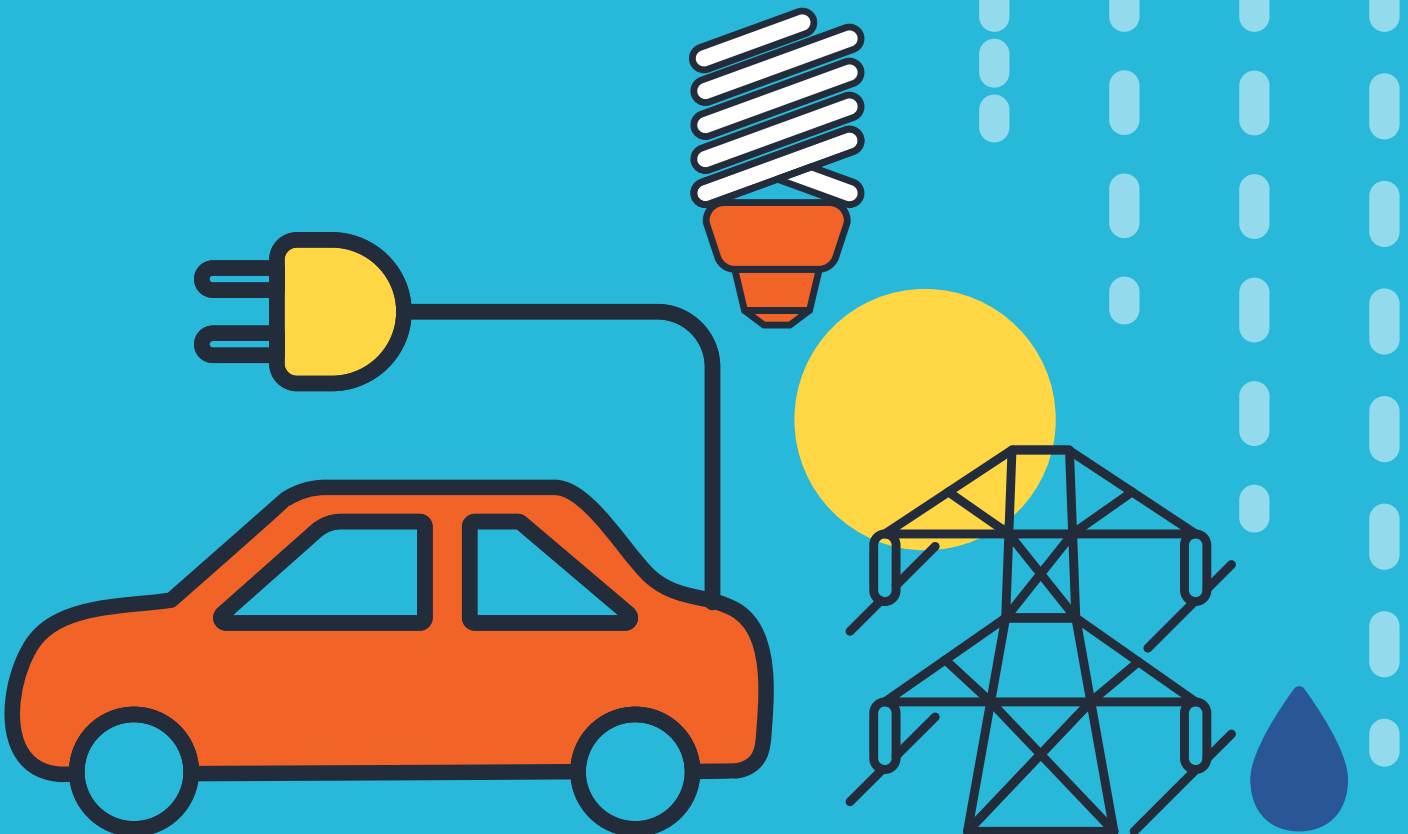


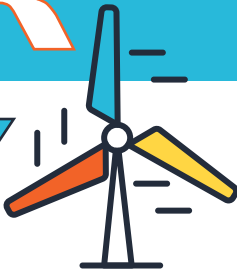
Glendale Water & Power



SERVING OUR

COMMUNITY

2019-2020 Annual Report





Glendale Water & Power **SERVING OUR**



COMMUNITY

2019-2020 Annual Report

The Glendale City Council

Mayor Vrej Agajanian

Council Members

Ara Najarian, Paula Devine, Ardy Kassakhian, Daniel Brotman

Glendale Water & Power Commission

Serves as an advisory group that represents the best interests of the people who live and work in Glendale.

