



A Smart Transition to a Sustainable Future

2009-2010
Annual Report

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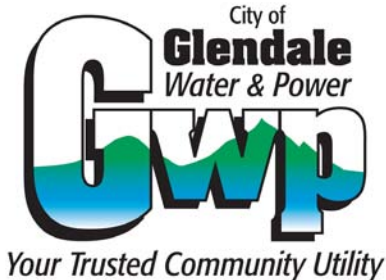
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General Manager's Message



Glendale *Water & Power* (GWP) celebrated 100 years of service with a sense of pride at how much we have accomplished and a feeling of confidence at how much we are poised to achieve.

This pivotal year finds us at a crossroads where our past intersects our future. How we operate our utility will change dramatically in the years to come. Our transition to a “Smart Grid,” a process for which we began to plan in 2005, sets the foundation for our next 100 years.

Our successful demonstration of the Smart Grid has proven its viability, and now we have begun converting the City’s 120,000 meters. Replacing all of our City’s electric and water meters with new Smart Meters is the largest project in GWP history.

Smart Grid technology will provide real-time usage data to customers: Our customers will know exactly how much water and electricity they use and how much they spend on it. In the future, this will help our customers to make price-sensitive choices – such as when to run the air conditioning or wash the laundry. They will be able to select from new pricing plans that best suit their needs, using technology that helps them manage their use.

Nationally, GWP is at the forefront of this utility revolution. Thanks to our comprehensive planning, our project is among the first to be “shovel ready.”

- We are one of the few utilities integrating the transition to both electricity and water at the same time.
- We were one of the first 100 utilities nationwide to receive a \$20 million Smart Grid Investment Grant from the U.S. Department of Energy.

This project will be our focus for the next five or six years. The Smart Grid will have a revolutionary impact on how we manage utility operations and use resources.

As we look ahead, the on-going challenge for GWP and all utilities remains sustainability. In our densely populated desert region, water will always be in short supply. Our customers understand this reality: They exceeded Glendale’s mandatory water conservation goals of 10%, by reducing water usage 18%.

We continue our founders’ focus on excellent water service and quality:

- Our two chromium 6 treatment facilities are now operating, helping to safeguard our well water.
- GWP was honored by the nation’s largest publicly-owned drinking water utilities for exceptional performance.

Likewise, environmental concerns mean we must use less coal and more renewable sources to generate electricity.

Once again GWP is preparing for the future. Our energy portfolio includes 23% renewable sources, one of the highest in the state. We are reducing our reliance on fossil fuels and lowering carbon emission, and we are committed to reach 33% renewable sources by 2020.

- GWP purchased the Scholl Canyon landfill gas facility, which produces methane gas that is the main component of natural gas. As a result, we were able to cut residential electric rates about 9%.

As we look back, we can take pride in 100 years of solid utility growth. I believe our founders would be proud of how we have fulfilled our traditional role to provide reliable water and electricity to our City. GWP is self-supporting and continues to transfer funds into the City budget.

I believe the founders would also be amazed at the transformation underway and the possibilities it offers. Our utility is becoming much more customer-focused and more efficient. We are fulfilling their founding vision – and transitioning to a future beyond anything they ever imagined.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn O. Steiger".

Glenn O. Steiger
General Manager of Glendale *Water and Power*

Ready When Customers Need It: Ensuring System Reliability

Providing Water Service

Glendale Water & Power delivers 9.16 billion gallons of safe drinking water to our customers. In 2009, the Association of Metropolitan Water Agencies honored GWP for its drinking water systems with the Gold Award for Exceptional Utility Performance.

To ensure water quality:

- GWP samples water in our storage facilities and pipelines more than 4,000 times per year.
- GWP has constructed two facilities that can remove chromium 6 from drinking water. This chemical is found in some groundwater supplied from the San Fernando Valley. This demonstration project successfully developed new technologies that will be useful to many other utilities nationwide.



To ensure a reliable water supply:

The GWP water system includes 30 water storage facilities that can hold up to 185 million gallons of water, thirty pump stations, and 400 miles of pipeline. This year GWP:

- Completed the Chevy Chase 968 Reservoir replacement.
- Installed potable water back-up supply to the Grandview Recycled Water tank.
- Cleaned and maintained six water storage reservoirs and tanks.

