy, safe, and resilient. At the heart of these efforts is the goal of city leaders and the broader community to protect the environment and reduce the community's climate impact. The city adopted its first Climate Action Plan (CAP) in 2013 and is now working on an update to align its efforts with long term state and world carbon reduction and sustainability goals.

Delivering Sustainable Infrastructure Modernization

A COMPREHENSIVE AND CUSTOMIZED SMART CITY SOLUTION

In an ongoing effort to maintain and improve public services, the City of Milpitas’ leadership team sought innovative approaches to upgrading its critical public facilities, services, and supporting infrastructure. The program was required to deliver benefits across environmental and economic factors, while also having a positive impact on residents’ quality of life. Milpitas’ civic leaders pride themselves on their environmental and fiscal stewardship, and these values would have to be at the heart of its infrastructure overhaul.

Following the scoping phase, Milpitas’ City Council approved a comprehensive smart city energy and water savings program with ENGIE North America. With ENGIE on board, the city is upgrading infrastructure and implementing energy and water conservation measures across its jurisdiction, in the process enabling guaranteed energy savings, improved public safety, and a better public environment.

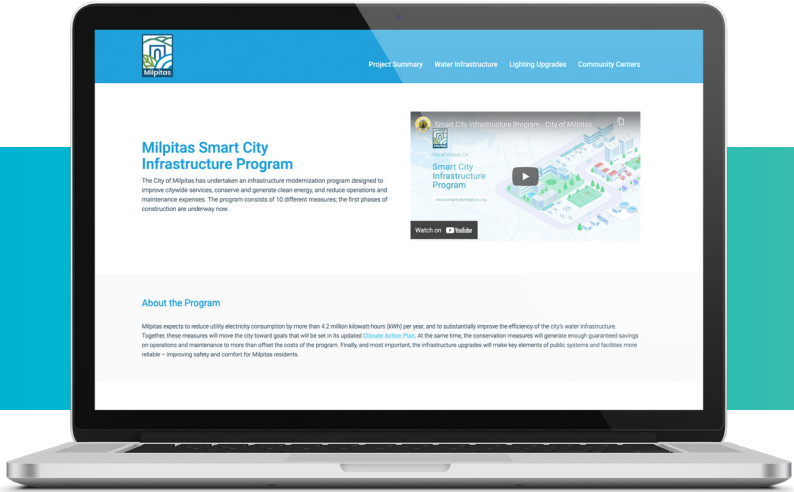
Significant Benefits City-Wide

The program consists of 10 different measures covering three broad categories: advanced water infrastructure, efficient lighting upgrades, and energy resiliency upgrades.

SMART CITY AND WATER EFFICIENCY MEASURES INCLUDE:

- Over 200 kW of solar energy
- An energy storage and microgrid solution for backup power
- 15,600 advanced metering infrastructure water meters with leak detection
- 2,185 LED streetlight retrofits
- 4,453 streetlight controls upgrades with outage detection
- City-wide LED lighting upgrades in parks, sports fields, city buildings, and community facilities
- A supervisory control and data acquisition (SCADA) system to better manage the city’s water, stormwater, and wastewater infrastructure
- New pumps and automated treatment of the water supply, for longer storage and reduced waste
- Touchless efficient water fixtures
- Electric vehicle charging stations

Communications and support services provided to residents in four languages via mailouts, dedicated website (smartcitymilpitas.org) and a 24/7 call center operation.



“The City of Milpitas is proud of our continued commitment to fiscal and environmental stewardship and this comprehensive smart cities program will showcase Milpitas as a responsible and innovative community.”

—Rich Tran, Mayor, City of Milpitas

AN ENVIRONMENTALLY AND FISCALLY SUSTAINABLE PROGRAM

Through ENGIE’s program, Milpitas is forecast to reduce utility consumption by more than 4.2 million kWh of electricity per year, saving more than \$1.5 million in energy and water costs annually, for a net lifetime savings of over \$30 million. These guaranteed efficiencies will help the city meet its CAP goals, while the associated cost savings will fully fund its smart city program.



4.2 million kWh

reduction in annual utility electricity consumption



\$1.5 million

saved in energy and water costs annually



\$30 million

net lifetime savings through ENGIE’s program



A MORE RESILIENT INFRASTRUCTURE

ENGIE’s microgrid solution for Milpitas includes 200 kW of solar energy to power Milpitas’ community centers during the day, and a battery energy storage system to provide an initial source of backup power during grid outages and to reduce peak demand costs. The battery system is supported by a natural gas generator, which provides a second source of backup power for outages of a long duration. The solution builds resilience into Milpitas’ infrastructure at a time when outages are becoming increasingly common across California, ensuring that the city can maintain essential public services.

SAFER STREETS AND BETTER WATER SERVICES




When lighting upgrades are complete, the City of Milpitas will be standardized on LED lighting throughout city parks, sports facilities, streetlights, and most city-owned buildings. Replacing older-generation lamps and ballasts, the new lighting system will be brighter, improving street lighting and helping to make streets safer at night. Meanwhile, by modernizing the city’s water, stormwater, and wastewater infrastructure, the program will improve water quality, accelerate resolution of leaks, and provide city residents with information to better manage water usage in their homes and businesses.



“Through this program, we will leverage guaranteed energy and water savings to pay for the program and save the city money, while reducing our energy and water usage, improving community safety, and enhancing building comfort and usability.”

—Rich Tran, Mayor, City of Milpitas

Three Dimensions of Impact

-  **ENVIRONMENTAL IMPACT**
By embracing solar energy and driving significant energy and water efficiencies citywide, the City of Milpitas will reduce utility consumption by more than 4.2 million kWh of electricity per year, slashing its carbon footprint.
-  **SAVING MONEY**
The City of Milpitas' smart city energy and water savings program is forecast to save \$30 million over the life of the project, net of all costs.
-  **SUPPORTING PEOPLE**
The city's ratepayers will benefit from better and safer public services including lighting, water, and wastewater services. The program is also designed to bolster community outreach around sustainability issues and climate action leveraging communications resources from ENGIE.

About ENGIE North America

As a power generator, energy services company, and retail electricity supplier, ENGIE North America is the only company that delivers comprehensive, integrated services across the entire energy value chain. This makes ENGIE a preferred provider to cities, universities, healthcare providers, and other social infrastructure entities. ENGIE's business strategy focuses on delivering safe, reliable, cost-effective, and sustainable energy solutions that meet customer needs over the long term and contribute to a carbon-neutral economy.