GWP Commissioners

Andy Carrasco, Nina Jazmadarian, Hrand Avanesian, Sarojini Lall, Ronald Kedikian

GWP Staff

THE STAFF AT GLENDALE WATER & POWER DEVOTES THEIR TIME, RESOURCES, ENERGY, AND PROBLEM-SOLVING SKILLS TO DELIVER THE SAFEST WATER, AND THE CLEANEST ENERGY, MAINTAIN THE SAFEST INFRASTRUCTURE, AND THE MOST SUSTAINABLE FUTURE.

Mark Young - Interim General Manager

Michael De Ghetto - Chief Assistant General Manager, Water

Daniel Scorza - Chief Assistant General Manager, Electric

Craig Kuennen - Deputy General Manager, Business Services

Mark Young - Deputy General Manager, Power Management

Maurice Oillataguerre - Environmental Program Administrator

Steve Nersesyan - Utility Manager, General Business Management

Administrative Services Division

Business Services Division

Electric Services Division

Environmental Sustainability Services Division

Power Management Services Division

Water Services Division

141 N. Glendale Ave., Level 4 Glendale, CA 91206

GlendaleWaterAndPower.com

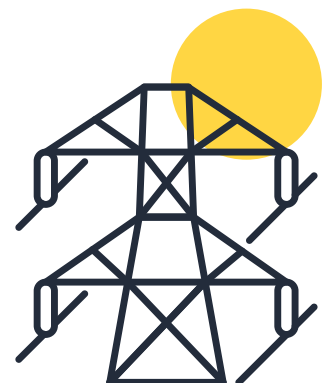


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SERVING OUR COMMUNITY

A Message from Interim General Manager Mark Young

It is without a doubt that 2020 started out like no other year and quickly escalated into what became one of the most challenging periods in our country's history. We have continued to face many uncertainties and have had to change and adapt how we live and work in order to survive the COVID-19 pandemic and the resulting issues that have occurred. In spite of these immense challenges, reflecting on this year, I saw the resiliency and ingenuity of our staff in reacting and working in these fast changing times and being able to acclimate, adjust, and continue to serve our community. At the same time our customers have been equally up to the task and have continued to work with us during these difficult times.

At the heart of public power is a recognition that customer-owned utilities are a public benefit and are here to serve the community they operate in. I believe that GWP is an outstanding example of how a public power system can enrich the lives of residents and the work of businesses. We work year round to provide our customer-owners with outstanding service at an affordable price. At the core of our organization's culture lives the shared values of customers and employees which are reflected in our programs, services, and communications. Who we are is embedded in the way we talk about our commitment to maintaining affordability, increasing reliability, delivering quality customer service and contributing to our community in relevant and responsible ways. To this end we are thoughtful in our investments in technology and tools to help spread our messages and reinforce our values.

As a public power provider, we are proud to offer high-quality, sustainable, and affordable electric services, with a focus on exceeding customer expectations every day. In addition to planning for power, work is ongoing to maintain our water supply to support projected growth for decades to come. We have and will continue to make significant investments in both the electric and water infrastructure systems in order to meet these needs. As always GWP remained focused on responding to immediate electric and water needs, while anticipating the needs for the future.

Our robust energy efficiency programs, targeted at residential and commercial customers, are effectively saving electricity while producing rate savings for our customers. In all areas, the utility is integral in the planning and support of economic investments. We recently were awarded the distinguished designation of Smart Energy Provider from the American Public Power Association for our commitment to and proficiency in energy efficiency, distributed generation, renewable energy, and environmental initiatives.

Customer expectations for enhanced communications continue to evolve and our focus remains on providing relevant information to the appropriate customers in targeted and effective ways. Whether using social media or our digital platforms including our website and community news sites, or our printed and digital publications, we work hard every day to ensure that all of our customers continue to know how this utility can help make their homes and businesses more cost effective, sustainable, efficient, and comfortable.