We continue long-term projects to replace and reline City water mains. More than 30 miles of old water mains have been rehabilitated or replaced to date. This year's accomplishments to improve distribution include:

- Completing the Dryden main replacement project.
- Completed construction of the Edmonton Water Main Replacement Project.
- Completely updating backflow database; updating backflow fees and changing GMC backflow-related provisions.
- Maintaining all system fire hydrants, exercising half of all system valves, and repairing over 100 non-operable valves.

Ready When Customers Need It: Ensuring System Reliability

Providing Electric Service

Glendale Water & Power provides electric service to 84,500 customers by generating, transmitting and distributing more than 1100 billion kilowatt-hours of power. We strive to meet the City's electricity needs with reliable power at a reasonable cost.

GWP was one of 94 utilities to be recognized as a reliable public power provider by the American Public Power Association for providing customers improved and reliable service.

This past year we improved disturbance monitoring to become even more reliable by:

- Installing a state-of-the-art Supervisory Control and Data Acquisition system to view and monitor the system.
- Using a new Synchronous Optical Network (SONET) to provide communications for the new SCADA and AMI projects.
- Installing disturbance monitoring systems to help analyze system outages and disturbances.
- Re-fused seven feeder networks to improve coordination and minimize number of customers affected by an outage.
- Installed reclosing capabilities on two feeders to restore outages automatically in case of temporary events.
- Converted four feeders from 4 kV to 12 kV.

Our purchase of the Scholl Canyon landfill gas facility guarantees a supply of methane gas. This protects GWP from price volatility in the natural gas market and reduces the cost of generating electricity at the GWP Grayson Power Plan. Savings will be at least \$9 million over the next five years.



Our Smart Transition

The move to the "Smart Grid" is taking GWP into the digital age by upgrading the electric infrastructure and using technology to deliver water and electricity more efficiently. GWP's "Smart Grid" has the ability to detect power outages and water leaks when they occur. The "Smart Grid" gives GWP the ability to more readily incorporate renewable sources of energy into our energy supply portfolio, improve both electric and water operational efficiencies and helps to avoid building new costly power plants and distribution stations.

By late summer of 2011 GWP will have installed all of its 88,000 electric and 33,000 water smart meters. The future of GWP's "Smart Grid" will give customer the opportunity to choose rate plans based on convenience and comfort, the ability to view and monitor energy and water usage information in near real time via the internet and more easily incorporate green technologies such as solar panels and plug-in electric vehicles.



Ensuring A Sustainable Future

Water: Conserving a Resource

The persistent water shortage of the past four years will not be solved by rainfall alone since Court decisions have further limited access to water from the north.

GWP purchases 65% of its water from the Metropolitan Water District (MWD), which imports it from Northern California and the Colorado River. The remaining 35% comes from local water sources i.e. groundwater and recycled water. Because of short supplies, MWD announced penalties to cities that exceed their water allocation. To avoid these penalties, Glendale declared Mandatory Water Conservation Phase 2 in August of 2009. Restricting outdoor watering to three days per week, and calling for 10% water use reduction.

- Customers reduced their average water usage 18% during the summer.
- GWP followed-up on over 200 “water waster” tips received through GWP’s website and water waster hotline. Residents and or businesses that were reported received conservation information.

Our water conservation initiatives include:

- Launching an educational campaign focusing on our three day a week watering schedule.
- Offering free “Water Conservation 101” classes to residents, now in its second year.
- Offering landscape classes that discuss sprinkler systems and CA friendly plants.
- Distribution of shower timers and water conservation information at GWP counters and community events.

Nearly 20 years ago, Glendale began to create a unique recycled water system for non-human consumption. This service started with 19 connections in the mid-1990s and has grown to 59, with more expansion to come.

- Using recycled water saved Glendale more than 540 million gallons of potable (drinkable) water in 2009.

Electric: Sources for Long-Term Supply

To ensure continuing outstanding reliability for our City, Glendale Water & Power maintains an aggressive maintenance and improvement program for our local power generation units. In 2009-2010, we completed a number of significant improvements including, but not limited to:

- Installation, start-up and commissioning of a new PLC Mobotec control system of Unit 5 Boiler
- Installation of two large chemical storage tanks for Grayson Power Plant’s (GPP) water treatment systems
- Installation of the third Reverse Osmosis System for water treatment of supply to steam boilers and gas turbine systems
- GPP Passenger and Freight elevator modernization project
- Upgrade of the Ammonia System Control Panels for NOx emission reduction system in Gas Turbine Unit 8BC
- Upgrade of the Control Room electronic digital recorders and DC battery banks.

