



Energy Management for Your Business



PG&E's Energy Solutions for Water and Wastewater Treatment Facilities

Industry Facts

Energy management experts from Pacific Gas and Electric Company (PG&E) are ready to help your facility meet today's energy challenges. With California's population of 38 million people, estimated to grow at a rate of 1.1 percent each year, the higher cost of energy needed to provide adequate, clean drinking water and wastewater treatment poses increasing challenges to operational costs, as well as environmental concerns.

A significant portion of your facilities' financial success depends on reducing your controllable costs. PG&E's manufacturing energy specialists can help you use energy more efficiently, maximize the return on your investments, improve net operating income, increase building and facility asset value and balance out your carbon footprint.

Energy Management Services for Water and Wastewater Treatment Facilities

Service	Description	Result
Pricing Plans	Analysis of your industrial facilities' energy usage patterns to determine your most beneficial pricing plan	Can reduce your energy bills
Customized Retrofit Incentives	Incentives for replacing equipment and systems to achieve greater energy efficiency	Reduces energy costs, lowers GHG emissions and increases operational efficiency
Energy-efficiency Rebates	Rebates paid for installing qualifying energy-efficient equipment	Improves return on investment for most common measures
Energy Audits	Assessment of your site to identify the best opportunities for improved energy efficiency and potential savings	Analyzes current energy usage and identifies savings opportunities
New Construction	Resources and incentives for energy-efficient design and construction	Increases operational efficiency and reduces energy costs
Demand Response	Incentives for voluntary temporary load reduction during peak demand periods	Reduces peak energy costs and ensures the reliability of California's electrical grid
Solar and Self-generation	Rebates for the installation of photovoltaic, wind, fuel cell and other generation systems	Reduces energy costs and carbon footprint
On-bill Financing (OBF)	No-interest loans available to eligible customers for energy-efficient retrofit projects, to be repaid through monthly PG&E bills	Provides financing for energy-efficiency projects

Energy-efficiency Solutions

Here are some of the most popular measures and technologies that can be used in water and wastewater treatment facilities to save money and energy. PG&E account representatives, program partners and affiliates can help you choose the projects that make the most sense for your organization.

Water Treatment Facilities Retrofit Opportunities

Measure	Benefit
Lighting Upgrades	High-performance T8 and T5 lamps may reduce lighting costs by up to 40 percent.
Variable Frequency Drives (VFDs) on Motors	A VFD is an electronic controller that matches the motor's speed to the load and power needed, reducing energy and maintenance cost.
High-efficiency Pumping	Specifying premium efficiency motors, applying VFDs and reducing head pressure are effective strategies to reduce energy consumption.
Pipe Resizing	Pipe resizing increases the diameter of pipes, which can reduce heat loss and save energy.
Low-pressure Ultraviolet (UV) Disinfection	Low-pressure UV disinfection systems are generally up to 19 percent more efficient than medium-pressure systems. Self-cleaning UV lamps provide additional energy-efficiency benefits.
Fine Bubble Aerators	Fine bubble aerators consume 20 to 40 percent less energy than coarse bubble systems to deliver oxygen to the wastewater.
Dissolved Oxygen (DO) Control	DO control automatically allows the wastewater system to continuously monitor oxygen levels in the wastewater and turn off the aerators when the oxygen demand has been met.
High-efficiency Aeration Blowers	Diffused aeration systems that use high-efficiency turbo blowers can greatly reduce energy demand.

PG&E can help you develop and implement an action plan to meet your short- and long-term energy management goals.

New Regulatory Requirements

PG&E's energy management services can also help your organization meet the following energy-focused standards for California water and wastewater facilities.

California Energy Standards

Name	Description
California Title 24	Specifies minimum building energy performance
California AB 1103	Mandates benchmarking of commercial buildings being sold, leased or refinanced
California AB 32 (Global Warming Solutions Act)	Requires businesses to reduce greenhouse gas emissions
Nitrogen Oxide (NOx) Boiler Standards (San Francisco Bay Area and San Joaquin Valley)	Specifies lower levels of allowable NOx emissions associated with boiler systems
Green Building Initiative State of California Executive Order S-20-04	Requires improved energy efficiency and reduced water consumption to balance out the carbon footprint of all new buildings in California

Your Next Steps with PG&E

For more information on how PG&E can help your water and wastewater treatment facility manage energy consumption and reduce costs, visit www.pge.com/industrial.

You can also contact your PG&E account representative or call our Business Customer Service Center at 1-800-468-4743.