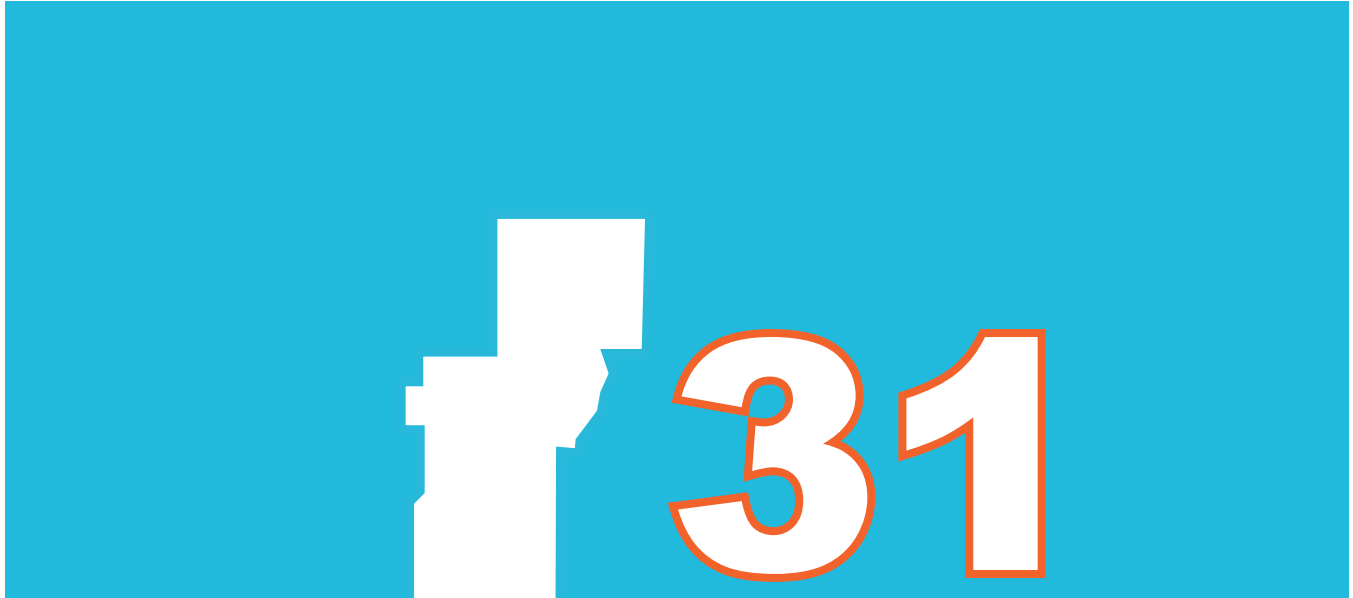
GWP is responding to the growth in the electric vehicle market and has planned the expansion of our electric vehicle charging infrastructure to accommodate more electric vehicles in Glendale. We have added five new charging stations, and have plans to add more in the coming years.

From all of us at GWP, we appreciate your support during these uncertain times and we will remain reliable, trustworthy, and continue to do the critical work that we do as we forge ahead together towards a thriving future. You have our ongoing commitment to doing what's right for our customers and for serving our community.

