



Your Trusted Community Utility



Responsive Service & Leadership in Shaping Glendale's Future

2014 – 2015 Annual Report



City Council

Mayor Ara Najarian

Council Members

Paula Devine

Laura Friedman

Vartan Gharpetian

Zareh Sinanyan

141 N. Glendale Ave., Level 2

Glendale, CA 91206-4975

(818) 548-3300



www.GlendaleWaterAndPower.com



Table of Contents



Your Trusted Community Utility

2014 - 2015 Annual Report

General Manager's Message	1
Maintaining The System To Be Reliable and Ready	2
Sustainable Resources For The Future	4
Reaching Out To Our Customers	5
Financial Statements: Electric Utility	7
Operating Statistics: Electric Utility	55
Financial Statements: Water Utility	65
Operating Statistics: Water Utility	103



Responsive Service & Leadership in Shaping Glendale's Future

A Message from Stephen M. Zurn, General Manager of Glendale Water & Power



At Glendale Water & Power (GWP) our focus has always been on operating efficiently and effectively to provide our customers with the highest level of service. As the City's vital utility service provider it is our responsibility to ensure that GWP remains strong and viable for the future. One of the key advantages of a public utility is its investments in the community.

Glendale Water & Power continues to leverage the benefits of our superior operations, modernized grid and outstanding customer service to maximize our productivity goals while maximizing the myriad of benefits to our residential and business customers. Our efforts are continually directed at operating efficiently by reducing costs and optimizing infrastructure performance.

Our Utility Modernization efforts have led to a utility that is more reliable, ready to serve and respond to customers much faster by offering the tools and information that benefit them the most. Customers now have near real time access to their energy and water use information. This enables our customers to better manage their usage and be more aware of programs that help them conserve and save on their bills. On the operations side, our system is finding water leaks faster and helping us inform residential and business customers of potential leaks that could go unnoticed and waste resources and increase costs. We also respond quicker to power outages as our system alerts are improved and we can more quickly address and restore power by using the remote access that is a key function of our upgraded and modernized system. Finally, our overall operating and maintenance costs have been significantly reduced due to our modernization efforts and our ability to capitalize on the increased access, accuracy and efficiency in our service operations.

This year our Power Supply/Management Division completed our Integrated Resource Plan (IRP) in order to guide future decisions about our energy supply requirements, transmission needs and regulatory compliance issues. One component of the IRP was the review of the future status of the aging Grayson power plant and the need to proceed with repowering this vital facility so that we continue to provide our customers with reliable, locally generated power. With the upgrade of the Grayson Power Plant, the City of Glendale will have a reliable source of power in our own backyard that will benefit us during peak periods,

ensure coverage during emergencies and assist us in integrating more renewable energy sources into our power supply portfolio. In addition we can replace an existing facility that while it has served the City well for nearly 75 years, it has become increasingly difficult and costly to ensure its reliable operation and environmental integrity.

These last few years California's severe and ongoing drought has created extraordinary challenges for utilities and water agencies throughout the state. Conservation and resource planning are more important than ever as we face the prospect of ongoing water supply issues and potentially more cutbacks in water delivery from the State Water Project. This past year Glendale declared Phase 2 and then Phase 3 of our Mandatory Water Conservation Ordinance and conducted an extensive multi-media community outreach campaign to communicate the seriousness of wasting water and the importance of conservation. Glendale is on track to meet the State's goal of 20% water reduction. In addition, our water section began work on the development and compilation of a Water Master Plan, which will eventually become the road map for water system upgrades and improvement projects over the next 25 years. Our water department also continues to lead the way in Chromium 6 removal research as the final studies were completed and published and the State of California used this information to set the maximum contaminant level for the entire state. Glendale Water & Power will continue its efforts to lead with plans to construct a permanent removal facility.

As we continue to work diligently in our efforts to be responsible stewards not only in meeting the critical utility needs of our community but also to accomplish this in a cost effective and environmentally conscious manner, I am grateful for the leadership of the City Council and the efforts and support of the men and women of Glendale Water & Power. We are committed to demonstrating the benefits of a public utility to our customers and our community as we all work together to build a sustainable future for Glendale.