Glendale Water & Power continues to lead the way on both national and state levels to ensuring responsible, economical, renewable and reliable energy supply sources for the City. In our ongoing efforts to increase our renewable portfolio and decreasing our carbon footprint, Glendale has secured a diverse portfolio of green energy resources – ranging from our Tieton Hydro Electric Dam (Yakima County, Washington) to Milford II Wind project (Milford, Utah). Each of our renewable projects utilizes existing Glendale transmission rights to maximize benefit to our customers and a number of the projects include options which can delay delivery for up to three years and minimize costs.

Our Public Benefits Program

GWP continues to create innovative programs that benefit low-income customers and help all customers conserve water and energy. These 25 different programs are funded through a state-mandated charge on electric bills.

GWP Public Benefits Programs include need-based discounts on bills, energy saving rebates and education materials, plus surveys or devices intended to save energy and water.

This year we distributed over \$6.1 million to help customers conserve energy, become more energy efficient, or assist low-income households. Our Public Benefit Programs help save over 13 million kilowatt hours, reducing participating customer bills by \$2.3 million.

- The electricity saved would power over 1,800 single-family homes for a year.



GWP's Public Benefits Programs office answered over 16,000 customer phone queries and handled over 2,500 applications for our program. Accomplishments include:

- Conducting 715 in-home surveys, providing over \$26,000 worth of energy and water saving materials and services.
- Providing over 1,200 energy and water saving rebates valued at \$124,000.
- Paying over \$1,300,000 in incentives to install 320,000 kW of local grid connected solar generation

GWP is always innovating to improve:

Our new Vending Miser program reduces the energy consumption, costs and greenhouse gas impacts of vending machines. GWP, the first utility to use this technology in California, earned its fifth California Municipal Utilities Association Award for this program.

- Installed the free Vending Miser device on more than 350 vending machines owned and operated locally.

Our Smart Business Energy Saving Upgrade program provides small business owners up to \$2,000.00 for energy and water upgrades through a turn-key program.

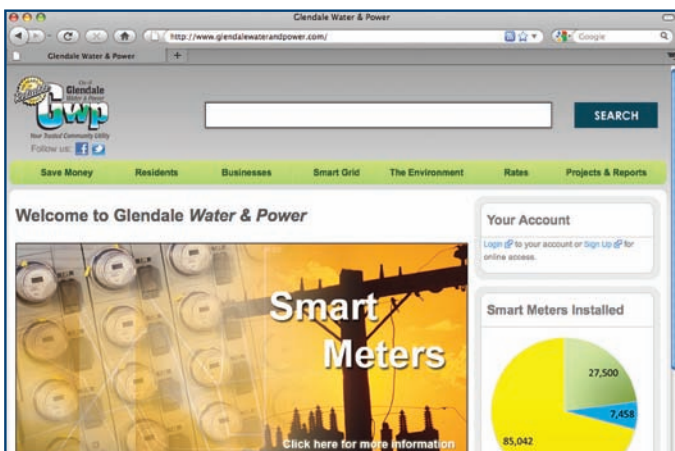
- Installed \$80,444 in energy saving devices at 65 small business locations

Serving Customers in a Number of Ways

Our service should be as reliable as our water and electricity. Our staff received over 1,000 hours of training to ensure they provide high quality service and accurate information.

Customer service helped 122,115 callers by telephone and 16,290 customers in person at the front counter.

- We helped 2,168 customers requesting permits and service spots at the counter
- We inspected 8,048 trees and trimmed 2,590 that posed potential hazards to power lines
- GWP approved payment extensions for 23,727 customers



The GWP website, www.GlendaleWaterAndPower.com, offers 24-hour service:

- 35% of customers pay their bills electronically, and more than 90,000 statements out of 537,000 were delivered by Ebill.
- 25% of customers are enrolled in eCARE, using it to complete 2,932 transactions
- 2,592 customers used our web page for their queries and 69,514 transactions were completed through the Interactive Voice Response System.

GWP enhanced the Identity Theft Program by implementing “Black Light” scanners to authenticate customer identification in cases of uncertainty.

Phase 1 of our Citizen Emergency Phone Notification System was completed in 2009. The program proved its worth during the Station Fire, when customers received important updates via phone, e-mail, fax or text.

- 68 Customer Services employees received general disaster response training through the National Incident Management System (NIMS)