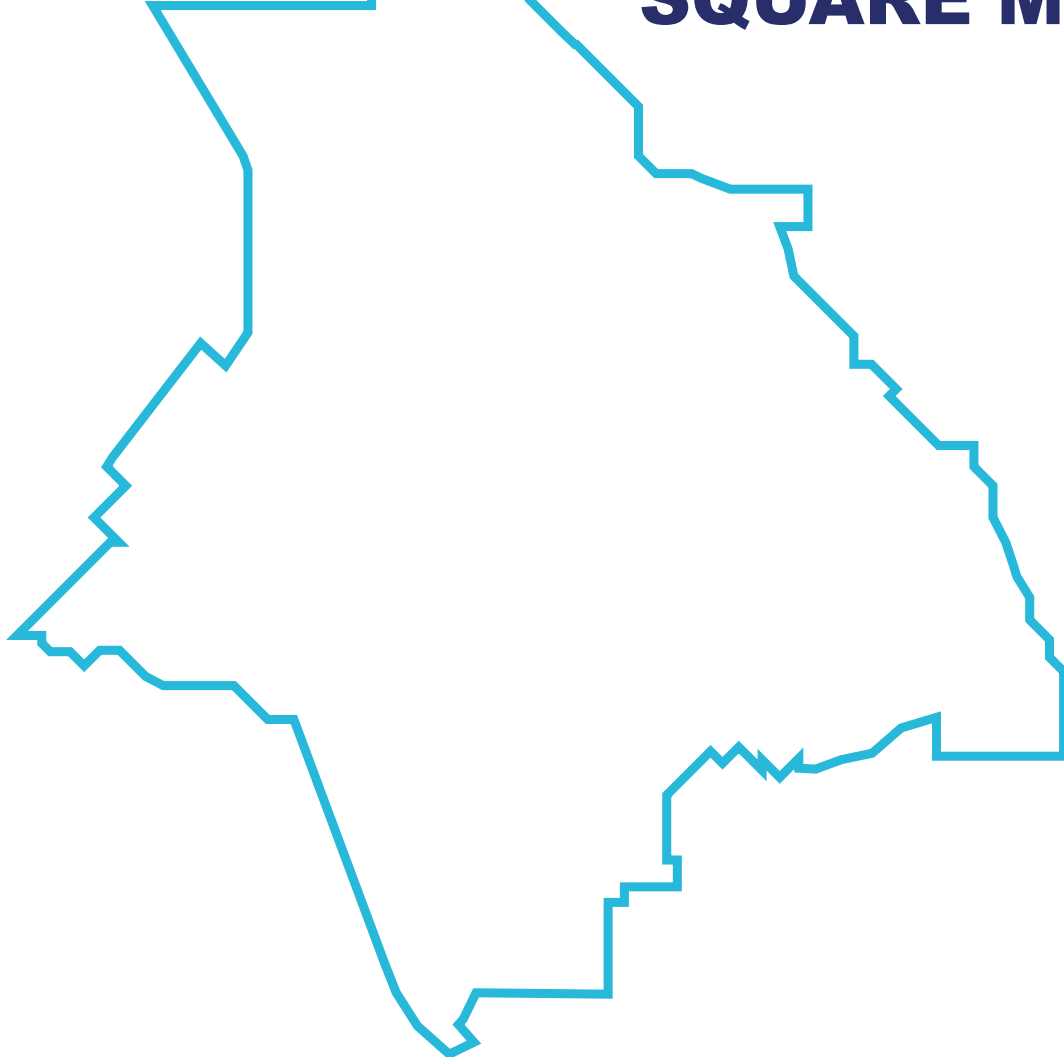
Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Young', written in a cursive style.

Mark Young
Interim General Manager of Glendale Water & Power



SQUARE MILES





By The Numbers...

Water Maintains:

Population	205,331
Square Miles	31
Miles of Water Mains	393
Wells	16
Reservoirs	28
Treatment Plants	2
Pump Stations	28
Peak Day (million gallons)	30 (07/12/19)
Number of Services	34,350
Residential Gallons Per Day Usage	76
Water Sales (billion gallons)	7.8

Electric Maintains:

Population	205,331
Square Miles	31
Number of Distribution Miles	503
Number of Subtransmission Miles	56
Number of Poles	14,768
Number of Substations	14
Highest Peak in FY 2019-2020	288 (9/4/2019)
Number of Meters	90,030
Power Sales (MWh)	1,462,539



SERVING OUR COMMUNITY

Electric Services Division

Infrastructure and facilities are continually maintained and upgraded to ensure that the system is as resilient as possible. To better serve the community, the Electrical Services Section of Glendale Water & Power (GWP) continues to make improvements in the electrical distribution, substation, communication, and transmission system infrastructures.

Improvements in the form of upgrades and/or replacements of aging equipment are necessary to improve system reliability and to save labor cost on system maintenance. Improving our infrastructure keeps us ready for future challenges and enhances system reliability by increasing operational efficiency. Our customers can count on reliable and affordable power.

Accomplishments:

- Replaced 1.61 circuit miles of aged underground high voltage cable.
- Completed the engineering design and released to construction to rebuild Vault #1097 (Kenwood Street A/W, 2ND Vault N/o Lexington Drive).
- Installed 500 feet of substructures and an 8'x22' vault on Vine Street, east of San Fernando Road to expand our electrical system and improve system reliability by converting overhead lines to underground.
- Completed over 1,256 electric service upgrades/reconnects.
- Replaced 15 deteriorated poles.
- Replaced /installed 161 distribution transformers.

