



City of Coachella

Energy Efficiency Project

Background

- ▶ Energy cost can account for up to 10% of a local government's annual operating budget
 - ▶ Parks, Streetlights, & Facilities - \$638,000
 - ▶ Sanitary District - \$400,000
 - ▶ Water Authority - \$550,000
 - ▶ **TOTAL:** \$1,588,000
- ▶ Improving energy efficiency in local government facilities can produce a variety of energy, environmental, economic benefits:
 - ▶ Reduce GHG emissions
 - ▶ Reduce Energy Costs
 - ▶ Increase Economic Benefit (Job Creation and Market Development)
 - ▶ Improve Indoor Air Quality and Productivity
 - ▶ Demonstrate Leadership

Lighting - Existing City Facilities

Interior Lighting

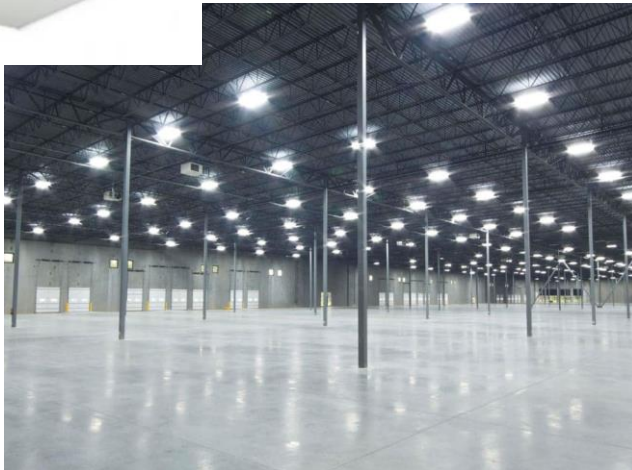


Exterior Lighting



Lighting - Energy Upgrade Examples

Interior Lighting



Exterior Lighting



HVAC/Mechanical/Plumbing Systems



HVAC/Mechanical/Plumbing Systems



Examples of Energy Efficient Projects



Sanitary Projects

- Pump Systems Evaluations

Pumping and aeration equipment are a significant energy user at wastewater facilities. Evaluate current systems and identify opportunities for potential energy efficiency improvements such as pump replacement or rebuilding.

- Process Systems Evaluations

Evaluate the efficiency of each facility process system and potential alternatives to technologies currently in use for each process:

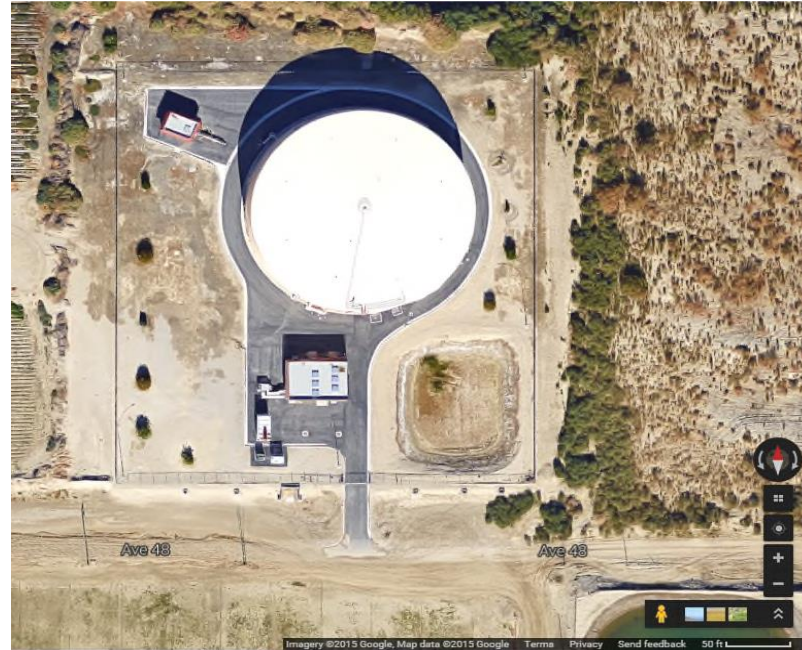
- Sewer flow monitoring
- SCADA upgrades
- Substitution of fine or ultra fine bubble aeration
- Dewatering and solids management alternatives



Water Projects

- Pump Systems Evaluations

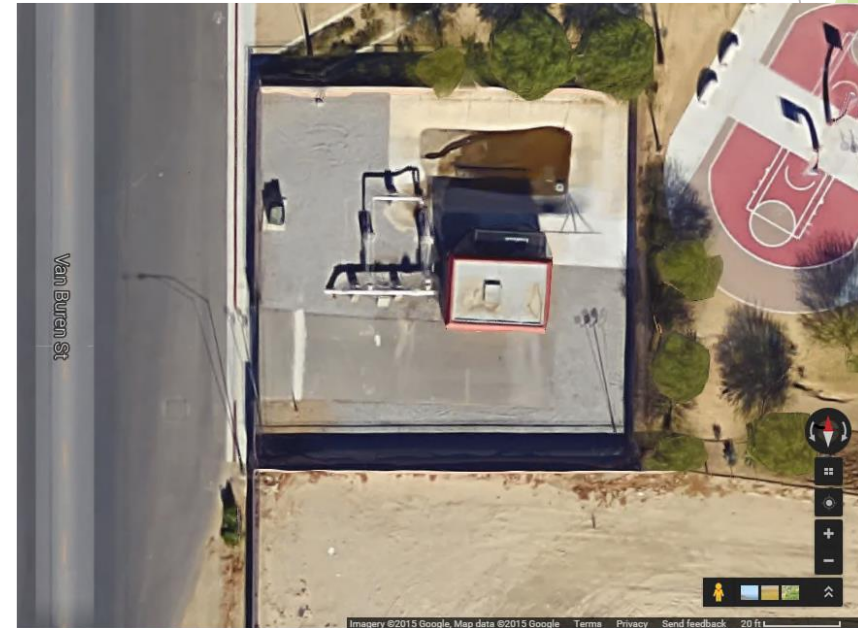
Evaluate current systems and identify opportunities for potential energy efficiency improvements such as pump replacement or solar use.



- Process Systems Evaluations

Evaluate the efficiency of each facility process system and potential alternatives to technologies currently in use for each process:

- Improvements to the variable frequency drive systems (VFD) or installing new VFDs at site



Tools

- ▶ California Government Code Section 4217 allows the City to forgo its standard low-bid public procurement processes to implement turn-key energy services projects when the City finds this procurement method in its best interest
- ▶ Benefits include:
 - ▶ Eliminate the cost associated with contracting a consultant to run the RFP process.
 - ▶ Timing: faster project completion which results in quicker realization of the savings value.
- ▶ Disadvantages include:
 - ▶ More difficult for the buyer to ensure they are getting a competitive quote.
 - ▶ May lose other vendor interest if they feel sole source scenario likely to persist.
 - ▶ If real problems or significant shifts occur within that vendor, project can get stuck or face other risks.

Next Step

- ▶ Allow Staff to engage energy solutions companies that can provide:
 - ▶ Preliminary energy analysis and audits of current systems
 - ▶ Develop of list of Facility Improvement Measures (FIM)
 - ▶ Product options and design alternatives
 - ▶ Cash Flow Pro-Forma, potential financing and rebate sources
 - ▶ Cost Analysis/Cost Savings
 - ▶ Recommended Implementation Process

Questions/Comments