Stephen M. Zurn

General Manager, Glendale Water & Power

Responsive Service & Leadership in Shaping Glendale's Future

Water Quality: Safety First

Glendale Water & Power treats and delivers more than 8 billion gallons of drinking water annually and the GWP team works diligently to ensure that it meets or exceeds all state and federal drinking water standards. This work includes taking more than 12,000 water quality samples and testing nearly 1,800 backflow prevention devices to help ensure that contamination doesn't enter the system. GWP's Water Quality Section also completed the EPA's UCMR-3 monitoring program to help the EPA with collecting water quality data on unregulated contaminants in order to develop new standards as needed.

GWP has been a leader in Chromium 6 removal research for several years. The final studies were completed and the State of California used this information to set the maximum contaminant level for the state. As a result of the research, GWP broke ground on the new permanent Weak Base Anion Chromium 6 removal facility which is planned to become operational in 2016.

Water Reliability: Service to Count On

Glendale Water & Power began work on its Water Master Plan, which will lay a roadmap for water system upgrades and rehabilitation projects over the next 25 years. Formation of the plan includes assessing the condition of existing water facilities, prioritizing replacements and upgrades, and analyzing the distribution system for ways to optimize operation of the facilities in order to reduce costs while improving reliability.

Water Division staff also, replaced 118 potable water valves, installed 49 new potable water valves, installed 6 new recycled water valves and installed 92 new potable water services.

To improve water production we:

- Drained, cleaned, and inspected eight reservoirs.
- Negotiated an agreement with Crescenta Valley Water District for the operation of Glendale's Rockhaven Well which will increase production of groundwater in the Verdugo Basin.
- Constructed a back-up recycled water supply interconnection with the City of Burbank to increase reliability of the recycled water system.

To improve water distribution we:

- Completed the rehabilitation of the 1930's era Park Manor Reservoir by upgrading the roof support system and installing a flexible concrete floor joint sealant.
- Completed the Upper Scholl Recycled Water Tank Rehabilitation Project which included recoating the interior and exterior of the reservoir and replacing portions of the roof support system.
- Completed the Canada potable water main rehabilitation and replacement project that cleaned and lined 10,955 feet of mains and replaced 5,949 feet of mains.
- Completed Beaudry Terrace potable water main replacement project that replaced 5,213 feet of mains.
- Completed Bette Davis recycled water main extension project that installed 3,444 of main and increased use of recycled water at the Bette Davis Park.

Every Drop Counts: Conserving a Precious Resource

After Governor Brown's historic action mandating water cutbacks throughout the state to cope with California's serious drought, GWP and the City of Glendale responded:

- Leading by example, GWP took major steps to reduce water usage at all facilities through implementation of turf removal projects and installation of drought tolerant plants.
- GWP rescheduled preventive maintenance activities at the Glendale Water Treatment Plant in order to maintain groundwater pumping and make cutbacks to more expensive imported water from the Metropolitan Water District.
- GWP's customers responded and began saving more than 20% in May.
- The Water Division's engineers re-prioritized the planned capital projects and moved the first portion of the Chevy Oaks Recycled Water Extension up in priority.

Responsive Service & Leadership in Shaping Glendale's Future

Nationally Recognized Electrical Service

Glendale Water & Power is proud to have the prestigious Diamond Reliable Public Power Provider award from the American Public Power Association, which recognizes our high degree of reliable and safe electric service that makes us a resource Glendale can trust.

Reliable Power Service

We continue to improve our distribution system. Converting from 4kV to 12kV increases the capacity of Glendale's power lines as we replace an aging 4,000 volt distribution system to allow more power to flow through it. We also work to increase the capacity of power lines located within our current substations.