Adams Hill 4kV/12kV Project:

- Rebuilt 16 poles for 12kV operation.
- Replaced 31 deteriorated poles.
- Replaced 13 distribution transformers.
- Converted #3 Tropico and #5 Tropico feeders to 12kV operation.
- This project will continue into 2021.

Street Lighting:

- Converted over 1,015 street lights to LEDs.
- Replaced 600 feet of street light conduit near 1049 Alcalde Drive to improve street lighting system reliability.
- Replaced 165 feet of street light conduit near 508 Porter Street as part of street light system improvements.
- Installed 5 new street lights for customers via the street lighting petition process.
- Created and submitted a design for 70 new pedestrian lights and 10 new street lights around the First/Last Mile train station for the Public Works "GTC First/Last Mile Regional Improvements" project.

Substation, communication and system protection:

- Commissioned the new Supervisory Control and Data Acquisition (SCADA) system.

- Commissioned Magnolia Power Plant (MPP) dynamic scheduling.
- Upgraded Rossmoyne-Scholl line differential relays from electromechanical to microprocessor based relays.
- Completed the engineering design and issued a job package for construction to upgrade the Scholl-Tropico line differential relays.
- Upgraded Western feeder #7 & #8 overcurrent relays.
- Installed circuit breaker trip coil monitors for 10 Rossmoyne substation circuit breakers.
- Upgraded Grandview pump house switchgear for 12Kv operation.
- Upgraded Howard substation feeder #8 regulator.





SERVING OUR COMMUNITY

Power Management Services Division

This section is responsible for establishing GWP as a Clean Energy Leader by managing the utility's resource portfolio, and managing the way GWP provides reliable, affordable, and clean energy resources to the Glendale community.

Accomplishments for FY 19-20

- Submission and approval of the GWP Integrated Resource Plan by CARB.
- Carbon Allowance auction market participation.
- Exceeded 2019 Renewable Portfolio Standard procurement targets by 5%.
- Lowered GHG Emissions by 7% compared to the previous year and last 4-year average.
- 18.45 million in revenue from system sales in FY 19-20.
- Completed Grayson Power Plant Unit 8 Fire Valve Replacement.
- Completed Grayson Power Plant Unit 4 and 5 AVR repair.
- Completed Grayson Power Plant Unit 9A gas compressor overhaul and motor repair.
- Completed Grayson Power Plant Unit 5 cooling tower frame replacement.

Investing in Renewables

The Glendale City Council adopted a resolution on December 10, 2019 to enter into a 25-year Power Sales Agreement with the Southern California Public Power Authority (SCPPA), of which Glendale is a member, for a

12.5% share of the renewable solar energy, battery energy storage products, and associated environmental attributes from the Eland 1 Solar and Storage Center (Eland) in Kern County. The state-of-the-art Eland facility will provide fully dispatchable power for GWP to meet customer demand with reliable, cost-effective power - a capability previously reserved for large fossil fuel power plants.

GWP's 12.5% share of Eland will provide the City of Glendale approximately 25 MW of renewable solar energy and 12.5 MW/50MWh of energy storage. It is expected to contribute to about 9% of Glendale's Renewable Portfolio. Glendale is on board to transition to a low-carbon future and is on path to achieving 100% of the energy needs of the Glendale community through reliable, affordable and sustainable clean energy.

GWP has also entered into two other renewable projects: The **Whitegrass and Star Peak Geothermal Projects**. GWP has signed 25-year power purchase agreements for 15.5 MW of renewable geothermal energy from these projects which will contribute approximately 11% of GWP's renewable power portfolio.

GWP is also subscribed to a 4.166% share of the **Intermountain Power Plant (IPP) Repowering Project** which will increase Glendale's rights on the STS Transmission from 55MW to 128MW. Participation in the project provides Glendale access to plentiful, cheap, and reliable renewable projects that are being developed and will interconnect at the IPP bus in Utah. IPP is expected to be fueled by 30% green hydrogen by volume by 2030 with a plan of transitioning to 100%.





