



City of Barstow

Energy Efficiency Mechanical Upgrades Case Study

www.theenergynetwork.com



Free Customized Project Delivery Services Utilized

- ✓ Project Management
- ✓ Technical Review
- ✓ Incentive Application Assistance
- ✓ Audit and Calculations
- ✓ Financial Analysis

Situation Analysis

The City of Barstow joined The Energy Network in February 2014 with their wastewater treatment plant (WWTP) specifically in mind. The WWTP, which provides primary and secondary treatment for the City of Barstow and its surrounding communities, was already in the process of planned upgrades and facility maintenance.

While working to ensure a seamless integration into the ongoing renovations, The Energy Network's technical review team was able to find that the plant's influent pumps were operating inefficiently, and identified opportunities to upgrade their gravity thickener as well as the reverse activated sludge (RAS) pumps. These findings became the basis for an integrated energy efficiency project that would strengthen the WWTP's already planned upgrades.

The City decided to go forward with four out of the five recommendations proposed, including

- Installation of High SOTE Diffusers
- Overhaul of Influent Pumps

- Gravity Thickener Pump Retrofit
- Overhaul of RAS Pumps

These combined projects total more than 270,000 kWh in annual electricity savings.

By working closely with The Energy Network, the City of Barstow was able to capture \$13,349 in utility incentives to help offset the cost of implementation of the energy saving measures. These measures have successfully reduced the WWTP's energy demand, resulting in a of \$19,166 reduction of energy costs for the City of Barstow.

Project Summary & Benefits

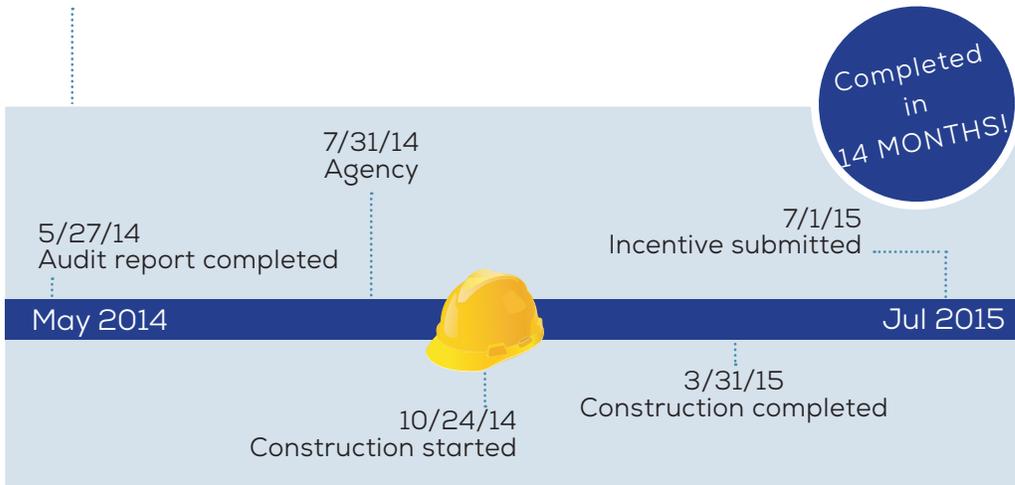
Using The Energy Network's Customized Project Delivery services, the City of Barstow Wastewater Treatment pumping upgrades were completed in just 14 months, including incentive application approvals and construction. In summary, these upgrades will save 273,211 kWh and \$19,166 annually.

Key Savings

- **273,211**
kWh annual savings
- **\$19,166**
annual savings
- **\$13,349**
in utility incentives

**Simple
Payback in
2.7 Years!**

Timeline



Project Cost

Gross Project Costs	\$64,585
Incentives and Rebates	-\$13,349
Net Project Costs	\$51,236

Energy and Cost Savings Analysis



What is The Energy Network?

The Energy Network was created to harness the collective power of public agencies to achieve an unprecedented level of energy savings across Southern California. The City of Barstow's enrollment and commitment to work together to complete projects saves energy, saves money and improves our communities through overall shared environmental and economical benefits. For more information contact info@theenergynetwork.com or call (855) 700-NETWORK.

This Program is administered by the County of Los Angeles and funded by California utility ratepayers under the auspices of the California Public Utilities Commission