System-wide we completed the following projects:

- Decommissioned Grandview substation by converting its twelve feeders to 12kV
- Converted portions of #1 Tropic, #6 Tropic and #7 Howard feeders to 12kV
- Upgraded the protection relays for #3 and #4 Montrose feeders
- Installed seven overhead recloses and four capacitor banks
- Replaced 2.1 miles of vintage underground cables
- Replaced 39 deteriorated power poles
- Replaced 23 deteriorated street light poles
- Reinforced one underground vault utilizing prefabricated composite panels
- Improved protection coordination by completing re-fusing of #9 and #10 Tropic feeders
- Converted all streetlights to LED on Foothill Boulevard
- Upgraded the electric SCADA system
- Installed 414 electrical services

Power Supply: Portfolio Diversity

Our diversified renewable energy sources help us reduce our carbon footprint and increase our renewable energy supplies to meet the goal of 33% of sales by 2020. We work with state lawmakers and staff to meet mandates for renewable resources as well as greenhouse gas emissions reduction mandates. Our accomplishments this year included:

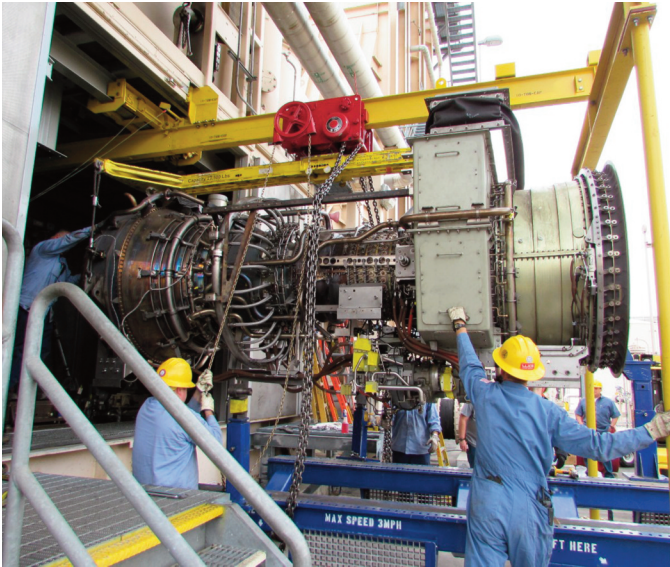
- The transition to a new Energy Trading and Risk Management system.
- Earned almost \$20 million in revenues from off-system sales.
- Obtained approval from City Council to proceed with plans to repower Grayson and move landfill gas combustion to Scholl Canyon.
- Obtained City Council approval to terminate GWP's ownership of Unit 3 at the coal-fired San Juan power plant at the end of 2017.
- Negotiated Sylmar Services Agreement and Balancing Area Authority Services Agreement with LADWP.
- Obtained City Council approval to amend the agreement with the Intermountain Power Agency to enable transition from coal to other power supply sources at the Intermountain Power Project by 2025.
- Negotiated new, lower-priced agreements to ensure firm delivery of Northwest renewable resources to Glendale.
- Received approval from the California Energy Commission for "historic carryover" of Renewable Energy Credits from 2001 through 2010, thus reducing the cost of compliance with state regulations in the future.



Responsive Service & Leadership in Shaping Glendale's Future

Power Management – Engineering: Reliable Power Service

We continue to improve our power generators reliability by implementing continuous preventive maintenance practices and replacement of capital equipment.



Power Generation - completed and current projects:

- Unit #8 Reserve Gas Turbine Overhaul – The GPP has 3 Pratt- Whitney Gas Turbines in Units 8A & 8BC combined cycle units. The reserve gas turbine insures that we do not lose 60MW of generation when one of the installed gas turbines fail by providing a standby unit available.
- Unit #4 Cooling Tower Repairs – The GPP completed the repairs of the cooling tower. The cooling tower reduces the circulating cooling water for the steam condensers by spraying into cascading fluted elements to breakdown the water into smaller droplets. Smaller droplets increases the surface area of the water which increases heat transfer between the air and water. The repairs included replacement of the fan blades which aids in the removal of heat from the water droplets, access platforms for ease of maintenance and a new stairway that leads to the tower top platform. Vibration sensing elements were also in stalled in order for operation to shut down the fans in case of severe vibrations.