SERVING OUR COMMUNITY

Water Services Section

Glendale Water & Power's water professionals exemplified dedication, personal commitment, and technical expertise by continuing to ensure the safety of the water served to the residents of Glendale during the COVID-19 pandemic. As designated essential workers by the State and Federal Government, Water Division field and engineering staff were able to quickly alter their work schedules to ensure their safety and maintain their ability to "be at work" and keep the City's water supply safe and reliable while so many residents were sheltered at home.

In addition, GWP is committed to the environment and has been reducing the City's reliance on imported water through the use of a recycled water system which has been in operation since 1978, and by cleaning up local groundwater to drinking water standards for nearly 20 years at the Glendale Water Treatment Plant as part of an EPA Superfund clean-up project. By having this treatment plant in place, GWP has been able to protect the City's water supply even as new types of contaminants are discovered in the environment. GWP is Glendale owned and Glendale focused, and this focus extends to GWP's team of water professionals and the work they do to ensure the quality and sustainability of all of the City's sources of water.

Glendale Water & Power is committed to the safety of the water served to the residents of Glendale and in 2019 the City's water continued to meet all federal, state and local water quality standards. Glendale Water & Power annually treats and delivers more than 7 billion gallons of safe and reliable drinking water. To make this happen, GWP employs a team of skilled water professionals who dedicate their personal time and effort to obtain, and maintain, their individual State Water Resources Control Board water treatment and water distribution operator certifications. As a result, Glendale's water meets or exceeds all state and federal drinking water standards. Continuously monitoring water quality in the distribution system and making system improvements to maintain its quality included:

- Taking more than 5,700 water quality samples per year.
- Managing a cross-connection control program to inspect and approve the installation of new backflow prevention assemblies.
- Monitoring and testing nearly 2,200 existing backflow prevention assemblies to help ensure that contamination does not enter the system.
- Proactively operating the water system to balance storage for emergencies while minimizing the age of the water in the system to maintain its quality.
- As part of routine system maintenance, draining, inspecting, then cleaning and making minor repairs as needed on three steel water tanks and five concrete water reservoirs.

The Water Division team of dedicated professionals provides safe and reliable service 24 hours per day 365 days per year. Maintaining reliable service includes responding to water

main breaks and customer outages, and working long hours to quickly restore service and minimize customer impacts. Maintaining service also includes remotely and locally monitoring and operating 16 wells, 28 tanks and reservoirs, 28 pump stations, and 6 pressure reducing stations throughout the City.





SERVING OUR COMMUNITY

Investing in the Future:

GWP's asset management program includes both investing in the future by replacing or rehabilitating aging infrastructure and building new assets that improve the system, and also systematically maintaining existing assets. Asset management activities included:

- Working with a specialized consultant to study the cost effectiveness of replacing wood roofs on existing reservoirs versus replacing the reservoirs with steel tanks.
- Completing another year, and beginning the next, of the City's 10-year Pipeline Management Program to systematically replace and rehabilitate the City's water mains using the information developed in the Water Master Plan. There are over 380 miles of pipelines in GWP's service area. Many miles of pipelines have been replaced or cleaned and relined as part of GWP's past Capital Improvement Programs and this program builds on prior asset management efforts.
- Being good neighbors and requesting input from residents on landscaping plans for the Western Reservoir Landscaping Rehabilitation Project even during the COVID-19 Pandemic through a virtual meeting platform.
- Replacing worn and inefficient pumps, like the pump at the Shirley-Jean Pump Station which also included custom repairs by Water Division maintenance personnel to the pump housing using a state-of-the-art metal-epoxy.



Business Services Section

Customer Service

A culture of customer focus starts with our employees, and helps capture and nurture our commitment to service. The Customer Service team is an integral part of GWP which provides a full range of support to the residents and businesses in the City of Glendale, and is key to generating a positive relationship with our customers. Customer Service responsibilities include utility billing, payment processing, credit and collection, field services, revenue protection, and customer service in support of electric and water, as well as the City's sewer, refuse, and fire fees.

Every day we engage with hundreds of our customers over the phone, by email, and through face-to-face visits, looking after their service needs. This year the Customer Service team:

- Assisted 88,750 customers over the telephone.
- Received 9,708 emails from customers and responded to 86% within 24 hours.
- Approved 15,700 payment agreements.
- Sent 606,021 utility bills with 99.9% accuracy.
- Processed almost 600,000 customer payments totaling over 305 million dollars.
- Issued 4,200 service orders with field staff completing 90% within 24-hours.
- Inspected 26,945 water and electric meters.