- Unit #1 Turbine-Generator – The unit has undergone inspection and overhaul after more than 50,000 hours of operation. This inspection and overhaul was done to extend the operational life of the machine for at least 5 more years. It consisted of replacing parts found to be defective, adjustments of machine tolerances, machine alignment, installation of new vibration monitoring system and general cleaning.
- Plant Basement Ventilation – The GPP completed the installation of new ventilation blowers, replacement of corroded ducting, cleaning of air washers and interior cleaning of ducting. The basement ventilation system provides fresh air, lowers ambient temperature which cools operating machinery and for the comfort of operating and maintenance personnel.

Responsive Service & Leadership in Shaping Glendale's Future

Customer Service: Responsive Service

GWP is only as reliable as the people who run it, that is why we continue to invest in the training of our employees with an emphasis on cross-training in order to be more responsive and assist customers.

- Customer Service handled a total of **105,231** telephone calls. An additional **93,810** contacts were handled through the Interactive Voice Response (IVR) system.
- A total of **10,306** walk-in customers were assisted at our front counter. An additional **82,602** customers came into the office to make payments.
- **23,967** payment extensions were granted to customers.
- **51%** of all payments were received electronically.
- **5,199** customer inquiries and requests were received online and **99%** were completed the same day.
- Utilizing the Automated Metering Infrastructure (AMI), Customer Service provided greater customer convenience resulting from faster response to service requests. Remote functionality resulted in 91% of customer move-in/out, disconnects and reconnects to be completed from the office.
- Customer Service was actively engaged in the implementation, roll out, and operation of new GWP programs and initiatives including, Mandatory Water Conservation, GWP's New Mobile App, Mobile – My Connect, WaterInsight, Peak Day/Peak Alerts, and Outage Management.
- The 2015 RKS Residential Satisfaction Survey showed an 11% increase in customer satisfaction. Three fourths of GWP customers contacting the utility are very satisfied with their overall contact experience. Ratings increased both for the ability of the CSURs to answer all customer questions in one call, and to satisfy customer in terms of the length of time needed to address the customer's issue. The higher rankings came despite higher call volumes and the survey taking place shortly after rate increases.

- Following an erroneous calculation of fire line charges by the consultant, Wildan, and the new cost of service analysis to correct it, prepared by Bartles Wells, Customer Services recalculated 28 months of overpaid charges and the associated Utility User's Tax for 1,150 customers. Customer's received a total of 3.3 million dollars in refunds.
- GWP Customer Services assisted in enforcing the City's mandatory water conservation by responding to over 2,000 anonymous reports of water conservation violations. Potential violators received warning letters reminding them of the severe water shortage California is facing and Glendale's mandatory water restrictions. Additionally, over 800 inquiries related to conservation were received over the telephone in which customer service representatives helped educate customers by providing conservation tips and directing them to the online customer tools and portals available to help monitor their usage.



Responsive Service & Leadership in Shaping Glendale's Future

Public Benefits & Conservation: Using Resources Wisely

The GWP Conservation & Business/Utility Modernization section continues to educate and advocated for responsive use of natural resources and green energy sources. Public education is a critical part of our conservation strategy. Through our customer education and outreach efforts our customers learn better ways of conserving, saving money and applying to programs that help them use the tools provided to make simple changes.



- We distributed over 100,000 water conservation brochures that included tips and information on California's ongoing drought and water conservation.
- We distributed over 20,000 shower timers
- More than 200 customers attended water efficient landscape classes offered throughout the year.
- We attended over 40 community events to help distributed information to customers and assist customers with conservation and program questions.

- Provides 190 shade trees to support a cleaner, healthier, and more beautiful Glendale, while helping residents save energy.
- Provided 1,984 incentives to promote the purchase of approved energy and water saving appliances and home improvement devices.
- Mailed out 300,000 Home Energy Reports that include insightful messaging and information and targeted action steps for each household to help the customer reduce electricity consumption.
- Educated over 1,481 sixth grade science students in areas of energy and water conservation through a hands on curriculum.
- Mailed out over 180,000 WaterSmart reports that include a summarized water usage report and targeted action steps to help customers save water.
- GWP designed and launched a pilot mobile app for residential customers so that they can utilize it to view and pay bills, see their near real time energy and water usage, report service requests and outages and set budgets. 2,000 customers downloaded the app within three months and GWP will launch the 2nd phase of the program in 2016.