With many Glendale residential and business customers facing challenging times due to the pandemic, GWP took action early to ease the burden for those struggling to pay their utility bills. GWP is temporarily suspending service disconnections and late fees, applying customer deposits to balances for those seeking assistance, offering flexible payment plans, and referring customers to other payment assistance programs such as LIHEAP. We are currently developing a repayment program that will allow a 12-month amortized payment to customers impacted

Customer expectations continue to evolve and we are working to ensure we meet their needs. With 66% of customer payments being made electronically, and a 43% increase in correspondence through email, we will continue striving to make the customer experience more convenient for our customers going forward. We plan to launch additional convenient initiatives such as chat and text messaging, and improved customer portals and payment methods during the next year.



SERVING OUR COMMUNITY

Conservation & Utility Modernization

A key part of our diversified power supply is an ongoing commitment to energy efficiency. We continue to invest significant resources in conservation and energy efficiency programs for commercial, industrial, and residential customers. Energy efficiency remains the most cost-effective way to accommodate future energy needs, and projects in partnership with industrial customers are slated to surpass any previous savings in the utility's history.

Through our various Public Benefit Programs, we accomplished the following:

- Provided 330 shade trees through our Tree Power Program.
- Provided 858 incentives through our Smart Home Rebate Program.
- Provided 662 Energy and Water savings devices at a discounted price through an online Marketplace.
- Provided a digital Newsletter targeting our Key Account Customers as well as our Small and Medium commercial customers.
- Incentivized a total of 160 solar residential installations in Glendale.
- Educated 1,375 sixth graders through our Living Wise Program and sent them home with energy and water saving conservation devices to install at home.
- Provided 137,000 WaterInsight Reports to our residential customers to inform them about their water usage and provide them with tips to conserve water.
- Conducted 271 Small Business site surveys through our Smart Business Energy Upgrade Program, providing small businesses each up to \$2,000 in energy and water efficient upgrades.
- Installed six more electric publicly accessible electric vehicle charging stations, totaling thirteen city-owned stations in Glendale.
- Installed over 150 smart thermostats and In-Home Digital Displays.
- 15 of our key account customers participated in our Business Energy Solutions program and received incentives for implementing various energy efficiency projects.
- Provided six print reports to approximately 50,000 residential customers on their energy use and provided 75,000 customers with web-access to their electric usage.
- Issued 56 electric vehicle charging station rebates.
- Over 261 residential customers participated in the Smart Home Energy Upgrade program which provides a survey and free installation of energy and water saving devices.



Electric Vehicle Infrastructure

GWP is committed to advancing the adoption of electric vehicles and their infrastructure in the Glendale community. Since 2016, GWP has installed 13 public EV chargers throughout Glendale, including one EV fast charger at Glendale City Hall. GWP has also provided over \$70,000 to incentivize 129 residential and commercial customers for the installation of level 2 EV chargers at their home or business. In addition, GWP has hosted multiple Electric Car Guest Drive events that allow residents to learn more about EVs and test drive EVs without the sales pressure of dealing with dealerships. GWP plans to continue adding more EV chargers throughout the city to keep up with the increasing demand of EVs.





SERVING OUR COMMUNITY

Business Support Systems

A credible resource for real-time Information Technology continues to evolve, and customer expectations related to communication tools and strategies have shifted dramatically in the last several years. Customers increasingly prefer online account self-service which is why GWP implemented its upgraded MyGWP customer service online portal.

As GWP focuses on modernization, we recognize the importance of the underlying technologies necessary to provide better service to our customers and to increase efficiency. This year GWP Business System Support has worked to improve reliability, security, and business continuity. GWP built an SQL cluster virtual environment to support the Glendale Modernization initiatives, and implemented high availability in many of our infrastructure computer systems. The SQL clusters and the virtualization environment are highly redundant and resilient against many different failure scenarios. The designs allow GWP to reduce downtime due to unplanned outages and planned maintenance resulting in improved systems availability and continuity. GWP is always planning for the future. An important component of the focus on reliability is being prepared for unplanned events and disasters. GWP is implementing a disaster recovery and data protection plan which is anticipated to be completed by end of FY 20/21. Security is an important part of GWP's goals toward reliability and modernization of its infrastructure. It's important to have many layers of data protection in place. Should a major event happen, the goal is to bring our major applications online and restore service as quickly as possible. GWP continues to focus on security and developing a stronger, sustainable state of security and business continuity. GWP continues to implement automation using the enterprise service bus and the automation platform within the Customer Information and Billing System (CIS). The enterprise service bus is a platform that allows for integrations to be automated between internal and external business systems and provides email notification of integration successes and/or failures.

GWP implemented fifteen (15) different integrations in Fiscal Year 19-20, including the automation of external payment processing files, SCADA data, GIS, Energy Trading

software file transfers between contracted vendors, electric mapping site updates, and generation data between Glendale and Burbank. The NorthStar Automation Platform is a powerful tool to streamline business processes, improve customer service efficiency, and free valuable staff time by automating manual business processes. This tool enables users to schedule and run routine tasks on a regular or event driven bases. It also allows instant email notifications of failed and/or successful business processes.

Environmental Sustainability Division

GWP is currently assisting the City in establishing an Office of Sustainability. The Consultant, EcoMotion, will be working with GWP in evaluating the City's current environmental programs and city operations to help Glendale be more sustainable and eventually create and staff a city-wide Office of Sustainability that will build upon the City's already innovative strategies to further:

- Reduce the City's reliance on imported water by increasing stormwater retention, recycled water usage, and water conservation strategies.
- Increase the City's use of renewable energy sources, and reduce the City's greenhouse gas emissions and carbon footprint.
- Increase green building practices to make Glendale homes and businesses more energy efficient and sustainable.
- Decrease the amount of trash being landfilled by increasing recycling and other innovative solid waste reduction strategies.
- Improve local air quality by increasing the number of electric vehicles on the road and instituting other air pollution reduction measures.
- Increase residents and businesses' knowledge of sustainability and seek their assistance in helping Glendale achieve its goals in this area.
- Increase the City's outreach activities to make sure Glendale's sustainability efforts are truly a community effort.





SERVING OUR COMMUNITY

Administrative Services Division

GWP is actively engaged at the Federal and State levels on all Utility related Legislative and Regulatory processes. GWP works collaboratively with elected members and representatives to ensure they are well informed of any potential impacts of specific legislation and/or rule amendments. At the State level, GWP participates in monthly advocacy efforts in Sacramento. Additionally, GWP leads the Tri-City advocacy efforts with the Cities of Burbank and Pasadena who share similar challenges facing today's public utilities. As an active member of the Southern California Public Power Authority (SCPPA), a member agency of the Metropolitan Water District of Southern California (MWD), utility trade associations such as the California Municipal Utilities Association (CMUA), Association of California Water Agencies (ACWA), and WaterReuse, GWP engages in regular discussions with other stakeholders on shared challenges and opportunities. These collaboration efforts among member agencies provide a stronger voice and influence to advance the priorities of publicly owned utilities (POUs). In February 2020, GWP participated in the American Public Power Association's (APPA) Legislative Rally in Washington D.C. to discuss direct impacts of federal actions affecting public utilities. The legislative sessions included several bills of interest to public utilities promoting close monitoring,

advocacy, and outreach efforts. Additionally, GWP has been vigorously tracking all efforts by State and Federal agencies to ensure compliance due to the COVID-19 pandemic. GWP will continue to monitor and advocate for any funding propositions from the Federal and State Levels for local governments and POUs.

MYLAR BALLOON BAN:

On Tuesday, October 13th, the Glendale City Council adopted a new Mylar Balloon ordinance, which prohibits the sale of electrically conductive Mylar Balloons filled with helium or gas lighter than air within city limits. The new ordinance allows only air-filled Mylar Balloons affixed to a decorative structure, such as a post or balloon arch, at the point of sale. This new ordinance stems from many years of power interruptions due to the Mylar Balloons drifting into power lines and causing long outages and damage to the city's power infrastructure. The new ordinance will take effect on November 30th, 2020, it will impose administrative citations and fines, and may result in the filing of misdemeanor charges on businesses that sell Mylar Balloons inflated with helium or gas lighter than air. GWP's Legislative team will advocate and work closely with neighboring cities and members of CMUA and SCPPA to adopt similar ordinances and facilitate change within our communities across California.

